ASEAN Key Figures 2022

The ASEAN Secretariat
Jakarta
The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. 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

Catalogue-in-Publication Data

ASEAN Key Figures 2022
Jakarta, ASEAN Secretariat, December 2022

315.95
1. ASEAN – Statistics

ISSN: 2986-3619
Vol. 5, December 2022

ASEAN: A Community of Opportunities for All.

Photos Credits:
Freepik: Pages 1, 7, 49, 59
Pixabay: Front cover

The text of this publication may be freely quoted or reprinted, provided proper acknowledgement is given and a copy containing the reprinted material is sent to the Community Relations Division (CRD) of the ASEAN Secretariat, Jakarta.

Map in this publication is only indicative and is not drawn to scale.

General information on ASEAN appears online at the ASEAN Website: www.asean.org

Copyright Association of Southeast Asian Nations (ASEAN) 2022. All rights reserved.
FOREWORD

Data is a key component in ASEAN Community-building efforts, particularly in order to accurately measure progress as well as to respond effectively to challenges.

In this regard, I am pleased to share with you the fifth edition of ASEAN Key Figures, which collates data on various topics and development updates from our ten member states. This publication aims to give a comprehensive and updated regional outlook from social and economic standpoints, particularly on four areas of priority: Population and Welfare; Economy; Connectivity; and Energy and Environment. Some of the data also spotlights the impact of the COVID-19 pandemic on our region.

I hope that you find this publication of good use in our efforts to work together and realise a resilient and sustainable ASEAN Community.

