



# Malaysia SDG Investor Map



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### ACKNOWLEDGEMENT

The Malaysia SDG Investor Map was developed through a team effort from UNDP Malaysia, Singapore and Brunei Darussalam (UNDP Malaysia) Country Office, UNDP SDG Impact and UNDP Istanbul International Center for Private Sector In Development (ICPSD), with strong support from the Ministry of Investment, Trade and Industry (MITI) and the Malaysian Investment Development Authority (MIDA). We are thankful to all our stakeholders, especially our Advisory Panel, who took time to speak with us through in-depth consultations and contributed with their expertise and insights. This report is a snapshot of the detailed map that can be accessed at the SDG Investor Platform.

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### I. INTRODUCTION

#### 1. Background – A Global Need for SDG-Impact Intelligence

Addressing global challenges, Sustainable Development Goals (SDG) provide a blueprint to achieve a more equitable and sustainable future for all. Substantial financing, as much as USD 5-7 trillion, is required to achieve the SDG Agenda by 2030 as developing countries alone face a massive funding gap of USD 2.5 trillion annually in SDG investments. The COVID-19 pandemic is estimated to have brought an additional shortfall of USD 1.7 trillion to this figure, increasing the annual need to USD 4.2 trillion. To bridge this gap and alleviate the financing burden on the shoulders of governments, donor agencies and multilateral development banks, it is essential to partner with the private sector and expand SDG-enabling investments by unlocking private capital. Accounting for 60% of GDP, 80% of capital flows and 90% of jobs in an average developing country, private sector's engagement in development cooperation is indeed more than vital.

Despite the potential private sector investments offer, many developing countries attract low levels of domestic and foreign investment, especially into SDG-enabling business models, due to reasons such as limited data and insights about investment opportunities and risks; limited capacities and networks; and high real or perceived policy and regulatory risks. However, there is also a growing interest among investors to attribute capital into activities that deliver strong financial returns while reducing poverty and inequality, advancing health and education, and protecting the environment. In order to ensure that investor interest translates into higher levels of SDG-enabling investments, it is vital to address the current lack of intelligence and guidance around how asset owners can help generate significant impact on SDGs through their transactions. Yet, a major challenge constraining SDG-enabling investments is the difficulty of identifying bankable projects for investors. With an aim to empower investors through impact intelligence products around bankable investment areas with material SDG contribution, UNDP SDG Impact team, as part of UNDP Sustainable Finance Hub (SFH), launched the **"SDG Investor Maps"**.



#### 2. SDG Investor Maps

**SDG Investor Maps** are market intelligence tools that help identify investment themes in emerging markets with significant potential to advance these countries' SDG progress while being aligned with national policy priorities. Developing an SDG Investor Map requires filtering down from national priorities and development needs to derive "Investment Opportunity Areas (IOAs)". The Maps provide investors with market intelligence for the highlighted IOAs along with data on the expected development impact and financial prospects of such investments.

Once completed, the SDG Investor Maps get published as a public good on UNDP's global SDG Investor Platform which houses over 501 investment opportunity areas, covering investment themes and potential business models from 30 different countries to date (May 2023). The SDG Investor Platform enables investors to leverage on-the-ground data and insights to derive new levels of capital towards the SDGs.

During the SDG Investor Map development process, a list of white spaces might get prepared to inform policy gaps to enable the provision of SDG-oriented solutions by the private sector. A White Space is an investment area that serves a strong development need in a specific national context but has not recorded a strong policy momentum by way of government commitments or has not seen significant private sector momentum due to the absence of viable business models or both.





501 Investment Opportunity Areas Identified

#### 3. Malaysia SDG Investor Map

Malaysia SDG Investor Map resulted from a fruitful partnership between UNDP Malaysia Country Office, Malaysia's Ministry of Investment, Trade and Industry (MITI) and the Malaysian Investment Development Authority (MIDA). Developed with technical support from one of UNDP's global policy centres, the ICPSD (Istanbul International Centre for Private Sector in Development) and the UNDP SDG Impact, the Malaysia SDG Investor Map identifies "Investment Opportunity Areas" that are aligned with Malaysia's national priorities and SDG needs while carrying considerable investment potential in Malaysia. Analysing the country's national context, the final product provides detailed business intelligence for investors who are keen on generating positive impacts on SDGs alongside financial returns via their financial resources. The Map also serves as a great outreach tool to foster public-private finance dialogue in Malaysia.

Malaysia SDG Investor Map was developed following a rigorous literature review of national policy documents, international development reports and other relevant documents and database, and a series of in-depth stakeholder consultations. Furthermore, together with MIDA, UNDP Malaysia hosted a Private Sector Dialogue themed, "Sustainability does Matter: Investing for a Better Future". The event which was officiated by Ms. Usha Rao-Monari, UN Under Secretary-General and UNDP Associate Administrator, saw more than 100 participants from the private sector deliberating on market enablers and identify potential business models to promote investments in climate-related investment opportunity areas, supplementing findings from the desk review and bilateral consultations. To validate the findings from this process, consultative reviews were undertaken through the Advisory Panel, co-chaired by MITI and UNDP, inviting experts and representatives from MIDA, the Ministry of Finance (MoF), UN Resident Coordinator's Office (UN RCO), Khazanah National Berhad, Bank Negara Malaysia (BNM), the Malaysia Digital Economy Corporation (MDEC), the Malaysian Technology Development Corporation (MTDC), the Malaysian Venture Capital and Private Equity Association (MVCA), the National Council of Women's Organisations (NCWO), and the National Chamber of Commerce and Industry of Malaysia (NCCIM).

Malaysia SDG Investor Map presents **15 Investment Opportunity Areas** identified across **6 priority sectors**, namely: Technology and Communications, Health Care, Renewable and Alternative Energy, Financials, Food and Beverage, and Infrastructure.

#### 4. Malaysia at a Glance

Malaysia's geographic location in the heart of ASEAN enables connectivity with emerging markets in Asia, making it a strategic location for investment and hub for international business activity. Malaysia is one of the most open economies in the world with a trade to GDP ratio averaging over 130% since 2010. Openness to trade and investment has been instrumental in employment creation and income growth, with about 40% of jobs in Malaysia linked to export activities.



Population	:	<b>32.7 million</b> (2022)
GDP	:	<b>372,980.96</b> (2021)
GINI index Central	:	<b>41.2</b> (2018)
Government Debt	:	<b>60.4%</b> (2022)
Trade/Export (% of GDP)	:	<b>131%</b> (2021) / <b>68.8%</b> (2021)
Natural resources	:	Petroleum, natural gas, tin, timber, copper, iron ore, bauxite, gold, coal, palm oil, rubber, paddy, among others.
Languages	:	Malay (official language), English, Chinese (Mandarin, Cantonese, Hokkien), Indian (Tamil, Hindi) and over 100 Indigenous languages
Currency	:	Ringgit (RM, currency code: MYR)

#### **States in Malaysia**

#### **Economic Corridors**



The 5 Economic Corridors were introduced in the Ninth Malaysia Plan (2006 – 2010) as strategic enablers to enhance economic inclusiveness, addressing urban-rural income disparities. Combining infrastructure and regulatory framework, the corridors are a vehicle to boost socio-economic development through cross-border connectivity of economic nodes and hubs. Each corridor has distinct development needs and industrial competencies.



### II. SDG-ENABLING INVESTMENT LANDSCAPE IN MALAYSIA

The sustainable finance market has been advancing fast in Asia, with private investors increasingly looking for investments creating positive impacts, including on the climate.<sup>2</sup> Southeast Asia, in particular, has issued 72% of the sustainable debt instruments in 2022, increasing from 60% in 2021.<sup>3</sup> Within the region, the ASEAN countries strived, with a capital market exceeding USD 4.0 trillion of assets under management (AUM) and an exponential 185% compound annual growth rate (CAGR) of sustainable bonds and 278% CAGR growth of sustainability-themed Shariah-compliant sukuk for the period 2016-2020.<sup>4</sup> Furthermore, the annual business opportunities that could be provided by the low-carbon economy in ASEAN countries is estimated to be USD 1 trillion as of 2030.<sup>5</sup>

Malaysia has been an attractive country for investments for many decades. The country has successfully diversified its economy, strengthening its manufacturing and service sectors. Malaysia is one of the leading exporter of electrical appliances, parts, and components.<sup>6</sup> As of 2020, Malaysia was ranked as the 12th country by the Doing Business Index and is reported to be especially accommodating when it comes to procedures such as protecting minority investors, dealing with construction permits, and getting electricity. <sup>7</sup> FDI inflows in 2022 surged to RM73.3 billion from RM48.1 billion in 2021, with main FDI sources being from the US, Switzerland and Singapore. Manufacturing remained as the largest sector receiving FDI, followed by services, predominantly in information and communications, and mining and quarrying. As at the end of 2022, FDI in Malaysia stood at RM875.1 billion.<sup>8</sup>



<sup>&</sup>lt;sup>2</sup> IMF. October 2022. Global Financial Stability Report: Navigating the High-Inflation Environment. Chapter 2 - Scaling up Climate Finance in Emerging Market and Developing Economies: Challenges and Opportunities. https://www.google.com.tr/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjDmM 6f9-r-AhXmVfEDHd5MCXIQFnoECCYQAQ&url=https%3A%2F%2Fwww.imf.org%2F-%2Fmedia%2FFiles%2FPublications%2FGFSR%2F2022%2FOctober%2FEnglish%2F ch2.ashx&usg=AOvVaw2EwPMf2Uc\_jleQ\_XdHrgbC.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> EY. 2022. Trending: Sustainable responsible investment in Malaysia and the region. https://assets.ey.com/content/dam/ey-sites/ey-com/en\_my/topics/climate-change/ ey-trending-sri-in-malaysia-and-the-region-final-22022022.pdf. <sup>5</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> World Bank Malaysia Overview . https://www.worldbank.org/en/country/malaysia/overview https://www.worldbank.org/en/country/malaysia/overview

<sup>&</sup>lt;sup>7</sup>World Bank. Doing Business 2020. Economy Profile Malaysia. https://www.doingbusiness.org/content/dam/doingBusiness/country/m/malaysia/MYS.pdf

<sup>&</sup>lt;sup>8</sup> DOSM: Foreign direct investment higher at RM19.3b in 4Q. Feb 2023. https://www.theedgemarkets.com/node/654748

In addition to high levels of FDI, Malaysia has also well-developed capital markets, with an overall capital market valuation of RM3.6 trillion as end-December 2022. Despite the pandemic and turbulent global market, a total of RM 26 billion was raised from the Malaysian equity market in 2022 <sup>9</sup>, thanks to energy and plantation sectors benefitting from market volatility and higher commodity prices amid the Russia-Ukraine conflict. Malaysia's fixed-income market (bond market) is almost equal to GDP, placing it third in Asia after Japan and South Korea. Malaysia, therefore, boasts the largest bond market in Southeast Asia, being valued at the end of December 2022 at RM1.9 trillion, translating into about 47 per cent of the nation's overall capital market

(RM3.6 trillion).10

Malaysia also boasts a vibrant venture capital(VC) and private equity (PE) ecosystem. VC and PE firms in Malaysia have been reported to have recorded committed funds of RM 16.08 billion in 2022 (RM 10.71 billion from PE and RM 5.37 billion from VC).<sup>11</sup> While the commitment sources for PE funds are corporate investors (33.4%), individuals and family offices (16.97%), and financial institutions (12.78%), the VC funds are sourced largely by government agencies and investment companies (36.01%), sovereign wealth funds (27.27%) and corporate investors (22.68%). PE and VC investments enable private capital flows in areas such as healthcare, biotechnology, information and communication (ICT), finance and agriculture, among other areas, which have a large potential to support Malaysia's sustainable development progress.



#### Areas of Investment by PE and VC in 2022

Figure 1. Areas of Investment by PE and VC in 2022<sup>12</sup>

<sup>&</sup>lt;sup>9</sup> Capital Market Malaysia, Capital Market Segments https://www.capitalmarketsmalaysia.com/public-equities/ <sup>10</sup> Ibid.

<sup>&</sup>lt;sup>11</sup>The Edge Markets. 2023. SC: Private equity, venture capital funding up 8.45% to RM16.08b in 2022. https://www.theedgemarkets.com/node/660889 <sup>12</sup>Ibid.

Building on its well-developed capital market, Malaysia aims to increase SDG-enabling investments i.e. investments that provide increased financial resources aiming to create sustainable development progress in the country, including any type of sustainable, responsible as well as impact investments. Successfully creating a conducive environment for Sustainable and Responsible Investments (SRI), Malaysia has built crucial taxonomies and frameworks including the SRI Taxonomy, the Climate Change and Principle-based Taxonomy (CCPT) 2021, and the SRI-linked Sukuk Framework 2022. Moreover, Bursa Malaysia has made sustainability reporting mandatory for all the listed companies, introduced the Finance for good index (FTSE4 Good Bursa Malaysia Index (F4GBM)) to support increasing sustainable and ESG investments, and recently established the Bursa Carbon Exchange (BCX), a voluntary carbon market exchange.<sup>13 14</sup> In line with this effort, Malaysian government's New Investment Policy is guided by sustainability and ESG standards and is aligned with Malaysia's aim to become a carbon-neutral economy by 2050.<sup>15</sup>

Thanks to its vibrant finance market and government's active support in facilitating SDG-enabling investments, Malaysia has been witnessing increased sustainable and SDG-enabling financing, mainly via innovative debt instruments. The very first social impact sukuk (the Shariah-compliant social bond) was issued in Malaysia in 2015 by Ihsan Sukuk Bhd, a unit of Khazanah Nasional Bhd, where proceeds of RM1 billion were used in education projects. <sup>16</sup> In 2017, Malaysia issued the world's first green sukuk, the Shariah-compliant green bond as an innovative financing instrument raising capital of RM250.0 million for a 50-megawatt solar project.<sup>17</sup> Ever since, the sustainability-focused and particularly green sukuk issuances by Malaysia have attracted substantial investor interest, making Malaysia one of the top sukuk issuers in the world.



#### Green and Sustainability Sukuk Cumulative Issuance by Country (2022)

Figure 2. Green and Sustainability Sukuk Cumulative Issuance by Country (2022)<sup>18</sup>

<sup>18</sup> Refinitiv's Green and Sustainability Sukuk Report 2022

<sup>&</sup>lt;sup>13</sup> AVPN. 2019. Social Investment Landscape in Asia. https://avpn.asia/si-landscape/malaysia/.

