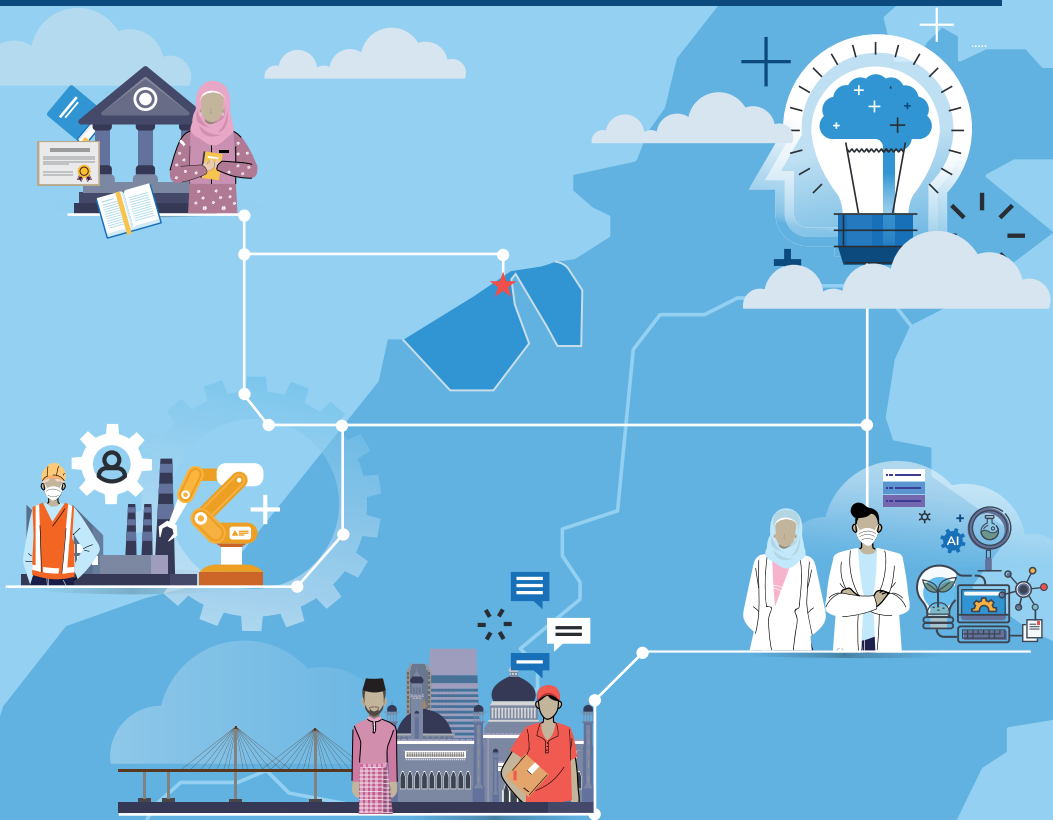




Human Resources Development Readiness in ASEAN



Brunei Darussalam Country Report



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The ASEAN Secretariat is based in Jakarta, Indonesia.

For inquiries, contact:
The ASEAN Secretariat
Community Relations Division (CRD)
70A Jalan Sisingamangaraja
Jakarta 12110, Indonesia
Phone: (62 21) 724-3372, 726-2991
Fax: (62 21) 739-8234, 724-3504
E-mail: public@asean.org

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Human Resources Development Readiness in ASEAN

Brunei Darussalam
Country Report

Foreword

MR. JESUS L.R. MATEO

Undersecretary for Planning and Human Resources and Organizational Development, Department of Education, Philippines

Chair of the ASEAN Senior Officials Meeting on Education



DR. ANWAR SANUSI

Secretary-General of the Ministry of Manpower, Republic of Indonesia

Chair of the ASEAN Senior Labour Officials Meeting



Developing human resources to empower peoples across the region and to strengthen ASEAN Community has been one of the key purposes of ASEAN as stipulated in the ASEAN Charter, adopted in 2007. The advancement of human resources development (HRD) has become more urgent, particularly with the Fourth Industrial Revolution (4IR) which has transformed businesses and jobs at a speed faster than workers can adapt. This urgency has been further exacerbated by the COVID-19 pandemic.

Cognisant of the urgency of developing future-ready human resources to enable ASEAN to recover and thrive in the face of ever-changing demands of the labour market, ASEAN Leaders reaffirmed their unwavering commitment to build a people-oriented and people-centered ASEAN Community, through the adoption of the ASEAN Declaration on HRD for the Changing World of Work and its Roadmap, championed by Viet Nam during their Chairmanship of ASEAN in 2020.

Carried out in support to the implementation of the ASEAN HRD Declaration and its Roadmap and in collaboration between ASEAN labour and education sectors, we are very pleased to welcome the publication of the ten country reports of the Study on HRD Readiness in ASEAN, which features the state of HRD readiness in each ASEAN Member States (AMS). The study is a joint initiative of Viet Nam's Ministry of Labour, Invalids and Social Affairs (MOLISA) and the ASEAN Secretariat, with the support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) through the Regional Cooperation Programme for TVET in ASEAN (RECOTVET).

Each country report compiles and synthesises national strategies, policies and programmes on HRD, which were then used as the basis in developing the regional report on HRD Readiness in ASEAN. We acknowledge that while the report demonstrates the significant progress made in the region, we are also aware of the commitments required to ensure that dynamic reforms are carried out going forward. We believe that the ten country reports and regional report will be instrumental in supporting the implementation of the ASEAN HRD Declaration and its Roadmap, particularly through the development of evidence-based policies and initiatives to advance HRD in ASEAN.

Lastly, we would also like to commend the efforts and commitment of the national researchers and authors from all AMS in developing the country reports under the guidance of Prof. Dieter Euler, as the Study's lead researcher and author of the regional report. Appreciation also goes to the respondents and resource persons from relevant ministries and institutions from the labour and education sectors for their valuable feedback and contributions during the development and finalisation of the reports.

We would also like to extend our recognition to RECOTVET for their longstanding support in advancing HRD agenda in ASEAN.



MR. JESUS L.R. MATEO

Undersecretary
for Planning and Human Resources
and Organizational Development,
Department of Education, Philippines



DR. ANWAR SANUSI

Secretary-General
of the Ministry of Manpower,
Republic of Indonesia

Acknowledgements

The Study on Human Resources Development (HRD) Readiness in ASEAN was initiated by the ASEAN Secretariat together with the Vietnamese Ministry of Labour, Invalids and Social Affairs (MOLISA). The purpose of the Study is to support implementation of the ASEAN Declaration on HRD for the Changing World of Work adopted by the 36th ASEAN Summit in June 2020. The Study was conducted as an initiative under Viet Nam's Chairmanship of ASEAN with the support of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH through the Regional Cooperation Programme in Technical and Vocational Education and Training (RECOTVET).

Terms of Reference and an Inception Report for the Study were endorsed at the ASEAN Senior Labour Officials Meeting (SLOM) and Senior Officials Meeting on Education (SOM-ED) in April 2020 and June 2020, respectively. The research methodology was further deliberated by SLOM and SOM-ED focal points at a Validation Workshop held virtually on 29 June 2020.

The Study, which was conducted at regional level and across ten ASEAN Member States, has achieved its objective of offering comprehensive baseline information and recommendations. This valuable feedback will enable ASEAN policy makers and practitioners to better frame HRD as a priority for policy making.

The Regional Report and ten country reports were produced and endorsed following a series of extensive consultations with SLOM and SOM-ED from September 2020 to April 2021. The reports were launched at the High-Level Launch and Dissemination Forum conducted virtually on 26 April 2021.

The technical contributions of numerous individuals were invaluable to the development and implementation of the Study. We would like to offer our sincere thanks to the following:

- The focal points of ASEAN Member States' labour and education ministries, whom there are too many to acknowledge individually, for your invaluable time and efforts to review draft reports, provide data and information, and share insights;
- To the International Cooperation Department of MOLISA Viet Nam, led by Dr. Ha Thi Minh Duc (Deputy Director General) for leadership and guidance during implementation of the Study, and her team members, particularly Ms. Tran Thanh Minh and Mr. Phan Nhat Minh;

- To the ASEAN Secretariat under the coordination of H.E. Kung Phoak, Deputy Secretary-General for ASEAN Socio-Cultural Community, including Director Rodora T. Babaran; the Labour and Civil Services Division, led by Ms. Mega Irena (Head and Assistant Director); the Education, Youth and Sport Division, led by Ms. Mary Anne Therese Manuson (former Head and Assistant Director); and their team members, in particular Mr. Carl Rookie O. Daquio, Ms. Madyah Rahmi Lukri, Mr. Alvin Pahlevi, Ms. Felicia Clarissa, and Ms. Shinta Permata Sari for their professional coordination and facilitation of consultations and stakeholders, as well as for their feedback to the draft reports;
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- To Prof. Dieter Euler of St. Gallen University as the Study's lead researcher and author of the Regional Report. This Study would not have been possible without his expertise and support;
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 - a. Dr. Paryono and the research team at SEAMEO VOCTECH (Brunei Darussalam)
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 - h. Dr. Jaclyn Lee, Dr. Tay Wan Ying, and Dr. Dang Que Anh (Singapore)
 - i. Dr. Chompoonuh K. Permpoonwivat (Thailand)
 - j. Dr. Dang Que Anh and Dr. Dao Quang Vinh (Viet Nam); and
- Finally, to Prof. Sir Alan John Tuckett for editing and proofreading the Regional Report, Dr. Daniel Burns for editing the Cambodia, Indonesia, Myanmar and Thailand country reports, and Mr. Steven Christensen for designing the layout of the published reports.

Introduction to the Brunei Darussalam Country Report

Human resources development (HRD) empowers people to actively shape their future in a modern world of work that is characterized by an accelerated pace of change. HRD aims at equipping people with the skills, competencies, values, and attitudes to prepare them for a future that is yet unknown.

Education and training systems are designed to provide people with the capacity and resilience to tackle current and future challenges in both their private and working lives. Governance, infrastructure, content, and teaching and learning processes have to be organized to accomplish this key function effectively and efficiently.

While these basic requirements are not new, the ASEAN regional context has changed considerably over the last decades. Advances in digital technologies, new demands in the area of environmental protection, and increased labour migration are just a few examples of the issues that require rapid responses by governments and the societies they represent. Education and training systems need to adjust to the changing times. The COVID-19 pandemic demonstrates the need for societies to adapt to unprecedented and unpredictable disruptions, and to be better prepared for the future.

Against this background, the Heads of State adopted the Declaration on Human Resources Development for the Changing World of Workⁱ at the 36th ASEAN Summit on 26 June 2020, reaffirming the region's commitment to equip its human resources with the competencies required for the future. A Roadmap to implement the Declaration was subsequently developed and adopted by the ASEAN labour and education ministers.

Guided by the aforementioned ASEAN Declaration, the Study on HRD Readiness in the ASEAN region was conducted to provide baseline information on the preparedness of HRD policies and programmes across ASEAN Member States with the aim of enabling their workforces to be relevant, agile and resilient for the future world of work. The Study was initiated by the ASEAN Secretariat to support Viet Nam's Chairmanship of ASEAN in 2020 and in collaboration with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH through RECOTVET.

i. <https://asean.org/storage/2020/06/ASEAN-Declaration-on-Human-Resources-Development-for-the-Changing-World-of-Work.pdf>

This Brunei Darussalam Country Report is part of a comprehensive regional study investigating HRD readiness in ASEAN Member States (AMS) from a broader perspective. This report, together with the reports on the other nine AMS, forms part of the Regional Report on HRD Readiness in ASEAN. The ten country reports follow a common conceptual framework for HRD developed in the Inception Report, which was endorsed in June 2020. Together, the Regional Report and aligned country reports offer a wealth of background knowledge and guidance to enable ASEAN policy makers and practitioners to better frame HRD as a priority of future policy-making in the region.

The country reports were designed to focus on three key activities:

- Review relevant country-specific literature, policies, and other practices to identify elements of HRD frameworks and what ‘readiness’ means in the national context;
- Overview the current situation of national HRD policies and available resources to promote LLL and future skills; and
- Showcase promising strategies and practices to promote LLL and future skills within the respective areas of intervention.

This Brunei Darussalam Country Report was written by the national researcher Dr. Paryono with the support of the research team at SEAMEO VOCTECH. It describes existing practices and introduces options for future policies as guided by a conceptual framework of investigation introduced in the Regional Report. In particular, it explores approaches currently applied with regard to HRD in reaction to the challenges of a changing world of work. It reveals considerable gaps between the appraisal of importance and desirability of HRD interventions on the one hand, and the extent of their realization and achievement on the other. In response, the report encourages those responsible for designing future strategies and policies to adapt their approaches to ensure the workforce is more resilient to the future world of work.

The ASEAN country reports were developed through extensive consultations between September 2020 and April 2021, at which time they were finalised and endorsed by their respective education and labour ministries. Building upon the findings and analyses in the country reports, the Regional Report was then developed by the senior international researcher, Prof. Dr. Dieter Euler. The Regional Report and country reports were launched at the High-level Launch and Dissemination Forum conducted virtually on 26 April 2021.

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Abbreviations

HRD	Human Resources development
ALMM	ASEAN Labour Minister Meeting
ASED	ASEAN Education Ministers Meeting
ATC	ASEAN TVET Council
TVET	Technical and Vocational Education and Training
LLL/L3C	Lifelong Learning Centre
GE	General Education
HE	Higher Education
MoE	Ministry of Education
SPN 21	National Education System for 21st Century
PPP	Public-Private Partnerships
RKN 11	11th National Development Plan
HDI	Human Development Index
MPEC	Manpower Planning and Employment Council
IBTE	Institute of Brunei Technical Education
PMO	Prime Minister Office
MISC	Manpower Industry Steering Committee
NCF	National Competency Framework
CoE	Centre of Excellence
STEM	Science, Technology, Engineering, and Mathematics
BDA	Brunei Darussalam Teacher Academy
BTS	Brunei Teacher Standards
TPA	Teacher Performance Appraisal
TPD	Teacher Professional Development
BDSLFC	Brunei Darussalam Leadership Competency Framework
BDSL	Brunei Darussalam Leadership Standards
BDNAC	Brunei Darussalam National Accreditation Council
ToT	Training of Trainers
RTOs	Registered Training Organisations

1. Introduction

1.1. Background

For the ASEAN region the common challenge with a view to an uncertain future consists of the empowerment of individuals to become ready to adjust to change and seize new opportunities in transformations and crises. Despite their diversity all ASEAN member states are united in the quest to prepare their people for a changing world of work.

A comprehensive HRD approach is necessary to keep up with the accelerated pace of change in society, economy, labour market, and ecology. A consensus has emerged regarding the future skills, the types of skills that will strengthen the capacity to cope with change and uncertainty.

Recognising the importance of HRD for a changing world of work, the Head of States kicked off HRD Declaration during the regional high-level workshop in Ha Long, Viet Nam 14 - 15 October 2019. The first draft of the declaration was developed at the First Drafting Team Meeting in Vinh Phuc, Viet Nam 14 - 15 January 2020. Then during the 36th ASEAN Summit on the 26th of June 2020, the Heads of State and Government of the Association of Southeast Asian Nations officially made the ASEAN Declaration on Human Resources Development for the Changing World of Work.

In the Declaration they agreed to develop a roadmap for the implementation of this declaration through concrete strategies and actions that will complement the work plans of the ASEAN Labour Ministers Meeting (ALMM), ASEAN Education Ministers Meeting (ASEM), ASEAN TVET Council (ATC) and other relevant Sectoral Bodies.