Dato Lim Jock Hoi
Secretary-General of ASEAN
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREWORD</td>
<td>III</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>XI</td>
</tr>
<tr>
<td>1 POPULATION AND WELFARE</td>
<td>1</td>
</tr>
<tr>
<td>1.1. POPULATION AND WELFARE</td>
<td>3</td>
</tr>
<tr>
<td>1.2. EDUCATION</td>
<td>11</td>
</tr>
<tr>
<td>1.3. HEALTH</td>
<td>15</td>
</tr>
<tr>
<td>1.4. LABOUR</td>
<td>19</td>
</tr>
<tr>
<td>1.5. POVERTY AND INEQUALITY</td>
<td>23</td>
</tr>
<tr>
<td>2 ECONOMY</td>
<td>27</td>
</tr>
<tr>
<td>2.1. ECONOMIC SIZE AND GROWTH</td>
<td>29</td>
</tr>
<tr>
<td>2.2. INTERNATIONAL MERCHANDISE TRADE</td>
<td>35</td>
</tr>
<tr>
<td>2.3. INTERNATIONAL TRADE IN SERVICES</td>
<td>41</td>
</tr>
<tr>
<td>2.4. FOREIGN DIRECT INVESTMENT</td>
<td>44</td>
</tr>
<tr>
<td>3 CONNECTIVITY</td>
<td>49</td>
</tr>
<tr>
<td>3.1. TRANSPORT</td>
<td>51</td>
</tr>
<tr>
<td>3.2. VISITOR ARRIVALS</td>
<td>55</td>
</tr>
<tr>
<td>3.3. INTERNET SUBSCRIBERS</td>
<td>57</td>
</tr>
<tr>
<td>4 ENERGY AND ENVIRONMENT</td>
<td>59</td>
</tr>
<tr>
<td>4.1. ENERGY</td>
<td>61</td>
</tr>
<tr>
<td>4.2. ENVIRONMENT</td>
<td>62</td>
</tr>
<tr>
<td>REFERENCE</td>
<td>66</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1.1.1. Population size (million persons) and growth rate (%), ASEAN total, 1980-2021 .............................................................. 3
Figure 1.1.2. Population pyramid (% of total), ASEAN total, 2000 and 2021 ..................................................................................... 4
Figure 1.1.3. Population age structure (% of total) by ASEAN Member States, 2000 and 2021 ............................................................... 5
Figure 1.1.4. Total Fertility Rates (TFR) by ASEAN Member States, 2010, 2015, and 2021 ................................................................. 7
Figure 1.1.5. Infant mortality rates (per 1,000 live births), 2010, 2015, and 2020 ............................................................................... 8
Figure 1.1.6. Under-five mortality rates (per 1,000 live births), ASEAN total, 1985-2021 ................................................................. 8
Figure 1.1.7. Under-five mortality rates (per 1,000 live births) by ASEAN Member States, 2021 ........................................................... 9
Figure 1.1.8. Life expectancy at birth (years), ASEAN total, 1980-2021 ................................................................. 10
Figure 1.1.9. Life expectancy at birth (years) by ASEAN Member States, 2010, 2015, and 2021 ........................................................... 10
Figure 1.2.1. Adult literacy rate (%) by ASEAN Member States, 2010, 2015, and 2021 ................................................................. 12
Figure 1.2.2. Net enrolment rate in primary education (%) by ASEAN Member States, 2010, 2015, and 2021 ................................ 13
Figure 1.2.3. Gender Parity Index (GPI) gross enrolment rate in primary education by ASEAN Member States, 2020 ................ 14
Figure 1.2.4. Pupil-teacher ratio in primary education by ASEAN Member States, 2021 ................................................................. 15
Figure 1.3.1. Births attended by skilled health personnel (%) by ASEAN Member States, 2020 ........................................................... 16
Figure 1.3.2. Coverage of immunisation against measles among one-year old children (%) by ASEAN Member States, 2005, 2010 and 2021 ......................................................................................... 17
Figure 1.3.3. Coverage of immunisation against DPT among one-year old children (%) by ASEAN Member States, 2005, 2010, and 2021 ......................................................................................... 18
Figure 1.1.1. Population size (million persons) and growth rate (%), ASEAN total, 1980-2021............................................................................ 10
Figure 1.1.2. Population pyramid (% of total), ASEAN total, 2000 and 2021............................................................................. 12
Figure 1.1.3. Population age structure (% of total) by ASEAN Member States, 2021....................................................................... 13
Figure 1.1.4. Total Fertility Rates (TFR) by ASEAN Member States, 2000 and 2021....................................................................... 14
Figure 1.1.5. Infant mortality rates (per 1,000 live births), 2010, 2015, and 2021........................................................................... 15
Figure 1.1.6. Under-five mortality rates (per 1,000 live births), ASEAN total, 1985-2021............................................................................ 16
Figure 1.1.7. Under-five mortality rates (per 1,000 live births) by ASEAN Member States, 2020......................................................... 17
Figure 1.1.8. Life expectancy at birth (years), ASEAN total, 1980-2021......................................................................................... 18
Figure 1.1.9. Life expectancy at birth (years) by ASEAN Member States, 2021................................................................. 19
Figure 1.2.1. Adult literacy rate (%) by ASEAN Member States, 2010, 2015, and 2021................................................................. 20
Figure 1.2.2. Net enrolment rate in primary education (%) by ASEAN Member States, 2010, 2015, and 2021........................................ 21
Figure 1.2.3. Gender Parity Index (GPI) gross enrolment rate in primary education by ASEAN Member States, 2020............................................ 22
Figure 1.2.4. Pupil-teacher ratio in primary education by ASEAN Member States, 2020............................................................. 23
Figure 1.3.1. Births attended by skilled health personnel (%) ............... 24
Figure 1.3.2. Maternal mortality ratio (per 100,000 live births) by ASEAN Member States, 2005, 2010, and 2015.................................. 25
Figure 1.3.3. Coverage of immunisation against DPT among one-year old children (%) by ASEAN Member States, 2005, 2010, and 2015.......................................................... 26
Figure 1.4.1a. Labour force participation rates (%) by ASEAN Member States, 2010, 2015, and 2021.............................................. 27
Figure 1.4.1b. Labour force participation rates (%) by sex by ASEAN Member States, 2021............................................................. 28
Figure 1.4.2. Unemployment rates (%) by ASEAN Member States, 2010 2015, and 2021................................................................. 29
Figure 1.4.3. Shares of employment by economic activity (%) by ASEAN Member States, 2021............................................................. 30
Figure 1.4.4. Shares of employment by economic activity (%) by sex by ASEAN Member States, 2021............................................. 31
Figure 1.5.1. Population living below the national poverty lines (%) by ASEAN Member States, 2016 and 2020........................................ 32
Figure 1.5.2. Gini Ratio by ASEAN Member States, 2005, 2010, and 2021.................................................................................... 33
Figure 1.6.1. Value added (US$ billion) by ASEAN Member States, 2015 and 2019................................................................. 34
Figure 1.6.2. Value added (US$ billion) by ASEAN Member States, 2010 and 2015................................................................. 35
Figure 1.6.3. Value added (US$ billion) by ASEAN Member States, 2021.................................................................................... 36
Figure 1.7.1. Value added (US$ billion) by ASEAN Member States, 2021 and 2022................................................................. 37
Figure 1.7.2. Value added (US$ billion) by ASEAN Member States, 2021 and 2022................................................................. 38
Figure 2.1.1. GDP (US$ trillion) and growth rate (%) of top ten economies, 2020 and 2021................................................................. 39
Figure 2.1.2. ASEAN GDP (US$ trillion) and GDP per capita (US$), 2005-2021................................................................................ 40
Figure 2.1.3. Shares of GDP (%) by ASEAN Member States, 2005 and 2021................................................................................ 41
Figure 2.1.4. GDP per capita (US$) by ASEAN Member States, 2005-2021.................................................................................. 42
Figure 2.1.5. ASEAN GDP at current prices (US$ billion) and growth rate (%) by ASEAN Member States, 2020 and 2021........... 43
Figure 2.1.6. Quarterly GDP growth rate (%) of seven ASEAN Member States, Q1-2021 to Q2-2022.................................................... 44
Figure 2.1.7. Shares of main economic sectors to total ASEAN’s GDP (%), 2010-2021................................................................. 45
Figure 2.1.8. Shares of main economic sectors to total GDP (%) by ASEAN Member States, 2021................................................................. 46
Figure 2.2.1. Value of merchandise exports and imports and trade balance (US$ billion), ASEAN total, 2005-2021...................... 47
Figure 2.2.2. Growth of merchandise trade (%) by ASEAN Member States, 2019-2021................................................................. 48
Figure 2.2.3. Shares of merchandise trade (%) by ASEAN Member States, 2021................................................................................ 49
Figure 2.2.4. Growth of merchandise trade (%) by ASEAN Member States, Q1-2021 to Q2-2022.................................................... 50
Figure 2.2.5. Shares of merchandise exports (%) by trading partners, 2005-2021