<sup>&</sup>lt;sup>14</sup> Bursa Malaysia. Introducing Bursa Carbon Exchange. https://bcx.bursamalaysia.com/web.

<sup>&</sup>lt;sup>15</sup> MITI. National Investment Aspirations to guide the New Investment Policy. https://www.miti.gov.my/NIA/#.

<sup>&</sup>lt;sup>16</sup> The Edge Markets. 2015. Khazanah to issue first tranche of RM1b socially responsible sukuk. https://theedgemalaysia.com/article/khazanah-issue-first-tranche-rm1bsocially-responsible-sukuk.

<sup>&</sup>lt;sup>17</sup> Securities Commission Malaysia. 2017. MALAYSIA'S FIRST GREEN SUKUK UNDER SC'S SUSTAINABLE RESPONSIBLE INVESTMENT SUKUK FRAMEWORK. https:// www.sc.com.my/resources/media/media-release/malaysias-first-green-sukuk-under-scs-sustainable-responsible-investment-sukuk-framework https://www.sc.com.my/ resources/media/media-release/malaysias-first-green-sukuk-under-scs-sustainable-responsible-investment-sukuk-framework Pacificity of Creater and Curtate tiltity. 2010; Pacificity

There is also considerable movement in the impact investing space in Malaysia, positively impacting SDG progress in the country. Most notably, Khazanah Nasional Berhad has made an RM6 billion commitment for 5 years into its impact fund (Dana Impak), seeking to invest across various areas including technology, education, healthcare, and climate resilience among others. Khazanah announced that RM150 million (USD34.17 million) will be earmarked for supporting the development of nature-based solutions for Malaysia's carbon markets ecosystem.<sup>19</sup>

Although the SDG-enabling investment landscape in Malaysia is dynamic and promising, the mobilised financing is not yet sufficient to address the country's urgent SDG needs. In addition to the need to transform the country in light of its ambitious targets (such as increasing the renewable energy in the national energy mix up to 31% by 2025 and to 40% by 2030, becoming carbon neutral by 2050, and 45% unconditional emissions reduction target by 2030), Malaysia has crucial sustainable development needs on the ground. Especially being particularly vulnerable to floods, with 9% of its territory and 4.8 million inhabitants being at risk, and annual flood-related damage estimated to affect 130.000 people amounting to USD 1.8 billion worth of damages, Malaysia is in crucial need of climate financing.<sup>20 21</sup> SDG-enabling investments could be instrumental in unlocking increased private capital flows into responding to these development needs in Malaysia. Creating vital market intelligence around SDG-enabling investments and business models for the use of investors is thus a crucial move to equip Malaysia with increased financing for its SDG progress strongly. Malaysia SDG Investor Map aims to respond to this need and enable increased investments in support of Malaysia's SDG agenda.

<sup>&</sup>lt;sup>19</sup> Islamic Sustainable Finance & Investment. December 2022. Advancing climate finance in Malaysia: 2022 in review. https://islamicsustainable.com/advancing-climate-finance-in-malaysia-2022-in-review/

<sup>&</sup>lt;sup>20</sup> Economic Planning Unit, Prime Minister's Department. 2021. Malaysia Voluntary National Review (VNR). https://www.epu.gov.my/sites/default/files/2021-07/Malaysia\_ Voluntary\_National\_Review\_%28VNR%29\_2021.pdf
<sup>21</sup>Ibid.

### **III. MALAYSIA SDG INVESTOR MAP**

A detailed presentation of the national policy priorities, SDG needs of Malaysia, and the sector prioritisation in the Map as well as the resulting Investment Opportunity Areas is provided below.

#### **1. National Policy Priorities**

Malaysia's key national policy priorities were deduced from a careful analysis of 43 national policy documents<sup>22</sup> including the Twelfth Malaysia Plan (12MP) 2021-2025, the Shared Prosperity Vision 2030<sup>23</sup>, The National 4IR Policy, and the New Investment Policy. Key national priorities emphasised by Malaysia's national policy documents have been summarised below Table 1, presenting an overview of quantitative emphasis of each policy priority by the number of national policy documents.



#### Technology adoption and digitalization:

Strongly prioritised by the 12th Malaysia Plan, enhancing digital economy and digital connectivity in Malaysia is highlighted by 29 national policy documents that have been analysed out of the total 43 documents. Establishing a proper digital backbone infrastructure nationwide for an inclusive digital society and adapting to the Industry 4.0 (Fourth Industrial Revolution (4IR)) have been mentioned as key aims within this policy priority. Malaysia also aims to intensify technology transfer in the manufacturing sector, advance digitalization of the financial sector (via fintech, digital payments, e-wallet & Islamic finance), promote the use of technology in agricultural activities and support the growth of e-commerce.



#### Green economy and sustainability:

Malaysia's objective to enhance green economy and sustainability of the country is highlighted by 30 national policy documents that have been analysed. The 12th Malaysia Plan supports implementing sustainable and circular economy models in Malaysia. Malaysian government regularly highlights the importance of strengthening the efficient use and conservation of natural resources, including via integrated water resources management, increased renewable energy use and termination of single-use plastics. National policy documents also highlight Malaysia's objective and efforts to provide a conducive environment for green technology development.

 $<sup>^{\</sup>rm 22}$  A full list of documents analysed can be found in the Annex 1.

<sup>&</sup>lt;sup>23</sup> Although Shared Prosperity Vision 2030 will be replaced by Malaysia MADANI under the current government, as many policies in place are in line with Shared Prosperity Vision and concrete policy document for Malaysia MADANI is still under development, it was used as the basis of policy review



#### MSMEs as the driver of growth:

Transforming MSMEs as the new driver of growth is strongly highlighted by the 12th Malaysia Plan and a total of 12 other national policy documents. Malaysia aims at continuing increasing the number of innovations and entrepreneurship as well as developing new industries by SMEs and start-ups. Supporting SME digitalization is a further key point highlighted by national policy documents in order to substantially enable MSMEs as the driver of growth in the country.

#### **Reduced disparities and enhanced prosperity:**

Ensuring equitable and shared prosperity is a strongly mentioned policy priority in Malaysia, especially via high-paying jobs and increased labour participation. 20 national policy documents mention this national goal. Further objectives within this policy priority include preservation of vulnerable groups, reduction of regional development disparities and strengthening of the public service provision.



#### Human capital development:

26 documents out of the total 43 documents analysed emphasizes the importance of developing the human capital in Malaysia. The documents specifically highlight the need for and the prioritisation of developing a generation of skilled workers based on future industry needs, improving the TVET ecosystem and increasing the tech skills of the workforce for a human capital that is ready for the 4th Industrial Revolution.



#### Improved transportation and connectivity:

Enhancing connectivity and transport has been highlighted as a crucial policy priority in Malaysia. 17 national policy documents, including the 12th Malaysia Plan and the National Transport Policy 2019-2030. The government has a strong goal to reduce accessibility constraints in logistics and market. Malaysia aims to optimize, build and maintain transport infrastructure, services and networks for efficiency. National policy documents also highlight the importance of advancing towards a green transport ecosystem with reduced negative impacts on the natural environment.



#### **Enhanced healthcare system:**

Malaysia has a goal to revitalize the national healthcare system. Especially after the global COVID-19 pandemic, the country aims at strengthening national and local mechanisms to detect infectious disease to stop individual chains of transmission at an early stage. 13 national policy documents out of the total 43 analysed emphasizes this policy priority. Malaysia intends to ensure the health system's readiness to handle surges while maintaining essential services for the whole population.



#### **Greater food security:**

Disrupted global food supply chains due to COVID-19, geopolitical risks and climate change have raised concerns over food security in Malaysia. To address food security, there have been active policy efforts including the National Agro-Food Policy 2021-2030 and the Food Security Policy Action Plan State (DSMN) 2021-2025. Its strategic vision has been further enhanced by the renaming of the Ministry of Agriculture and Food Industry (MAFI) to the Ministry of Agriculture and Food Security (MAFS) in 2022, with more focus on increasing agricultural productivity, reducing reliance on food imports, and mitigating the impacts of climate change on food production. With the backing of the National Policy on Industry 4.0, the National IoT Strategic Roadmap and the 12th Malaysia Plan, the government is channelling efforts into bolstering the agri-tech sector as well.



#### Accessible and resilient infrastructure:

The development of accessible and resilient infrastructure is at the heart of Malaysia's pledge to its rakyat (people). Its significance is well demonstrated by the considerable investments (RM 400 billion) committed for existing and new infrastructure projects in the 11th Malaysia Plan, as well as key initiatives such as the Economic Transformation Programme (ETP) facilitating major infrastructure ventures. Underpinning the importance of waste management in green urban development, the National Solid Waste Management Programme (NSWMP) encourages sustainable waste management practices. Moreover, as illustrated in KL Smart City Master Plan 2021 – 2025, Malaysia is aiming to transform its cities to Smart Cities to lift rakyat's quality of life, boost economic productivity, and protect the environment.

#### Key Policy Priority Areas in the Analysed National Policy Documents

			NATIONAL	POLICY DOCUMENT	s	
POLICY PRIORITY AREAS	12th Malaysia Plan	Shared Prosperity Vision	National Recovery Plan	National Investment Aspirations	Voluntary National Review	Out of 43 National Policies
Technology adoption and digitalization	•		•	•	•	29
Green economy and sustainability		•		•		30
MSMEs as the driver of growth	•	•	•	•		13
Reduced disparities and enhanced property	•	•	•	•	•	20
Human capital development	•	•		•	•	26
Improved transporation and connectivity	•	•	•	•	•	17
Enhanced healthcare system	•	•	•		•	13
Greater food security		•				16
Accessible and resilient infrastructure	•		•	•	•	18

Table 1. Key Policy Priority Areas in the Analysed National Policy Documents

#### 2. Sustainable Development Needs

Malaysia's key sustainable development needs were identified through the in-depth analysis of 29 development reports completed by extensive desk research. Resulting from this analysis, the most pressing sustainable development needs have been identified to relating to SDGs 2, 10, 13 and 15 whereas other crucial development needs relate to SDGs 1, 3, 5, 8, 12, 16 and 17. Tables 2 and 3 below present a summary of the most pressing and other crucial SDG needs of Malaysia.

2 ZERO HUNGER	<ul> <li>Prevalence of stunning and underweight of children below 5 increased from 17.7% in 2015 to 21.8% in 2019</li> <li>Food security remain a challenge (high reliance on imports and 80% of agricultural lands used for oil palm and rubber)</li> </ul>
10 REDUCED INEQUALITIES	<ul> <li>Wealth inequalities (specifically for women), with only limited progress over the past 10 years</li> <li>Gaps in access to basic amenities related to living standards</li> </ul>
13 CLIMATE	<ul> <li>Malaysia is particularly vulnerable to flooding, requiring greater resilience to climate related and natural disaster</li> <li>GHG overall emissions increased over the past decade, with the energy sector accounting for 80%</li> </ul>
15 LIFE ON LAND	<ul> <li>Scarcity of land for food production is growing (with 85% of land used for industrial commodities)</li> <li>9% of land is at risk of flooding in Malaysia.</li> </ul>

Table 2. Most Pressing SDG Needs

<sup>&</sup>lt;sup>24</sup> A full list of documents analysed can be found in the Annex 1.
<sup>25</sup> The data reported was extracted from the Malaysia Voluntary National Report 2021, Sustainable Development Report SDG Index Dashboards and DOSM statistics.

1 <sup>NO</sup> Poverty <b>ŘፍŤŤ</b>	<ul> <li>Absolute poverty is persistent among some vulnerable groups (rural areas, Orang Asli, children, elderly)</li> <li>Relative poverty increased from 15.9% to 16.9% over the period 2016-2019</li> </ul>
<b>3</b> GOOD HEALTH AND WELL-BEING	<ul> <li>Ageing population (15% of population over 60 by 2030)</li> <li>Increasing burden of Non-Communicable Diseases (NCDs) on the healthcare system (with more than 70% of death)</li> </ul>
5 GENDER EQUALITY	<ul> <li>Labour Force Participation Rate (LFPR) is lower for women (55.5 % for women, 80.9% for men)</li> <li>Unequitable remuneration for women (for every RM100 received by men, only RM96.21 received by women)</li> </ul>
8 DECENT WORK AND ECONOMIC GROWTH	<ul> <li>High youth unemployment, ageing workforce and low female employment</li> <li>SMEs employing 48.4% of the workforce in 2019 face numerous challenges</li> </ul>
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	<ul> <li>Increasing urbanization is increasing waste management issues (30% of recycling)</li> <li>Adoption of sustainable practices among business remains low, with sustainable report being at its nascent stage</li> </ul>
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	<ul> <li>Malaysia reported high level of domestic violence (with 4 034 women and 1 495 men victims in 2019)</li> <li>13.5% of women representation in the Parliament</li> </ul>
<b>17</b> PARTNERSHIPS FOR THE GOALS	<ul> <li>The share of available indicators for SDGs reached 51.8% in 2018</li> <li>Malaysia received only limited Official Development Assistance (0.002% of net ODA received)</li> </ul>

<sup>26</sup> Ibid.

#### **3. Identification of Priority Sectors**

In line with the policy priorities and SDG needs identification, **6 priority sectors** to advance SDG-enabling investments in Malaysia have been identified: **Technology and Communications, Health Care, Renewable Resources and Alternative Energy, Financials, Food and Beverage, and Infrastructure.** The identification of these 6 priority sectors has been validated through extensive desk research and invaluable inputs from stakeholder consultations. The classification of priority sectors is in line with the Sustainable Accounting Standards Board (SASB) framework.

#### **Snapshot of Sector Identification in line with SDG Needs and Policy Priorities**



Figure 4. Snapshot of Sector Identification in line with SDG Needs and Policy Priorities

#### 4. Investment Opportunity Areas: Overview

For the Malaysia SDG Investor Map, a longlist of 78 potential Investment Opportunity Areas (IOAs) was developed through desk review and stakeholder consultations. With further desk review and stakeholder consultations, 15 IOAs were eventually shortlisted as below, following the 4 IOA criteria – i) fundamentally marketable, ii) sufficiently specific, iii) sufficiently at-scale, and iv) largely already proven in market. These 15 IOAs will be a start of Malaysia SDG Investor Map, which will be updated in due course.