ASEAN Declaration on Human Resources Development for the Changing World of Work provides some normative statements on the direction to take as well as some broad indication on what could be encompassed by HRD. There has been a consensus that two major steps would be necessary to move the initiative ahead: (1) developing a detailed framework with the components in education and labour to conceptualize HRD for providing the skills and competences needed to deal with the changing world of work, (2) compiling relevant knowledge about the degree of implementation and existing experiences on HRD in the ASEAN member states. These two steps are taken up in this study.

HRD in this study refers to an expression of the interest of ASEAN member states to address problems related to a “changing world of work” in the common interest at the regional level. ASEAN, as an increasingly integrated economic community, can function as a platform for mutual learning and exchange with a view to viable reforms. Although each member state must deal with the current and upcoming mega-trends individually, all are facing the same challenges. For example, the COVID-19 crisis has hit the labour markets as an external shock of unprecedented scale. HRD can provide a conceptual framework for pro-actively addressing the necessity to empower people to flexibly deal with recurring changes in society and economy.

This study covers six general areas of intervention for promoting HRD: (1) Promote HRD culture, (2) Adopt inclusive approach, (3) Strengthen enabling structures, (4) Modernize educational programs, (5) Professionalize development of qualified teaching personnel, (6) Promote engagement of business sector in HRD. The key fields of HRD include (1) General education, (2) Technical vocational education and training (TVET), (3) Higher education, (4) Corporate learning and development, and (5) Non- and informal learning.

1.2. Objectives

This study aims at answering the question on how do state bodies encourage, launch, support, promote, and implement areas of intervention (Promote HRD culture, Adopt inclusive approach, Strengthen enabling structures, Modernize educational programs, Professionalize development of qualified teaching personnel , and Promote engagement of business sector in HRD) in key fields of HRD (general education, TVET, higher education, corporate learning & development, non- and informal learning) in their country?

This study is using a conceptual foundation based on current state of research; it introduces a conceptual framework on HRD which can be harnessed to describe existing practices in ASEAN member states and to identify options for future policies. In addition, this study is based on empirical exploration; it compiles and synthesises the strategies, policies and programs of ASEAN member states that are currently being applied with regard to HRD and lifelong learning (LLL) in reaction to future challenges in a changing world of work.

1.3. Methodology

To achieve the above objectives, this study adopted the following approaches:

1. Reviewed relevant literature on HRD readiness: studies, research articles, policy documents, case report etc.
2. Collected data using interview instruments and questionnaire to stakeholders and respondents.

Twelve (12) key informants from 11 offices and institutions were interviewed. For the questionnaire, 5 questionnaires were developed and administered online: (1) HRD Readiness survey to 30 respondents representing ministries, Higher Education (HE), Technical and Vocational Education and Training (TVET), General Education (GE), (2) Survey on future skills integration in HE (43 respondents), (3) Survey on future skills integration in TVET (51 respondents), (4) Survey on future skills integration in GE (138 respondents representing principals and teachers), and (5) Survey on business sector engagement in HE and in TVET (53 respondents).

2. Statistical facts

2.1. Brunei Darussalam education statistics

- Mean years of education was 9.1 years in 2018.¹
- Youth not in employment, education, training (%) was 20.09% in 2019.²
- Literacy, numeracy rates (15-24 age group) was 99.71% in 2018.³
- No data is available on literacy and enrolment rates of people from disadvantaged backgrounds. The only data available is the number of enrolment of students with special needs at primary and secondary as many as 1026 special needs students in 2020 (Permanent Secretary Office (Core), 2020).
- Primary education enrolment rate (0-14 age group) was 98% in 2015 (ASEAN Statistics)⁴ or 102.6% (Net enrolment) and 108.9% (Gross enrolment) in 2018 (Ministry of Education, Brunei Darussalam).⁵
(The net enrolment is calculated as the percentage of enrolment in primary education aged 6-11 years old to the population aged 6-11 years old. The gross enrolment is calculated based on the percentage of enrolment in primary education regardless of age to the population aged 6-11 years old.)
- Primary education attainment rate (15-24 age group). Based on the data from Department of Economic Planning and Statistics, Ministry of Finance and Economy Brunei Darussalam, the primary education attainment rate (15-24 age group) in the year of 2019 is 5.38% (calculated by adding the number of those attained primary and below for the age bracket divided by the total number persons in those age bracket in the year of 2019)⁶.
- Secondary education enrolment rate (0-14 age group) was 97% in 2010⁴ or 91.43% (Net enrolment) and 101.79% (Gross enrolment) in 2018 (Ministry of Education, Brunei Darussalam)⁵.

1 http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BRN.pdf

2 <https://data.worldbank.org/indicator/SLUEM.NEET.ZS?locations=BN> (retrieved from ILOSTAT database. Data retrieved in June 21, 2020)

3 https://data.unicef.org/resources/data_explorer/unicef_f?ag=UNICEF&df=GLOBAL_DATAFLOW&ver=1.0&dq=BRN.ED_15-24_LR.&startPeriod=1970&endPeriod=2020

4 https://www.aseanstats.org/wp-content/uploads/2019/11/ASEAN_Key_Figures_2019.pdf

5 <http://www.moe.gov.bn/DocumentDownloads/Education%20Statistics%20and%20Indicators%20Handbook/Brunei%20Darussalam%20Education%20Statistics%20and%20Indicators%20Handbook%202018.pdf>

6 <http://www.deps.gov.bn/SitePages/Educational%20attainment%20and%20illiteracy.aspx>

The (low) figure needs some explanation: It covers only those people in the age cohort who didn't succeed to achieve a grade beyond primary education. Also statistics don't provide a distinction between those people with a primary education grade and those people without any school grade.

(The net enrolment is calculated as the percentage of enrolment in secondary education aged 12-16 years old to the population aged 12-16 years old. The gross enrolment is calculated based on the percentage of enrolment in secondary education regardless of age to the population aged 12-16 years old.)

- Secondary education attainment rate (15-24 age group). Based on the data from Department of Economic Planning and Statistics, Ministry of Finance and Economy Brunei Darussalam, the secondary education attainment rate (15-24 age group) in the year of 2019 is 75.24% (calculated by adding the number of those attained secondary level for the age bracket divided by the total number persons in those age bracket in the year of 2019)⁶
- Vocational education enrolment rate (15-24 age group). According to MoE, Brunei Darussalam, the net enrolment of post-secondary education which normally covers Technical and Vocational Education was 7.81% (2018) and the gross enrolment was 62.67% (2018).⁵
(The net enrolment is calculated as the percentage of enrolment in postsecondary education aged 17-18 years old to the population aged 17-18 years old. The gross enrolment is calculated based on the percentage of enrolment in postsecondary education regardless of age to the population aged 17-18 years old.)
- Tertiary education enrolment rate (15-24 age group). According to MoE, Brunei Darussalam, the net enrolment of tertiary education (higher education) was 15.78% (2018) and the gross enrolment was 19.72% (2018).⁵
(The net enrolment is calculated as the percentage of enrolment in tertiary or higher education aged 19-25 years old to the population aged 19-25 years old. Gross enrolment is calculated based on the percentage of enrolment in higher education regardless of age to the population aged 19-25 years old.)
- Tertiary education attainment rate (25-54 age group). Based on the data from Department of Economic Planning and Statistics, Ministry of Finance and Economy Brunei Darussalam, the tertiary education attainment rate (25-54 age group) in the year of 2019 is 23.81%.⁶

2.2. HRD readiness

To assess the gaps between the desired and realised level of various HRD interventions, a survey was conducted to various stakeholders such as, representatives from Ministries, GE, TVET, and HE institutions as well as from private sectors/business/industries. In the survey, 6 HRD interventions were laid out and requested respondents to appraise with regard to its importance and realization.

The summary of their responses can be seen in Table 20 and the Mean (Average), Standard Deviation, and Effect Size of the Interventions can be seen in Table 2.

Table 1. The HRD Readiness Gap by Interventions (n=30)

Intervention	Important/Desirable		Realised/Achieved		Effect Size
	M	STD	M	STD	
Promote HRD culture: There is an awareness and culture of HRD empowering people to make them resilient for an environment of constant change.	4.23 (high)	0.86	2.8 (quite high)	1.35	1.30
Adopt inclusive approach: HRD includes specific programs and support for vulnerable groups at risk for being left behind.	3.83 (high)	1.12	2.67 (quite high)	1.37	0.94
Strengthen enabling structures: HRD is clearly visible in terms of legislation, coordinated bodies and ministries at state level, platforms of cooperation, funding and research on labour market developments.	3.93 (high)	1.11	2.67 (quite high)	1.15	1.12
Modernise HRD programs: "Future skills" are fully incorporated into curricula, teaching and learning resources and assessments in general, vocational and higher education.	4.03 (high)	1.03	2.90 (quite high)	1.06	1.08
Professionalise development of qualified teaching personnel: There are standards for the training of teachers and in-company trainers which address the acquisition of "future skills".	4.00 (high)	1.02	2.77 (quite high)	1.22	1.10
Promote engagement of business sector: In the field of TVET and Higher Education, there are strong links between state bodies and the business sector in terms of public-private-partnerships in HRD.	3.93 (high)	1.08	3.17 (quite high)	1.12	0.84

Notes: 5 = very high, 4 = high, 3 =quite high, 2 = quite low, 1=low, 0 = none

From Table 2, there are gaps between the desired (all were rated "high") and the realisations (all were rated "quite high") in all areas of intervention. The gaps were around one scale difference. The meaningfulness of differences or the effect size for the value more than .80 (>.80) are high; and for the value of effect size of 0.5-0.79 is moderate (Cohen, 1998).

Table 3 below shows that respondents from GE appraised "very high" expectation in all areas of interventions, followed by "high" expectations from TVET, HE, private companies, and Ministries. The respondents from all sectors appraised overall realisation of interventions "quite high", with highest average from private sector/business organisation, followed by GE, HE, TVET, and Ministries.

Table 2. The HRD Readiness Gap by Intervention and Affiliation (n=30)

Intervention	Affiliation									
	Ministry		GE		TVET		HE		Private/BMO	
	Important/Desirable	Realised/Achieved	Important/Desirable	Realised/Achieved	Important/Desirable	Realised/Achieved	Important/Desirable	Realised/Achieved	Important/Desirable	Realised/Achieved
Promote HRD culture: There is an awareness and culture of HRD empowering people to make them resilient for an environment of constant change.	4.08 (high)	2.50 (quite high)	4.67 (very high)	3.00 (quite high)	4.25 (high)	3.00 (quite high)	4.33 (high)	2.67 (quite high)	4.25 (high)	3.25 (quite high)
Adopt inclusive approach: HRD includes specific programs and support for vulnerable groups at risk for being left behind.	3.42 (quite high)	2.25 (quite low)	4.67 (very high)	2.33 (quite low)	4.13 (high)	3.00 (quite high)	4.00 (high)	2.67 (quite high)	3.75 (high)	3.50 (high)
Strengthen enabling structures: HRD is clearly visible in terms of legislation, coordinated bodies and ministries at state level, platforms of cooperation, funding and research on labour market developments.	3.83 (high)	2.42 (quite low)	4.67 (very high)	2.67 (quite high)	4.00 (high)	2.63 (quite high)	4.00 (high)	3.00 (quite high)	3.50 (high)	3.25 (quite high)
Modernise HRD programs: "Future skills" are fully incorporated into curricula, teaching and learning resources and assessments in general, vocational and higher education.	3.83 (high)	2.75 (quite high)	5.00 (very high)	3.67 (high)	4.25 (high)	2.63 (quite high)	4.00 (high)	3.00 (quite high)	3.50 (high)	3.25 (quite high)
Professionalise development of qualified teaching personnel: There are standards for the training of teachers and in-company trainers which address the acquisition of "future skills".	3.75 (high)	2.75 (quite high)	5.00 (very high)	3.33 (quite high)	4.13 (high)	2.38 (quite low)	3.67 (high)	2.67 (quite high)	4.00 (high)	3.25 (quite high)
Promote engagement of business sector: In the field of TVET and Higher Education, there are strong links between state bodies and the business sector in terms of public-private-partnerships in HRD.	4.00 (high)	3.00 (quite high)	4.67 (very high)	3.67 (high)	4.00 (high)	3.13 (quite high)	3.67 (high)	3.00 (quite high)	4.00 (high)	3.50 (high)
Total average	3.82	2.61	4.78	3.11	4.13	2.79	3.94	2.83	3.83	3.33

3. Strategies, policies, programs on HRD/LLL

3.1. Overview

This chapter was written based on the review of relevant documents and interviews with key informants.

Documents reviewed:

- 3.1.1. Brunei Darussalam Long-term Development Plan by the Council for the Long-term Development Plan (publication date unknown)⁷; in which includes *Wawasan Brunei 2035* (Brunei Vision 2035) by National Vision Taskforce (no date)⁸
- 3.1.2. National Education System for the 21st Century (SPN21) by Ministry of Education (2008)⁹
- 3.1.3. Ministry of Education's Strategic Plan 2018-2022
- 3.1.4. Brief Information on the Manpower Planning and Employment Council and its Focus Areas and Key Deliverables

Brief Descriptions of the Documents:

- 3.1.1. Brunei Darussalam Long-term Development Plan by the Council for the Long-term Development Plan (2007-2035)

There are 3 main components: (1) *Wawasan Brunei 2035*/ Brunei Vision 2035, (2) Outline of Strategies and Policies for Development, and (3) National Development Plan. Within the Brunei Vision, HRD is one of the 3 main goals: the accomplishment of its educated and highly skilled people as measured by the highest international standards (Goal 1). Goal 1 comprises 3 national outcomes: 1st class education (high quality teachers, schools, and ensure students' accomplishments) equal education opportunities (high level participation in education), and human resource development (high quality postsecondary education and opportunities to lifelong learning). To ensure the accomplishment of the three goals, 8 strategies have been identified and one of them is related to HRD, Education Strategy. Under Education Strategy, there are policies and strategies for development every decade. For

7. Council for Long-term Development Plan. (no date). *Brunei Darussalam Long-term Development Plan*. Bandar Seri Begawan: Prime Minister's Office.

8. National Vision Taskforce. (no date). *Wawasan Brunei 2035*. Bandar Seri Begawan: Prime Minister's Office.

9. Ministry of Education. (2008). *The National Education System for the 21st Century* (SPN21). Ministry of Education Brunei Darussalam. Available online at <http://www.moe.gov.bn/Pages/spn21.aspx>

example for the first decade (2007-2017), there were 8 policy directions (1) Investing in early childhood education, (2) Adopting international best practices in teaching and learning, (3) Providing high standards of secondary and tertiary education, including vocational schools, which will produce experts, professionals and technicians required in commerce and industry, (4) Strengthening competency in info-communications technology (ICT) among students, teachers and educational administrators, including the integration of ICT in the school curriculum, (5) Devising programmes that promote life-long learning and widen access to higher education, (6) Promoting research, development and innovation both in government- funded institutions and through public-private partnerships (PPP) and international partnerships, (7) Adopting cost-effective methods of educating the people through the use of technology, and (8) Improving the management of all educational institutions (p.17).

