

PART I

Introduction

1

AN OVERVIEW: DIVERSIFICATION IN THE OIL-DEPENDENT ECONOMY OF BRUNEI DARUSSALAM

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WHY DIVERSIFICATION IS NEEDED FOR OIL-DEPENDENT ECONOMIES?

The existence of oil and gas is often seen as a blessing for a country (Fasano 2002; Wright and Czelusta 2004). The revenue from oil and gas can be used to build human capital, including the promotion of entrepreneurship spirit and broadening of the economic base to create sustainable development. However, in most developing countries with abundant natural resources, the paradox of the plenty and resource curse (“Theory of Dutch Disease”) from huge reliance on revenue from oil and gas reserves may also distort the resource allocation of a country (including creation of dominance of public sector employment). It therefore jeopardizes future economic growth

and stability of the country (Beblawi 1987; Mahdavy 1970). Based on a study on Saudi Arabia, Aljarallah (2021) concluded that the abundance of oil and gas will produce sustainable economic growth only when the country can utilize the current gain from oil and gas to enhance human capital, which eventually replaces oil and gas as the capital of economic growth.

Furthermore, the price volatility of oil and gas and its recent decline in the past decade, as well as the prospect of depletion of hydrocarbon reserves, and the global trend toward climate-neutral economies may endanger the energy future and sustainability of oil and gas exporting economies. Therefore, oil-dependent economies urgently need to diversify, while efficiently developing themselves using the remaining revenue from oil and gas (Alsharif et al. 2017; Callen et al. 2014; Filimonova et al. 2020; Hussein 2020). The COVID-19 pandemic, which caused a decline in global demand for oil and gas, may have resulted in dual shock (i.e., economic and health crises) in oil-dependent countries. This situation further escalates the need for diversification from oil and gas sectors (Azomahou et al. 2021).

Brunei Darussalam (hereafter, Brunei), the least populous and the second richest country in Southeast Asia, is one of the examples of an oil and gas dependent economy (Asiyah az-Zahra 2017; Hamdan and Hoon 2019). Since independence in 1984, this country's national income has heavily relied on hydrocarbon resources, although plans for diversification and investment in renewables have been underway for decades. Progress is being made in several sectors, but overall, action to meet goals for diversification has been slow, not yet advancing at the speed and scale required. A real decade of action and delivery is urgently needed, and this requires a strong voice and participation from all stakeholders (i.e., a whole-of-nation approach).

Currently, Brunei faces challenges of diversification in three broad areas. First is diversification of the source of export and government revenue from oil and gas. Related to this first area, the second diversification is to leverage the role of the private sector, especially businesses, in their contribution to economic growth, employment and welfare of the people. The third area of diversification is to reduce the labour market's overdependence on foreign—both high-skilled and low-skilled—labour.

BRUNEI VISION 2035

In 2007, the government announced the “*Wawasan Brunei 2035*” (Brunei Vision 2035), which aims to provide concrete ways to implement economic diversification. The Economic Blueprint published by the Ministry of Finance and Economy in 2020 outlined six aspirations for Brunei towards a dynamic and sustainable economy (see Ministry of Finance and Economy 2020). First is on “productive and vibrant business”, needed to reduce dependence on public sector employment and to make private sector much more economically attractive. Second is “skilled, adaptive, and innovative people”, to build marketable human capital to be able to involve in tradeable business for the domestic and global market and non-tradeable business domestically; as well as to change the public mindset away from dependence on government welfare assistance. This is to encourage people to *Bekarih, Bejarih, and Belurih* (or have the strong will to take initiative, work hard to achieve it, and reap the success of the hard work).

The third aspiration is to promote an “open and globally connected economy”. With the limited domestic market, Brunei needs to venture into the global market in order to diversify its export from hydrocarbon revenue. Fourth is “sustainable environment”, to create a green and blue economy by reducing carbon footprint. This aspiration clearly shows the vision to reduce reliance on the oil and gas sector. The fifth aspiration is to develop “high quality and competitive economic infrastructure”, which includes transportation, water, electricity, and digital technology. Last but not least, is to maintain “good governance and public service excellence”, to improve efficiency and effectiveness of public sector, which is key to the country’s journey toward sustainable development.

With just fifteen years to go, Year 2020 needs to usher in a decade of ambitious action by mobilizing the whole-of-nation to deliver the goals of *Wawasan Brunei* by 2035. *Wawasan Brunei 2035* aims to transform the country into a nation widely recognized for the accomplishments of its well-educated and highly-skilled people as measured by the highest international standard; quality of life that is among the top ten nations in the world; and dynamic and sustainable economy with income per capita within the top countries in the world. To achieve these goals, several blueprints including strategies, policies and masterplans had been recently released by the

Brunei government to provide guidance for achieving these aspirational targets. They include Digital Economy Master Plan 2025 in June 2020; National Climate Change Policy in July 2020; National Youth Policy and Strategy 2020–2035 in December 2020; Economic Blueprint in January 2021; and Defence White Paper 2021.