#### **IOAs' targeted SDGs**



SDG 1: No Poverty SDG 2: Zero Hunger SDG 3: Good Health & Wellbeing SDG 4: Quality Education SDG 5: Gender Equality SDG 6: Clean Water & Sanitation SDG 7: Affordable & Clean Energy SDG 8: Decent Work & Economic Growth SDG 9: Industry Innovation & Infrastructure SDG 10: Reduced Inequalities SDG 11: Sustainable Cities & Communities SDG 12: Responsible Consumption & Production SDG 13: Climate Action SDG 14: Life Below Water SDG 15: Life on Land SDG 16: People, Justice & Strong Institutions SDG 17: Partnerships for the Goals



100% technology-based IOAs



60% of IOAs directly tackle GHG Emissions





#### IOAs following the Malaysia Standard Industrial Classification (MSIC)



#### **Information & Communications**

Cybersecurity solutions focusing on 'secureby- design' and 'security response' for SMEs



#### Manufacturing

Medical devices Manufacturing

Production of sustainable packaging including biodegradable materials



### Electricity, Gas, Steam & Air Conditioning Supply

Installation of rooftop solar PV solutions for industrial and commercial premises

Energy Storage Systems (ESS)

Micro and mini hydro solutions



#### **Transportation & Storage**

Smart warehouse solutions for port and coldchain logistics

Agrometeorological data collection and analytics technologies

Integration of smart technologies in Transfer Stations and Material Recovery Facilities

Low-carbon decentralised solutions for waste treatment



#### Financial & Insurance/Takaful Activities

Peer-to-peer (P2P) lending and equity crowdfunding (ECF) for MSMEs

Customised insurtech products for MSMEs



#### **Agriculture, Forestry & Fishing**

Controlled Environment Agriculture (CEA)



#### Water Supply, Sewerage, Waste Management & Remediation Activities

Integration of smart technologies in Transfer Stations and Material Recovery Facilities (General List)

Low-carbon decentralised solutions for waste treatment (General List/GITA)



#### Human Health and Social Work Activities

Supply of Infrastructure and Assistive Technologies to support the customers and beneficiaries of the Care Industry

Personalised Caregiving Services for the Elderly, Persons With Disabilities (PWD) and Children

#### **5. White Spaces**

#### What is a White Space?

A white space is an investment area that serves a strong development need in a specific national context but has not recorded a strong policy momentum by way of government commitments or has not seen significant private sector momentum due to absence of viable business models, or both.

- 1. Policy White Space: Opportunity areas that serve a development need but experience absence of private sector momentum due to policy and regulatory gaps.
- 2. Business White Space: Opportunity areas that serve a development need but experience absence of private sector momentum despite favourable policies and regulatory momentum.

Throughout the process of developing and shortlisting IOAs, following White Spaces were identified.



- Conversion of bio-based feedstocks (including used cooking oil and algae) into biofuels and bioplastics
- 2. Carbon Capture, Utilisation and Storage (CCUS)
- 3. Provision of Sustainability Reporting Software for MSMEs

Business White Spaces

- 1. Waste-to-Energy systems and technologies
- 2. Development of the EV ecosystem (passenger vehicles, logistics and public transportation)

## INVESTMENT OPPORTUNITY AREAS

IV.



## TECHNOLOGY & COMMUNICATIONS

### 1. Technology & Communications

#### **Sector Development Needs**

• For Malaysia's vision on the country's economic transformation, the 12th Malaysia Plan 2021-2025 highlights the importance of leveraging advanced technologies, digitalisation, and niche capabilities. Moreover, accelerating MSMEs' development through technology and digital adoption is underlined as an important policy priority, especially for enabling MSMEs to move to the global market.

• Technology and innovation come in as a cross-cutting priority area in the 12th Malaysia Plan 2021-2025 that can catalyse growth across all sectors. Malaysia is reported to be aiming to achieve a high-tech economy, mainstreaming digitalisation for inclusive development. Goals noted for technology and innovation in Malaysia include: 100% 4G coverage in populated areas, wider 5G coverage in the country, 100% internet subscription of urban and rural households, 2.5% gross expenditure on R&D, 10.5% GDP contribution by e-commerce and 25.5% GDP contribution by digital economy.

• Furthermore, in the 12th Malaysia Plan 2021-2025, cybersecurity development is noted as part of the Game Changer IV – Enhancing National Security and Unity for Nation-Building, supported by the National Cybersecurity Policy and the Cyber Security Act with the National Cybersecurity Agency (NASCA) as an implementing agency.

• Two other major policies, the Malaysia Digital Economy Blueprint (MyDigital) and the 4th Industrial Revolution Policy aim to transform Malaysia as a digital-driven regional leader and a high-income nation. MyDigital, especially, sets out six thrusts to steer the national digital initiatives, namely: (1) Drive digital transformation in the public sector, (2) Boost economic competitiveness through digitalisation, (3) Build enabling digital infrastructure, (4) Build agile and competent digital talent, (5) Create inclusive digital society, (6) Build trusted, secured, and ethical digital environment.

• For an inclusive digital transition in Malaysia, there is a strong need regarding enhancing the national workforce's digital skillset<sup>27</sup> and digitalisation of MSMEs. Especially, the COVID-19 pandemic has strongly highlighted the need to build resilience through digitalization, innovation, and effective use of new technologies<sup>28 29</sup>. This need proved to be most crucial for the resilience of MSMEs. Building resilience through technology is also vital for addressing post-pandemic national productivity decrease and other challenges.

• Women-owned businesses and SMEs have especially lower access to and use of Internet (41% for womenled businesses, 62% in average)<sup>30</sup>. In Sabah, unlimited access to Internet is lower (54.7%) than the national average (64.2%)<sup>31</sup>. In Asia-Pacific, Internet and mobile phone use by the older population is lower than average, especially for older women<sup>32</sup>.

• The recent Budget 2023 announced the allocation of RM 100 million for the SME Digitalisation Grant Scheme, and RM 1 billion via Bank Negara Malaysia (BNM) to support MSMEs in automating their business processes and digitalising their operations.

#### **Regional Activity**

• Malaysia has been actively promoting the development of technology and communication hubs in various regions throughout the country. One notable hub is Cyberjaya, developed with aspirations to become Malaysia's Silicon Valley, which is located in Selangor and is home to numerous technology companies and startups. The Cyberjaya Technology and Innovation Immersion Centre (CTIIC) and the Cyberjaya Startup Centre are set up to provide innovation-friendly environment in an effort to support the growth of the tech ecosystem in Cyberjaya.

• Kulim Hi-Tech Park in Kedah is another important technology hub in Malaysia. The park spans over 4,000 acres and is home to over 70 companies in the technology and engineering sectors. The park is strategically located in close proximity to major ports and airports. The Asia Center of Excellence for Smart Technologies (ACES), a joint venture between the Malaysia's Multimedia Development Corporation (MDeC) and a consortium of Japanese companies. The centre is focused on research and development in areas such as smart cities, smart homes, and advanced telecommunications.

• Aside from these technology hubs, there are also several cybercentres around Greater Kuala Lumpur that are focused on fostering the growth of the technology and communications sector. These centres provide world-class infrastructure and support services to help startups and established companies succeed.



<sup>&</sup>lt;sup>27</sup> UNDP Country Programme Document for Malaysia (2022–2025). United Nations Development Programme. https://digitallibrary.un.org/record/3952467?In=en .
<sup>28</sup> Building forward together: Towards an inclusive and resilient Asia and the Pacific. 2022. UNDP. https://www.undp.org/pacific/publications/building-forward-together-

towards-inclusive-and-resilient-asia-and-pacific.

<sup>&</sup>lt;sup>29</sup> Firms' Recovery from COVID-19 in Malaysia: Results from the 4th Round of COVID-19 Business Pulse Survey (English). 2022. World Bank. https://documents.

worldbank.org/en/publication/documents-reports/documentdetail/099115005052216680/p1748530a2160907e096e409949699e48ac . <sup>30</sup> Malaysia 's Digital Economy, A new driver of development. 2018. World Bank. https://www.worldbank.org/en/results/2021/06/25/malaysia-s-digital-economy-a-newdriver-of-development.

<sup>&</sup>lt;sup>31</sup>Malaysia Economic Monitor – Catching Up: Inclusive Recovery Growth for Lagging States. 2022. World Bank. https://openknowledge.worldbank.org/ handle/10986/37531.

<sup>&</sup>lt;sup>32</sup> Building forward together: Towards an inclusive and resilient Asia and the Pacific. 2022. UNDP. https://www.undp.org/pacific/publications/building-forward-togethertowards-inclusive-and-resilient-asia-and-pacific .



### **IOA 1**

### Smart Warehouse Solutions for Port and Cold-chain Logistics

#### **Business Model**

B2B model providing smart technology solutions. Companies may also extend track and trace capabilities and applications may be cloud-based, often on a subscription model, or be offered as an on-premise solution

#### **Impact Thesis**

#### **C-Contribute to Solutions**

Enhance efficiency and seamless movement of goods through smart logistics, thereby decreasing emissions and increasing economic activities and revenue flows

#### **Enabling Environment**

**Policy:** 12MP - improved seamless connectivity, particularly last-mile connectivity in rural and hinterland areas, Malaysia MADANI, Industry4WRD

**Regulatory:** Company Act 2016, Environmental Quality Act 1974, Customs Act 1967

#### **Financial:**

• An initial allowance of 10% and an annual allowance of 3% of qualifying capital expenditure given to warehouses for export and re-export

• Green Technology Financing Scheme (GTFS): offers a 2% interest rate subsidy and a government guarantee of 60% on the financing amount. The next GTFS is on its way after GTFS 3.0 ended in 2022

• Automation Capital Allowance: The first RM10 million expenditure incurred within the year of assessment from 2023 to 2027. The scope of automation includes the adaptation of Industry 4.0 elements Market size > USD 1 billion, 5-10% CAGR

Indicative Return 5-10% (Gross Profit Margin)

**Investment Timeframe** 

Medium-term (5-10 years)

#### **Ticket Size**

> USD 10 million

#### **Target Locations**

Kuala Lumpur, Selangor, Penang, Johor

#### **SDGs Addressed**



Visit Global SDG Investor Platform sdginvestorplatform.undp.org/marketintelligence for more information



#### **OA 2**.

### Cyber Security Solutions Focusing on Security-by-Design' and 'Security Response' for SMEs

#### **Business Model**

B2B and B2G business models - Software as a Service (SaaS) based cybersecurity and response solutions such as firewall breach detection for governments and businesses. Including SMEs. Solutions include Managed Service Providers and System Integrators

#### **Impact Thesis**

#### **B-Benefit Stakeholders**

Enhance companies' cyber resilience, support continuous economic growth by increasing productivity, and enable the development of a secure digital economy overall

#### **Enabling Environment**

**Policy:** MyDigital, Malaysia Cyber Security Strategy (2020-2024),12MP– cybersecurity development as Game Changer IV

**Regulatory:** National Security Council Act 2016, Personal Data Protection Act 2010, Security Offences Act 2012, Digital Signature Act 1997

#### Financial:

• SME Digitalization Grant and SME Technology Transformation Fund (STTF)

• The Industry Digitalisation Transformation Scheme (IDTS) by Bank Pembangunan (BPMB) - up to USD6.7 million per project Market size >USD 1 billion, 15-20% CAGR

Indicative Return >25% (Gross Profit Margin)

**Investment Timeframe** Medium-term (5-10 years)

**Ticket Size** USD 500,000 – USD 1 million

**Target Locations** Kuala Lumpur, Selangor, Penang, Johor

#### **SDGs Addressed**



Visit Global SDG Investor Platform sdginvestorplatform.undp.org/marketintelligence for more information



# HEALTH CARE

### 2. Health Care

#### **Sector Development Needs**

• The Malaysian Domestic Medical Device market is valued at US\$2.8 billion as of 2022 and rapidly growing with CAGR of 8.3% between 2021 to 2026.<sup>33</sup> Although Malaysia's medical device manufacturing industry is well developed, it is heavily export-oriented with the country importing 95% of its medical devices.<sup>34</sup>

• The country aspires to position itself as a leader in medical tourism in the ASEAN region by reaching more than 1 million medical tourists annually, by adopting 4IR medical tools and national medical device manufacturing.<sup>35 36</sup>

• On the healthcare sector in Malaysia, the 12th Malaysia Plan 2021-2025 accentuates the importance of increasing service delivery to improve people's health and battling various diseases in the country. The government aims for the expansion of healthcare coverage to the whole population.

• 6.5% of Malaysians did not have access to nearby health facilities or mobiles services at all in 2019.<sup>37</sup> The facilities managed by the Ministry are often outdated and poorly maintained with more than 70 public hospitals being more than 30 years old.<sup>38</sup> The shortage of healthcare professionals, particularly in nursing and allied health professions, is also a significant challenge. It is reported that there are only 3.5 nurses per 1,000 people in Malaysia, which is far less than OECD average (9.03 in 2019)<sup>39</sup>.

• In response, Malaysian government announced the allocation of RM 420 million (USD 92,4 million) for the refurbishment of hospitals and clinics (priority given to the Sabah and Sarawak), and procurement for new facilities and equipment amounting to RM 350 million (USD 77 million).<sup>40</sup>

• On top of the national integrated approach, the National Strategic Plan for Non-Communicable Diseases (NCDs) 2016-2025 further addresses needs to strengthen national capacity for prevention and control of NCDs, reduce modifiable risk factors and underlying social determinants, improve people-centred primary health care and coverage, support high-quality research and development for the prevention and control of NCDs, and monitor the trends and determinants.

<sup>&</sup>lt;sup>33</sup> Fitch Solutions. 2022. Malaysia's Medical Device Market Remains Supported, Despite Near-Term Headwinds. https://www.fitchsolutions.com/medical-devices/malaysias-medical-device-market-remains-supported-despite-near-term-headwinds-26-10-2022?fSWebArticleValidation=true&mkt\_tok=NzMyLUNLSC03NjcAAAGKxWhg-GEib6-jp7yDbaOine5-PGDwk3Z\_jm0wVxtZ9WSTY6nccBT6Rw5DMsla\_0u3qbDnJBPNYIIohmMkGzMvtVGjDQOvuwrr-H-8I-Ct1JHb4S-dmQA

<sup>&</sup>lt;sup>34</sup> Artixio. 2021. Malaysia – Medical Devices Regulations. https://www.artixio.com/post/malaysia-medical-devices-regulations

<sup>&</sup>lt;sup>35</sup> Market Insights Opportunities in the Life Science and Healthcare Industry (Malaysia). 2019. The Netherlands Ministry of Foreign Affairs. https://www.rvo.nl/sites/default/files/2022/03/Opportunities%20in%20the%20Life%20Science%20and%20Healthcare%20Industry%20Malaysia.pdf.