Recently, His Majesty the Sultan and Yang Di-Pertuan Negara Brunei Darussalam said in His Titah during the first National Development Plan Executive Committee meeting on the 21 September 2020 for Brunei Darussalam to focus on the provision of employment opportunities for locals and to equip them with skills in various sectors. In this regard, His Majesty's hopes to see the drawing up of the national Manpower Blueprint to ensure the implementation of the first goal in Brunei Vision 2035 which is the accomplishment of its educated and highly skilled people. The formulation of the national Manpower Blueprint will be led by the Ministry of Education with the Manpower Planning and Employment Council. Although led by the two organisations, the scope of the Manpower Blueprint encompasses all sectors for the goal of creating employment opportunities and will therefore need the Whole of Nation approach to ensure its success.

The 11th National Development Plan (RKN 11) (2018-2023) has six main thrusts; and two of them are directly related to HRD; Thrust 1: Improving Quality of Teaching and Training to Produce Educated and Highly Skilled Human Capital; Thrust 2: Developing Manpower in line with Industry Requirements.¹⁰ There are two objectives under Thrust 1: (1) improving academic achievement, (2) diversifying and improving the quality of technical and vocational education which offers a variety of courses in specific areas relevant to the needs of the country. Under Thrust 2, the focus is on generating manpower that is qualified and competent.

All of the above documents and guidance are the master plan that will be translated into Ministerial-level plan, strategies, and key performance indicators; thus, the level of binding is very high.

10. http://www.deps.gov.bn/DEPD%20Documents%20Library/NDP/NDP11_Eng.pdf

3.1.2. National Education System for the 21st Century (SPN21) by Ministry of Education

SPN21 is the acronym for *Sistem Pendidikan Negara Abad ke-21* or the National Education System for the 21st Century, which has been approved by the Ministry of Education in 2007. It has brought about major changes to education in Brunei Darussalam through various stages of implementation.

The SPN21 is based on the National Vision, *Wawasan Brunei 2035* which aims to make Brunei Darussalam, a nation widely recognized for the following by the year 2035: (1) the accomplishment of its educated and highly skilled people as measured by the highest international standards, (2) a quality of life that is among the top 10 nations in the world, (3) a dynamic and sustainable economy with income per capita within the top 10 countries in the world.

More specifically, SPN 21 is aimed to: (1) be the platform of the Ministry towards achieving *Wawasan Brunei 2035*, (2) realize the Ministry of Education's Vision and Mission, (3) add value and raise the quality of education in line with current/contemporary needs and the anticipated needs in the future years, (4) fulfil the needs and response to challenges of the social and economic development of the 21st Century, (5) develop 21st Century Skills amongst students, (6) uphold and develop desired values and attitudes in line with the Malay Islamic Monarchy (*Melayu Islam Beraja, MIB*) concept as the national philosophy amongst students.

There are three pillars of SPN21: education structure, curriculum and assessment, and technical education.

3.1.3. Ministry of Education's Strategic Plan 2018-2022

With its vision "Quality Education, Dynamic Nation" and mission "To deliver holistic education to achieve fullest potential for all", Ministry of Education has 3 strategic objectives for 2018-2022: (1) Transform the organisation human resource towards a performance-driven culture, (2) Provide equal and equitable access to quality education, and (3) Enhance shared accountability with stakeholders in the development of teaching and learning. The Ministry recognises two common overarching initiatives; (i) big data on education and (ii) corporate communication. They act as cross-cutting enablers for the implementation of the Ministry's strategic objectives as they promote transparency, shared accountability and ultimately, alignment and integration among the various strategic initiatives and their key actions towards one common goal realising our vision. The details of strategic objectives can be referred to Figure 1 (Appendix 2).

3.1.4. Brief Information on the Manpower Planning and Employment Council and Its Focus Areas and Key Deliverables

This information was shared during the interview in the form of presentation. More information of this document will be elaborated in sub-section 3.3.

3.2. Essence from analysing documents and interviews with regard to HRD/LLL

3.2.1. “HRD”/“LLL” as key terms in Brunei Darussalam’s strategies, policies and programs in education, employment and labour market policy

High Officials from Ministry of Education stated that His Majesty Sultan and Yang Di-Pertuan of Brunei Darussalam’s Titah have highlighted Human Resource Development (HRD) and Lifelong Learning (LLL) on numerous occasions, including during the first meeting of the 16th Legislative Council Session on the 9th March 2020, where His Majesty the Sultan in the titah stressed on the importance of reviewing human resource policies as an effective measure to increase job opportunities and tackle unemployment issues. In addition, during New Year’s Eve of 2019, His Majesty the Sultan and Yang Di-Pertuan of Negara Brunei Darussalam in the Titah mentioned that “The technological developments brought about by the fourth industrial revolution will however challenge our conventional skills and require us to enhance our existing skills and undergo lifelong learning.” HRD and LLL are therefore pivotal to Brunei Darussalam’s national agenda, (including the plans and strategies of the Ministry of Education) towards the modernization and development of Brunei Darussalam in the global knowledge economy and the 4th industrial revolution.

Under Manpower Planning and Employment Council (MPEC), 9 Focus Areas and 31 Key Deliverables are to be implemented under three main pillars Supply, Demand and Enablers. The details of MPEC initiatives and these 3 main pillars can be referred to Figure 2 (Appendix 3) and Sub-chapter 2.3. (MPEC Secretariat, document shared during interview).

3.2.2. Target groups identified in countries’ strategies and policies with regard to HRD/LLL

In Brunei Vision 2035, HRD is addressed under Goal 1, which aims for the accomplishment of its educated and highly skilled people as measured by the highest international standards. This goal targets the whole population. For the first decade (2007-2017), there were 8 policy directions (1) Investing in early childhood education, (2) Adopting international best practices in teaching and learning, (3) Providing high standards of secondary and tertiary education, including vocational schools, which will produce experts, professionals and technicians required in commerce and industry, (4) Strengthening competency in info-communications technology (ICT) among students, teachers and educational administrators, including the

integration of ICT in the school curriculum, (5) Devising programmes that promote life-long learning and widen access to higher education, (6) Promoting research, development and innovation both in government- funded institutions and through public-private partnerships (PPP) and international partnerships, (7) Adopting cost-effective methods of educating the people through the use of technology, and (8) Improving the management of all educational institutions (p.17).

There are three (3) main target groups identified with regards to LLL in Brunei Darussalam, namely:

1. School leavers – Students who completed their GCE ‘O’ Level, GCE ‘A’ Level or Lower Secondary Examination in Year 9 who either wish to further their studies or look for employment.
2. Job seekers – School leavers or graduates or unemployed who are actively seeking for employment.
3. Adult learners – Individual who continue their education after a period of out from the formal education. (Interview with High Official of MoE and L3C).

In this age of globalization, skills are evolving, requiring our youths to be ready to face the challenges of the constantly changing workplace. They need to embrace change and learn to adapt to the changing workforce. Similarly, HRD and LLL development should keep abreast on these changes. The Ministry of Education in Brunei Darussalam is committed to contribute to the needs of the country by providing top quality education and training. Various programmes and initiatives have been and will continue to be implemented to support the country in producing a skilled workforce and to produce competitive and dynamic individuals. The Ministry of Education and the relevant stakeholders is constantly improving and strengthening the close cooperation with industries, especially in creating high quality programmes that truly fulfil the country’s human resource requirements or needs.

3.2.3. Key fields of HRD addressed in countries’ strategy and policy papers on HRD

Based on the interview with MoE High Officials, HRD in Brunei Darussalam covers key fields such as education and training, manpower planning, employment condition and opportunities, and capacity building and community development in terms of reskilling and upskilling. Among these, education and training are considered to be a pivotal factor to align the nation’s labour market supply and demand.

The Education Strategy under Brunei’s Vision 2035 aims to provide for young people the knowledge and skills to succeed in the modern world as spelled out in the above policy directions of the first decade (2007-2017), 11th National Development Plan (RKN 11) (2018-2023) and MoE’s Strategic Plan 2018-2022.

These policy directions will ensure all aspects of development are implemented accordingly and effectively in order to attain the 3 goals of Brunei Vision 2035; the country to be ranked in the Top 10 in the world in terms of the Gross Domestic Product (GDP) per capita and the Human Development Index (HDI) which is to achieve a top 10 ranking by 2035 as well as having a sustainable and dynamic economy¹¹. These would culminate towards a high quality of life and international standard and in learning institutions, individual's skill and experience as well as a competitive and sustainable market. The more detailed national outcomes related to HDI include: (1) High standard of living, (2) upholding sovereignty and stability, (3) sustainable environment, (4) a resilient and cohesive society, and (5) world class and safety in the workplace. First outcome focuses on key areas of healthy nation, access to and high-quality public utilities and infrastructure, high home ownership, high social mobility, and excellence in service delivery. Second outcome aspires to be one of the safest countries in the world. Third outcome is aiming at having a clean and green environment. The fourth outcome covers inclusive and sustainable social security, population with core values and social harmony through community unity. The fifth outcome is focusing on the key area of compliance to occupational health and safety legislation/standards.¹²

3.2.4. Initiatives of state bodies that explicitly promote HRD culture in Brunei Darussalam

Based on the interview with the High Officials from the Ministry of Education, the Ministry is currently implementing its Strategic Plan of 2018-2022 in which one of the strategic objectives is the transformation of human resources towards a performance driven culture. The core strategy is to improve ministry-wide human resource planning and its execution for continued growth and success so that every personnel would have professional competency in terms of being qualified and efficient in executing their roles and responsibilities. The strategic initiatives include to develop and implement clear succession plan strategy and to develop and implement a comprehensive human resource development strategy.

To further reach the Ministry's goal in promoting HRD culture, the Human Resource Development Division at the Ministry of Education has been upgraded from a division to a department, and now known as the Department of Educators' Management. The upgrading is vital in order to keep abreast with the education of the 21st Century which requires a significant transformation, whether it is from the teachers or the students. From the other interview with other high officials, it was added that this Department is to provide a more specific structure on the development of teachers and school leaders (6-7k teachers) such as to have specialists in various assessment, curriculum development, and other areas. One of the significant changes is in

11 <http://wawasanbrunei.gov.bn/SitePages/Our%20Vision%20For%202035.aspx>

12 <http://wawasanbrunei.gov.bn/SitePages/Goal%202.aspx>

regard to the recruitment of teachers whereby the Ministry aims at recruiting only those who are passionate about teaching, hold right qualifications, and having the qualities of teachers. Under the purview of the Department of Administrative and Services, capacity building programmes are provided for non-teaching staff.

The Ministry of Education has also established the Lifelong Learning Centre (L3 Centre) that performs the following functions:

1. One stop information centre for LLL
2. Coordinate, promote and regulate LLL programmes and activities conducted by various LLL providers
3. Support Manpower Planning and Employment Council and Job Centre Brunei as facilitator for access to education and training and job opportunities to adult learners and jobseekers for future employment and career progression
4. Align and implement strategic initiatives towards MOE Vision and Mission i.e. to manage the Key Deliverables under the MOE's Strategic Initiative: Improving Opportunities to LLL
5. Enhance research and development in LLL
6. Provide platform and venue for LLL providers

Based on the interview with L3 Centre officials, the centre provides programme under four pillars, namely:

1. Workforce development. These programmes are designed to meet the demand of job markets leading to employment, upskilling and reskilling
2. Academic Upgrading. Programmes to enable access to multiple pathways to enter TVEIs and HEIs for academic attainment
3. Personal Development. Programmes offered for individual growth and progression
4. Community Development. Programmes based on community needs.

The programmes under the Workforce Development Pillar offered by the L3 Centre are currently being supported by Manpower Planning and Employment Council (MPEC) HRD Fund under the Learn and Grow domain in order to support the development of skilled workforce for the labour market in Brunei either from private and public agencies as well as jobseekers.

3.2.5. Advisory and counselling services available for citizen to get advice on HRD/LLL opportunities

L3 Centre of the Ministry of Education provides advisory and counselling services for the public on HRD and LLL opportunities, such as LLL courses and programmes run by various LLL providers in the country. The public can access the L3 Centre website (<https://l3c.moe.gov.bn>) and social media to obtain updated information of various lifelong learning programmes and opportunities. Funding assistance is available for local jobseekers, local employees working in private sector and also companies who are interested to provide training to their local workforce. The L3 Centre provides a centralised application system for the lifelong learning programmes that are advertised through the L3 Centre website in collaboration with the other training providers. L3 Centre also offers various services to provide useful information on lifelong learning opportunities through its career services and employability skills with support from the Job Centre Brunei and other strategic partners. (MoE and L3C interviews).

In addition, the Counselling and Career Unit, Department of Schools of the Ministry of Education also provides counselling services for students at their respective schools or institutions in which the unit provides information on future career, further studies and courses and programmes offered by post-secondary and higher education. (MoE Interviews).

3.2.6. Initiatives to improve the image of TVET and non-formal learning opportunities

Technical and Vocational Education and Training (TVET) in Brunei Darussalam has undergone major changes with the introduction of the transformation white paper, new courses as well as the reformation of the former Department of Technical Education (DTE) to Institute of Brunei Technical Education (IBTE). The launch of the Transforming Technical and Vocational Education White Paper in July 2014 outlined the proposed changes as well as the planned implementation for the overhaul of TVET over the next five years.

Several initiatives have been undertaken under this TVET transformation, including (1) establishing IBTE as a statutory board under the purview of MoE with a new constitution as well as a Board of Governors, (2) expanding apprenticeship options, (3) restructuring courses with more focus on practical skills based on demand-driven and competency-based curriculum and for more progression opportunities, (4) increasing enrolment, (5) introducing a new scheme of teaching services, and upgrading the training environment. (Transformation of Technical Education White Paper, 2013)¹³. Among these initiatives, the upgrading of training environment is still slowly progressing due to limited financial resources; other initiatives are progressing significantly.

¹³ <https://ibte.edu.bn/ibte-white-paper/>

The main providers for non-formal learning are the newly established L3 Centre under the Ministry of Education and the community centre (Youth Development Centre) under the Ministry of Culture, Youth and Sports. L3 Centre is Brunei's incorporated lifelong learning centre offering courses provided by various institutions and organisations. With the support from HRD fund, the public may enrol in various courses offered by L3 Centre free of charge.

3.3. Compilation of good practices

There are some major initiatives in HRD and LLL in Brunei Darussalam either under the purview of individual ministry or multi-ministerial arrangements.

The Manpower Planning and Employment Council (MPEC) is a multi-ministerial agency that addresses HRD and employment. Even though its establishment was very recent, in 18 November 2019, the progress is significant pertaining to its upscaling and reskilling programmes which offers lifelong learning opportunities for all citizens. MPEC's predecessor was the Manpower Planning Council under the Ministry of Energy and established in 2016; within which Job Centre Brunei was under the purview of Manpower Policy and Planning Unit. Currently, MPEC is subsumed under the Prime Minister's Office (PMO) and chaired by Minister at PMO cum Minister of Finance and Economy II with members comprising 6 Ministers: Minister of Home Affairs, Minister of Primary Resources and Tourism, Minister of Development, Minister of Education, Transport, Minister of Culture Youth and Sports. MPEC is supported by a working committee comprising 5 Deputy Ministers: 2 from the Ministry of Finance and Economy and one each from the Ministry of Energy, Ministry of Development, Ministry of Education. Under MPEC, 9 focus areas and 31 key deliverables are identified to be implemented; which are categorized under three main pillars: Supply, Demand and Enablers (see Figure 2 in Appendix 3). There are some on-going initiatives under MPEC, not including those in the pipeline: (1) Job Centre Brunei, (2) Manpower Industry and Steering Committee (MISC), (3) Continuous Education & Training (CET) Programme, (4) Foreign Workers Recruitment Process (FWRP), (5) SkillsPlus, (6) *Majlis Kebangsaan Isu Sosial (MKIS) Pembasmian Kemiskinan* [National Council on Social Issues], (7) *Dasar Belia Negara dan Strategi (DBNS)* [National Youth Policy and Strategy] 2020-2035 and, (8) Jobseekers Survey & Polls.