In essence, this book explores the current dynamics of socio-economic development and stagnation in Brunei, highlighting its vital part in implementing development programmes and policy initiatives. Particular attention is given to a wide range of issues which have dominated the debate on the combined impacts of COVID-19 and the oil price collapse over the course of 2020: environmental issues, climate changes, energy security, digital society, education and health, welfare, job creation, innovation, international trade and economic cooperation.

SOCIO-ECONOMIC JOURNEY TOWARD BRUNEI VISION 2035

Similar to other oil and gas dependent countries, Brunei faces the challenge of finding other sources of economic growth. Its small population necessitates the country to find other sources of export, away from the dominance of hydrocarbon; and to attract more countries to invest, in addition to the rising foreign direct investment (FDI) from China (Lawrence 2021), to promote economic growth and create productive employment. The supply side is to raise human capital, entrepreneurship and innovation.

The country has intensified its efforts to diversify its sources for socio-economic development as a catalyst for inclusive sustainable development. The priority for action and change matters now more than ever especially in the face of the economic crisis caused by the global pandemic of COVID-19. The global pandemic has given rise to new economic challenges and opportunities for necessary changes and reforms, as well as prospects for the country's stronger economic recovery focusing on growth and sustainable development for all.

The book consists of four parts. Part I is Introduction. Part II examines living and non-living environmental capitals and the emerging digital capital. Part III focuses on changing faces of the population and human capital, and Part IV culminates with analyses on business, economy, employment and welfare.

Part I consists of two chapters. Chapter 1, this current chapter, synthesizes the whole book into one coherent discussion and proposes diversified alternatives to Brunei 2035 outlook. The second chapter elaborates on the history of twentieth-century Brunei, concentrating on the establishment of Brunei as an Islamic country, with *Melayu Islam Beraja* (MIB—Malay Islamic Monarchy) as its national philosophy. It discusses the introduction of modern government in Brunei, its socio-economic progress and its geopolitical position within Southeast Asia and the world. This chapter examines the history of the country's economic reliance on oil and gas, which has helped Brunei to transform from a dying state in the early twentieth century to a prosperous country by the end of the twentieth century. The revenue from oil and gas has been contributing to its economic development and enhancing the well-being of the population, including providing generous social protection.

The chapter focuses on the role of the British Residence in Brunei since 1906, which laid the basis for Brunei's modern institutions as well as the investment in health and education that were needed to promote economic growth. In the regional and global context, this chapter also discusses how the country has navigated its integration into the Association of Southeast Asian Nations (ASEAN), United Nations (UN), and Organisation of Islamic Cooperation (OIC) since its independence in 1984. In particular, it discusses the rising importance of China as an economic and strategic partner of Brunei in strengthening and diversifying its oil-based economy and in preserving peace and stability in the Asia-Pacific region. Under the Belt and Road Initiative, China has been involved in large joint venture projects in Brunei including a petrochemical refinery plant built and managed by the Hengyi Industries Sdn. Bhd.

Part II focuses on living and non-living environmental capitals along with the emerging digital capital in four chapters. Chapter 3 discusses the importance of natural and living resources in Brunei's sustainable development. Historically, Bruneians relied on ecosystems for their livelihood, and over time, with the emergence of non-living capital in the economy such as oil, people have come to rely less on ecosystems for goods and services they produce for themselves and rely more on market-produced and imported goods and services.

But today, the situation has changed. The crisis in the oil industry and slow economic growth in the event of the COVID-19 outbreak is

putting pressure on the flexibility and diversity of Brunei's economy, which may result in shifting or transitioning the country to increase its reliance on ecosystems. Therefore, Brunei's Economic Blueprint enforces the need for economic growth to be compatible with natural resource conservation. The blueprint rightly emphasizes on a model that gives back to the environment, rather than depletes it.

Chapter 3 also provides an overview of the current state of natural resource management in Brunei and the challenges faced by the government, local communities and industries in the conservation of natural resources, and management of the ecosystem services.

Both Chapters 4 and 5 focus on fossil fuel energy and climate change. Chapter 4 puts forward the discussion of fossil fuel-based energy in Brunei in the context of ASEAN and strategy to divert from the dependence on fossil fuel-based energy to investing in renewables. Brunei's targets set in 2020 regarding climate change is consistent with the targets to be achieved by 2035 in the ASEAN Plan of Action for Energy Cooperation (APAEC). Yet, there are still insurmountable challenges faced by Brunei in attempting to reach the targets, including delays caused by the policy of carbon-trading.