<sup>&</sup>lt;sup>36</sup> Twelfth Malaysia Plan (12MP) 2021-2025: A Prosperous, Inclusive, Sustainable Malaysia. 2021. Economic Planning Unit (EPU), Prime Minister's Department. https:// rmke12.epu.gov.my/en .

<sup>&</sup>lt;sup>37</sup> EPU. 2021. Malaysia Voluntary National Review (VNR) 2021

<sup>&</sup>lt;sup>38</sup> Ministry of Health (2021) Strategic Framework of the Medical Programme 2021-2025

<sup>&</sup>lt;sup>39</sup> OECD. 2023. Nurses (indicator). doi: 10.1787/283e64de-en (Accessed on 08 June 2023)

<sup>&</sup>lt;sup>40</sup> The Edge Markets. October 2022. Full Budget 2023 Speech. https://maa.theedgemarkets.com/article/full-budget-2023-speech.

• In Malaysia, the NCDs are the major cause of death, having led to 74% of deaths in 2021. The growth in the incidence of NCDs is still high. In addition, the increasingly ageing population have ageing-related diseases that cause major challenges for the Malaysian healthcare system. Recognition and treatment of mental health diseases which increased due to COVID-19 pandemic, are also prioritized as a national issue.<sup>41</sup>

• Malaysia has adopted a NCDs, prevention and treatment program and a comprehensive and inclusive national health protection scheme through MySalam. The pilot project PeKa B40 offered insurance coverage to most of the population.

• Disparities in life expectancy exist among Malaysia's regions (Perlis has the lowest, Kuala Lumpur the highest) and among different ethnic groups (Chinese population have a higher life expectancy than Bumiputera and Indians). People from poorest classes live shorter and less healthy lifestyles (higher prevalence of NCDs and mental health issues). Women in the informal sector (overrepresented in care work) also face higher health risks. <sup>42 43</sup>

• Orang Asli is among the most deprived of access to healthcare facilities in Malaysia.<sup>44</sup> Out-of-pocket expenses tripled from 2006 to 2020, with 43% being spent for out-patient care and 3% in medical appliances and non-durable goods<sup>45</sup>, increasing the burden of healthcare, especially for poor households. Finally, women constitute the majority of care workers (97% of nurses and 64% of unpaid care work). <sup>46 47</sup>

<sup>&</sup>lt;sup>41</sup>Malaysia Voluntary National Review (VNR) 2021. 2021. Economic Planning Unit (EPU). https://www.epu.gov.my/sites/default/files/2021-07/Malaysia\_Voluntary\_ National\_Review\_%28VNR%29\_2021.pdf .

<sup>&</sup>lt;sup>42</sup> Social Inequalities and Health in Malaysia: The State of Households 2020 Part III. 2020. Khazanah Research Institute. https://www.krinstitute.org/assets/contentMS/ img/template/editor/KRI%20-%20Full%20Report%20-%20Social%20Inequalities%20and%20Health%20in%20Malaysia\_latest.pdf .

<sup>&</sup>lt;sup>43</sup> Key Findings - National Health and Morbidity Survey 2019 Non-communicable diseases, healthcare demand, and health literacy. Ministry of Health, Malaysia, 2019. https://iptk.moh.gov.my/images/technical\_report/2020/4\_Infographic\_Booklet\_NHMS\_2019\_-\_English.pdf.

<sup>&</sup>lt;sup>44</sup> Economic Planning Unit (EPU). 2021. Malaysia Voluntary National Review (VNR) 2021. https://www.epu.gov.my/sites/default/files/2021-07/Malaysia\_Voluntary\_ National\_Review\_%28VNR%29\_2021.pdf .

 <sup>&</sup>lt;sup>45</sup> Code Blue. 2021. Malaysia Out-Of-Pocket Health Spending More Than Triples In 15 Years. https://codeblue.galencentre.org/2021/12/07/malaysia-out-of-pocket-health-spending-more-than-triples-in-15-years/.
 <sup>46</sup> The Straits Times. 2021. Women dominate healthcare, yet their health issues are neglected. https://www.nst.com.my/opinion/columnists/2021/06/698772/women-

<sup>&</sup>lt;sup>4°</sup> The Straits Times. 2021. Women dominate healthcare, yet their health issues are neglected. https://www.nst.com.my/opinion/columnists/2021/06/698772/womendominate-healthcare-yet-their-health-issues-are-neglected.

<sup>&</sup>lt;sup>47</sup> The Edge Market. 2021. Stethoscope: Making the care economy equitable, sustainable and visible. https://www.dosm.gov.my/v1/uploads/files/5\_Gallery/2\_Media/4\_ Stats@media/1\_General%20News/2021/11%20Nov/19%20Nov%20-%20General%202%20-%20the%20edge%20markets(1).pdf .


## **CARE ECONOMY**

According to the International Labour Organization (ILO), women carry out 76.4% of unpaid care work globally, spending an average of 4 hours and 32 minutes per day on these activities, compared to men who spend just 1 hour and 24 minutes per day.<sup>48</sup> The KRI's pilot Time Use study conducted in 2018 found that Malaysian women is also faring the similar challenge, spending 63.6% more time on average for unpaid care work compared with men.<sup>49</sup>

The burden of unpaid care labour is adversely affecting Malaysian women's economic participation. Malaysia's female labour force participation rate (LFPR) is one of the lowest among ASEAN countries (55.9% as of 2022 while male LFPR is 82.3%).<sup>50</sup>

The ageing population is another factor creating more burden especially on women, as caring for the elderly was traditionally a task completed mainly by women in the households.<sup>51</sup> Malaysia is becoming an ageing nation and will become an aged nation by 2030.<sup>52</sup> However, currently, the majority of the centres are reported not to be complying with the national standards (Care Centre Act 1993 and Act 586),<sup>53</sup> and most of them are reported not to be well-equipped and to be facing issues with technology, staffing and finances.<sup>54</sup>

Paid at-home care services for children and the elderly has been largely provided by migrant workers from neighbouring countries. Although tax incentives have been introduced to engage the private sector in investing in care infrastructure and services, the market for these services has not grown due to poor demand from the public.

Malaysia needs to ensure that it achieves its economic development objective by supporting the growth of the care economy, to substantially increase its female labour force participation rate, create an enabling environment to ensure its well-educated workforce remain productive longer, increase the retirement age, implement policies to promote healthy ageing, and encourage older females to continue contributing to the economy and society.

<sup>&</sup>lt;sup>48</sup> Jacques Charmes. 2019. The Unpaid Care Work and the Labour Market. An analysis of time use data based on the latest World Compilation of Time-use Survey. https://www.ilo.org/gender/Informationresources/Publications/WCMS\_732791/lang--en/index.htm

<sup>&</sup>lt;sup>49</sup> Time to care: Gender inequality, unpaid cate work and time use survey. 2019. Khazanah Research Institute. https://www.krinstitute.org/assets/contentMS/img/ template/editor/Publications\_Time%20to%20Care\_Full%20report.pdf.

<sup>&</sup>lt;sup>50</sup> DOSM. 2022. Labour Market Review. https://www.dosm.gov.my/uploads/release-content/file\_20230217130406.pdf

<sup>&</sup>lt;sup>51</sup> ASEAN Comprehensive Framework on Care Economy. https://asean.org/wp-content/uploads/2021/10/8.-Final-ASEAN-Comprehensive-Framework-on-Care-Economy. 20-Oct-2021.pdf

<sup>&</sup>lt;sup>52</sup> Khazanah impact innovation challenge to make aged care innovative, affordable. 2021. Digital News Asia. https://www.digitalnewsasia.com/business/khazanahimpact-innovation-challenge-make-aged-care-innovative-affordable

<sup>&</sup>lt;sup>53</sup> Healthcare Strategic Framework of the Medical Programme 2021-2025. 2020. Ministry of Health.

<sup>&</sup>lt;sup>54</sup> Filzah Md Isa et al., "Exploring the facet of elderly care centre in multiethnic Malaysia", 2022, PSU Research Review, vol. 6, no. 1.

#### **Regional Activity**

• The Northern Corridor Economic Region (NCER) has been identified as a regional hub for the development of health-tech innovation. The NCER is home to the Penang Science Cluster, which has established an incubator for health-tech startups, and the Penang Medical College, which offers programs in medical and health sciences. The Malaysian Technology Development Corporation (MTDC) has also established the Technology Commercialisation Centre in Kulim, Kedah, to support the commercialisation of health-tech innovations. With these regional hubs and initiatives, Malaysia's Health Care sector is well-positioned to drive innovation and growth in the health-tech industry.

• Penang is a hub for medical device manufacturing, with its skilled workforce, developed infrastructure, and strategic location attracting major medical device companies, such as B Braun and Boston Scientific, to establish their manufacturing facilities in the state.

• Kuala Lumpur, Melaka, and Johor have emerged as medical tourism hubs in the country. These regions have become popular among international patients for their high-quality medical facilities and services. Kuala Lumpur, the capital city of Malaysia, is home to some of the country's top medical centres, such as Prince Court Medical Center and Gleneagles Kuala Lumpur. Melaka has also seen significant investment in healthcare infrastructure, with the development of the Mahkota Medical Centre and the Oriental Melaka Straits Medical Center. Johor, located in the southern region, is known for its world-class medical facilities, such as the KPJ Johor Specialist Hospital and Regency Specialist Hospital.

• In East Malaysia, where there is greater need to improve accessibility and quality of healthcare services, the government is propelling more investment in the region. The federal government announced the allocation of RM 420 mil for the refurbishment of underfunded hospitals and clinics, and replacement of their obsolete equipment, with a priority to Sabah and Sarawak. Sabah and Sarawak state governments have also invested in health care infrastructure and technology, such as the construction of new hospitals and clinics, and expanding the reach of healthcare services to rural areas. Sabah and Sarawak are also rich in traditional medicine and complementary medicine practices, including herbal medicine, acupuncture, and massage therapy.





## **Medical Device Manufacturing**

#### **Business Model**

Medical device manufacturers in Malaysia primarily operate on a B2B business model, supplying healthcare facilities such as hospitals, clinics, distributors, resellers and research institutes. Some manufacturers may also adopt a B2G (or B2G2B) model

#### Impact Thesis

#### **C-Contribute to Solutions**

Enhanced quality of healthcare services, including decreased out-of-pocket expenses on healthcare, provides healthcare better suited for local needs and Malaysian's health behaviour while decreasing the country's import dependence for medical devices

#### **Enabling Environment**

**Policy:** National Policy on Industry 4.0 (incl. medical devices), National Biotechnology Policy, 12MP, Industry 4WRD

**Regulatory:** Medical Device Authority Act 2012, Medical Device Act 2012, ISO 13485

#### **Financial:**

• Investment Tax Allowance (ITA) : 60% of qualifying capital expenditure incurred within 5 years. It can be offset against 70% of statutory income for each assessment year and the unutilised amount can be carried forward until fully absorbed

• Pioneer Status: grants a 70% tax exemption on statutory income for a period of 5 years

 High-tech medical device manufacturers: full income tax exemption for their statutory income for 5 years Market size > USD 1 billion, 5-10% CAGR

**Indicative Return** 10-20% (Net Margin)

**Investment Timeframe** Medium-term (5-10 years)

#### Ticket Size

> USD 10 million

#### Target Locations

Penang, Selangor, Johor, Kedah

#### **SDGs Addressed**





## **IOA 4**.

Supply of Suitable Infrastructure to Support the Customers and Beneficiaries of the Care Economy

#### **Business Model**

B2B and B2C models providing physical infrastructure such as ramps, lifts, and handrails as well as smart technologies to enhance accessibility and safety for care recipients inclusive of Persons with Disabilities (PWDs)

#### **Impact Thesis**

#### **C-Contribute to Solutions**

Enhanced access to quality care for women and their family members, supporting their health needs and their economic empowerment

#### **Enabling Environment**

**Policy:** 12MP, Malaysia MADANI, Senior Citizens Bill Act

**Regulatory:** Private Aged Healthcare Facilities and Service Act 2028, Private Healthcare Facilities and Services Act 1998, Medical Device Authority Act 2012, Medical Device Act 2012

#### **Financial:**

Investment Tax Allowance (ITA): 60% of qualifying capital expenditure incurred within 5 years. It can be offset against 70% of statutory income for each assessment year and the unutilised amount can be carried forward until fully absorbed Market size USD 100 million – USD 1 billion, 5-10% CAGR

Indicative Return <5% (Gross Profit Margin)

#### **Investment Timeframe** Long-term (+10 years)

**Ticket Size** USD 1 million – USD 10 million

#### **Target Locations**

Selangor, Johor, Penang, Sarawak

#### **SDGs Addressed**



## IOA 5.

Personalised Caregiving Services for the Elderly, Persons with Disabilities (PWD) and Children

#### **Business Model**

The business models for personalised caregiving services include in-home care, companionship, personal hygiene assistance, medication management, and specialised care. There are both B2C and B2B businesses, offering services directly to customers or to beneficiaries via healthcare facilities

#### **Impact Thesis**

#### **C-Contribute to Solutions**

Increase the well-being of older patients and patients with disabilities, increase the satisfaction of basic and specific patients' needs, by providing specialised healthcare services

#### **Enabling Environment**

**Policy:** 12MP- well-being of people with disabilities, Malaysia MADANI, The Disability Action Plan (2016-2022)

**Regulatory:** Persons with Disabilities Act 2008, Care Cetres Act 1993, Nurses Act 1950, Private Aged Healthcare Facilities and Services Bill 2017, Senior Citizens Bill Act, Malaysian Allied Health Professional Act (AHPA) 2016

#### **Financial:**

• Care industry investments may qualify for the Investment Tax Allowance which allows them to deduct up to 60-100% of their qualifying capital expenditure from their taxable income for 5-10 years

• The Malaysian Inland Revenue Board (IRB) offers tax reliefs for carer expenses for parents, and spouses or children that are PWDs for personal income tax Market size USD 100 million - USD 1 billion, 5-10% CAGR

#### **Indicative Return**

< 5% (Net Margin)

**Investment Timeframe** Long-term (+10 years)

**Ticket Size** USD 1 million – USD 10 million

#### Target Locations

Selangor, Johor, Penang, Sarawak

#### **SDGs Addressed**







# RENEWABLE RESOURCES & ALTERNATIVE ENERGY

## **3.Renewable Resources & Alternative Energy**

#### **Sector Development Needs**

• Malaysia experienced a surface mean temperature increase of 0.14 0.14°C–0.25°C per decade and it is projected to increase by 3.11°C by the 2090s under the highest emission pathway.<sup>55</sup> Malaysia is particularly vulnerable to flooding and the frequency and extremity of flood events have increased in recent decades, which exacerbates inequality as low-income earners are typically living in flood-prone areas and participating activities easily affected by the changes such as agriculture, fishing and informal sectors in the urban economy.<sup>56</sup> Additionally, carbon intensive energy sector causes air pollution that negatively affects the urban population of Malaysia.<sup>57</sup>

• The 12th Malaysia Plan prioritises green growth and strongly highlights the need for energy sustainability. Malaysia Renewable Energy Roadmap (MyRER) is a strategic framework aimed at decreasing the economy's carbon intensity, increasing the renewable energy in the national energy mix and reducing the Green House Gas (GHG) emissions caused by the energy sector.