The establishment of Manpower Industry Steering Committee (MISC) is a significant progress in linking education and training with the job market. MISC consists of representatives from the industry, training and education institution and regulators. At the moment, MISC focuses on 5 industries: Marine, Energy, Construction, Hospitality, and ICT. The three main components under MISC are: (a) Workforce Development and Planning Group (WDPG), (b) Curriculum

Development Technical Group (CDTG), (c) Accreditation and Assurance. WDPG focuses on the type and number of jobs demanded by the MISC sectors and identify critical occupation that is demanded by the industry. Based on the presentation by MPEC during interview, currently they are using Critical Occupational Model and some adoption of Overall Manpower Forecast Model. The Critical Occupational Model is used when certain sectors plan to focus on certain jobs and is short-term focus. The Overall Manpower Forecast Model is used when a sector aspires to look at the overall manpower of a certain scope (project) which is holistic and long-term focus.

CDTG works with industries to co-develop curriculum and programmes that align with the industry standard and requirement, and also to propose a National Competency Framework (NCF) in alignment with the industry requirements. Accreditation and Assurance unit approve standards and accredit programmes and courses that are endorsed by MISC.

MPEC also contributes to the reskilling and upscaling ecosystem. The details of the framework that covers the regulatory bodies, accreditation, awarding bodies, resources of funds, learning and assessment as well as monitoring can be referred to Figure 3 (Appendix 4).

A number of initiatives are currently being implemented covering the supply aspect (supply of local workforce), the demand aspect (focus on generating employment such as policy reviews and reforms as well as workforce processes), and the enablers aspect (a matching activity between supply and demand).

3.4. Key points / conclusions which may be of interest for the general public

Brunei Darussalam has long-term, mid-term and short-term plans, strategies, and policies on HRD/LLL. Guided by the long-term plan (2007-2035) and Brunei Vision 2035, ministries have developed mid-term (10-year and 5-year plans) and short-term (annual plans). In 2019, a multi-ministerial committee was established under the coordination of the Prime Minister's Office to plan and coordinate efforts for HRD and LLL and employment called Manpower Planning and Employment Council (MPEC) that brings together education and training providers, industry players, and government/regulators to work together on HRD/LLL initiatives. The establishment of Manpower Industry Steering Committee (MISC), the development of Brunei National Occupational Skills Standard, the establishment of L3 Centre and Job Centre Brunei are the key milestones in addressing HRD/LLL and employment issues in Brunei Darussalam. The inter-ministerial coordination is key to a connected and relevant HRD/LLL development.

4. Inclusiveness in HRD/LLL approaches

4.1. Scope of initiatives and challenges with regard to HRD/LLL for vulnerable groups

Based on the interview with Ministry of Education (MoE) High Officials, Brunei Darussalam promotes universal access to education for its citizens, emphasizing on equity and equality for all. It recognizes the crucial need for human resource development in order to meet its needs for educated, competent and marketable workforce, in which it has made significant progress in the last decade. Brunei Darussalam's education system provides 12 years of free education to all students, including those with special needs. This consists of one year of pre-school education, 6 years of primary education, 3 years of lower secondary education and 2 years of upper secondary or vocational and technical education.

Students with special needs are considered to be one of the vulnerable groups under the Ministry of Education and fall under the purview of the Special Education Unit. This particular group of students have a wide range of needs which may fall under one or more of the following categories:

- i. Cognition and Learning (including those with severe & profound multiple disabilities).
- ii. Behaviour, Emotional and Social Development.
- iii. Communication and Interaction.
- iv. Sensory and/or Physical.
- v. Medical or health conditions that debilitates their everyday function.

In ensuring inclusive quality education for all, students with special needs are provided with special education programmes, both at primary and secondary levels, and even up to the tertiary level. Modifications and/or adaptations are made to the curriculum, and in teaching and learning strategies to suit the needs of these students. This is to ensure that the education system produces independent individuals who are able to strive to their fullest potential.

Under Primary and Secondary level, underprivileged groups include those with special needs, learning difficulties or disabilities. In 2019/2020, more than two thousand students with special needs are enrolled under MoE.

The challenge faced by MoE is insufficient capacity of special need teachers to cater for the increasing special need students in both Primary and Secondary schools in the country. The Special Education Unit is not able to provide sufficient support to those students. Solutions include investing professional development programme for special needs teachers to help refine existing skill and develop new competencies. The Centre of Excellence will also provide suitable learning resources, curriculum development that suits special education needs and learning styles as well as proper assessment.

According to one of the representatives from Manpower Planning and Employment Council (MPEC), reskilling and upskilling emphasize inclusivity. This means that the programmes offer opportunities to vulnerable groups, such as welfare recipients, people with different abilities, and those released from rehabilitation centres. The programmes only address the able bodied who are able to work individuals. In addition, Ministry of Culture, Youth and Sports (MCYS) is also handling vulnerable groups, especially out of school youth.

Another main challenge dealing with vulnerable groups is pertaining to their willingness to participate in the programme. MPEC through Job Centre has been reaching out through telemarketing (MPEC and MoE Officials).

4.2. HRD/LLL programs for vulnerable groups; implemented – planned – desirable

MoE has opened 2 Centres of Excellence (COE) in Temburong District; one is for hearing and sight impairment and the other is for delayed speech and learning behaviour. Each Centre is set-up as a niche centre for its vulnerable/special needs and promoting innovative strategies for teaching and managing children with special attentions. Next year, more COEs will be established in Belait and Tutong districts.

Under Job Centre Brunei, the target number from the vulnerable group is 300 annually. Last year, more than 200 people participated which is still below in the national KPI (Key Performance Indicators). The Council will continue marketing to reach the target.

4.3. Provisions to promote recognition, validation and accreditation of non-and informal learning

According to MPEC all education and training will be coordinated by the council to assure there are links between formal, non-formal and informal HRD/LLL and for the qualification or certificates to be recognised. Accreditation will be under the purview of BDNAC (Brunei Darussalam National Accreditation Council) for both academic and skills. (MPEC interview).

4.4. Potential good practices

The Centre of Excellence (COE) is a new initiative by the Ministry of Education to provide better services to students with various type and levels of learning disabilities. Through the providence of human resources (the specialists) and suitable facilities, these centres will be instrumental in assisting vulnerable groups of students. More details are described in a working paper on COE, *"Projek Penubuhan Pusat Kecemerlangan Pendidikan Inklusif: Mengoptimumkan sumber, meningkatkan akses, dan memperkukuhkan penglibatan dan pencapaian pelajar berkeperluan khas"* [Project of Establishing Centre of Excellence for Inclusive Education: Optimising Resources, Improving Access, and Strengthening Inclusiveness and Learning Performance of Special Students].

4.5. Key points / conclusions which may be of interest for the broader public

MoE has been implementing inclusive education since 1997. As many as 4,503 students from primary to tertiary level of education have been given the equal opportunity to study and learn in formal education. To support inclusive education in Brunei Darussalam, 106 Special Education Needs Assistance were deployed in 85 public primary schools to 2,739 special need students.

To address the issues raised in Section 3.1 and to improve the services for special needs students, the Centres of Excellence have been established, starting from one district (Temburong District). The goal of the CoEs is to provide continuous professional development for the teaching staff and can be used as reference centres for other schools that require proper special education resources and facilities.

With the establishment of more CoEs in all districts in the future, MoE hopes to offer better access to their services and continue offering equal opportunity of quality education for the vulnerable group. With proper facilities and sufficient special education teachers as well as other relevant resources, it is hoped that these students can reach their optimal potential.

5. Enabling structures for promotion of HRD/LLL

5.1. Overview

In Brunei Darussalam, “Whole of Nation Approach” is key in producing highly impactful results for HRD and LLL. HRD in the public sector is administered by the Prime Minister’s Office (PMO). The Civil Service Department under the PMO deals with the planning, managing and developing of human resources in government departments. Manpower Planning and Employment Council (MPEC) is in charge of formulating plans of action to address national HRD matters and issues including manpower planning, employment and education; and develop national human capacity building programs for preparing school leavers, graduates, jobseekers and adult learners for employment. (Interview with Permanent Secretaries). More detailed information on MPEC was explained in sub-chapter 3.3.

The Ministry of Education provides education and training which aim to prepare students for life including for employment through formal education (from primary to higher education level) including LLL.

The Ministry of Culture, Youth and Sports provides non-formal i.e. learning outside formal school which are related to capacity building and promoting employability for both youth and adult.

5.2. Cooperation between state bodies and external stakeholders and organisations

According to the interview with MoE High Officials, in managing HRD/LLL the Ministry collaborates with ASEAN Working Group (especially with Singapore), with Malaysia (SEAMEO SEN and other SEAMEO Centres). Besides, the Ministry also collaborates with UNESCO Institute of Statistics, OECD and government of Canada and Finland.

5.3. Research on future challenges relevant for HRD/LLL policy

Manpower Planning and Employment Council (MPEC) is in charge of researching, compiling and interpreting relevant information on mega-trends, skills forecasts, and sector specific developments on the labour market. More detailed information is explained in sub-chapter 3.3.

5.4. Financing HRD/LLL

Brunei Darussalam Government is the major funding donor for HRD/LLL. Education and training in public institutions are mostly free for citizens. For upskilling and reskilling, the source of fund is from RKN HRD Fund through Learn and Grow Initiatives, Growth for Excellence, and Training Grants (MPEC presentation).

5.5. Key points / conclusions

In Brunei Darussalam, there are key players for HRD/LLL. Manpower Planning and Employment Council (MPEC), which is chaired by Prime Ministers' Office and Ministry of Finance and Economy is in charge of formulating the national plan of action to address national HRD matters. There are 6 Ministries actively contributing towards HRD and LLL: Ministry of Education, Ministry of Youth and Sports, Ministry of Home Affairs, Ministry of Primary Resources and Tourism, Ministry of Development, Ministry of Transport and Info communications. At the regional and international level, the relevant Ministries are working with regional and international organisations as well as countries in the form of bilateral collaboration.

6. Quality and relevance of HRD/ LLL provisions

6.1. Results from analysis of questionnaires

6.1.1. The extent to which “future skills” incorporated explicitly and significantly in curricula in general education, TVET and higher education

Table 3. The Extent to Which “Future Skills” Incorporated Explicitly and Significantly in Curricula in General Education, TVET and Higher Education

Future skills	General Education (n=138)	TVET (n=51)	Higher Education (n=43)
Numeracy and literacy skills	3.96 (high)	3.69 (high)	4.19 (high)
High-order cognitive skills	3.53 (high)	3.69 (high)	4.35 (high)
ICT-skills/ digital literacy	3.25 (quite high)	3.96 (high)	3.98 (high)
STEM	3.12 (quite high)	3.35 (quite high)	3.67 (high)
Social skills	3.57 (high)	3.63 (high)	4.05 (high)
Learnability	3.46 (quite high)	3.73 (high)	4.12 (high)
Character qualities	3.54 (high)	3.57 (high)	3.79 (high)
Problem-solving in complex, technology-rich environments	2.94 (quite high)	3.67 (high)	4.07 (high)

Notes: 5 = very high, 4 = high, 3 = quite high, 2 = quite low, 1 = low, 0 = none

From Table 3, it shows that the higher the level of education, the stronger the integration of future skills in curricula (HE>TVET>GE). Most of the responses were showing high integration.

Table 4. The Extent to Which Future Skills are Incorporated in Primary and Secondary Education

Future skills	Primary (n=60)		Secondary (n=78)	
	Average	STD	Average	STD
Numeracy and literacy skills	4.10	0.84	3.85	0.93
High-order cognitive skills	3.67	1.02	3.42	0.93
ICT-skills / digital literacy	3.38	1.14	3.14	1.10
STEM	3.25	1.37	3.01	0.95
Social skills	3.75	0.97	3.44	1.04
Learnability	3.72	0.92	3.27	1.04
Character qualities	3.63	1.01	3.47	1.00
Problem-solving in complex, technology-rich environments	3.08	1.29	2.83	1.05

Notes: 5 = very high, 4 = high, 3 =quite high, 2 = quite low, 1 =low, 0 = none

Table 4, however, shows the opposite trend whereby the average level of integration of future skills at primary level was higher than that of secondary level (Primary > Secondary).

Table 5. The Extent to Which Future Skills are Incorporated in Public and Private Higher Education Institutions

Future skills	Public (n=24)		Private (n=19)	
	Average	STD	Average	STD
Numeracy and literacy skills	4.25	0.79	4.11	1.20
High-order cognitive skills	4.38	0.71	4.32	0.75
ICT-skills / digital literacy	4.25	0.85	3.63	1.21
STEM	3.79	1.28	3.53	1.43
Social skills	3.92	0.93	4.21	0.85
Learnability	4.04	0.91	4.21	0.85
Character qualities	3.71	0.95	3.89	1.05
Problem-solving in complex, technology-rich environments	4.21	0.72	3.89	1.15

Notes: 5 = very high, 4 = high, 3 =quite high, 2 = quite low, 1 =low, 0 = none

Table 5 shows that the integration of future skills in curricula was higher at public HEIs than in private HEIs in the area of numeracy and literacy, cognitive skills, ICT/digital literacy, STEM, and problem solving; but lower in social skills, learnability and character qualities. Overall, however, the responses still fell under “high” integration (more than 3.5 and less than 4.5).

Table 6. The Extent to Which Future Skills are Incorporated in Public and Private TVET Institutions

Future skills	Public (n=28)		Private (n=23)	
	Average	STD	Average	STD
Numeracy and literacy skills	3.71	0.94	3.65	0.98
High-order cognitive skills	3.50	1.23	3.91	0.73
ICT-skills / digital literacy	3.64	1.13	4.35	0.57
STEM	3.39	0.88	3.30	1.26
Social skills	3.32	1.02	4.00	0.85
Learnability	3.39	1.26	4.13	0.97
Character qualities	3.18	1.25	4.04	0.82
Problem-solving in complex, technology-rich environments	3.43	1.23	3.96	1.02

Table 6 shows that the integration of future skills in curricula in public TVET institutions was perceived to be higher than in private TVET institutions in certain areas such as numeracy and literacy, STEM and lower in other areas in cognitive skills, ICT/digital literacy, social skills, learnability, character quality, and problem solving.

Table 7. The Extent to Which Teaching and Learning Resources Provide Support for Promoting “Future Skills”

Resources	General Education (n=138)	TVET	Higher Education (n=43)
Textbooks	3.25 (quite high)	2.92 (quite high)	3.02 (quite high)
Online resources	3.85 (high)	4.00 (high)	4.30 (high)

Table 7 shows that the level of using textbooks was “quite high” as teaching and learning resources for promoting future skills in GE, TVET and HE. For the online resources the level of use was “high” in all levels of education. For the use of textbooks, GE had the highest score followed by HE then TVET. For the use of online resources, HE had the highest followed by TVET and GE.