Figure 2.2.6. Shares of merchandise imports (%) by trading partners, 2005-2021

Figure 2.2.7. Top-5 merchandise trade products relate to COVID-19, 2021

Figure 2.3.1. ASEAN exports and imports of services and trade balance (US$ billion), 2005-2021

Figure 2.3.2. Exports and imports of services (US$ billion) by ASEAN Member States, 2021

Figure 2.3.3. Exports and imports of services (US$ billion), 2021

Figure 2.4.1. Inward flows of FDI, extra and intra-ASEAN (US$ billion), 2000-2021

Figure 2.4.2. FDI inward flows (US$ billion) by ASEAN Member States, 2000, 2010, and 2021

Figure 2.4.3. ASEAN top-5 FDI sources, 2021

Figure 2.4.4. Inward flows of FDI by economic activity, 2021

Figure 3.1.1. Road length in thousand kilometers by ASEAN Members States, 2010-2021

Figure 3.1.2. Number of registered road motor vehicles per 1,000 population by ASEAN Member States, 2010, 2015, and 2021

Figure 3.1.3. Number of international and domestic air passengers (thousand person) by ASEAN Member States, 2010, 2015, and 2021

Figure 3.1.4. Number of international and domestic air passengers (thousand person) by ASEAN Member States, 2010, 2015, and 2021

Figure 3.2.1. Number of visitor arrivals (000) by ASEAN Member States, 2021

Figure 3.2.2. Intra and extra-ASEAN visitor arrivals (000), 2005-2021

Figure 3.3.1. Number of internet subscribers per 100 persons by ASEAN Member States, 2010, 2015, and 2021

Figure 4.1.1. Population with access to electricity (%) by ASEAN Member States, 2016 and 2020
Figure 4.2.1. Number of deaths, missing persons and directly affected persons attributed to climate-related disasters per 100,000 population by ASEAN Member States, 2016-2020..................... 63
Figure 4.2.2. Forest area as a proportion of total land area (%) by ASEAN Member States, 2020................................................................. 64
Figure 4.2.3. Red List Index by ASEAN Member States, 2021......................65
INTRODUCTION