• Malaysia aims to increase its renewable energy share to 31% by 2025, and to 40% by 2035. <sup>58</sup> Additionally, Malaysia has set an ambitious target to cut its economy-wide carbon intensity by 45% by 2030.<sup>59</sup> The government aims also to increase energy efficiency (residential, commercial and industrial), and make better use of solar and bioenergy, hydropower, as well as new technologies.

• Malaysia's goal is to become a low-carbon economy.<sup>60</sup> By 2030, the country targets a 41% reduction in energy sector-related emissions (compared to 2005 levels), and a 15% decrease in national energy consumption.<sup>61</sup>

• To achieve its emission reduction target, Malaysia needs to lower the energy sector's carbon intensity, notably by addressing its fossil fuel dependency; 41% of its national total primary energy supply (TPES) coming from natural gas, 29% from crude oil and petroleum, 22% from coal, and only 7% from renewables in 2018. As the share of electricity in the final energy consumption is expected to grow from 24% in 2018 to 31% in 2040, it is critical to further develop renewable sources and alternative energy for its growing energy demand.

<sup>&</sup>lt;sup>55</sup> World Bank Group and the Asian Development Bank (2021), Climate Risk Country Profile: Malaysia (2021) <sup>56</sup> Ibid.

<sup>&</sup>lt;sup>57</sup>Energy Profile, Malaysia. 2022. IRENA. https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical\_Profiles/Asia/Malaysia\_Asia\_RE\_SP.pdf. <sup>58</sup>Malaysia Renewable Energy Roadmap, Pathway towards low carbon energy system. 2021. SEDA. https://www.seda.gov.my/reportal/wp-content/uploads/2022/03/ MyRER\_webVer3.pdf.

<sup>&</sup>lt;sup>59</sup> Ibid.

<sup>&</sup>lt;sup>60</sup> Economic Planning Unit, Prime Minister's Department. 2022. National Energy Policy 2022-2040. https://www.epu.gov.my/sites/default/files/2022-09/National%20 Energy%20Policy\_2022\_2040.pdf .

<sup>&</sup>lt;sup>61</sup>Climate Change and Principle-based Taxonomy. 2021. Bank Negara Malaysia (Central Bank). https://www2.deloitte.com/my/en/pages/risk/articles/climate-change-principle-based-taxonomy.html?ysclid=lbw6w6wlup187221205.

• Malaysia has a partially untapped potential for renewable energy, constituted of 269 GW for solar, 13.6 GW for hydropower, 3.6 GW for bioenergy (including biomass) and 229 MW of geothermal. These represent a cumulative investment over the period 2021-2025 of RM 19.93 billion (USD 90,59 billion) and creating 28,416 new jobs.<sup>62</sup> Additionally, Waste-to-energy projects are also crucial as they may enable reducing the waste volume by approximately 90% while producing alternative energy. <sup>63 64</sup>

• Despite various supporting policies in place, access to financing remains a significant challenge for project developers, particularly for SMEs. In the survey done by SME Bank and Bank Negara in 2018, 46% of SME respondents stated the financing products offered by financial institutions did not meet their business needs.<sup>65</sup> The high capital costs associated with renewable energy projects make it difficult for SMEs to finance such projects, limiting their ability to participate in the sector.

• Women are underrepresented in the energy sector, mainly due to a lower female enrolment in STEM and engineering studies compared to their male counterparts and difficulties in managing work-life balance because of household responsibility.66



<sup>&</sup>lt;sup>62</sup> Malaysia Renewable Energy Roadmap, Pathway towards low carbon energy system. 2021. SEDA. https://www.seda.gov.my/reportal/wp-content/uploads/2022/03/ MvRER webVer3.pdf

<sup>63</sup> Malaysia Voluntary National Review (VNR) 2021. 2021. Economic Planning Unit (EPU). https://www.epu.gov.my/sites/default/files/2021-07/Malaysia\_Voluntary\_ National\_Review\_%28VNR%29\_2021.pdf .

<sup>&</sup>lt;sup>64</sup> Green Technology Master Plan 2017-2030. 2017. Ministry of Energy, Green Technology and Water. https://www.pmo.gov.my/wp-content/uploads/2019/07/Green-Technology-Master-Plan-Malaysia-2017-2030.pdf . <sup>65</sup> SME Bank. 2019. Recognizing The Challenges Of SME Financing. https://www.smebank.com.my/images/2019/May2019/bizpulse38.pdf

<sup>&</sup>lt;sup>66</sup> Women Empowerment and Work-Life Balance of Women Engineers in the Malaysian Energy Sector: A Conceptual Framework. 2021. Rohani Salleh et al. https://www. researchgate.net/publication/356258636\_Women\_Empowerment\_and\_Work-Life\_Balance\_of\_Women\_Engineers\_in\_the\_Malaysian\_Energy\_Sector\_A\_Conceptual\_ Framework .

#### **Regulatory Environment**

The country has made significant strides in promoting renewable energy in recent years, driven by the government's commitment to achieving sustainable development and addressing climate change. The main regulator and supporting agencies include Energy Commission (EC) and the Sustainable Energy Development Authority (SEDA), supported by the Renewable Energy Act (2011). Following are a few examples of policies in place to support the sector.

• The Feed-In-Tarriff (FIT) mechanism: provides a stable return on investment by guaranteeing a fixed price for electricity generated from renewable sources for a specific period and has been successful in attracting private investments in renewable energy projects in Malaysia, with a total of 1,423.96 MW quotas involving 10,480 projects nationwide as of 2022 since 2011. Additionally, the Green Technology Financing Scheme (GTFS) provides low-cost financing options to SMEs and mid-tier companies for the adoption of green technology and the development of green projects.

• Net Energy Metering (NEM) scheme: allows the installation of renewable energy systems to generate electricity for self-consumption while selling excess electricity to the grid.

• The Sarawak Corridor of Renewable Energy (SCORE): a regional development plan focused on the development of the Sarawak region, with a focus on promoting renewable energy and energy-intensive industries. SCORE recorded investments worth RM102.36 billion as of 2022, and is expected to attract over RM334 billion in investments by 2030. The initiative is part of Malaysia's broader plan to achieve 31% renewable energy capacity in the national energy mix by 2025.

• Energy Performance Contracting (EPC): a PPP program designed to promote energy efficiency in public buildings by outsourcing energy performance improvements to private sector companies. Although the regulatory environment is becoming more supportive, numerous sector regulations and multiple regulatory authorities monitoring the sector pose challenges to businesses.

<sup>&</sup>lt;sup>67</sup> SEDA. 2022. 32 COMPANIES AWARDED FIT QUOTAS, SET TO GENERATE RM1.14 BIL INVESTMENTS https://www.seda.gov.my/2022/12/32-companies-awarded-fitquotas-set-to-generate-rm1-14-bil-investments/ <sup>68</sup> Malaysian Investment Development Authority (MIDA). 2023. Sarawak's SCORE rcords investments worth Rm102.36 bln as of 2022, says Hanifah. https://www.mida.

gov.my/mida-news/sarawaks-score-records-investments-worth-rm102-36-bln-as-of-2022-says-hanifah/ <sup>69</sup> Malaysia Investment Development Authority (MIDA). 2021. Malaysia aims 31% RE capacity by 2025.

https://www.mida.gov.my/mida-news/malaysia-aims-31-re-capacity-by-2025/

#### **Regional Activity**

• Malaysia has diverse geographies with varying potential for different types of renewable energy across different regions. Peninsular Malaysia has a high potential for solar energy due to its location near the equator, which provides ample sunlight throughout the year. Peninsular Malaysia's equatorial climate also lends itself to high agricultural activity, making biomass energy a viable opportunity in several regions. The states of Johor, Perak, Sabah and Sarawak have high potential for biomass energy due to their abundant supply of palm oil waste, rice husks, and wood chips generated from agricultural activity.

• East Malaysia has a high potentials for hydroelectricity due to its abundant rainfall and mountainous terrain. Sarawak is the leading state for hydroelectric power, with several large dams, such as the Bakun Dam and Murum Dam, supplying a significant portion of the country's energy needs. The Sarawak Corridor of Renewable Energy (SCORE) initiative aims to develop a renewable energy hub in Sarawak that focuses on the development of hydropower, biomass, and solar energy. The initiative seeks to attract investment and promote the development of renewable energy projects in the region.

• Perak and Pahang have potential for mini and micro hydro projects due to their hilly terrains and abundance of water resources from rivers and streams. The development of micro and mini hydro solutions in these states would not only generate clean and renewable energy but also create new economic opportunities for local communities.

• Selangor and Penang have emerged as key regions for the manufacturing and technological development of solar panels and other renewable energy technologies. Selangor is home to several major solar panel manufacturers, while Penang has a strong presence in the production of photovoltaic components and battery storage systems. These regions offer significant opportunities for collaboration between the private sector and research institutions to drive innovation and development in the renewable energy sector.



**Renewable Energy Potential** 



### **OA 6**.

## Installation of Rooftop Solar PV Solutions for Industrial and Commercial Premises

#### **Business Model**

B2B and B2G models offering PV installation solutions to commercial and industrial buildings. These businesses generate revenue from the sale of equipment, service fees, and/or by selling the electricity generated to the grid

#### **Enabling Environment**

**Policy:** Malaysia Renewable Energy Roadmap (MYRER), Nationally Determined Contribution (2021) – to reduce GHG emissions and achieve 45% reduction target

**Regulatory:** Renewable Energy (RE) Act 2011, Renewable Energy (Feed-in Approval and Feedin Tariff Rate) Rules 2011 and 2020 amendments, Renewable Energy (Technical and Operational Requirements) Rules 2011 and 2014 amendments, Renewable Energy (Criteria for Renewable Resources) Regulations 2011 and 2013 amendments

#### **Financial:**

• Supporting RE producers through Feed-in-Tariff, for solar photovoltaic ranging from 1kW to 30MW, And NEM3.0

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed

• Net Energy Metering (NEM) Scheme by SEDA

Market size >USD 1 billion, 5-10% CAGR

Indicative Return >25% (IRR)

**Investment Timeframe** Short-term (less than 5 years)

Ticket Size <USD 500,000

#### **Target Locations**

Perak, Kedah, Sarawak, Sabah, Penang

#### **Impact Thesis**

C-Contribute to Solutions

Increase renewable energy share through rooftop solar PV panel solutions for industrial and commercial premises, green employment with diverse services and reduce carbon intensity.

#### **SDGs Addressed**





## **Energy Storage System (ESS)**

#### **Business Model**

Companies that offer B2B ESS solutions to electric utility providers such as TNB and independent power producers, generating revenue streams from equipment sales, service fees and selling stored electricity to the grid using Power Purchase Agreements (PPA) and Energy Savings Agreements (ESA) and energy management platforms

#### **Enabling Environment**

**Policy:** National Energy Efficiency Action Plan, National Energy Policy (2022-2040), 12MP-pointed out lack of ESS as one of the reasons for low adoption of RE

**Regulatory:** Renewable Energy Act 2011, Renewable Energy (Feed-in-Approval and Feed-in-Tariff) rules 2011 and 2022 amendments

#### **Financial:**

• Green Technology Financing Scheme (GTFS) provides loans for green technology projects. GTFS offers a 2% interest rate subsidy and a government guarantee of 60% on the financing amount. The next GTFS is on its way with an increased guarantee after GTFS 3.0 ended in 2022

• FiT by Sustainable Energy Development Authority (SEDA), offers premium rates to renewable energy producers for the electricity they generate

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed

Market size > USD 1 billion, 10-15% CAGR

Indicative Return <5% (ROI)

Investment Timeframe

Long-term (+10 years)

#### **Ticket Size**

Price would be dependent on BESS capacity. and type. Costs can range between USD 550,000 to USD 700,000 (per unit cost)

#### **Target Locations**

Johor, Selangor, Penang, Sarawak

#### **Impact Thesis**

C-Contribute to Solutions

Improve energy security and supply stability, as well as the energy system reliability and resilience, increase energy efficiency, and help transition to the low-carbon economy.