Table 8 The Extent to Which Teaching and Learning Resources Provide Support for Promoting “Future Skills in Primary and Secondary Educational Institutions

Resources	Primary (n=60)		Secondary (n=78)	
	Average	STD	Average	STD
Textbooks for promoting FS	3.17	1.29	3.32	1.13
Online resources for promoting FS	3.83	1.06	3.86	0.94

Table 8 shows that the level of using textbooks was “quite high” as teaching and learning resources for promoting future skills in primary and secondary education. For the online resources the level of use was “high” in both primary and secondary education. For the use of textbooks, secondary education had the slightly higher than that of primary. For the use of online resources, secondary had slightly higher than that of primary.

Table 9. The Extent to Which Teaching and Learning Resources Provide Support for Promoting “Future Skills in Public and Private Higher Education Institutions

Resources	Public (n=24)		Private (n=19)	
	Average	STD	Average	STD
Textbooks for promoting FS	3.17	1.01	2.84	1.07
Online resources for promoting FS	4.25	0.79	4.37	0.83

Table 9 shows that the level of using textbooks was “quite high” as teaching and learning resources for promoting future skills in both public and private higher education institutions (HEIs). For the online sources the level of use was “high” in both public and private HEIs. For the use of textbooks, public HEIs had slightly higher score that that of the private HEIs. For the use of online sources, public HEIs had slightly lower than that of private HEIs.

Table 10. The Extent to Which Teaching and Learning Resources Provide Support for Promoting “Future Skills” In Public and Private TVET Institutions

Resources	Public (n=28)		Private (n=23)	
	Average	STD	Average	STD
Textbooks for promoting FS	2.61	1.10	3.30	1.29
Online resources for promoting FS	3.71	1.38	4.35	0.98

Table 10 shows that the level of using textbooks was “quite high” as teaching and learning resources for promoting future skills in both public and private TVET institutions. For the online sources the level of use was “high” in both public and private TVET institutions. For the use of textbooks, public TVET institutions had slightly lower than that of the private TVET institutions. For the use of online sources, public TVET institutions had lower than that of private TVET institutions.

Table 11. List Other Teaching and Learning Resources/Strategies in General Education and The Extent in Providing Support for Promoting “Future Skills”

Very high		High		Quite high	
1	ICT lab, including Websites/access to internet (5)	1	ICT labs (2)	1	Practical Instruments/Concrete Mathematical Materials
2.	Audio visual (3)	2.	Bringing experience teachers	2.	Printing supplies
3.	Teaching using YouTube (2)	3.	Practical skills	3.	Speaking cards
4.	Infographics (2)	4.	Buddy system	4.	Podcast and transcript
5.	Using interactive whiteboard	5.	Multimedia	5.	Teacher's guide
6.	Using WhatsApp	6.	Listening CDs	6.	Teaching models
7.	Past year exam papers	7.	Innovative Pedagogy	7.	Digital learning e.g. videos and online games
8.	STEM skills resources	8.	Past Year Exam Papers	8.	Hands-on learning
9.	Supplementary Exercises	9.	Learning via YouTube	9.	Reading Materials
10.	Learning from peers	10.	Teaching aids resources	10.	Up to date textbook
11.	Hospitality Facilities	11.	BTEC programmes	11.	Field trip

Very high		High	Quite high
12.	Conducive classroom space	12. Library	12. Teaching resources
13.	Application software for interactive learning	13. Demonstrations	13. Graded readers
14.	Brunei MIB (Malay Islamic Monarchy) Policy	14. Research presentations	14. Video clips
15.	Gadgets	15. SBC teaching materials	15. Experiments
16.	Read Theory	16. Interactive whiteboard	16. Social Media
17.	Emails	17. students' project	17. Library
18.	Hands-on learning	18. Teaching aids	18. Hands-on
19.	Compilation of notes and question banks	19. Internet	19. Textbooks
20.	Mathematical model	20. Field work	
21.	Science Models	21. Verterbles/ Easiteach/ Projectors	
22.	Socializing with others	22. School competitions	
23.	Digital Learning Resources	23. Timetable arrangements	
24.	Innovative Software	24. Leadership for Young/ youth	
25.	Learning from adults around them	25. Group discussion	
26.	Dictionaries	26. Competitions	
27.	Online tools	27. Teamwork	
28.	Work experience	28. Reference books	
29.	Gamification	29. ICT resources	
30.	Models- Maths, Sciences, Geography	30. Online forum	
31.	D & T machines, F & N facilities	31. D&T subject	
32.	Survival skills	32. Digital learning	
		33. School visits to learning centres	
		34. Character building skills	
		35. Online games	

Table 12. List Other Teaching and Learning Resources/Strategies in Higher Education Institutions and The Extent in Providing Support for Promoting "Future Skills

Very high		High	
1.	Computers - hardware (high end) (2)	1.	Conferences
2.	Workshop	2.	Tutorial & Exercise
3.	Social Media	3.	Solo learning
4.	Pedagogy (Hands-on)	4.	Projects
5.	Fieldwork	5.	Journal articles
6.	Online teaching pedagogy	6.	Workshops
7.	Paper publications	7.	Talk from Professionals
8.	Data workshops, etc.	8.	Software for simulation and data analysis
9.	Laboratory for engineering and sciences	9.	Upgrading Qualifications
10.	Short video practical	10.	Lab Practice
11.	Fast speed WIFI for online teaching	11.	Flipped classroom
12.	Online Self Learning	12.	Google
13.	Academic Conference	13.	Professional Certificates
14.	Teaching practice	14.	Demonstration
15.	Robotic	15.	Simulation
16.	Online lecture delivery		
17.	Problem-based learning		
18.	Technical forums discussing problem solving		
19.	Workshop for engineering		
20.	Short courses		
21.	Smart board		
22.	Graphics and video animation		
23.	Video production and deployment software		
24.	IT facilities		
25.	Practical Assessments		
26.	Lab space		
27.	Studio for design		
28.	Technical blogs		

Table 13. List Other Teaching and Learning Resources/Strategies in TVET And the Extent in Providing Support for Promoting “Future Skills”

Very high		High		Quite high	
1.	Internet	1.	Multimedia	1.	Physical classroom
2.	Problem Based Learning Teaching strategy	2.	Relevant Apps	2.	Videos
3.	Online courses	3.	VR and AVR		
4.	Books	4.	Programming		
5.	Online learning Training	5.	Seminar/ forums		
6.	Open access Databases	6.	Digital learning resources		
7.	Case study	7.	ICT literacy		
8.	Virtual Reality	8.	Site visit		
9.	Digital literature	9.	Lectures		
10.	Revision Kits	10.	E-book		
11.	Lecture	11.	Apprenticeship		
12.	Software	12.	Radio programmes		
13.	PDA (Personal Digital Assistants)				
14.	Simulation				
15.	E-library				
16.	Industrial attachment				
17.	ICT skills				
18.	Textbooks				
19.	Video				
20.	Notes				
21.	Literature review tool e.g., Mendeley				
22.	Technology-based Practical				
23.	Social skills				
24.	Educational site visits				
25.	Citation tools				
26.	Character qualities				

6.1.2. The extent to which assessments address “future skills”

Table 14. The Extent to Which Assessments Address “Future Skills” in GE, TVET, and HE

Future skills	The extent to which assessments address FS		
	General Education (n=138)	TVET (n=51)	Higher Education (n=43)
Numeracy and literacy skills	3.86 (high)	3.63 (high)	3.95 (high)
High-order cognitive skills	3.69 (high)	3.65 (high)	4.30 (high)
ICT-skills / digital literacy	3.12 quite high	3.92 (high)	3.91 (high)
STEM	3.19 (quite high)	3.39 (quite high)	3.63 (high)
Social skills	3.28 (quite high)	3.47 (quite high)	3.91 (high)
Learnability	3.33 (quite high)	3.55 (high)	3.91 (high)
Character qualities	3.38 (quite high)	3.43 (quite high)	3.72 (high)
Problem-solving in complex, technology-rich environments	3.10 (quite high)	3.55 (high)	4.21 (high)

Table 14 shows that assessments addressed future skills in GE, TVET and HE at high and quite high levels. The assessment at HEIs was perceived to be at higher level than that of TVET or GE. The assessment at TVET institutions was perceived to be at higher level than that of GE (HE>TVET>GE).

6.1.3. The extent to which digital technologies are part of innovative teaching and learning concepts

Table 15. The Extent to Which Digital Technologies Are Part of Innovative Teaching and Learning Concepts in GE, TVET, and HE

Future skills	The extent to which digital technologies part of innovative teaching and learning concepts		
	General Education (n=138)	TVET (n=51)	Higher Education (n=43)
Blended learning (selected phases online)	3.07 (quite high)	3.76 (high)	4.19 (high)
Online learning	3.18 (quite high)	3.45 (quite high)	4.09 (high)

Table 15 shows that digital technologies were highly or quite highly part of innovative teaching and learning concepts future skills in GE, TVET and HE. HEIs were perceived to have higher level of adoption than that in TVET or GE institutions (HE>TVET>GE). This finding applies for both in the use of blended learning and online learning.

6.1.4. The Extent to Which Students are Exposed to The Following Provisions In (Lower) Secondary Education (n=138)

Table 16. The Extent to Which Assessments Address “Future Skills” in GE, TVET, and HE

Provision	Extent		
	Mean (average)	Median	Mode
Career guidance counselling	2.25 (quite low)	3 (quite high)	2 (quite low)
Vocational orientation	2.10 (quite low)	2 (quite low)	2 (quite low)
Work experience / internships	1.57 (quite low)	1 (low)	1 (low)
Entrepreneurship courses	1.81 (quite low)	2 (quite low)	2 (quite low)

Table 16 shows that the average level of exposure of lower secondary education students to career guidance counselling, vocational orientation, work experience/internships, and entrepreneurship course was quite low. From other measures of central tendencies, (i.e. median and mode), the results were similar, except that the level of exposure to internships/work experience was “low” instead of “quite low”.

Table 17 . List of Other Provisions In (Lower) Secondary Education and The Extent Students Are Exposed to Them

Very high	High	Quite high
1. Work skills for future jobs	1. Second language classes (3)	1. Library books
2. Character qualities	2. Co-curricular activities (CCA), e.g. uniformed groups, sports, spiritual (3)	2. Workshops / Training
3. MIB (Malay Islamic Monarchy) policy	3. Drama classes (3)	3. Work experience
4. Science	4. Competitions (3)	
	5. Food and craft bazaar (2)	
	6. Packaging Spices Project (2)	
	7. Subject specialization leading to career fields	
	8. Motivational activities	
	9. Moral education	
	10. Marketing	
	11. Social Studies subject	

Very high	High	Quite high
	12. Extended Learning (related topics) that useful for working people	
	13. BAT (Business, Art, and Technology) lessons	
	14. Business	
	15. MIB	
	16. Religious Character Building	
	17. Field trips	

6.2 Approaches applied in general education and TVET to prepare students for transition into high-skills occupations

Based on the interview with high officials from MoE, in discussing students' preparation for future work, it is found that high-skills occupations are handled by different departments and Permanent Secretaries. At the skills level, Institute of Brunei Technical Education (IBTE) had been working closely with industries and Department of Curriculum to review English, Literacy, Numeracy, Sciences and novel ideas of integrated curriculum at primary level. MoE adapted from good practices abroad in teaching students higher level technologies in response to digitalisation or IR 4.0. For example, from UKv experience, MoE learnt that students can start early in preparing for IR, including how to inculcate computational skills, algorithm, etc. Reviewing curriculum is important for financial and digital literacy by offering new or integrated in existing subjects. In the following year, MoE will roll out more initiatives to prepare students for future occupations. Mathematics and science need to be strengthened, as well as soft skills. MoE will examine, review, and revise the curriculum, assessment, and training for teachers.

6.3. Pathways from TVET into higher education

Based on SPN21 and Upgrading Plan of IBTE, the present training system is aligned with the SPN21 education system that is to recognize the need to prepare Brunei citizens as competitive individuals to meet the social and economic challenges of the 21st century. The introduction of the 3-tier qualification system is aimed to provide multiple pathways to higher education and create a more dynamic TVET system within the National Education System.

Since 2013, there have been some changes to improve the image and status of technical education in Brunei Darussalam. The new system provides wider options to better suit the needs of students and school leavers and also cater to the needs of the industries. The new system is clearly defined and articulated to higher education (DTE, 2013). The structure of articulation arrangements permits broad opportunities for further educational attainment. As such, whilst the mission of the new Brunei Technical Education (IBTE) is to prepare graduates for employment, there are some provision for those with advanced standing to have significant opportunities to undertake higher level certifications. For example, those with GPA ≥ 2.0 [Based on a 3 points system] for National Diploma (ND) (Level 4 in BDNQF/Brunei Darussalam National Qualification Framework) or GPA ≥ 2.7 [Based on a 4 points system] for Diploma (Level 4 in BDNQF) in related field or GPA ≥ 2.7 [Based on a 4 points systems] for HNTec (Level 4 in BDNQF) in related field are eligible to apply for Polytechnic programmes. IBTE graduates can apply to Politeknik Brunei using their GCE/IGCSE 'O' Level results as well.¹⁴

6.4. Key points / conclusions which may be of interest for the broader public

- The integration of future skills in curricula is high at GE, TVET, and HE with the trend that the higher the level of education the higher the level of integration (HE>TVET>GE). At the GE, however, it shows the opposite trend whereby the average level of integration of future skills at primary level is higher than that of secondary level (Primary>Secondary).
- Detailed comparison in each group shows that textbooks have been used “quite high” as teaching and learning resources for promoting future skills in primary and secondary education. Online sources have also “high” level of use in both primary and secondary education. The use of textbooks in secondary education is slightly higher than that of primary. For the use of online sources, secondary education has slightly higher usage than that of primary.
- The integration of future skills in curricula is higher in public HEIs than in private HEIs in the area of numeracy and literacy, cognitive skills, ICT/digital literacy, STEM, and problem solving; but lower in social skills, learnability and character qualities.
- In TVET, the integration of future skills in curricula in public TVET institutions is perceived to be higher than in private TVET institutions in certain areas such as numeracy and literacy, STEM and lower at other areas in cognitive skills, ICT/digital literacy, social skills, learnability, character quality, and problem solving.

14. <http://www.pb.edu.bn/SiteCollectionDocuments/FAQ2020.pdf>

- Textbooks have “quite high” usage as teaching and learning resources for promoting future skills in GE, TVET and HE. For the online sources the level of use is “high” in all levels of education. For the use of textbooks, GE has the highest score followed by HE then TVET. For the use of online sources, HE records highest followed by TVET and GE.
- The assessments that address future skills in GE, TVET and HE are perceived to have high and quite high levels of adoption. The assessment at HEIs was perceived to have higher level than that of TVET or GE and the assessment at TVET institutions was perceived to have higher level than that of GE (HE>TVET>GE).
- Digital technologies were perceived “highly” or “quite highly” as part of innovative teaching and learning and future skills in GE, TVET and institutions (HE>TVET>GE). This finding applies for both in the use of blended learning and online learning.
- The average level of exposure of lower secondary education students to career guidance counselling, vocational orientation, work experience/internships, and entrepreneurship course is quite low.
- Approaches applied in general education and TVET to prepare students for a transition into high-skills occupations varies and is handled by different offices. At the skills level, working closely with industries is key to assure relevance with regards to the trend of future work skills. At GE level, the Department of Curriculum is in the process of reviewing English, Literacy, Numeracy, Sciences subjects. The importance of students using higher level technologies in response to digitalisation or IR 4.0 was highlighted and MoE will ensure that students can start early in preparing for IR with the inclusion of computational skills, algorithm, financial and digital literacy as a new subject or integrated in existing subjects. Mathematics and science will be strengthened, as well as soft skills. MoE will examine, review, and revise the curriculum, assessment, and training for teachers.
- Pathways from TVET into higher education have been in the new system which clearly define and articulate from TVET to higher education. It is clearly stated that there are some provisions for those qualified to have opportunities for furthering their education.