Chapter 4 also reveals opportunities from the government's environmental campaign through the new *Protokol Hijau* (Green Protocol) such as segregating, reducing and reusing wastes; promoting LED light bulbs; energy saving campaigns; and tree planting. If these protocols are implemented successfully, by 2040, Brunei might well be the most committed country in ASEAN to green environment.

In Chapter 5, Brunei's first national climate change policy is highlighted to facilitate the voluntary transition from fossil fuel dependency to a low-carbon economy by 2035. Following a whole-of-nation approach, the policy consists of ten strategies that aim to reduce greenhouse gas emissions up to 50 per cent in 2035.

The chapter provides historical trajectories and long-term forecast scenarios of energy supply and greenhouse gas emissions in Brunei. It shows that the oil and gas sector remains to be an important component of the economy. The government expects the contribution of the oil and gas sector to gross domestic product to increase from B\$10 billion in 2010 to B\$42 billion in 2035, but what is more concerning is the prospect of a rising economy and growing population that will keep the demand for fossil fuel-based energy to soar. The abundance of fossil fuel-based energy has resulted in the domestic price of

petroleum products to be below the international market prices. Even the domestic price of electricity is below the long-run marginal cost of production. The heavy subsidy on domestic energy consumption results in Brunei having the highest energy consumption per capita in the Asia-Pacific Region. Furthermore, the heavily subsidized energy price has resulted in more energy-intensive industries, which can lead to inefficient utilization of electricity. The cheap price of fossil fuel-based energy may discourage both investment and utilization of renewable resources of energy.

The rising economic trend is to promote foreign and private investment in energy-intensive downstream industries, including methanol production, fertilizer manufacturing, and facilities for refinery and aromatics cracker production to diversify sources of energy. However, these industries are generally associated with high carbon emission and air pollutants relative to the gross domestic product. Therefore, in diversifying the sources of energy, Brunei must also work simultaneously to mitigate climate change by absorbing the hydro-carbon emission through the utilization of its diverse and complex forest ecosystem as a carbon sink.

Chapter 6 examines the emerging digital technology, a new capital pursued all over the world. Globally, the digital revolution started in the early 2000s and has been accentuated by the COVID-19 pandemic, accompanied by rapid changes in personal behaviour, population mobility, social norms, business conduct and government policies. Brunei is not spared from this revolution. In its vision to become a smart nation through digital transformation as highlighted in the Digital Economy Masterplan 2025 to support *Wawasan* Brunei 2035, the government has launched projects on national information hub, digital ID and digital payment hub to speed up the digitalization transition.

The chapter evaluates recent progress of the use of digital technology as a new capital needed by Brunei to stay globally competitive and relevant, especially during the COVID-19 pandemic. It examines the challenges on the road to digital transition and proposes solutions and several recommendations for future actions. It also gives an overview of Brunei's national strategic direction to lead digital transformation and enhance stakeholder engagement towards becoming a modern and digital society.

The chapter shows that people in Brunei are high-degree digitalization adopters, and are ready to go through a journey of digital transformation. Progress has been made in several sectors such as governance and public services (through e-Darussalam), healthcare (through BruHIMS), business and economy (through digital economy council), and agriculture (through smart agriculture). Other sectors are also expected to follow.

Furthermore, digitalization is a necessary step in the economic diversification initiative as it creates potentials to enhance productivity, income and social well-being by creating new job opportunities other than the oil and gas sector. In the digital economy, “data” has emerged as a new capital, and has the potential to replace oil and gas. Data may probably be seen as “the new oil” in Brunei’s digital economy because it can generate value and improve people’s lives. Yet, it also requires a stronger data privacy and security system or programme. Building resilient digital security is therefore critical for strengthening the country’s cybersecurity landscape, together with the growth of digital usage that calls for the protection of data, infrastructure, and networks against growing cyber threats.

Part III concentrates on a crucial element in the increasingly global competitive market—the changing face of population and dynamics of human capital with respect to education and health in Brunei. This part contains three chapters. Chapter 7 examines the changing faces of population, as both producers and consumers, and how changes in the demographic structure of Brunei’s society affect the socio-cultural and economic development, political, environmental factors and other external influences.