#### **SDGs Addressed**





## **Micro and Mini Hydro Solutions**

#### **Business Model**

Companies offering turnkey solutions, including design, installation and maintenance, via B2B models to industrial and commercial premise owners or via B2G models for various applications, including rural electrification and off-grid supply. Revenue streams include equipment sales, selling the generated electricity to the grid, and operations, maintenance and consulting fees

#### **Enabling Environment**

**Policy:** National Energy Efficiency Action Plan, National Energy Policy (2022-2040), 12MP-pointed out lack of ESS as one of the reasons for low adoption of RE

**Regulatory:** Renewable Energy Act 2011, Renewable Energy (Feed-in-Approval and Feed-in-Tariff) rules 2011 and 2022 amendments

#### **Financial:**

• Green Technology Financing Scheme (GTFS) provides loans for green technology projects. GTFS offers a 2% interest rate subsidy and a government guarantee of 60% on the financing amount. The next GTFS is on its way with an increased guarantee after GTFS 3.0 ended in 2022

• FiT by Sustainable Energy Development Authority (SEDA), offers premium rates to renewable energy producers for the electricity they generate

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed (MyHIJAU)

Market size >USD 1 billion, 10-15% CAGR

Indicative Return 5-10% (IRR), 10-15% (Gross Profit Margin)

**Investment Timeframe** Medium-term (5-10 years)

#### Ticket Size

> USD 10 million

#### **Target Locations**

Perak, Pahang, Sabah, Sarawak

#### **Impact Thesis**

C-Contribute to Solutions

A new source of renewable energy such as mini and micro hydro benefits communities in increasing their access to electricity and creating direct and indirect employment.

#### **SDGs Addressed**





# FINANCIALS

## 4. Financials

#### **Sector Development Needs**

• Despite its well-developed finance industry, a share of Malaysian population, mainly B40 and lowerincome households, is still unbanked or underbanked, (4.1% of adults had no bank account in 2020), and businesses' access to capital is limited (more than 50% reported it as a moderate to severe issue).<sup>70 7172 73 74</sup>

• Access to finance is unequal across Malaysia, with 5% of sub-districts not having access in 2020.<sup>75</sup> The need to access finance is especially pressing for the B40 segment of the population and the SMEs.<sup>76</sup> Businesses' access to capital is also limited, especially for MSMEs due to a lack of collateral, inadequate credit history, or perceived higher risk.<sup>77</sup>

• Financial literacy is lower among households with lower income.<sup>78</sup> In 2019, 1 out of 3 Malaysians reported having low financial knowledge.<sup>79</sup> Moreover, women in Malaysia have less access to financing services, with 78.1% having a bank account compared to 83% of males.<sup>80</sup>

• Enhancement of financial literacy to promote responsible and rational behaviour is a national priority, alongside the development of an inclusive, progressive and resilient financial system, including for Islamic and green finance instruments. <sup>8182</sup>

• Insufficient insurance protection constitutes another issue in Malaysia, which can leave individuals and businesses vulnerable to financial shocks from unexpected events such as natural disasters, accidents, or illness. Despite the growth of the insurance and takaful industry in recent years, more than 50% of Malaysians are reported as uninsured or underinsured.<sup>83</sup> While the government has introduced policies to make insurance more affordable, such as allowing tax deductions for insurance premiums paid, there is still a need for more targeted efforts to address the specific insurance needs of different segments of the population.

<sup>78</sup> Malaysia National Strategy for Financial Literacy 2019-2023. 2019. Financial Education Network. https://www.sc.com.my/api/documentms/download.ashx-?id=6385977c-bd2c-4612-bda8-9ce6a5961720#:~text=The%20National%20Strategy%2C%20a%20holistic,financial%20well%2Dbeing%20of%20Malaysians .
<sup>79</sup> Malaysia National Strategy for Financial Literacy 2019-2023. 2019. Financial Education Network. https://www.sc.com.my/api/documentms/download.ashx-?id=6385977c-bd2c-4612-bda8-9ce6a5961720#:~text=The%20National%20Strategy%2C%20a%20holistic,financial%20well%2Dbeing%20of%20Malaysians .
<sup>70</sup> Malaysia National Strategy for Financial Literacy 2019-2023. 2019. Financial Education Network. https://www.sc.com.my/api/documentms/download.ashx-?id=6385977c-bd2c-4612-bda8-9ce6a5961720#:~text=The%20National%20Strategy%2C%20a%20holistic,financial%20well%2Dbeing%20of%20Malaysians .
<sup>80</sup> Country Gender Profile: Malaysia. 2019. IsDB. https://www.isdb.org/women-youth/country-gender-profile-malaysia.

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<sup>81</sup>Bank Negara Malaysia. 2021. BNM Annual Report 2021. https://www.bnm.gov.my/documents/20124/6458991/ar2021_en_book.pdf .
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<sup>82</sup> Malaysia's Financial Sector Blueprint 2022 - 2026. 2022. EY. https://www.ey.com/en\_my/take-5-business-alert/malaysia-s-financial-sector-blueprint-2022-2026.
 <sup>83</sup> Fintech Malaysia. 2022. Malaysia Fintech Report 2022

<sup>&</sup>lt;sup>70</sup> Bank Negara Malaysia. Financial Inclusion. https://www.bnm.gov.my/financial-inclusion

<sup>&</sup>lt;sup>71</sup>Malaysia's Financial Development Context, Financial Sector Blueprint 2022-2026. 2022. BNM. https://www.bnm.gov.my/publications/fsb3 .

<sup>&</sup>lt;sup>72</sup> Malaysia Voluntary National Review (VNR) 2021. 2021. Economic Planning Unit (EPU). https://www.epu.gov.my/sites/default/files/2021-07/Malaysia\_Voluntary\_National\_Review\_%28VNR%29\_2021.pdf .

<sup>&</sup>lt;sup>73</sup> Malaysia Digital Economy, A new Driver for Development. 2018. World Bank. https://www.worldbank.org/en/results/2021/06/25/malaysia-s-digital-economy-a-new-driver-of-development .

 <sup>&</sup>lt;sup>74</sup> Malaysia's Financial Sector Blueprint 2022 - 2026. 2022. EY. https://www.ey.com/en\_my/take-5-business-alert/malaysia-s-financial-sector-blueprint-2022-2026.
 <sup>75</sup> Ibid.
 <sup>76</sup> Ibid.

<sup>&</sup>lt;sup>77</sup> EPU. 2019. Shared Prosperity Vision 2030: Restructuring Malaysia's Development Priorities

• One of Malaysia's priorities is to develop safe and efficient payment solutions, including e-payment.<sup>84</sup> Malaysia is also aspiring to foster entrepreneurship, which can be done through facilitated access to funding and a capable financial architecture to enable seamless transactions.<sup>85</sup>

• The Islamic finance sector (which grew by 1.2% from 2020 to 2021) presents growing opportunities considering that Malaysia is the world's biggest Islamic financial and banking centre.<sup>86 87</sup> Digital banking also provides investment opportunities, with the value of mobile banking attaining RM 101.5 billion in 2022 (46.9% growth from 2021 to 2022).<sup>88</sup>

• Malaysia is willing to develop an inclusive financial system, notably through a penetration rate of insurance and takaful of 4.8-5% of GDP, and with the doubling of micro-insurance or -takaful subscription by 2026.<sup>89</sup> In 2020, Malaysia issued 42% of the global sukuk insurance.<sup>90</sup>



- <sup>87</sup> Mapping Malaysia's Resource Centres. 2020. IsDB, Ministry of Finance and Ministry of External Trade. https://www.isdb.org/sites/default/files/media/
- documents/2022-02/MATRADE-ISDB\_MMRC\_E-book%20Source.pdf .

<sup>89</sup> Malaysia's Financial Sector Blueprint 2022 - 2026. 2022. EY. https://www.ey.com/en\_my/take-5-business-alert/malaysia-s-financial-sector-blueprint-2022-2026. <sup>90</sup> Ibid.

<sup>&</sup>lt;sup>84</sup> BNM Annual Report 2021. 2021. Bank Negara Malaysia. https://www.bnm.gov.my/documents/20124/6458991/ar2021\_en\_book.pdf .

<sup>&</sup>lt;sup>85</sup> National Entrepreneurship Policy Malaysia: An Outstanding Entrepreneurial Nation 2030. 2020. Ministry of Entrepreneur Development and Cooperative. https:// medac.gov.my/admin/files/med/image/portal/NEP2030-Final.pdf .

<sup>&</sup>lt;sup>86</sup> BNM Annual Report 2021. 2021. Bank Negara Malaysia. https://www.bnm.gov.my/documents/20124/6458991/ar2021\_en\_book.pdf .

<sup>&</sup>lt;sup>88</sup> Malaysia Fintech Report 2022. 2022. Fintech Malaysia. https://form.jotform.com/221982684944470.



## **ISLAMIC FINANCE IN MALAYSIA**

Islamic finance has the potential to be a significant source of SDG financing due to its emphasis on social inclusivity, its connections to real economic activities, its partnership- and equity-based approach, as well as its expanding geographic reach and rapid expansion of global assets in Muslim and non-Muslim countries. Islamic finance is bounded by Shariah (Islamic law), which serves as a guide for individuals and society, regulating their way of life. It prohibits all activities that are harmful or likely to cause harm to human beings, society, or the environment, while permitting all activities that are beneficial to human beings, society, or the environment.

Islamic finance, by virtue of its direct connection to physical assets and its use of profit-and-loss sharing arrangements, promotes the provision of financial support to productive enterprises that can increase output and create jobs. Islamic finance's foundations, which support socially inclusive and development-oriented activities, make it well-suited for deployment in support of the 2030 Agenda and poverty eradication.

Malaysia is one of the prominent global Islamic Capital Market (ICM) hubs. According to the Islamic Financial Services Board (IFSB), Malaysia has the largest Islamic banking assets outside of the Middle East in the fourth quarter of 2021 and it's one of the concentrations of Islamic Fund Assets, constituting 29% of total asset under management (AUM) in 4Q2021.

Malaysia's Islamic finance industry is growing steadily notwithstanding the disruptions from the Covid-19 pandemic. As of end-December 2021, the Malaysian Islamic capital market (ICM), Shariahcompliant equities and sukuk, accounted for the lion's share of RM 2.3 trillion, accounts more than 60% of the overall domestic capital market . The share of Islamic Banking and Finance (IBF) total financing has also almost doubled in the 10-year period of 2011-2020, from a share of 24% in 2011 to 41% at the end of 2020 . With continuous growth, it is expected that about 50% of banking assets and financing to be Islamic by 2030. Malaysia's Islamic finance industry is expected to expand further with the continuous promotion of Shariah-compliant products.

The Bank Negara Malaysia (BNM) Financial Sector Blueprint 2022-2026 seeks to leverage Malaysia's well-developed Islamic finance ecosystem to sharpen Malaysia's proposition as an international gateway for Islamic finance, strengthen policy enablers of value-based finance for greater impact, and elevate social finance as an integral part of the Islamic finance ecosystem.

<sup>&</sup>lt;sup>91</sup> The Islamic finance industry emphasises the sharing of risk and profit between the financier and borrower, achieved through various financial instruments such as Murabaha (cost-plus financing of a non-interest-bearing loan), which accounts for a large share of Islamic financing, ijarah (leasing), Mudarabah (capital and labour partnership) and musharaka (profit- and loss-sharing partnership). Sukuk, which is Islamic fixed income instrument, have been increasingly used globally. With regards to Islamic social finance, there are a variety of Islamic religious obligations for example Zakat (compulsory alms giving), sadaqa (voluntary alms giving) and awqaf (charitable endowments), and Qard Hasan (benevolent interest free Ioan). Islamic finance and specifically Islamic social finance is well positioned to offer alternative forms of development assistance, with opportunities for both funders and beneficiaries. <sup>92</sup> Bursa Malaysia. 2022. Islamic Capital Market in Malaysia https://www.bursamalaysia.com/sites/5bb54be15f36ca0af339077a/content\_entry617bfd1939fba-

<sup>&</sup>lt;sup>92</sup> Bursa Malaysia. 2022. Islamic Capital Market in Malaysia https://www.bursamalaysia.com/sites/5bb54be15f36ca0af339077a/content\_entry617bfd1939fba-20f54a06543/62df4aad5b711a425737fd44/files/July\_26\_Market\_Updates\_-\_Islamic\_Capital\_Market\_in\_Malaysia.pdf?1658808173 <sup>93</sup> Ibid

<sup>&</sup>lt;sup>94</sup> Bank Negara Malaysia. 2022. Financial Sector Blueprint 2022-2026 https://www.bnm.gov.my/publications/fsb3

#### **Regional Activity**

• Malaysia has several regions that have emerged as finance hubs, such as Kuala Lumpur, Labuan, and Johor Bahru. Kuala Lumpur, the capital city of Malaysia, is home to the majority of the country's financial institutions and has a thriving financial services industry. Labuan, a federal territory off the coast of Sabah, is a popular offshore financial centre that specialises in international financial and business services. Johor Bahru has also seen significant growth in its financial sector in recent years in line with the city's rapid urbanisation.

• Despite the growth and innovation in certain regions, there are still areas in Malaysia that require greater access to financial products. For example, rural areas across Kelantan, Terengganu, Pahang, Sabah and Sarawak, often face challenges in accessing financial services due to infrastructure limitations and a lack of financial literacy. These regions would benefit from increased efforts to expand financial services, such as microfinance programs and mobile banking services, to ensure that underserved communities have access to essential financial products and services.



## Peer-to-peer (P2P) lending and Equity Crowdfunding (ECF) for MSMEs

#### **Business Model**

IOA 9.

P2P lending and ECF platforms to help MSMEs access conventional and Islamic debt and equity assistance for their on-lending and working capital needs. These platforms generate revenue through fees charged to borrowers and investors on transactions (as % of the investment amount or the investment returns). Credit scoring, loan servicing and value-added services such as data analytics and risk management are also potential revenue streams

#### Impact Thesis B-Benefit Stakeholders

Increase access to finance for MSMEs contributes to job creation, proliferation of inclusive business models, and consequently to improved community and household financial wellbeing and resilience

#### **Enabling Environment**

**Policy:** 12MP – emphasise MSME's access to finance, Financial Sector Blueprint (2022-2026), Industry4WRD

**Regulatory:** Guidelines on Recognised Markets, Capital Markets and Services Act, Electronic Commerce Act 2006

#### **Financial:**

MDEC has launched several initiatives for the Fintech industry, e.g. Fintech Booster capacity building program in collaboration with BNM and an Accelerator initiative to support the development of fintech companies Market size >USD 1 billion, <5% CAGR

Indicative Return >25% (IRR), >25% (ROI)

**Investment Timeframe** Short-term (less than 5 years)

**Ticket Size** USD 1 million – USD 10 million

**Target Locations** Kuala Lumpur, Penang, Johor, Labuan

#### **SDGs Addressed**





## IOA 10. Customised Insuretech Products for MSMEs

#### **Business Model**

Insuretech companies offering B2B solutions to MSMEs for shielding their businesses from operational and external risks. This is done by partnering with existing insurance/takaful companies to offer their technology platforms and solutions to the MSME market or by working directly with MSMEs to develop insurance products that meet their unique needs. The revenue generation models include subscription models, commission fees, a percentage of premiums, or through value-added services such as risk management.