7. Professional development of qualified teaching personnel

7.1. Formal standards in place for TVET teachers, school managers, in-company-trainers

7.1.1. Formal standards for training of teachers in place

Based on the response from the interview, representatives from the Department of Educators Management of the Ministry of Education explain that teacher training or teacher professional development plays an important role in improving the quality of education in schools. The professional quality of the trained teacher depends on the quality of the curriculum to which the teacher was exposed and the ways in which it is implemented. Training of teachers at Brunei Darussalam Teacher Academy (BDTA) are competency-based and are aligned to the Brunei Teacher Standards (BTS) and the Teacher's Performance Appraisal (TPA2.0). In 2014, under the Ministry of Education's seven Grand Initiatives, one of them: 'Teacher Quality and Professionalism', became an important strategic focus area for teacher professional development. The Ministry strives to enhance teachers' competency standards, and this led to the setting up of the BDTA in 2014, intended to be a centre of excellence for Teacher Professional Development.

In 2016, BDTA developed the Teacher Professional Development (TPD) Framework and Guidelines to assist schools and school leaders how 'good' looks like with regards to Teacher Professional Development. BDTA supports the Ministry of Education in ensuring teachers are provided with the required competency standards through the provision of continuous professional development. The TPD Framework and Guidelines are designed to assist the Ministry of Education, and school leaders to follow a systematic approach in planning, implementing, monitoring and evaluation of TPD programmes to ensure both quality and sustainability.

BDTA supports teachers' professional learning through professional development courses which exposes teachers to a myriad of teaching repertoires to enhance their teaching practice and develop teacher competences required to empower 21st-century learners. Teachers are called on to be activators of meaningful learning, not just facilitators, being creative in choosing from a wide palette of strategies to be mixed and adjusted to context and learner. In addition, it is crucial to build up teachers' pedagogical capacity in relation to the pervasive, enabling role of technologies and creating innovative pedagogical model—to focus on the learning process, help students

to discover and master knowledge and enable using it in the world through exploration and connectedness. In this perspective, learning outcomes that matter are not only students' capacities to build new knowledge and lead their own learning, but also the development of lifelong learning citizens. BDTA has begun to embark on a series of professional development courses to support teachers with e-learning on online platforms so that they become more confident and competent teaching remotely.

Moreover, defining the requirements of education professionals by teacher competence frameworks can serve multiple purposes at different levels in the education system. At the micro level, it can support and guide teachers' practice and continuous professional development. At the meso level of education governance or system, it can support the development of school institutions as learning organisations, providing common ground for dialogue, collaboration and reflection in professional communities of practice. At the macro level of quality assurance, it can provide reference standards for initial teacher education, and for education professionals' quality along the career continuum.

7.1.2. Capabilities part of teacher training standards

Based on the responses from the department in-charge for teachers management in Brunei Darussalam (Department of Educators Management), the following are their assessment on the integration of future skills, learner-centred teaching-learning, the use of technology in teaching-learning activities, and the alignment of objectives, teaching methods and assessment.

a) Future skills:

Numeracy and Literacy skills: *Very high*

High-order cognitive skills (analysing, critical thinking, creating): *High*

ICT skills/ digital literacy (e.g. applying devices and tools, reflecting impact of ICT applications): *Quite High*

STEM skills (e.g. Communication, cooperation in terms, conflict resolution, empathy, emotional intelligence): *High*

Learnability (e.g. Readiness to learn, learning motivation, curiosity, self-learning strategies): *Very high*

Character qualities (e.g. Ethical reflection, social and cultural awareness, agility): *Quite High*

Problem-solving in complex, technology-rich environments: *Quite High*

b) Promote active, learner-centric teaching methods: *High*

- c) Evaluate concepts of technology enhanced learning: Quite High
- d) Focus on instructional alignment of objectives, teaching methods and assessment: High

7.1.3. Approaches to attract high-motivated and committed people for teaching profession

Based on the interview with the high officials from MoE and the Department of Educators Management, to attract high-motivated and committed people for teaching profession, a rigorous selection and recruitment processes of teachers via immersion and apprenticeship programmes was introduced in 2019 to graduates who have the inclination and interest in the teaching profession.

This is to align closely with Ministry of Education's vision of 'Quality Education, Dynamic Nation' and mission 'To provide holistic quality education for students towards achieving their fullest potential' through the Ministry's Strategic Planning 2018 - 2022 under Strategic Objective 1: Transforming the organization through a performance driven culture for growth and success. Department of Educators Management plays an important role in providing holistic support to raise quality and competence of Brunei teachers through development of comprehensive and rigorous selection and recruitment processes of teachers.

The immersion programme is to be offered to graduates with Master of Teaching (MTeach) qualification whereas apprenticeship programme is to be offered for graduates without Master of Teaching (MTeach) qualification.

There are three (3) selection stages before recruitment of teachers takes place.

- The first stage comprises 4 assessments, in order, are Psychometric tests, Teaching Demonstration, Leadership and Teamwork Assessment, and Interview for Immersion and Apprentice Programme. Through this screening the Ministry will be able to evaluate and select potential candidates who are truly qualified and has a high inclination and interest in the field of teaching profession. For every assessment stage, successful candidates will be shortlisted for the next selection process.
- The second stage of selection is attachment in school through Immersion and Apprenticeship programmes. Respectively, immersion and apprentice teachers are deployed to schools for a duration of nine (9) months and twelve (12) months.
- Throughout their attachment in school, each of them will be guided by an experienced mentor who will help these teachers' development in various aspects specifically in teaching and learning skills and knowledge, teacher professionalism development, besides ensuring alignment with Brunei Teachers' Standards

- Teacher Performance Appraisal (BTS-TPA). Both Immersion and apprentice teachers receive BND\$800.00 allowance every month throughout the programme. During these programmes, they are assessed and evaluated at least three (3) times and are expected to achieve Teacher Performance Appraisal (TPA) of level 3 or above (1-5 level of performance).

Officials from Department of Educators Management also conduct visits to the schools hosting immersion and apprentice teachers and conduct one to one session with immersion or apprentice teachers and their mentors, to ensure they are given full support and guidance throughout their placement period. Every immersion and apprentice teacher is also supported with various professional development training at school, cluster and ministry level such as courses at Brunei Darussalam Teacher Academy.

- The third stage is specifically designed for apprentice teachers who achieve Teacher Performance Appraisal (TPA) of level 3 and above at the end of their Apprenticeship Programme. Upon achieving Teacher Performance Appraisal (TPA) 3 and above, they are sponsored and supported to further their study to Master level (Master of Teaching) at Sultan Hassanah Bolkiah Institute of Education, University Brunei Darussalam University for eighteen (18) months, receiving BND800.00 allowance per month under i-Ready Apprenticeship Programme.

For recruitment stage, each immersion teacher must achieve Teacher Performance Appraisal (TPA) of 3 and above to be eligible to apply for a job as a Daily Paid Education Officer; whereas for apprentice teacher, they are required to graduate in their Master of Teaching Degree with a cumulative Grade Point Average (cGPA) 3.0 or above to be eligible to apply for a Daily Paid Education Officer.

Indeed with such rigorous screening and support given to these immersion and apprentice teachers throughout the intensive selection and recruitment processes in immersion and apprenticeship programmes, it has eventually nurtured and groomed the selected quality teachers to embrace and gain various perspective / aspects of teaching profession; in terms of attitude, skills and knowledge; demonstrating high commitment, passion in teaching, compassion for students, skill-focused, develop teachers' etiquettes etc.

Through this initiative, it is hoped that the National Key Performance Indicator (NKPI1.1) which is Qualified and High-Quality Teachers, can be achieved by emphasizing the level required by all teachers in Ministry of Education based on Teachers Performance Appraisal. Therefore, skilful and knowledgeable educators, along with their strong passion and love for this profession will serve as one of the major contributors in delivering quality education towards realising the Brunei Vision 2035.

7.1.4. Formal standards for training of school-managers in place

Based on the interview with high officials and representatives from the Department of Educators Management of MoE, formal standards for training school managers in Brunei is elaborated as follows.

“School leadership has always been an education policy priority and it plays a key role in improving student performance. The training for school leaders provided by the Ministry of Education has continue to evolve over the years to meet such demands and global trends. The first nationwide school leadership training for school leaders started in 2010 where all school leaders together with two of their senior management team participated in the School Leadership Programme (SLP) conducted by the Action Learning Associates, United State of America led by Professor Noel Tichy who is a leadership and management guru. A total of 664 educators from 223 schools participated in the SLP which spanned over 9 cohorts from 2010 to 2015.”

The one-size-fits-all SLP (2010-2015) was revamped in 2015 into a 3-tiered School Leadership Programme (2015 – 2019) to cater for the various needs of school leaders holding different leadership positions in schools, as shown in Figure 4.

The 3-tiered School Leadership Programme (2015 – 2019) has graduated a total of 114 participants from ASLP, 121 participants from MSLP and 285 participants from Brunei Programme for School Senior Leaders (BPSSL).

In 2019, the Brunei Darussalam School Leadership Competency Framework (BDSLCF) was developed to serve as a companion to the Brunei Darussalam School Leadership Standards (BDSL) in the effort to provide more clarity, consistency and connectivity in the development of effective school leaders.

Figure 1. The 3-tiered school leadership programme (2010-2015)



The objective of the BDSLCF is (i) to support the Ministry's Strategic Objective 1 of Transforming our organization human resource towards a performance-driven culture; (ii) to define leadership competencies outlining the knowledge, skills and behaviours expected of effective school leaders who are future-oriented; (iii) to ensure greater connectivity in the human resource development process to achieve the KPIs of improving the quality of school leaders according to BDSLS and its competencies; (iv) to use the leadership competency framework as a basis to design and implement more structured professional development programmes and courses that caters to the needs of aspiring, newly appointed and serving principals for leadership development and (v) to create a talent pool of well-qualified aspiring and serving school leaders.

The BDSLCF comprises 16 competencies shown in Figure 5 and the competency framework will serve as the foundation for current school leadership training and development.

Figure 2. Sixteen competencies of the BDSLCF

	Standard	Competencies
DOMAIN 1: SHAPING THE FUTURE	Standard 1 managing a well-run school	1. Human Resources management 2. Financial management 3. Facility Management
	Standard 2 Leading an ambitious and inspirational school	4. Visionary 5. Strategic Planning Management 6. Change management
DOMAIN 2: SECURING ACCOUNTABILITY	Standard 3 Growing Great Teachers, Successful and Happy Students	7. Instructional Leadership
	Standard 4 Creating a learning community for all	8. Emotional Intelligence 9. Building and Effective Team 10. Mentoring and Coaching 11. Cultural and Ethical Competence
	Standard 5 Building Partnerships for Improvement	12. Stakeholder Collaboration 13. Negotiation and Conflict management
	Crosscutting Competencies	14. Communication 15. Decision making 16. Digital Literacy

The Department of Educators Management, Ministry of Education would drive the use of these competencies and ensure the design and implementation of professional development programmes for school leaders are aligned to the competencies to upskill the competence of currently serving school leaders as well as build the capacity of aspiring school leaders.

With that the School Leadership Unit at the Brunei Darussalam Teachers Academy (BDTA) in 2020 has reviewed the 3-tiered School Leadership Programme to align to the BDSLCF. The School Leadership Unit at BDTA has designed an extensive leadership professional development curriculum to school leaders to build and upskill their leadership professionalism and competence. UKS BDTA will be offering five leadership series which are carefully designed for school leaders in the new way forward for competency-based training, which are the Signature Programme, Modular Series, Toolbox Series, Masterclass Series and Bespoke Programme. Currently the leadership professional development focuses on the Signature Programme, Modular Series and Toolbox Series.

Besides the above initiatives, the Ministry also offers other programmes and series: (1) signature programmes, (2) modular series, and (3) toolbox series.

Signature Programmes. The Signature Programmes are uniquely designed to build the leadership capacity of aspiring school leaders over a series of structured workshops. It caters to school leaders ranging from Head of Departments or teachers with leadership potentials (Tier 1), Senior Masters (Tier 2), Deputy Principals or Assistant Headmaster/Headmistress (Tier 3) to Principals or Headmaster/Headmistress (Tier 4). It employs an action-based approach where school leaders combine practice, theories and research in their learning.

Modular Series. The Modular Series offers lifelong learning opportunities to current school leaders to personalise their learning and development. School leaders holding various leadership positions in school can apply or be nominated to participate in a series of the 16 competency modules to upskill their leadership knowledge and skills.

Toolbox Series. The Toolbox Series are led by school, ministry or community experts to help school leaders learn a particular skill or knowledge base. It provides hands-on practical use of strategies or tools found to be effective and beneficial. The Toolbox Series also provides a platform for school leaders to network with the experts and peers, share ideas, learn practical and effective approaches to problems and problem-solving skills.

7.1.5. Formal standards for training of in-company trainers in place

Based on the documents shared by Brunei Darussalam National Accreditation Council (BDNAC) and SEAMEO VOCTECH Regional Centre. SEAMEO VOCTECH is offering an in-company training known as Train the Trainers (ToT) at the moment whereas the formal standard for training in-company trainers is in reference to

the ASEAN In-company Trainer Standard. Considering that this In-company trainers' training and certification has just started this year, there is possibility that the standard may be modified to be more aligned with the ASEAN In-company Trainer Standard.

Currently, the ToT training and certification has 5 modules: M1- Introduction to Training, M2 – Preparation for Training, M3 – Implementation of Training, M4 – Evaluation of Training, M5 – Preparation and Delivery of Training Outputs (Micro-teaching/training). The duration of the training is 40 contact hours and 24 self-directed and industry-based monitored learning.

As part of the quality assurance and continuous improvement of Brunei National Occupational Skills Standard (BNOSS), various components are required in the system, such as standards and process for registration, accreditation trainers, assessors, and an assessment centre. To assure the quality of training deliveries and sound assessments, there is a need for qualified and competent trainers and assessors (BDNAC presentation, 2020).

In-company training is a key instrument in improving the practical competencies of employees who are already in the workplace as well as students who are participating in industrial attachments. For technical and vocational education and training (TVET) to produce human resources that adequately meet skills needs of companies, it is equally important for companies to actively contribute through the provision of in-company training. In this regard, it is important to enhance the competency of in-company trainers and the certification of this competency is to be in line with a recognised standard (SEAMEO VOCTECH's presentation, 2020).

7.2. Brief outline of good practices

There are two selected good practices with regards to professional development of qualified teaching personnel in Brunei Darussalam: (1) rigorous recruitment process of teachers, and (2) in-company/ Train the Trainers training and certification.

1. Recruitment process of teachers.

The process tries to attract committed and quality teachers through rigorous process via immersion and apprenticeship programmes. Immersion programme is to be offered for graduates with Master of Teaching (MTeach) qualification whereas apprenticeship programme is to be offered for graduates without Master of Teaching (MTeach) qualification.