The chapter presents the changing geographical population distribution in Brunei. Brunei has four districts. Brunei-Muara district, where the capital is located, is the most densely populated district, with more than half of the total Brunei population living here. The percentage may keep rising because of the high concentration of socio-economic activities and the historic and political role of the district. However, Brunei-Muara is not the only district with fast population growth. The district of Temburong’s population has recently been rising too. The newly opened Temburong bridge and the plan to develop Temburong as an eco-friendly district may change the population distribution in Brunei. The heavy flow of migration has also changed the sex ratio of

the Brunei population. As the migrants to Brunei are mostly male, the ratio of male to female population has been rising. Among its local population, there are more males than females, implying different market needs and sources of labour supply. The heavy inflow of migrants has differed from the process of ageing population, but the diversification away from foreign dependence in the labour market will accentuate the process of ageing population. This ageing process among the local population (citizens and permanent residents) and the young population among the non-local migrant workers may have ramifications on the domestic economy. Thus, Brunei's labour market practices and policies must be considered in an integrated manner: how the country wants to address the rising source of older persons and female participation in the labour market as an important source of labour supply and consumers as well as an indicator of economic empowerment.

Chapter 7 also provides analyses on the country's racial composition, encompassing the state-defined racial categories: Malay, Chinese, and Others; with Malay as the majority, and the Chinese as the largest minority. In the Brunei-Muara district, the race composition has been relatively stable. In contrast, the race composition in the Belait district has changed over the years as a result of external migration. There is a rapid decline in the percentage of the Chinese and an increase in the percentage of the Malays in the district, partly contributed by the rising out-migration of the Chinese Bruneians to Australia and Canada after Independence. Internal migration, which can be observed from the increasing percentage of the Chinese community in Temburong and Tutong districts, has also made the social energies for sustainable urban development challenging. As an Islamic country, the growth in Muslim population is increasing primarily due to high fertility rates combined with the rate of non-Muslim's conversion to Islam.

Chapter 8 focuses on education with specific reference to TVET (technical and vocational education and training) as one important factor in the diversification process. However, as seen elsewhere in the world, there are at least two challenges to improve TVET. First is the uncertain future, which makes relevant jobs and skills unpredictable. Many future jobs have not existed and the currently available jobs may no longer exist in the future. Second, in the era of digitalization, vocational skills may depreciate sooner, and therefore, there is a need to keep learning, unlearning and relearning throughout one's life.

The chapter shows how TVET can produce a resilient, adaptable and agile source of labour, within the context of the global economy and rapid digitalization. The question is how to do it. Two particular challenges in the field of TVET in Brunei are identified. One is on the mismatch between the skills acquired by the graduates and those that are needed by industries and career fields. Second is the limited industrial experience among teachers. Vocational training institutions need to design programmes for teachers' placement in various industries. During 2014–16, there had been a decline in TVET graduates working in the public sector because of limited public employment opportunities. As a result, many of them started their own businesses or joined the private sector.

This chapter argues that understanding the digitalization era will provide important insights on what skills are needed in the future. It will therefore create opportunities to achieve Brunei's Vision 2035, including diversification from oil and gas sectors. The success depends on cooperation by all stakeholders (including TVET) to continuously re-examine and re-create relevant curriculums as well as offer opportunities for lifelong learning through flexible TVET and policies in the labour market which shape employment systems.

Chapter 9 focuses on the health of the people, an important factor of the nation's capability and welfare. It emphasizes health as a crucial element in people's capability, productivity and performance in Brunei's journey toward Vision 2035. It examines the health transition, with respect to Brunei's trajectory toward an ageing population. It analyses mortality, morbidity (diseases), disability as well as public health infrastructure and system in the country. The chapter also investigates the impact of the COVID-19 pandemic on Brunei and the new normal in all aspects of life.

Though the country has been successful in running its national health programmes as indicated in the Sustainable Development Goals (SDGs) 2030 (goal number 3), there are still some challenges in managing public health. Non-communicable diseases (including mental health) remain to be addressed, with obesity and smoking being identified as two key factors affecting the health of Bruneians. These are attributable to daily behaviour, such as sedentary lifestyle and consumption of unhealthy foods. At the same time, non-communicable diseases may also re-emerge. This public health challenge is accentuated by an ageing population. Although the country has successfully managed

the COVID-19 pandemic, further studies need to be conducted on how the pandemic may affect the health of the population, including its impact on mental health.

With the issues, challenges and opportunities discussed in the first three parts, the last part (Part IV) of the book focuses on business, economy, employment and welfare of the people. It contains three chapters. Chapter 10 is about entrepreneurship and innovation in Brunei, with a focus on its changing business landscape. It contributes to the understanding of the readiness of Bruneians to participate in the private economy and be less dependent on the state for production, employment and welfare.