ASEAN Key Figures 2022 provides an overview of ASEAN statistics across different range of topics, highlighting the recent development across ASEAN Member States (AMS). It combines an enhanced graphical data visualitation together with a concise narrative to ease users in digesting and understanding the information on statistical indicators discussed. This publication is a part of the ongoing efforts to promote the visibility of ASEAN official statistics and ASEAN regional statistical cooperation, as well as to contribute to the monitoring of economic and social progress in ASEAN.

ASEAN Key Figures 2022 is organised into four chapters covering a selection of key indicators pertaining to people and welfare, economy, connectivity, and energy and environment. The publication also features several figures illustrating the impact of the COVID-19 pandemic, as well as selected Sustainable Development Goals Indicators.

The statistical data presented in this publication are based on the available data in ASEANstats database as of 30 November 2022. More complete data and information about ASEAN statistics can be accessed in the ASEANstats website (www.aseanstats.org), and in other ASEANstats's publications i.e. ASEAN Statistical Yearbook and ASEAN Statistical Highlights.
INTRODUCTION

**ASEAN Key Figures 2022** provides an overview of ASEAN statistics across different range of topics, highlighting the recent development across ASEAN Member States (AMS). It combines an enhanced graphical data visualization together with a concise narrative to ease users in digesting and understanding the information on statistical indicators discussed. This publication is a part of the ongoing efforts to promote the visibility of ASEAN official statistics and ASEAN regional statistical cooperation, as well as to contribute to the monitoring of economic and social progress in ASEAN.

**ASEAN Key Figure 2022** is organised into four chapters covering a selection of key indicators pertaining to people and welfare, economy, connectivity, and energy and environment. The publication also features several figures illustrating the impact of the COVID-19 pandemic, as well as selected Sustainable Development Goals Indicators.

The statistical data presented in this publication are based on the available data in ASEANstats database as of 30 November 2022. More complete data and information about ASEAN statistics can be accessed in the ASEANstats website (www.aseanstats.org), and in other ASEANstats’s publications i.e. **ASEAN Statistical Yearbook** and **ASEAN Statistical Highlights**.
Figure 1.1.1. Population size and growth rates, ASEAN total, 1980-2021

Population: size and structure

The total number of people living in the ten Member States had reached 663.9 million in 2021, making ASEAN as the third most populous economy in the world after China and India. The figure was almost double of ASEAN population in 1980 (355.2 million), with 1.4% of average annual growth rate during the period of 1980-2021 (Figure 1.1.1). This relatively rapid growth was due mainly to natural increases as well as membership expansion with the accession of Brunei Darussalam to ASEAN in 1984, Viet Nam in 1995, Lao PDR and Myanmar in 1997, and Cambodia in 1999.

Figure 1.1.1 also shows a slowing annual growth rate of ASEAN population with the average of annual growth rate of 1.1% in 2010-2021, compared to 1.3% in 1990-2021.

Figure 1.1.1. Population size (million persons) and growth rate (%), ASEAN total, 1980-2021

Source: ASEAN Secretariat, ASEANstats database
1.1 POPULATION AND WELFARE

Population: size and structure

The total number of people living in the ten Member States had reached 663.9 million in 2021, making ASEAN as the third most populous economy in the world after China and India. The figure was almost double of ASEAN population in 1980 (355.2 million), with 1.4% of average annual growth rate during the period of 1980-2021 (Figure 1.1.1). This relatively rapid growth was due mainly to natural increases as well as membership expansion with the accession of Brunei Darussalam to ASEAN in 1984, Viet Nam in 1995, Lao PDR and Myanmar in 1997, and Cambodia in 1999.

Figure 1.1.1 also shows a slowing annual growth rate of ASEAN population with the average of annual growth rate of 1.1% in 2010-2021, compared to 1.3% in 1990-2021.