There are three (3) selection stages before recruitment of teachers: (1) four types of assessments, in order, are Psychometric tests, Teaching Demonstration, Leadership and Teamwork Assessment, and Interview for Immersion and Apprentice Programme, (2) attachment in school through Immersion and Apprenticeship programmes. Respectively, immersion and apprentice teachers are deployed to schools for a duration of nine (9) months and twelve (12) months.

Guidance by an experienced mentor during school attachment in various aspects specifically in teaching and learning skills and knowledge as well as their teacher' professionalism development aspects, besides ensuring alignment with Brunei Teachers' Standards - Teacher Performance Appraisal (BTS-TPA). During the course of the programmes, the trainees are assessed and evaluated at least three (3) times and are expected to achieve Teacher Performance Appraisal (TPA) of level 3 or above (1-5 level of performance).

For recruitment stage, an immersion teacher must achieve Teacher Performance Appraisal (TPA) of 3 and above to be eligible to apply for a job as a daily-paid education officer. Whereas for apprentice teacher, they are required to graduate in their Master of Teaching Degree with a cumulative Grade Point Average (cGPA) 3.0 or above to be eligible to apply for a Daily Paid Education Officer.

2. In-company training and certification

As part of MPEC initiatives, registered training organisations (RTOs) and industry training providers must have qualified and certified trainers to conduct training using RKN HRD fund (government fund for training). Currently, SEAMEO VOCTECH (SV) is offering the TOT training and certification with reference to ASEAN In-company trainers standard.

The mode of training is a mix of face-to-face training (40 hours) and industry-based self-directed learning and supervision (24 hours). The modules for face-to-face training comprise of 5 modules: M1- Introduction to Training, M2 – Preparation for Training, M3 – Implementation of Training, M4 – Evaluation of Training, M5 – Preparation and Delivery of Training Outputs (Micro-teaching). For the 3-day self-directed learning, participants prepare for a training in their company and conduct one session of training that will be monitored by the master trainers from SEAMEO VOCTECH. The process will be video recorded and assessed for certification. To be eligible to participate, individuals or practitioners should have at least 3 years of experience and actively involved in conducting training.

The assessment consists of Knowledge Assessment (30% by SV) – mixed written test formats of short-answer, open-ended, multiple-choice questions, Performance Test (70% by SV and NOCN) – end of training (Micro-teaching – 20% by SV; post-training monitoring 1 – 20% by SV; post-training monitoring 2 – digital recording and portfolio of evidence – 30% by NOCN/awarding body). Certificate will be awarded for those who are competent ($\geq 70\%$ grade), and for those who receive a mark of less than 70% are considered “Not Yet Competent”. For those who are not yet competent, they may retake the certification to meet the requirement.

7.3. Key points / conclusions which may be of interest for a broader public

The government of Brunei Darussalam is providing full support and significant attention to the three important players in education and training, teachers, administrators/managers, and in-company trainers. The rigorous selection and recruitment processes of teachers via immersion and apprenticeship programmes show the dedication of the government to attract committed and competent candidates to the teaching profession. Various initiatives to enhance the quality of educational administrators and managers by providing school leadership programmes, the development of Brunei Darussalam School Leadership Standards (BDSLS) accompanied by Brunei Darussalam School Leadership Competency Framework (BDSLCF) signify the government’s commitment to education. Considering the importance on industry participation in HRD/LLL, MPEC is also supporting the training and certification for industry trainers (in-company trainers).

8. Engagement of business sector in HRD

8.1. Areas of engagement in TVET and higher education

Table 18. The Extent to Which Business Sector Engages In HE

Engagement	The extent to which business sector engages in HE (n=27)	
	Average	STD
Support in development of courses and programs	2.38 (quite low)	1.53
Support in delivery of courses and programs	2.23 (quite low)	1.42
Support in training of university personnel	1.85 (quite low)	1.46
Conduct of joint projects	1.92 (quite low)	1.23
Provision of equipment/teaching material	1.69 (quite low)	1.26
Operation of industry - academia transfer institutes	1.81 (quite low)	1.33

Notes: 5 = very high, 4 = high, 3 = quite high, 2 = quite low, 1 = low, 0 = none

Table 18 shows that business and industry were perceived to have a quite low engagement with higher education institutions (rate between 1.50 and 2.50).

Table 19. The Extent to Which Business Sector Engages In TVET

Engagement	The extent to which business sector engages in TVET (n=26)	
	Average	STD
Delivery of TVET programmes	2.65 (quite high)	1.35
Provision of equipment / teaching materials	1.77 (quite low)	1.18
Partner in assessments	1.81 (quite low)	1.47
Support in training of teaching personnel]	2.12 (quite low)	1.28
Support in development of curricula and skill standards	2.42 (quite low)	1.42
Engagement in TVET bodies on national or local level	2.31 (quite low)	1.32

Notes: 5 = very high, 4 = high, 3 = quite high, 2 = quite low, 1 = low, 0 = none

Table 19 shows that business and industry were perceived to have quite low engagement with TVET institutions (rate between 1.50 and 2.50), except on the delivery of TVET programmes which was quite high (2.65).

8.2. Incentives for companies to increase engagement

Based on the interview with a government agency that assists business, considering that company tax is considerably low, tax levy for training activities is not really relevant. The respondent advises that the educational institutions could provide recognition to the partner industries/companies. In fact, industry should show that they care for the community, showing social commitment and participate in CSR (Corporate Social Responsibility), for example one of the companies has a social programme called “Invest in People”.

In another interview, an industry player stated that tax levy for training is in the pipeline but is still not considered as urgent due to minimal tax in Brunei Darussalam. Nonetheless, any efforts to encourage industry participation in HRD/LLL are welcome.

From the survey to industry players, respondents listed incentives that they have received. The list are as follows:

- Training funds (6)
- Subsidy: such as fee subsidy for sending employees for training (5)
- Not sure/not aware (5)
- No tax
- Facilities
- Loan
- None
- Recognition

8.3. Priority sectors

Based on the MPEC presentation, the industry priority sectors in Brunei Darussalam at the moment are Energy, Maritime, IT, Construction, Hospitality and Tourism.

8.4. Brief outline of good practices compiled

Pertinent to the business and industry players' participation in HRD and LLL, the establishment of the Manpower Industry Steering Committee (MISC) is very relevant to share as a good practice. MISC is the committee that links industry, regulators, and education and training providers with the objective to establish close working relationship for aligning the demand and supply of the workforce at the right time.

8.5. Key points / conclusions which may be of interest for a broader public

Based on the survey to business and industry and education institutions, industry involvement in HE institutions was perceived to be quite low. This also applied to TVET institutions, except on the delivery of TVET programmes which was quite high. Various efforts to strengthen industry participation is needed to improve the quality and relevance of education and training programmes.

Considering that company tax is considerably low, tax levy for training activities is not really relevant. The respondent advises that the educational institutions could provide recognition to the partner industries/companies.

The industry priority sectors for Brunei Darussalam at the moment are focused on Energy, Maritime, IT, Construction, Hospitality and Tourism.

Pertinent to the business and industry players' participation in HRD and LLL, the establishment of the Manpower Industry Steering Committee (MISC) is very relevant to share as a good practice.

9. Conclusions and recommendations

9.1. Strategies, policies and programmes on HRD/LLL

The government of Brunei Darussalam has a long-term plan (2007-2035), including the Vision 2035, Outline of Strategies and Polices, and National Development Plan. Under the Vision 2035, Goal 1 is focusing on preparing for educated and highly skilled citizens. These long-term plans are then translated by relevant Ministries into mid-term and short-term plans. Brunei Darussalam is also planning to focus on the provision of employment opportunities for locals and to equip them with skills in various sectors in the form of the national Manpower Blueprint to ensure the implementation of the first goal in Brunei Vision 2035 which is the accomplishment of its educated and highly skilled people. The formulation of the national Manpower Blueprint will be led by the Ministry of Education with the Manpower Planning and Employment Council. This Manpower Blueprint encompasses all sectors for the goal of creating employment opportunities and will therefore need the Whole of Nation approach to ensure its success.

Ministry of Education as the main provider education and training, has developed an education strategy and initiatives. SPN21 is the national education system approved by the Ministry of Education of Brunei Darussalam and implemented in stages since 2008 to meet the social and economic challenges of the 21st Century and to equip students with 21st Century skills. MoE has developed and implemented Strategic Plan 2018-2022 with 3 strategic objectives and initiatives to continuously improve the quality and relevance of its education. In 2019, MoE has established Lifelong Learning Centre (L3C) which is a one-stop information centre to coordinate, promote, and regulate LLL in Brunei Darussalam.

To coordinate across different ministries and private sectors, Brunei government has established Manpower Planning and Employment Council (MPEC) in 2019 which is also supported by Manpower Industry Steering Committee (MISC) representing private sectors, regulators and education and training providers. This council is very instrumental in supporting HRD and linking the supply and demand of the workforce.

Overall, the strategies, policies, and programmes are very well described but considering that some of the infrastructure are still new, such as MPEC and L3C, continued monitoring and evaluation of the programmes will be vital to ensure the plans are implemented accordingly.

9.2. Inclusiveness in HRD/LLL Approaches

Brunei Darussalam has implemented 12 years of free education, including for special needs students. Currently, MoE has established two Centres of Excellence and plans to continue building more in various locations. Under MPEC, reskilling and upskilling is also open to all and inclusive of vulnerable groups. The takers, however, was still below the target last year due to low interest from applicants. Efforts will be exerted to attract more participants in upskilling and reskilling programmes.

9.3. Enabling Structure for Promoting HRD/LLL

Several significant enabling structures for promoting HRD/LLL are the establishment of MPEC and L3C. MPEC is focusing on the three pillars: supply, demand, and enablers. Upskills and reskills is one of the initiatives under supply side. On the demand side, involve making sure that employment is available by looking into economic growth, cooperation across ministries, and private sectors as well as investors to generate employment. The enablers are matching the supply and demand by having labour market information. It is a very comprehensive strategy and programme to complement the existing formal education and training therefore requires concerted efforts to materialise the plans.

L3C will be the main coordinating centre for LLL. The role is very strategic but is also challenging that needs suitable human resources and time to carry out the mandate as one stop information centre on LLL.

9.4. Quality and Relevance

From the survey, the future skills integration in curricula of GE, TVET and HE was high and quite high. The use of textbooks and online resources in teaching and learning future skills were also quite high and high so was the assessment for future skills. The use of digital technologies in teaching and learning was also high and quite high that shows positive directions addressing future skills in formal education in Brunei Darussalam.

Some areas which were considered quite low are on career guidance, vocational orientation, work experience/internships, and entrepreneurship courses. Concerted efforts must be taken to alleviate the level of these interventions.

The preparation for high-skills occupations is still in progress that next year will be implemented.

Pathways from TVET to HE has been addressed in SPN21 as well as in TVET transformation.

9.5. Professional Development of Qualified Personnel

The Ministry of Education has developed and implemented Brunei Teacher Standard and Teachers' Performance Appraisal. There is Teacher Professional Development Framework and Guidelines for planning, implementing, and monitoring as well as evaluation teacher professional development. Recently Brunei Teacher Academy and TVET Academy has been established to provide upgrading and certification of future and current teachers for GE and TVET. M-Teach run by University Brunei Darussalam is offering master's degree for teachers and this is the requirement all future GE teachers need to meet in the near future; being the new recruitment strategies for committed and quality teachers.

For the school managers/leaders, there are various upgrading and training opportunities available, such as signature programmes, modular series, and toolbox series. Brunei Darussalam School Leadership Competency Framework and Brunei Darussalam Leadership Standards are complementing each other to benchmark the quality of school leaders.

There is also in progress of in-company trainers or Train the Trainers (ToT) training and certification. Referring to the ASEAN In-Company Trainers Standard, Brunei will require all industry trainers to undergo training and certification and availing the government training fund.

On the assessment of teachers' competencies on future skills, most teachers have reached high and quite high marks in general.

9.6. Engagement of Business Sector

Based on the survey conducted, the engagement of private sector in HE was considered quite low. This also applies to TVET, except that the engagement of industry in training delivery was considered quite high. Various efforts are needed to enhance industry participation in education and training to improve the quality and relevance.

The industry priority sector for the moment are Maritime, Energy, IT, Construction, and Hospitality and Tourism.

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APPENDICES

Appendix 1

Table 20. Frequency of Respondents Rating on the Importance and Achievements of HRD Intervention (n=30)

	Important / Desirable						Realized / Achieved					
	Very high (100%)	High (80%)	Quite high (60%)	Quite low (40%)	low	None (0%)	Very high (100%)	High (80%)	Quite high (60%)	Quite low (40%)	low	None (0%)
Promote HRD culture: There is an awareness and culture of HRD empowering people to make them resilient for an environment of constant change.	12	15	2	0	1	0	2	9	7	7	3	2
Adopt inclusive approach: HRD includes specific programs and support for vulnerable groups at risk for being left behind.	9	11	8	1	0	1	2	8	6	8	4	4
Strengthen enabling structures: HRD is clearly visible in terms of legislation, coordinated bodies and ministries at state level, platforms of cooperation, funding and research on labour market developments.	11	11	4	3	1	0	1	7	9	7	6	0
Modernize HRD programs: "Future skills" are fully incorporated into curricula, teaching and learning resources and assessments in general, vocational and higher education.	12	11	3	4	0	0	2	7	9	10	2	0
Professionalize development of qualified teaching personnel: There are standards for the training of teachers and in-company trainers which address the acquisition of "future skills".	12	9	6	3	0	0	2	8	6	9	5	0
Promote engagement of business sector: In the field of TVET and Higher Education, there are strong links between state bodies and the business sector in terms of public-private-partnerships in HRD.	11	11	6	2	0	0	2	12	8	5	3	0

Appendix 2

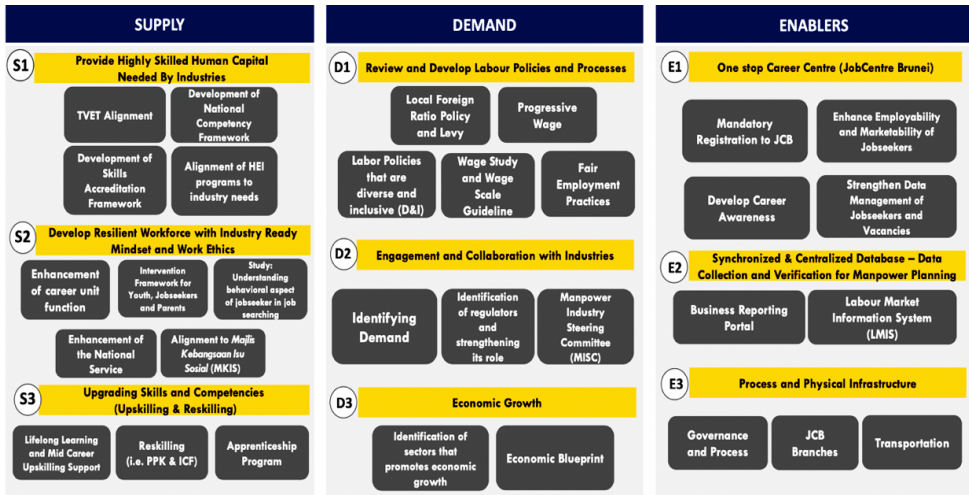
Figure 3. Strategic Objectives, Strategies and Initiatives