This chapter sees entrepreneurship development in the Bruneian context as individual and community transformation. High-quality education, changing mindset, enterprising attitudes and marketable skills as well as a commitment to building entrepreneurship and innovation are direly needed for such development to occur.

Globalization, emerging digital era, and global pandemic have changed the way businesses behave, the perception of the locals on doing business, and job opportunities—including a mismatch between available skills and skills needed by the economy—for people who are displaced by COVID-19. The government alone cannot do this job. It needs the cooperation and commitment of the whole society—the individuals, community, and business sectors—to advance and bridge entrepreneurship and innovation as well as to build strong business communities optimizing the use of digital technology.

The chapter covers three areas. First is the government's main initiatives and programmes that support entrepreneurial culture and innovation to address socio-economic challenges and promote full participation in society. Second is the achievements and progress the country has made so far such as improving regulatory practices and the local business climate. Third is challenges and opportunities to create value for society as a whole through nurturing the entrepreneurial spirit and innovation, as well as the need for strong cooperation from all stakeholders especially during the global COVID-19 pandemic along with recommendations.

Chapter 11 provides an overview of the progress in Bruneian economic development from a perspective of oil and gas dependency, by giving emphasis to the development of economic diversification, roles of state and private sectors in the economy, contribution of

global market/investment, and its prospect to achieve sustainable development goals.

The revenue from oil and gas has many important ramifications for the overall economy of Brunei. Most large-scale private investments, including joint-venture projects with foreign investors, are started by the government, funded mainly by revenues from oil and gas. The welfare system that encompasses subsidies on petrol, electricity, staple food, education, health, government housing, and land purchase also relies on such revenue. However, the declining price of oil and gas in the decade between 2010 and 2020 has resulted in a declining share of resource revenue to the GDP or a rise in the share of non-oil and gas sectors. The contribution gross domestic product (GDP) of non-oil and gas sectors to the overall economy is still small (below 30 per cent of the GDP), and these sectors are dominated by micro, small and medium enterprises (MSMEs), largely in the service industry.

As in other oil dependent economies, this chapter also provides empirical evidence that the abundance of natural resources was not detrimental to economic growth in Brunei, at least until 2018, the latest data used in this chapter. While the chapter highlighted that institutional factors are key determinants of economic growth and care spending, the question remains on how the natural resources abundance will contribute to long-run economic development and welfare over time if income is derived from the depletion of the natural resources. Hence, the chapter accentuates that the country must wean itself from oil and gas dependence.

The final chapter of the book touches on employment and welfare. The chapter starts with a discussion on four sources of financial support for Brunei citizens. First is the government's generous welfare system, including various programmes to assist the low-income groups. Second is community mutual aid with its *gotong-royong* (mutual and reciprocal assistance), philanthropy acts, and volunteerism. Third is family, especially the extended family system and its living arrangement. Fourth is the individuals themselves, with income originating from employment, interest, rent and profit. The last three are referred to as the so-called passive income.

There has been only a slight shift from public to private sector employment during 2014–18 perhaps due to the declining oil price. Policy on stopping wage increase and recruitment in public sector employment may have also contributed to this shift.¹ However, more

incentives for private innovation, opportunities and active participation from the private sector is still much needed to reduce the labour market's reliance on public sector employment.

The chapter also shows the alarming rise in youth unemployment rate (aged 15 to 24), reaching 21.3 per cent in 2019. This shows how difficult it will be to reduce unemployment and achieve sustainable economic growth by 2035. The chapter further points to the occurrence of mismatch (incompatibility) between the high aspiration of the potential young workers and the demand for young workers. First, at the prevailing wage, the economy demands to have a smaller number of young workers than the number of young workers who are willing to work. The youth may need more problem-solving and practical skills as well as stronger motivation to work. Second, the youth can afford to be unemployed possibly because they are still single and/or are financially supported by their families. Third, the youth may believe that the state will help them.

Foreign workers in Brunei serve to overcome the labour shortage particularly in primary industries like fishing, agriculture and construction: they are contributing to economic growth. But overdependence on the foreign workers and the negative impacts can become a serious social problem. The locals lose out in the competition with foreign workers for jobs.

In 2019, the non-locals constituted 33.5 per cent of total employment. To reduce the over-reliance on high-skilled foreign workers, there should be a strong effort to develop the local human capital, especially in education and health. To reduce the reliance on low-skilled foreign workers, machination (including robotic and AI technology) can be introduced. Raising the retirement age may be a recommendable solution to reduce reliance on foreign workers, but more importantly, employers in both public and private sectors must find new ways to develop a skilled but flexible local workforce that accepts the need for continuous and lifelong learning.