#### Impact Thesis

#### **C-Contribute to Solutions**

Self-employed and informal workers benefit from better business risk protection.

#### **Enabling Environment**

**Policy:** 12MP – identifies insurance as a potential sector to adopt 4IR technologies, Financial Sector Blueprint (2022-2026), National Financial Inclusion Strategy (2019-2023), Industry4WRD

**Regulatory:** Malaysian Financial Services Act 2013, Malaysian Money Services Business Act 2011, Consumer Protection Act 1999, Personal Data Protection Act 2010, Digital Insurers and Takaful Operators (DITO) Framework

#### **Financial:**

MDEC has launched several initiatives for the Fintech industry, e.g. Fintech Booster capacity building program in collaboration with BNM and an Accelerator initiative to support the development of fintech companies. Market size > USD 1 billion, 5-10% CAGR

Indicative Return > 25% (IRR), >25%(ROI)

**Investment Timeframe** Short-term (less than 5 years)

**Ticket Size** USD 1 million – USD 10 million

#### Target Locations

Kuala Lumpur, Johor, Penang

#### **SDGs Addressed**





# FOOD & BEVERAGE

## 5. Food & Beverage

#### **Sector Development Needs**

• Food security is a major concern in Malaysia, ranking 41st place on the Global Food Security Index (GSFI),<sup>95</sup> as the country has been experiencing an increasing population growth rate coupled with urbanization and structural change of the economy. Additionally, the reliance on imports leaves Malaysia vulnerable to supply-chain disruptions which can cause food shortages and price volatility. Over 2019-2021, the food insecurity prevalence in Malaysia was 15.4%, representing 5 million people, and 800,000 people were estimated to be undernourished.<sup>96</sup> Self-sufficiency in fruit and vegetables was 78.2% and 44.6% respectively in 2019.<sup>97</sup>

• Climate change effects, such as stress on water supply and heavier droughts or floods are worsening Malaysia's food insecurity by adversely affecting food productivity.<sup>94 98</sup> The centralised food distribution which priorities the urban demand, limits rural areas' access to affordable and nutritious food.

• In Malaysia, the agricultural sector already uses a total of 5.63 million hectares of land, accounting for approximately 17 % of the total land area. However, land use efficiency needs to be enhanced to meet the growing food demand and self-sufficiency targets.<sup>94</sup>

• Another development challenge in the sector is its unsustainable practices in the agriculture industry. 80% of Malaysian farmers reported having unsustainable practices, including excessive pesticide usage, which is detrimental to its soil and biodiversity.<sup>94 99</sup>

• Increased investment in innovative and automated technology, will be helpful to address these issues by streamlining processes, reducing costs, and improving product quality. Leveraging agri-tech can further address the challenges of smallholder farmers, who often struggle with low productivity and yield.<sup>100</sup> Also enhanced logistics management and distribution will greatly support smallholder farmers lacking access to bigger markets, especially those in remote areas such as Sabah.

<sup>&</sup>lt;sup>95</sup> The Economy Impact. Global Food Security Index. https://impact.economist.com/sustainability/project/food-security-index/

<sup>&</sup>lt;sup>96</sup> World Bank. 2023. Economic Monitor Malaysia, Expanding Malaysia's Digital Frontier. https://documents.worldbank.org/en/publication/documents-reports/ documentdetail/099063502042320186/p179681008aa910db0bca9057d2dfa76bed

<sup>&</sup>lt;sup>97</sup> Ministry of Agriculture and Food Industries. 2022. Executive Summary National Agrofood Policy 2021-2030. https://issuu.com/dan2.0english/docs/executive\_ summary\_national\_agrofood\_policy\_2021-20

<sup>&</sup>lt;sup>98</sup> Alam et al. 2011. Impacts of Climate Change on Agriculture and Food Security Issues in Malaysia: An Empirical Study on Farm Level Assessment, World Applied Sciences Journal, Vol. 14(3), pp. 431-442. www.idosi.org/wasj/wasj14(3)11/12.pdf

<sup>&</sup>lt;sup>99</sup> FFTC Agricultural Policy Platform. 2019. Precision Agriculture in Malaysia. https://ap.fftc.org.tw/article/1417

<sup>&</sup>lt;sup>100</sup> GSMA. 2022. Reaching and Empowering Women with Digital Solutions in the Agricultural Last Mile. https://www.gsma.com/mobilefordevelopment/wp-content/ uploads/2022/05/Agri-Women-in-Value-Chains-v5.pdf

#### **Regional Activity**

• The northern region of Malaysia, which includes Perlis, Kedah, Penang and Perak, is known for its highland agricultural activities – in fact, Kedah is known as the rice bowl of Malaysia. The Northern Corridor of Economic Region (NCER) currently supplies more than one-third of Malaysia's paddy demand, with strategic projects ongoing to produce a wide variety of fruit and vegetables. The northern states are known for tropical fruits such as mangoes, grapes, and superfruits such as pomegranates, passion fruit and dragon fruit.

• Together with NCER, the East Coast Economic Region (ECER), comprising of Kelantan, Terengganu and Pahang, is home to major halal food production hubs that supply halal goods to vast markets in the ASEAN region and globally. These regions have attracted significant investments from both local and foreign investors, contributing to the development of the halal industry in Malaysia. Halal hubs comprise of dedicated industrial areas equipped with halal-certified facilities and infrastructure to produce halal goods. Also, ECER boasts a diverse range of seafood products including squid, prawns, oysters, mackerel and anchovies.

• Urban regions such as Kuala Lumpur, Johor, Melaka, Penang and Kuching have the highest concentration of food retailers and distributors in the country including supermarkets, marts, restaurants, cafés, food courts and food stalls. Melaka and Penang are notable for their thriving street food scenes which are popular tourist attractions for domestic and international tourists.

• Sabah and Sarawak are known for their unique agricultural products, such as cocoa (Sabah) and pepper (Sarawak) as well as their abundant aquamarine ecosystem, producing shrimp, tilapia and catfish.

• Livestock production takes place in the southern states of Melaka and Johor. These states are home to many large-scale commercial farms that use modern technology and equipment to produce high-quality poultry, beef and dairy products.





## IOA 11.

## Agrometeorological Data Collection and Analytics Technologies

#### **Business Model**

Companies that provide agrometeorological data collection and analytics technologies offer a range of software, hardware, and services that enable the collection and analysis of agrometeorological data via B2C models for individual farmers, B2B models for agricultural cooperatives and companies as well as B2G models for government agencies. Revenue is generated from selling data and analytics technologies and systems, providing subscriptionbased services, consulting and other services

#### **Enabling Environment**

**Policy:** MyDigital-agricultural digitalisation, National Agrofood Policy (2021-2030), 4IR Policy

**Regulatory:** National Land Code 1965, Guideline on Acquisition of Properties

#### **Financial:**

• Agrobank offers financing schemes to apply smart farming measures in collaboration with MTDC. The Funding has been extended to 200 entrepreneurs (RM20 million)

• Agrobank's Green Financing portfolio stands at 5.8% of the total portfolio, and they are aiming to expand this portfolio share. Companies/projects adopting eco-friendly, and SMART farming practices to be classified under myGAP, therefore eligible for Green Activity Financing

• Microfinancing programmes such as MDEC-CIMB Islamic MOU to extend the financing to catalyse digital agri-tech, up to providing USD 5.51 million Market size >USD 1 billion, < 5% CAGR

Indicative Return 20-25% (ROI)

**Investment Timeframe** Short-term (less than 5 years)

**Ticket Size** USD 500,000 – USD 1 million

#### Target Locations

Kelantan, Kedah, Perlis, Johor, Sabah

#### Impact Thesis C-Contribute to Solutions

Increase food security and self-sufficiency, optimise the use of resources and enhance sustainable agriculture through technology usage, to increase farmers' income and the agricultural sector's share of GDP.

#### **SDGs Addressed**





## **Controlled Environment Agriculture**

#### **Business Model**

Companies providing CEA solutions adopt a B2B model by selling their technology, services and products to farms, grocery stores, and restaurants. They may also adopt a B2C model by selling products directly to consumers through their own stores or online marketplaces. Revenue streams can come from the sale or leasing of CEA systems, ongoing maintenance and support services, as well as the sale of produce

#### **Enabling Environment**

**Policy:** MyDigital-agricultural digitalisation, National Agrofood Policy (2021-2030), 4IR Policy

**Regulatory:** National Land Code 1965, Guideline on Acquisition of Properties

#### **Financial:**

• Agrobank offers financing schemes to apply smart farming measures in collaboration with MTDC. The Funding has been extended to 200 entrepreneurs (RM20 million)

• Agrobank's Green Financing portfolio stands at 5.8% of the total portfolio, and they are aiming to expand this portfolio share. Companies/projects adopting eco-friendly, and SMART farming practices to be classified under myGAP, therefore eligible for Green Activity Financing

• Microfinancing programmes such as MDEC-CIMB Islamic MOU to extend the financing to catalyse digital agri-tech, up to providing USD 5.51 million Market size >USD 1 billion, < 5% CAGR

Indicative Return >25% (Gross Profit Margin)

#### Investment Timeframe

Medium-term (5-10 years)

#### Ticket Size

< USD 500,000

#### Target Locations

Selangor, Johor, Melaka, Penang

#### Impact Thesis C-Contribute to Solutions

Increase national food security and selfsufficiency, enhance sustainable agricultural practices for local food production, increase the yields and the agriculture sector's share of GDP, and optimize land use.

#### **SDGs Addressed**



## IOA 13.

**Production of Sustainable Packaging, including Biodegradable Materials** 

#### **Business Model**

B2B and B2C models. Revenue streams for sustainable packaging companies can come from the sale of packaging materials, licensing of intellectual property, and provision of consulting services for clients looking to adopt more sustainable packaging solutions

#### **Enabling Environment**

**Policy:** 12MP, Malaysian Plastic Sustainability Roadmap (2021-2030), Roadmap towards zero Single-Used Plastic (SUP) (2018-2030)

**Regulatory:** Food Regulation 1985, Halal Consumable Goods General Requirements (MS2738:2021)

#### **Financial:**

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed (MyHIJAU)

• Investment Tax Allowance (ITA) : 60% of qualifying capital expenditure incurred within 5 years. It can be offset against 70% of statutory income for each assessment year and the unutilised amount can be carried forward until fully absorbed

• Pioneer Status - grants a 70% tax exemption on statutory income for a period of 5 years.

Market size >USD 1 billion, < 5 % CAGR

**Indicative Return** 5-10% (Gross Profit Margin)

**Investment Timeframe** Short-term (less than 5 years)

**Ticket Size** USD 1 million - USD 10 million

**Target Locations** Selangor, Perak, Johor

#### Impact Thesis C-Contribute to Solutions

Decrease plastic pollution on land and in the oceans, reduce pressure on landfills, enhance the circular economy and improve an otherwise resource-intensive economy toward a more sustainable pathway.

#### **SDGs Addressed**





# INFRASTRUCTURE

## 6. Infrastructure

#### **Sector Development Needs**

• Infrastructure development is a pivotal driver of economic growth and development in Malaysia and it is at its heart of Malaysian Government's pledge to its rakyat (people). As construction being one of the largest share of jobs created (42.7%), accelerating investments in infrastructure remains one of the key development strategies. In this regard, the Economic Transformation Programme (2020) prioritised infrastructure development and spurred the formation of Public-Private Partnerships (PPP) to conduct large infrastructure projects such as building highways as well as strengthening financial and health care infrastructure.

• In particular, increasing population, urbanisation and living standards intensify the amount of waste generated and increase the burden on the current waste management system. In 2021, Malaysia produced 3,039,200 metric tons of solid waste, representing 1.17 kg of waste per capita per day.<sup>101 102 103</sup>

• Landfills are saturated and often located in unsuitable sites, causing serious health and environmental problems. These are particularly caused by the emission of greenhouse and other toxic gases during treatment and disposal procedures.<sup>104</sup>

• Only 66% of rural areas have proper waste collection, leading to unsanitary practices and air/water contamination risks (49, 50). In addition, Malaysia loses around RM 476 million (USD 104.16 million) in recyclable resources every year due to inadequate recycling.<sup>105</sup>

• Underpinning the importance of waste management for green urban development, Government allocated 5.2% of development expenditure to waste management in 2022 (2) and introduced the National Solid Waste Management Policy (NSWMP) to encourage sustainable waste management practices by promoting the 3R (reduce, reuse, recycle).<sup>106</sup> Also, in 2019, The National Cleanliness Policy was introduced to reduce waste pollution as well as to promote the circular economy and waste-to-wealth initiatives by encouraging waste reduction and management through education and community-based initiatives.

• Moreover, as illustrated in KL Smart City Master Plan 2021 – 2025 and the Smart Selangor Action Plan 2025, Malaysia is aiming to transform its cities into Smart Cities to lift rakyat's quality of life, boost economic productivity, and protect the environment.

<sup>&</sup>lt;sup>101</sup>MIDA. 2021. Waste to Energy for a Sustainable Future. https://www.mida.gov.my/waste-to-energy-for-a-sustainable-future/

<sup>&</sup>lt;sup>102</sup> Era Suria Entrepreneurs. 2021. Towards a Circular Economy - Waste Management in Malaysia. https://rmke12.epu.gov.my/storage/fileUpload/2021/08/2021082959\_ dr\_s\_sri\_umeswara.pdf

<sup>&</sup>lt;sup>103</sup> DOSM. 2022. Compedium of Environmental Statistics 2022. https://newss.statistics.gov.my/newss-portalx/ep/epFreeDownloadContentSearch.

seam? content ld = 173474 & action Method = ep% 2 Fep Free Download Content Search. xhtml% 3 Acontent Action. do Display Content & cid = 62872 Methods and the search of the search of

<sup>&</sup>lt;sup>104</sup> Nor Faiza M.T., Noor Artika H. and Yusof M.Z.. 2019. Health Care Waste Management and Sustainable Development Goals in Malaysia. https://jwbm.com.my/ archives/1jwbm2019/1jwbm2019-18-20.pdf

<sup>&</sup>lt;sup>105</sup> New Straits Times. 2022. Can Malaysia achieve 40 per cent recycling rate by 2025?. https://www.nst.com.my/news/nation/2022/03/778625/can-malaysia-achieve-40-cent-recycling-rate-2025.