Figure 1.1.1. Population size (million persons) and growth rate (%), ASEAN total, 1980-2021

Source: ASEAN Secretariat, ASEANstats database
The age structure of ASEAN population had also shifted in the last two decades, as shown by the population pyramid\(^1\) of ASEAN in 2000 and 2021 in Figure 1.1.2.

In 2000, youth\(^2\) population aged 0-19 years’ old had dominated ASEAN population with 40.8% share of the region’s total population. In 2021, although the absolute number of youth population continued to increase, their share to total population dropped to 32.8%. Meanwhile, during the same period, the total share of the productive working-age population and elderly population increased to 59.7% (from 53.9%) and 7.5% (from 5.3%), respectively.

Figure 1.1.2. Population pyramid (% of total), ASEAN total, 2000 and 2021

![Population Pyramid](image)

Source: ASEAN Secretariat, ASEANstats database

The population pyramid also indicated that women generally have longer life expectancy than men. In 2021 the share of elderly women to total female population was 8.4%, higher than the 6.6% share of elderly men to total male population.

The ongoing process of demographic transition, along with declining fertility and mortality levels in AMS, are expected to affect the shifts in population structure over time. However, given the different levels of development across the AMS, there will be variation in the stages of their demographic transitions.

---

\(^1\) The population pyramid reveals the makeup of the population as a whole by age groups and gender.

\(^2\) Youth population comprises the following age groups: 0-4, 5-9, 10-14, 15-19
During the period of 2000-2021, all AMS recorded an increase in the share of population aged 65 and over (Figure 1.1.3), with Singapore and Thailand had the highest increase, from 7.2% and 9.1% in 2000 to 16.0% and 12.3% in 2021, respectively. On contrary, the shares of youth population aged 0-19 declined in all AMS.

Figure 1.1.3. Population age structure (% of total) by ASEAN Member States, 2000 and 2021.

Meanwhile, Figure 1.1.3 also shows an increasing share of productive working age population in Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines and Viet Nam, ranging from 4.6 to 12.6 percentage point. A large share of productive working age population could potentially contribute to economic growth and poverty reduction. However, it would also invite challenges in term of providing sufficient education and health services, as well as creating sufficient employment opportunities.
Fertility

The total fertility rates (TFR) which measures the average number of children per woman is defined as the average number of children that would be born by a woman over her lifetime if the woman were to experience the current age-specific fertility rates throughout her lifetime\(^3\).

Figure 1.1.4 shows a declining TFR in all AMS during the last decade, which is similar with the trend observed in other regions. Significant decline in TFR was recorded in Indonesia from 2.5 in 2010 to 2.1 in 2021, 2.1 to 1.7 in Malaysia, 1.9 to 1.6 (2020) in Brunei Darussalam, and from 3.1 in 2010 to 2.7 (2017) in Philippines. This could lead to a reduction in the rate of population growth. On the other hand, TFR in Viet Nam increased from 2.0 in 2010 to 2.1 in 2021.

From the social perspective, the reduction in TFR could be interpreted as a positive sign. Lower TFR leads to lower number of children compared to the working-age population. This would enable better provision of health and education for children, as well as other supporting infrastructures and services. However, in the long term, sustained low fertility rate could also lead to an aging population, which would create higher burden on the economy through, among others, increased health care and social security costs.

\(^3\)https://ourworldindata.org/fertility-rate
The total fertility rates (TFR) which measures the average number of children per woman is defined as the average number of children that would be born by a woman over her lifetime if the woman were to experience the current age-specific fertility rates throughout her lifetime.

Figure 1.1.4 shows a declining TFR in all AMS during the last decade, which is similar with the trend observed in other regions. Significant decline in TFR was recorded in Indonesia from 2.5 in 2010 to 2.1 in 2021, 2.1 to 1.7 in Malaysia, 1.9 to 1.6 (2020) in Brunei Darussalam, and from 3.1 in 2010 to 2.7 (2017) in Philippines. This could lead to a reduction in the rate of population growth. On the other hand, TFR in Viet Nam increased from 2.0 in 2010 to 2.1 in 2021.

From the social perspective, the reduction in TFR could be interpreted as a positive sign. Lower TFR leads to lower number of children compared to the working-age population. This would enable better provision of health and education for children, as well as other supporting infrastructures and services. However, in the long term, sustained low fertility rate could also lead to an aging population, which would create higher burden on the economy through, among others, increased health care and social security costs.