Source: Ministry of Education’s Strategic Plan 2018-2022

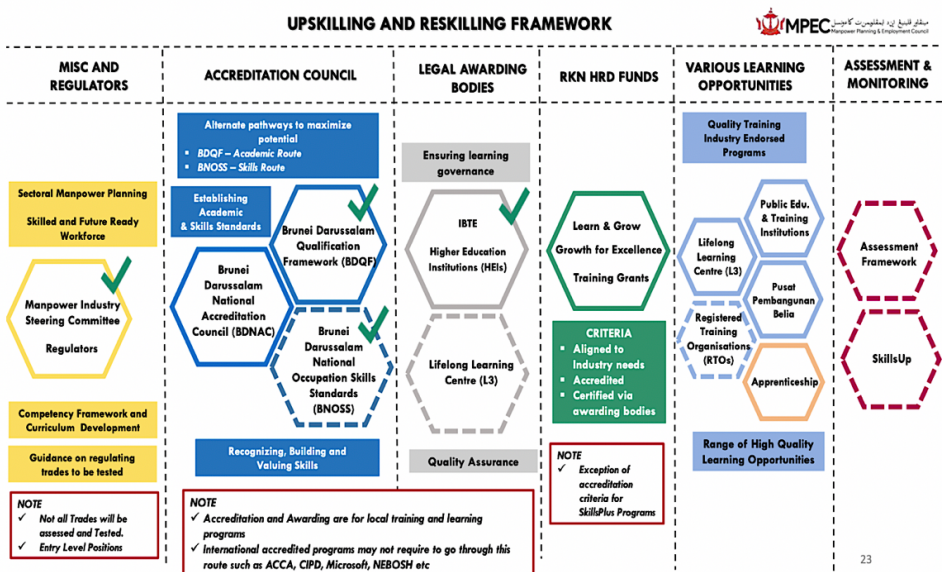
Appendix 3

Figure 4: MPEC’s Pillars, Focus Areas, and Key Deliverables



Appendix 4

Figure 5. Upskilling and Reskilling Framework (Source: MPEC Secretariat)



Appendix 5

List of key informants'/interviewees' affiliation

1. Permanent Secretary (Higher Education), Ministry of Education
2. Permanent Secretary (Core Education), Ministry of Education
3. Lifelong Learning Centre, Ministry of Education
4. Department of Educators Management
Ministry of Education
5. Manpower Planning and Employment Council (MPEC) Secretariat
6. Manpower and Industry Steering Committee (Construction)
7. Darussalam Enterprise (DARe)
8. Universiti Brunei Darussalam
9. Universiti Teknologi Brunei
10. Politeknik Brunei
11. Institute of Brunei Technical Education

Appendix 6

List of Country Researchers of SEAMEO VOCTECH

Country Lead/consultant	Dr Paryono
Members	Dk Pg Hamidah Pg Haji Hidup
	Dr Foo Sze Yeng
	Noorhayati Cynthia Abdullah
	Leanne Abdualla Lee
	Nursyuhaidah Ahmad
	Ariffin Yussof
	Hj Siti Rusiah

Appendix 7

Questionnaires

3/8/2021

SEAMEO VOCTECH Survey Platform - 1. Modernizing General Education Programs in Brunei Darussalam

1. Modernizing General Education Programs in Brunei Darussalam

This survey attempts to determine the extent of the initiatives being done to modernize general education in Brunei Darussalam. Questions marked with red asterisk (*) are mandatory.

Thank you for agreeing to take part in this important survey. All answers will remain confidential and anonymous.

There are 9 questions in this survey

Future Skills

[1. School name: *

Please write your answer here:

[2. Your position/ Subject(s) I teach: *

Please write your answer here:

[3. To what extent are the following "future skills" incorporated explicitly and significantly in curricula in general education? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[4. To what extent do teaching and learning resources provide support for promoting "future skills"? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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[]

5. List other teaching and learning resources(if any) and the extent in providing support for promoting "future skills"?

	very high	high	quite high	quite low	low	none
1						
2						
3						
4						
5						

[] **6. To what extent do assessments address "future skills"?** *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[] **7. To what extent are digital technologies part of innovative teaching and learning concepts?** *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Blended learning (selected phases online)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[] **8. To what extent are students exposed to the following provisions in (lower) secondary education:** *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Career guidance counselling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational orientation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work experience / internships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entrepreneurship courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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9. List other provisions in (lower) secondary education(if any) and the extent students are exposed to them:

	very high	high	quite high	quite low	low	none
1						
2						
3						
3						
5						

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SEAMEO VOCTECH Survey Platform - 2. Modernizing TVET Programs in Brunei Darussalam

2. Modernizing TVET Programs in Brunei Darussalam

This survey attempts to determine the extent of the initiatives being done to modernize TVET in Brunei Darussalam. Questions marked with red asterisk (*) are mandatory.

Thank you for agreeing to take part in this important survey. All answers will remain confidential and anonymous.

There are 7 questions in this survey

Future Skills

[1. School name: *

Please write your answer here:

[2. Your position / Subject(s) I teach: *

Please write your answer here:

[3. To what extent are the following "future skills" incorporated explicitly and significantly in curricula in TVET? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[4. To what extent do teaching and learning resources provide support for promoting "future skills"? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOCTECH Survey Platform - 2. Modernizing TVET Programs in Brunei Darussalam

[]

5. List other teaching and learning resources(if any) and the extent in providing support for promoting "future skills"?

	very high	high	quite high	quite low	low	none
1						
2						
3						
4						
5						

[]6. To what extent do assessments address "future skills"? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[]7. To what extent are digital technologies part of innovative teaching and learning concepts? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Blended learning (selected phases online)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOCTECH Survey Platform - 3. Modernizing Higher Education Programs in Brunei Darussalam

3. Modernizing Higher Education Programs in Brunei Darussalam

This survey attempts to determine the extent of the initiatives being done to modernize Higher Education in Brunei Darussalam. Questions marked with red asterisk (*) are mandatory.

Thank you for agreeing to take part in this important survey. All answers will remain confidential and anonymous.

There are 8 questions in this survey

Future Skills

[1. Institution name: *

Please write your answer here:

[2. Program name / Faculty: *

Please write your answer here:

[3. Subject(s) / Course(s) I teach: *

Please write your answer here:

[4. To what extent are the following "future skills" incorporated explicitly and significantly in curricula in higher education? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[5. To what extent do teaching and learning resources provide support for promoting "future skills"? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOCTECH Survey Platform - 3. Modernizing Higher Education Programs in Brunei Darussalam

6. List other teaching and learning resources(if any) and the extent in providing support for promoting "future skills"?

	very high	high	quite high	quite low	low	none
1						
2						
3						
4						
5						

[7. To what extent do assessments address "future skills"? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Numeracy and literacy skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-order cognitive skills (e.g. analysing; critical thinking; creating)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ICT-skills / digital literacy (e.g. applying devices and tools; reflecting impact of ICT applications)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STEM (science, technology, engineering and mathematics) skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social skills (e.g. communication; cooperation in teams; conflict resolution; empathy; emotional intelligence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learnability (e.g. readiness to learn; learning motivation; curiosity; self-learning strategies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character qualities (e.g. ethical reflection; social and cultural awareness; agility)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving in complex, technology-rich environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[8. To what extent are digital technologies part of innovative teaching and learning concepts? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Blended learning (selected phases online)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOTTECH Survey Platform - 4. Promote engagement of business sector in HRD

4. Promote engagement of business sector in HRD

This survey attempts to determine the engagement of business sector in HRD. Questions marked with asterisk (*) are mandatory. Thank you for agreeing to take part in this important survey. All answers will remain confidential and anonymous.

There are 7 questions in this survey

Business Sector

[1]. Company name: *

Please write your answer here:

[2]. Your position: *

Please write your answer here:

[3]. To what extent is the business sector engaged as a partner in Technical Vocational Education and Training in the following areas of Human Resources Development? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Delivery of TVET programs (e.g. internship / apprenticeship)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of equipment / teaching material to schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partner in assessments and examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support in training of teaching personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support in development of curricula and skill standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engagement in TVET bodies on national or local level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[4]. List other areas of Human Resources Development (if any) and the extent business sector are engaged as a partner in Technical Vocational Education and Training.

	very high	high	quite high	quite low	low	none
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

[5]. To what extent is the business sector engaged as a partner in Higher Education in the following areas of Human Resource Development? *

Please choose the appropriate response for each item:

	very high	high	quite high	quite low	low	none
Support in development of courses and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support in delivery of courses and programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support in training of university personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct of joint projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of equipment / teaching material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operation of industry – academia transfer institutes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOTTECH Survey Platform - 4. Promote engagement of business sector in HRD

[]6. List other areas of Human Resource Development (if any) and the extent business sector are engaged as a partner in Higher Education.

	very high	high	quite high	quite low	low	none
1						
2						
3						
4						
5						

[]7. What incentives are offered by relevant authorities in the government to incentivize companies to invest in Human Resource Development (e. g. subsidies, tax exemption, training funds, levy grant system)? *

Please write your answer here:

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SEAMEO VOCTECH Survey Platform - 5. Readiness questionnaire

5. Readiness questionnaire

This survey attempts to determine HRD readiness at your institution. Questions marked with asterisk (*) are mandatory.

Thank you very much for supporting us with your expertise!

For your responses in the following questionnaire you will need between 5-10 minutes!

Your responses will be kept anonymous and confidential!

There are 3 questions in this survey

Readiness

[1]. Your institutional affiliation *

Comment only when you choose an answer.

Please choose all that apply and provide a comment:

- | | |
|---|----------------------|
| <input type="checkbox"/> Ministry (if applicable, please complete name of ministry) | <input type="text"/> |
| <input type="checkbox"/> Primary / lower secondary school | <input type="text"/> |
| <input type="checkbox"/> TVET school / college / academy | <input type="text"/> |
| <input type="checkbox"/> University / research institution | <input type="text"/> |
| <input type="checkbox"/> Company | <input type="text"/> |
| <input type="checkbox"/> Business membership organization | <input type="text"/> |
| <input type="checkbox"/> Other: (if applicable, please specify) | <input type="text"/> |

[2]. Main expertise in the following fields: *

Please choose all that apply:

- General / basic education
- Technical and vocational education
- Higher education
- Corporate learning & development
- Non-formal / informal education
- Other:

[]3. For each area within Human Resource Development, we would like your appraisal with regard to its importance and realization. There may be gaps between what is desirable and what already been achieved.
*

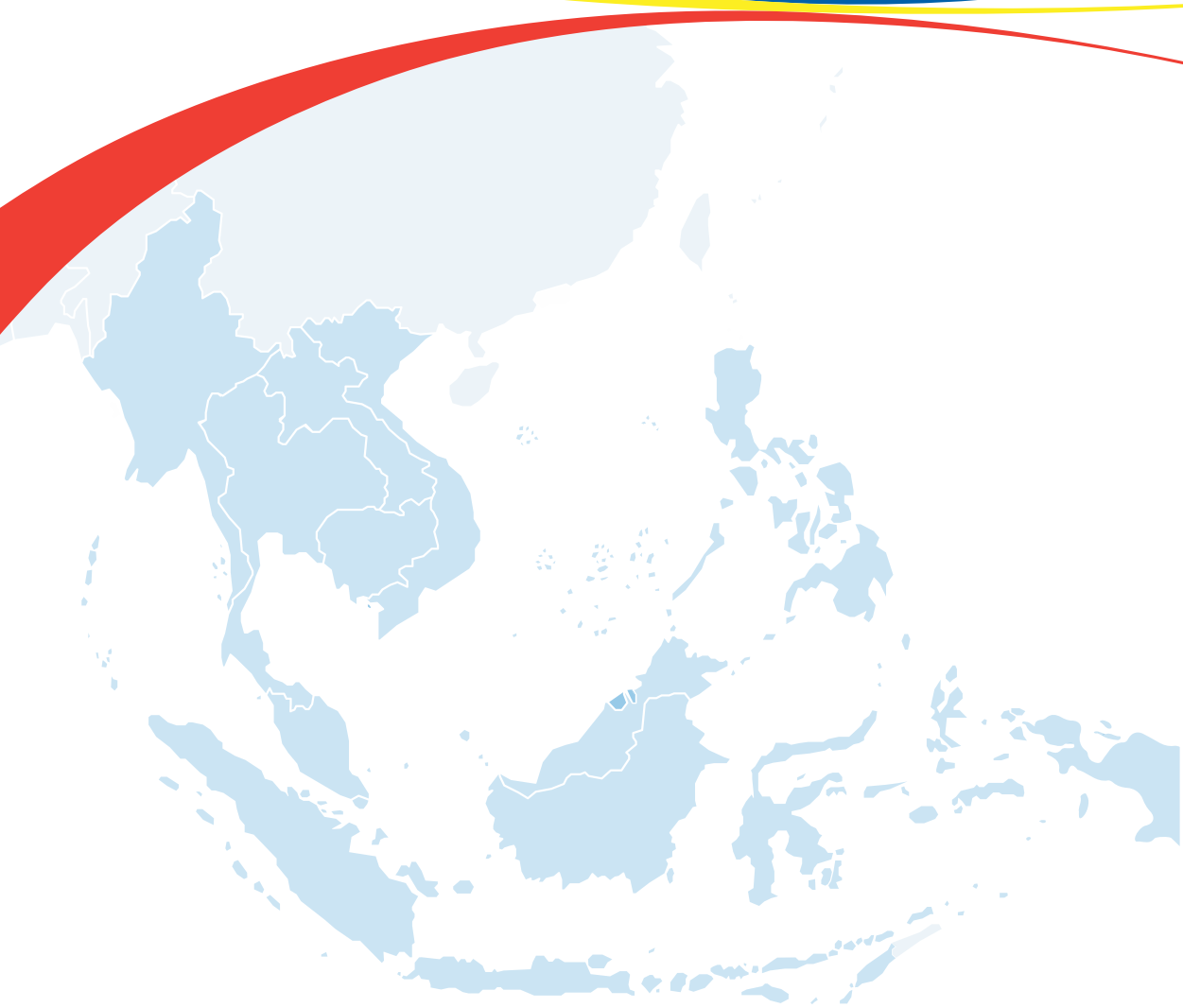
Please choose the appropriate response for each item:

	Important / Desirable						Realized / Achieved					
	very high (100%)	high (80%)	quite high (60%)	quite low (40%)	low (20%)	none (0%)	very high (100%)	high (80%)	quite high (60%)	quite low (40%)	low (20%)	none (0%)
Promote HRD culture: There is an awareness and culture of HRD empowering people to make them resilient for an environment of constant change.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adopt inclusive approach: HRD includes specific programs and support for vulnerable groups at risk for being left behind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strengthen enabling structures: HRD is clearly visible in terms of legislation, coordinated bodies and ministries at state level, platforms of cooperation, funding and research on labor market developments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modernize HRD programs: "Future skills" are fully incorporated into curricula, teaching and learning resources and assessments in general, vocational and higher education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professionalize development of qualified teaching personnel: There are standards for the training of teachers and in-company trainers which address the acquisition of "future skills".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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SEAMEO VOCTECH Survey Platform - 5. Readiness questionnaire

	Important / Desirable						Realized / Achieved					
	very high (100%)	high (80%)	quite high (60%)	quite low (40%)	low (20%)	none (0%)	very high (100%)	high (80%)	quite high (60%)	quite low (40%)	low (20%)	none (0%)
Promote engagement of business sector. In the field of TVET and Higher Education, there are strong links between state bodies and the business sector in terms of public-private partnerships in HRD.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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