<sup>&</sup>lt;sup>106</sup> National Solid Waste Management Policy. 2016. The Ministry of Local Government Development. https://www.pmo.gov.my/wp-content/uploads/2019/07/Dasar\_ Pengurusan\_Sisa\_Pepejal\_2016.pdf

#### **Regional Activity**

• One of the key regions for waste processing in Malaysia is the Klang Valley, which includes the capital city of Kuala Lumpur and the surrounding areas. The Klang Valley generates a significant amount of waste, and several waste processing facilities have been established in the region to manage it. One such facility is the Bukit Tagar Sanitary Landfill, which is the largest landfill in Malaysia and serves the Klang Valley and surrounding areas. Other waste processing facilities in the region include the Taman Beringin Transfer Station and the Bukit Jalil Integrated Waste Management Park.

• In Johor Bahru, the southernmost city in Malaysia, the Iskandar Malaysia project is a major infrastructure development initiative aimed at transforming the region into a world-class metropolis. The project includes the development of a new international airport, seaport, and industrial park, as well as the expansion of existing infrastructure such as highways and railways. The Iskandar Malaysia project is expected to attract significant investment and drive economic growth in the region.

• In Sabah, the Sabah Development Corridor is a key infrastructure development initiative aimed at transforming the region into a hub for trade and investment. The project includes the development of ports, airports, and logistics facilities, as well as the expansion of energy infrastructure and the construction of new highways and railways.

• In Sarawak, the Sarawak Corridor of Renewable Energy (SCORE) is a major infrastructure development initiative aimed at developing the region's energy and industrial sectors. The project includes the construction of hydroelectric dams, the development of new ports and airports, and the expansion of highways and railways. Sarawak is also home to several waste processing facilities, including the Kuching Integrated Waste Management Park.





## IOA 14.

Integration of Smart Technologies in Transfer Stations and Material Recovery Facilities

#### **Business Model**

B2B models selling smart technology solutions directly to Transfer Station and MRF (Material Recovery Facility) operators. B2G models selling solutions to government entities that oversee waste management. Revenue is generated through these sales, as well as maintenance contracts and support services. Subscription-based services for data analytics tools can also be considered

#### **Enabling Environment**

**Policy:** 12MP (circular economy and the role of private investment - USD 63,219 mil), National Cleanliness Policy (2020-2030), National Solid Waste Management Policy (2016), Nationally Determined Contribution (2022)

**Regulatory:** Solid Waste and Public Cleansing Management Regulations 2018, Cleansing Management Act. Solid Waste and Public Cleansing Management Act

#### **Financial:**

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed (MyHIJAU)

• Investment Tax Allowance (ITA) : 60% of qualifying capital expenditure incurred within 5 years. It can be offset against 70% of statutory income for each assessment year and the unutilised amount can be carried forward until fully absorbed

• Pioneer Status - grants a 70% tax exemption on statutory income for a period of 5 years

Market size >USD 1 billion

Indicative Return <5% (ROI)

**Investment Timeframe** Medium-term (5-10 years)

#### **Ticket Size**

USD 1 million – USD 10 million

#### Target Locations

Selangor, Kuala Lumpur

#### Impact Thesis C-Contribute to Solutions

Enhance the efficiency of waste sorting, treatment and recycling, decrease pollution, enhance circular economy, and increase environmental and community health

#### **SDGs Addressed**





## Low-carbon Decentralised Solutions for Waste Treatment

#### **Business Model**

**IOA** 15

B2B or B2G business models, providing technologies and services to waste management operators, facilities management companies, municipalities, and government agencies for waste treatment and/or sale of renewable energy generated from waste-to-energy systems, and/or sale of valuable by-products generated from the waste treatment process. Such businesses often adopt a 'price per tonne' model, offer a fixed fee for their services, or make directly sell the technology

#### **Enabling Environment**

**Policy:** National Cleanliness Policy (2020-2030), National Solid Waste Management Policy (2016), Nationally Determined Contribution (2022)

**Regulatory:** Environmental Quality Act 1974, Environmental Quality Regulations 2005, Solid Waste and Public Cleansing Management Regulations 2018, Cleansing Management Act. Solid Waste and Public Cleansing Management Act

#### **Financial:**

• Green Investment Tax Allowance (GITA) for 100% of qualifying capital expenditure incurred on green technology assets for the first three years. It can be offset against 70% of statutory income and unutilised allowances can be carried forward until absorbed (MyHIJAU).

• Investment Tax Allowance (ITA) : 60% of qualifying capital expenditure incurred within 5 years. It can be offset against 70% of statutory income for each assessment year and the unutilised amount can be carried forward until fully absorbed

• Pioneer Status - grants a 70% tax exemption on statutory income for a period of 5 years

Market size >USD 1 billion

Indicative Return >25% (ROI)

**Investment Timeframe** Short-term (less than 5 years)

#### Ticket Size

USD 1 million - USD 10 million

#### **Target Locations**

Selangor, Kuala Lumpur, Johor

#### Impact Thesis C-Contribute to Solutions

Enhance management and recycling of waste, decrease landfill overloading, boost the circular and low-carbon economy, and reduce environmental pollution and public health risks.

#### **SDGs Addressed**



## ANNEX 1. SDG INVESTOR MAP METHODOLOGY

The Maps are developed through a funnel methodology as described in the figure below.

Filtering down from national priorities to derive Investment Opportunity Areas (IOAs)

From national economic and social development priorities...



As defined by the standard SDG Investor Map methodology that has been applied globally, the business models have to adhere to the following 4 criteria in order qualify as an IOA:

**Fundamentally marketable** i.e. investments through which a private actor could invest independently of government co-investment, and where a private actor may be able to achieve a market- or above-market return

**Sufficiently specific** to the realm of an 'opportunity area', i.e. a field in which diverse kinds of deals/ transactions could take place, but broad enough for an investor to decide what kind of financial vehicle is best suited to deploy

Sufficiently at-scale for investments to be able to achieve depth and duration of potential impact

Largely already proven in-market i.e. by a transaction having taken place, and return/impact begun to be calculated

## ANNEX 2. MAIN DOCUMENTS REVIEWED TO IDENTIFY NATIONAL POLICY PRIORITIES AND SUSTAINABLE DEVELOPMENT NEEDS OF MA-LAYSIA

#### **National Policy Documents**

1. Twelfth Malaysia Plan (12MP) 2021-2025: A Prosperous, Inclusive, Sustainable Malaysia, Prime Minister's Department of Economy, Economic Planning Unit (EPU)

- 2. Shared Prosperity Vision 2030 (SPV 2030): Restructuring Malaysia's Development Priorities 2019-2030, Ministry of Economic Affairs
- 3. The National Recovery Plan (NRP) 2021, Government of Malaysia
- 4. Why Malaysia: Your Profit Center in Asia, 2021, Malaysian Investment Development Authority (MIDA)
- 5. Malaysia Investment Performance Report (MIPR) 2021: Powering Resilience, Malaysian Investment Development Authority (MIDA)
- 6. Malaysia Voluntary National Review (VNR) 2021, Economic Planning Unit (EPU)
- 7. Malaysia Nationally Determined Contributions (NDCs) 2021, Government of Malaysia
- 8. Economic Outlook 2022, Ministry of Finance
- 9. National Investment Aspirations (NIA): Invest in Malaysia, Invest for the Future, 2021 Ministry of International Trade and Industry (MITI)
- 10. Resetting Malaysia: Aligning to the New Economic Landscape, 2021, The Secretariat of Economic Action Council at Economic Planning Unit (EPU)
- 11. National Fourth Industrial Revolution (4IR) Policy, 2021, Economic Planning Unit (EPU)
- 12. Malaysia Digital Economy Blueprint, 2021, Economic Planning Unit (EPU)
- 13. Green Technology Master Plan Malaysia 2017-2030, Ministry of Energy, Green Technology and Water (KETTHA)

14. Malaysia's Roadmap towards Zero Single-Use Plastics 2018-2030, Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC)

- 15. Financial Sector Blueprint 2022-2026, Bank Negara Malaysia (Central Bank of Malaysia)
- 16. Malaysia National Strategy for Financial Literacy 2019-2023, Government of Malaysia, and Financial Education Network
- 17. National Action Plan on Forced Labour 2021-2025, Ministry of Human Resources
- 18. Health Facts 2021, Ministry of Health
- 19. National Transport Policy 2019-2030, Ministry of Transport
- 20. National Policy on Biological Diversity 2016-2025, Ministry of Energy and Natural Resources (KETSA)

21. Malaysia Renewable Energy Roadmap (MyRER) 2021, Sustainable Energy Development Authority (SEDA), Ministry of Energy and Natural Resources of Malaysia (KETSA)

22. Malaysia Policy on Forestry 2021-2030, Ministry of Energy and Natural Resources of Malaysia (KeTSA)

23. National Tourism Policy 2020-2030, Ministry of Tourism, Arts and Culture

24. Tourism Malaysia Strategic Plan 2022-2026, Tourism Malaysia (Malaysia Tourism Promotion Board (MTPB))

25. Strategic Plan Social Forestry 2021-2025, Ministry of Energy and Natural Resources (KETSA)

26. National Entrepreneurship Policy Malaysia: An Outstanding Entrepreneurial Nation 2030, Ministry of Entrepreneurship Development and Cooperatives

27. National Ecotourism Plan 2016-2025, Ministry of Tourism, Arts and Agriculture

28. Communications and Multimedia Blueprint 2018-2025, Ministry of Communications and Multimedia

29. Malaysian Education Development Plan (Higher Education) 2015-2025, Ministry of Higher Education

30. Climate Change and Principle-based Taxonomy, Bank Negara Malaysia (Central Bank of Malaysia)

31. BNM Annual Report 2021, Bank Negara Malaysia (Central Bank of Malaysia)

32. Value-based Intermediation Financing and Investment Impact Assessment Framework: Guidance Document, Bank Negara Malaysia (Central Bank of Malaysia)

33. Guidelines on Issuance of Corporate Bonds and Sukuk to Retail Investors, Securities Commission Malaysia (Suruhanjaya Sekuriti)

- 34. National Automotive Policy (NAP) 2020-2030, Ministry of International Trade and Industry (MITI)
- 35. National Energy Policy 2022-2040, Economic Planning Unit, Prime Minister's Department
- 36. Ministry of International Trade and Industry Report 2021
- 37. National E-commerce Strategic Roadmap 2021-2025, Malaysia Digital Economy Corporation (MDEC)
- 38. Industry 4WRD, 2018, Ministry of Trade and Industry
- 39. Executive Summary National Agrofood Policy 2021-2030, Ministry of Agriculture and Food Industries
- 40. National Cleanliness Policy, 2019, Ministry of Housing and Local Government
- 41. Fiscal Outlook Report: Federal Government Expenditure 2023, Ministry of Finance
- 42. National Solid Waste Management Policy 2016, Prime Minister's Office
- 43. Budget 2023 Speech by the Secretary General of the Treasury, Ministry of Finance

#### **Development Reports**

- 1. Country Programme Document for Malaysia (2022–2025), United Nations, UNDP
- 2. UN Sustainable Development Cooperation Framework for Malaysia 2021 to 2025, United Nations
- 3. Sustainable Development Report 2022 Malaysia Chapter, 2022, SDG Index, Sustainable Development Solutions Network (SDSN)
- 4. Issue Brief: Five Key Business and Human Rights Priorities for Malaysia's Emerging Recovery Period, 2021, UNDP
- 5. Human Development Report 2020 Malaysia Country Profile, UNDP
- 6. Human Development Report 2021-2022, UNDP
- 7. Malaysia Country Programme Document, 2022, UNICEF
- 8. Asian Development Bank and Malaysia: Fact Sheet, 2022, Asian Development Bank
- 9. Climate Risk Country Profile: Malaysia, 2021, Asian Development Bank
- 10. Firms' Recovery from COVID-19 in Malaysia: Results from the 4th Round of COVID-19 Business Pulse Survey, 2022, World Bank
- 11. Macro Poverty Outlook for Malaysia, April 2022, World Bank
- 12. Malaysia Economic Monitor Catching Up: Inclusive Recovery Growth for Lagging States, 2022, World Bank
- 13. Malaysia: SME Program Efficiency Review, 2022, World Bank
- 14. Malaysia: Assessment of the Start-Up Financing Ecosystem, 2022, World Bank
- 15. Malaysia Economic Monitor: Staying Afloat, 2021, World Bank
- 16. Building Forward Together: Towards an Inclusive and Resilient Asia and the Pacific, 2022, UNDP

17. Advancing Covid-19 Recovery in Malaysia: Strengthening Access to Remedy and Ethical Recruitment, 2021, UNDP

18. Issue Brief: Malaysia: The UNGPs And ESG Investment Policies in Government-linked Investment Companies, 2021, UNDP

- 19. UNDP Pacific Gender Equality Strategy & Implementation Plan 2021 2022, UNDP
- 20. Malaysia: 2022 Article IV Consultation Staff Report, 2021, IMF

21. Malaysia Country Report: Selected Issues: A Flourishing Fintech Ecosystem, 2020, IMF

22. Mapping Malaysia's Resource Centres, 2020, Islamic Development Bank with Ministry of Finance and Ministry of External Trade

23. Country Youth Profile: Malaysia, 2019, Islamic Development Bank

24. Country Gender Profile: Malaysia, 2019, Islamic Development Bank

25. Malaysia's Investment Landscape – Focus Report, 2022, Oxford Business Group

26. Aiming High: Navigating the Next Stage of Malaysia's Development, 2021, International Bank for Reconstruction and Development – World Bank

27. Malaysia Economic Monitor: Expanding Malaysia's Digital Frontier, 2023, World Bank

28. Green and Sustainable Finance, 2022, ISO

29. Understanding School Feeding in Malaysia, 2020, Khazanah Research Institute
## United Nations Development Programme (UNDP)

UNDP Malaysia Country Office Level 10, Menara PjH, 2 Jalan Tun Abdul Razak, Precinct 2, 62100 Putrajaya, Malaysia www.my.undp.org registry.my@undp.org