Note: The latest available data for Brunei Darussalam, Lao PDR and Thailand is 2020, Myanmar is 2019, Philippines is 2017
Source: ASEAN Secretariat, ASEANstats database

Mortality and Life Expectancy

The infant mortality rate and under-five mortality rate are oftenly used to indicate the social, economic, and environmental conditions of children, including their access to health care facilities.

The infant mortality rate is defined as the probability of dying between birth and exactly one year of age, expressed per 1,000 live births. Figure 1.1.5 presents the infant mortality rate in AMS over the period of 2010-2020. In general, AMS recorded a decrease in the infant mortality rate, with the highest decline was recorded in Cambodia from 32 deaths per 1000 live births in 2015 to 19 deaths per 1000 live births in 2020. Meanwhile, Lao PDR recorded the highest rate of infant mortality in 2020 at 49 deaths per 1000 live births.
Figure 1.1.5. Infant mortality rates (per 1,000 live births), 2010, 2015, and 2020

Note: The latest available data for Philippines is 2017
Source: ASEAN Secretariat, ASEANstats database

Under-five mortality rate is defined as probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births. Figure 1.1.5 shows that significant progress has been made in reducing the under-five mortality rate in ASEAN, from 86 deaths per 1,000 live births in 1985 to 30 deaths per 1,000 live births in 2020. However, efforts are still needed to achieve the Sustainable Development Goals (SDGs) target, which is to reduce under-five mortality to at least as low as 25 per 1000 live births by 2030.

Figure 1.1.6. Under-five mortality rates (per 1,000 live births), ASEAN total, 1985-2021

Source: ASEAN Secretariat, ASEANstats database
Figure 1.1.6. Under-five mortality rates (per 1,000 live births), ASEAN total, 1985-2021

Under-five mortality rate is defined as probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births. Figure 1.1.6 shows that significant progress has been made in reducing the under-five mortality rate in ASEAN, from 86 deaths per 1,000 live births in 1985 to 30 deaths per 1,000 live births in 2020. However, efforts are still needed to achieve the Sustainable Development Goals (SDGs) target, which is to reduce under-five mortality to at least as low as 25 per 1000 live births by 2030.

Figure 1.1.7. Under-five mortality rates (per 1,000 live births) by ASEAN Member States, 2021

Furthermore, the disparity in under-five mortality rates remained among AMS (Figure 1.1.7). Singapore recorded the lowest rate at two deaths per 1000 live births, followed by Malaysia, Thailand, and Brunei Darussalam with 7.4, 7.0, and 9.2 deaths per 1000 live births, respectively. Meanwhile, the rate ranged between 20 to 32 deaths per 1000 live births in Viet Nam, Cambodia, Philippines and Indonesia, while higher rates are experienced by Lao PDR and Myanmar at 60 and 65 deaths per 1,000 live births, respectively.

A decline in child mortality contributes to longer life expectancy. Life expectancy at birth is defined as the average number of years that a newborn could expect to live if he or she were to pass through life, subject to the age-specific mortality rates of a given period.

In 2021, the average life expectancy at birth in ASEAN was 72.4 years, over 11 years higher than it was in 1980 (Figure 1.1.8). The Figure also shows that life expectancy of ASEAN women was 5.3 years longer than men at 75.4 years to live.
Meanwhile, Figure 1.1.9 shows that life expectancy at birth varies across the AMS. Singapore led the AMS with life expectancy at birth of 83.5 years. People in Brunei Darussalam, Cambodia, Indonesia, Malaysia, Philippines, Thailand and Viet Nam are expected to live between 71 and 79 years, while in Lao PDR and Myanmar life expectancy was below 70 years.

Note: The latest available data for Brunei Darussalam, Myanmar, and Thailand is 2020, Philippines is 2015

Source: ASEAN Secretariat, ASEANstats database
1.2. EDUCATION

Education is one of the basic human rights that significantly contributes to human development and poverty reduction. Education statistics are therefore important for monitoring the progress in educational development in a country including AMS. This section discusses selected education statistics, namely adult literacy rate, net enrolment rate in primary education, gender parity index (GPI) for gross enrolment ratio in primary education, and pupil-teacher ratio in primary education.