DIVERSIFIED ALTERNATIVES TO BRUNEI 2035 OUTLOOK

Overall, the chapters in this book recommend that Brunei's diversification process is targeted at three specific areas. First is to increase the sources of export and government revenue from non-oil and gas sectors, promote FDI and diversify the source of countries.

Second is to boost the economic growth in the private sector via active community participation in entrepreneurship and innovation. Third is to increase the number of local employment in the labour market. To achieve all these, a necessary step must be undertaken to change the mindset and attitude of Bruneians and increase their capacity in both skills and knowledge, and embrace digital technology that offers benefits, opportunities and flexibilities towards achieving the goals of Brunei Vision 2035.

This book has drawn together the key themes in Brunei's diversification process and provided analyses on the intersection of both social and economic dimensions. In order to improve and strengthen the country's 2035 outlook for future research and policy-making, this chapter offers the following recommendations as diversified alternatives for Brunei.

Diversifying Brunei's Risk Investment Portfolio

The global price of oil and gas will remain volatile with a declining trend. This is especially so with the increasing awareness on the move toward more sustainable sources of energy. At the same time, the source of fossil-fuel energy will soon be depleted. Therefore, it is crucial for the country to increase export and government revenue from the non-oil and gas sector. Given that Brunei has a small domestic market, diversification of export and government revenue implies that the country's economic activities need to be more integrated into regional and global markets. With the ongoing era of digitalization, a global-oriented mindset and "long-term thinking (visionaries)" are essential for Brunei to succeed in regional and global integration.

Diversification of Brunei's FDI means prioritizing investments in areas which do not depend on fossil fuel energy, to control energy crisis in the country. The formulation of sustainable energy policies must contribute toward other societal and economic development objectives. The government should look across policies to maximize positive synergies where they exist and avoid creating cost-cutting incentives. To a significant extent, the diversification from the oil and gas sector may be aligned with the goal of reducing greenhouse gas emissions and mitigating global climate change. For example, by maintaining carbon sink from Brunei's forest ecosystem and non-forest plantations.

There have been many initiatives and public involvement from NGOs, volunteers and social enterprises to build a clean and safe green environment. Going green is not just about compliance and competitiveness but having a strong environmental awareness and sense of environmental responsibility. The remaining challenge of going green in Brunei lies with weak enforcement and effective incentive mechanisms. Thus, mitigation policies need to be continually reviewed and enforcement can be improved by educating the public on environmental liabilities (fines) and benefits they would gain or receive from conducting environmental protection activities.

While some of the current FDIs have begun to drive the establishment of downstream oil and gas as well as non-energy sectors, it is still unclear when and if substantial technology and knowledge transfer will take place for the purpose of developing a sustained and diversified economy (Lawrence 2021).

Leveraging MSME Performance of Sustainability

To leveraging MSMEs' performance of sustainability, attention and support should be directed towards increasing business activities and expanding human capital in the tertiary or service industry—particularly in IT, engineering, finance and creative industries—at both local and international markets. While the country sees downstream oil and gas industry as good news that can help to accelerate economic growth, there is a question of sustainability if local capacity-building and skills and knowledge transfer fail to take place.

Brunei government must therefore ensure two goals. First is to ensure that all its investment and contractual agreements with foreign investors or companies clearly outline the sustainability of the industry and the terms and conditions meet the national interests and strategies of Vision 2035. Second is to improve and strengthen the board of governance and board effectiveness. The board practises transparency of selection of members and committees, and provides careful and dynamic scrutiny in their evaluations to ensure both national and private projects, activities and programmes in the country meet the national needs and society's expectations, such as job security and employment for the locals and evidence transfer of skills and knowledge.

The Role of Restructuring

Restructuring financial, legal, operational, business and education dimensions in a challenging landscape is needed in order for the private sector to survive. The reduction in heavy dependence on export and government revenue from oil and gas sector means a reduction in the reliance on public sector employment and a smaller financial outflow for Brunei's generous welfare system. The business spectrum in Brunei must change from having pure monopoly and oligopoly market structures to monopolistic competition. Monopolistic competition² does not only allow new businesses to venture into most desired industries, but also permits more companies to coexist and offer similar products or maybe different products serving the same need and purpose. Local enterprises can take full advantage of Information Technology (IT) and digital features to achieve product differentiation and promote healthy competition. However, in order to achieve sustainability of local business development projects, which are commercially viable, the future lies in integrating creativity, innovation and entrepreneurship.

Developing and promoting entrepreneurship education has been one of the key national educational policy objectives implemented by many higher education institutions in the country. The promotion of relevant technical and vocational education and training including lifelong learning is a pressing priority so that the nation can adapt to the rapidly changing future. Although the drive towards digitalization will help keep Brunei globally competitive, resilient and innovative, it requires the transition of human resources into human capital and transformational leadership. Few organizations in Brunei's public sector have incorporated talent management in their strategic plans to provide all the necessary information about the employees in order to anticipate the need for human capital, create a plan to achieve it, and meet the specific talent management needs. But the implementation of these activities has been very slow. Moreover, organizations must consider the future and the technological implications of new roles and account for the fact that the culture of the organization may shift during change.

Developing a Fully Integrated Healthcare Ecosystem

Health spending is key to an individual's welfare and standard of living, on the grounds that it has a direct effect on human well-being

and happiness. Healthy lifestyle remains a national priority as Brunei is facing the double burden of rising non-contagious and degenerative diseases, including mental health and disability, and the re-emergence of contagious diseases such as the COVID-19 pandemic. Inevitably, the provision of health often requires a large element of involvement by the government. To create a sustainable healthcare system, social enterprises and non-profit organizations can play an important role in addressing health challenges and help promote health and well-being of the population through wellness programmes. They are increasingly viewed as a vehicle to promote public health, but the impact of this is magnified considering the unfolding challenge of population ageing that might be associated with increases in healthcare costs and pension costs. Hence, in order to develop a fully integrated healthcare ecosystem through sustainable development practices, administrative bureaucracy, lack of legal frameworks, financial support options and economic difficulties that many local social entrepreneurs experience within the country must first be overcome.

Job Creation at the Core of Development

Private sector development interventions alone will not automatically create the better quality jobs needed for locals in Brunei. A balance must be found between a focus on reducing unemployment and tackling underemployment in labour-intensive sectors such as agriculture, fishing and construction, and creating better quality jobs in high-potential and larger firms for national economic growth. Innovative policies are needed to make private sector employment sufficiently attractive for Bruneians. The public must recognize that the reputation of working in the private sector can be at par with public sector employment in terms of salary offered, perks, financial benefits and entitlements. Perhaps it is time for the government to consider setting up a minimum wage for employees in the private sector to protect the interests of local employees. The country also needs both public and private sectors to have a job lens and build job strategies which entail identified sectors that can be competitive and offer major potential for increasing employment. For example, Temburong district, as the least densely populated and previously almost unconnected district, could potentially change the country's economic viability.

Job creation in larger firms (mainly by encouraging investments and an enabling business environment) can generally provide higher

wages and better and more sustainable jobs. Though investments in capital-abundant sectors can generate transformational effects spurring labour market dynamics through job creation, the indirect and induced effects of the country's FDI may be harder to estimate. An information asymmetry would have also affected the quality of domestic goods and services and the national labour market.

Thus, the country's income level, demographic structure such as age, gender, education and geographical distribution, and phase of economic transformation to develop more targeted approaches must be considered, as well as interactions between productivity, business performance and employment outcomes.

Active Ageing Population as Opportunity

One of the new faces of the Brunei population is the rising number and percentage of older persons, especially if foreigners are not counted. Until 2021, foreign workers have increased the number and percentage of the nation's young population. However, this should not always be the case. To avoid the rising number and percentage of older persons as an economic burden, life-course oriented policies should be made to create future smart older persons. Therefore, an ageing population in the country may be seen as an opportunity because older persons who are healthy, independent and active, equipped with marketable skills and capability in IT would still be able to work and do not depend much on families, communities and the government.

Though an ageing population may provide opportunities for employment generation and services development, it requires policy actions to speed up the transformation of the pattern of growth, coupled with labour market reforms and improved human capital to foster labour productivity. The policy actions must fuel the silver economy, meet caregiving needs, advance women's equality, and ensure that societies remain prosperous, healthy and vibrant as they age. Moreover, the country should redesign work to address the needs of an ageing workforce, and create economic pathways to women's empowerment and active citizenship, as these will help to advance the lifelong well-being of Bruneians of all ages.

To support productive ageing across the working life, higher public expenditure to finance the growing needs of the elderly, including pensions, is needed, and interventions and strategies such as buying life insurance at a young age may be explored.

Foreign Labour to Support Economic Growth

Brunei faces serious challenges to reducing its reliance on both high and low skilled foreign workers, an inevitable effect of its small and ageing population as well as its growing economy. The country will still need these workers in sectors such as construction and plumbing, given the small domestic population and the unwillingness of the locals to take up such jobs. Reduction in cheap, low skilled foreign workers may have an undesirable impact, reflecting in higher production costs and therefore higher prices of consumer goods.

Given the country's limited workforce, Brunei would not be able to stay competitive in certain sectors if not for migrant workers to take on many lower-end jobs. Yet, the government and Bruneians must still carefully consider stricter policies to deal with foreign worker issues while highlighting the value of foreign labour in different areas, such as in the manufacturing and construction industries.

The recent global outbreak of COVID-19 may have provided an important lesson not to depend heavily on foreign workers as it is very costly to import them during the pandemic. At the same time, it has also seen calls for Brunei to rethink its reliance on such labour. Can Brunei rely less on foreign labour? To answer the question of whether to control the number of foreign workers or reduce the country's reliance on foreign workers, finding the right balance on the proportion of foreign workers needed to keep the economy running smoothly is the key. To restructure the economy and society for a more sustainable and resilient future, there are labour policies which could help reduce heavy dependency on these foreign workers. First is to enhance human capital, covering education, health, and the ability to move geographically within Brunei. Second is utilizing more mechanization, including robotic and artificial intelligence technology. Third is creating future smart local older persons. Fourth is continuing to bring more women to the labour market, and fifth is to raise the job profiling and employee recognition on jobs usually performed by foreign workers, and locals are to be rewarded for taking these jobs.

Public Sector Reform

With the decline of revenue from oil and gas, the government certainly needs to find other sources for the budget. Policymakers may posit to

expand the tax base to increase tax revenues, but an increase in tax rate can reduce the incentive for FDI and limit knowledge spillovers. Alternatively, greater attention should be directed to strategies which remain critical for the country's long-term goals. These strategies can help to eliminate constraints in productivity, increase the country's revenues from export and FDI activities, and reduce the subsidy, especially on petrol and utilities.

The government has been very active in privatization and corporatization as a more appropriate reform strategy which could serve the purposes of limiting excessive autonomy and retaining political controls for promoting the public interest. Indeed, the government is already making progress in reforms such as in the telecommunication industry, ports operations and postal services. Nevertheless, further reforms to reduce spending and balance the budget are still highly required in three areas: public financial management, revenue administration and transparency.

Transparency provides the required level of openness to government operations, and it can shed light on public expenditures that state enterprises make on behalf of the state and enhance the enterprises' efficiency to increase revenues. The business activities of state enterprises could become much more competitive and accountable if rules governing the financial relationship between state enterprises and the government are clarified and they would also be able to significantly contribute to the national budget.

The use of social media and related tools can offer a platform for elevating the level of transparency in governance. In the age of digital communication and transformation, the use of the internet and social media play an increasingly important role in promoting sustainable development and preventing or resolving ecological crises. Brunei has a high internet penetration rate and the people are quick to adopt digital technology. But the progress to achieve all the targets in each goal of Brunei Vision 2035 has been slow due to a lack of socialization and participation from everyone at all levels. "Social media-enabled governance" can therefore be used to facilitate collaborative practices in policymaking. The government has started to use social media to raise awareness of certain issues, build credibility with specific stakeholder groups, and engage local representatives in policy consultation and

development. A number of new policies have been introduced in the past several years that address climate change, education, digitalization and social security in line with sustainable development goals by the United Nations. E-commerce has also been widely practised in the private sector since the enactment of the Electronic Transactions Act in 2000 to increase their business activities and improve performance.

Certainly, the use of social media in both public and private affairs comes with risk, which leads to the urgent need to develop a social media policy and prepare risk mitigation strategies. The policy should provide a comprehensive guideline for public and private users, and the significance of social media for checks and balances. Transparency is largely affected by emerging technology trends and would also depend on institutional and design factors.

THE WAY FORWARD

Finally, in a context of nature-society imbalances which can threaten economic and social stability, economic diversification is the heart of many kinds of development-oriented responses to concerns about the abundance of hydrocarbon resources, changing faces of population, human capital and entrepreneurship. Brunei, as a small oil and gas producing nation, strives to achieve sustainable development goals through innovation and collaboration for the wealth creation and welfare of the nation. The diversified alternatives described above are expected to create a new Brunei's economy with new different faces—a digitized globally competitive economy with a sustainable environment, transforming the country into a smart nation (a digital and future-ready society), rising private sector and greater contribution of the local in Brunei's labour market.

In essence, the key to understanding Brunei's new economy lies primarily in the changing local and global patterns of ecosystem structure and dynamics of socio-economic interactions that shape policy choices about education, medical care, welfare, employment and more. The country's national budget may currently limit these choices but the prospect of revenue-driven lead generation can help cushion the adverse impacts on the community or society, environment and development.

NOTES

1. See Wardi (2019) for a discussion on the policy.
2. Monopolistic competition is a market structure with a relatively large number of firms and consumers, free entry and exit of market, and slightly differentiated commodities sold.

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