Adult Literacy Rate

The literacy rate reflects the accumulated achievement in providing basic literacy skills to the population. Adult literacy rate refers to the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life.

Statistics of adult literacy rate in AMS over the period of 2010 to 2021 is presented in Figure 1.2.1. It shows that majority of AMS had achieved relatively high adult literacy rate in recent years, with more than 90% of their adult population able to read and write. Singapore recorded the highest rate at 97.6%, followed by Brunei Darussalam at 97.3%. High adult literacy rate was also observed in Philippines (96.3%), Indonesia (96.0%), Viet Nam (95.7%), Malaysia (95.5%), Lao PDR (95.2%), and Thailand (93.8%). Meanwhile, the rates in Myanmar and Cambodia was relatively lower at 89.1% and 81.9%, respectively.
Figure 1.2.1. Adult literacy rate (%) by ASEAN Member States, 2010, 2015, and 2021

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2015</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>96.1</td>
<td>97.3</td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td>76.7</td>
<td>81.9</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>92.9</td>
<td>95.2</td>
<td></td>
</tr>
<tr>
<td>Lao PDR</td>
<td>96.0</td>
<td>96.0</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>93.1</td>
<td>95.5</td>
<td></td>
</tr>
<tr>
<td>Myanmar</td>
<td>89.1</td>
<td>89.1</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>94.4</td>
<td>94.4</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>91.0</td>
<td>94.6</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>97.6</td>
<td>95.9</td>
<td></td>
</tr>
<tr>
<td>Viet Nam</td>
<td>93.7</td>
<td>95.7</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1. The latest available data for Malaysia is 2020, Cambodia, Myanmar, and Philippines is 2019, and Thailand is 2018
2. Brunei Darussalam’s data refer to literacy rate aged 10 years and above
Source: ASEAN Secretariat, ASEANstats database

Net Enrolment Rate in Primary Education

The net enrollment rate (NER) in primary education measures the proportion of children of official primary school age who participate in primary education. As shown in Figure 1.2.2, eight out of 10 AMS had NER in primary education above 90% in 2021. The highest rate was recorded in Singapore and Thailand at 99.9%. NER in primary education in Brunei Darussalam, Indonesia, Lao PDR, Malaysia, Myanmar, and Viet Nam ranged from 93.2% to 98.8%. Meanwhile, Philippines and Cambodia reported NER in primary education of 89.8% and 86.8% in 2021 respectively. These rates were lower than their NER in 2015, which stood at 96.9% and 93.9%, respectively. One possible reason is the school closure and limited access to online learning during the COVID-19 pandemic.
Figure 1.2.1. Adult literacy rate (%) by ASEAN Member States, 2010, 2015, and 2021

Figure 1.2.2. Net enrolment rate in primary education (%) by ASEAN Member States, 2010, 2015, and 2021

Note:   1. The latest available data for Malaysia is 2020, Cambodia, Myanmar, and Philippines is 2019, and Thailand is 2018
2. Brunei Darussalam’s data refer to literacy rate aged 10 years and above
Source: ASEAN Secretariat, ASEANstats database

Gender Parity Index (GPI) for Gross Enrolment Ratio in Primary Education

The gender parity index in education enrolment is the ratio of the number of female students enrolled at certain level of education to the number of male students. This indicator is related to SDGs target 4.5, to eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations by 2030.

The GPI for gross enrolment ratio in primary education provides information on the equality of boys and girls in obtaining learning opportunities at primary education. A GPI of less than 1 indicates that girls are more disadvantaged than boys in obtaining learning opportunities, while a GPI greater than 1 indicates the opposite. Figure 1.2.3 shows that Indonesia, Singapore, and Thailand had reached parity in gross enrolment in primary education. Cambodia, Lao PDR, and Myanmar had GPIs above 0.90, indicating a small gap on gender parity at gross enrolment ratio in primary education. Meanwhile, Brunei Darussalam’s parity index was 1.01, which was slightly in favour of girls.
Figure 1.2.3. Gender Parity Index (GPI) gross enrolment rate in primary education by ASEAN Member States, 2020

Notes: 1. The latest available data for Brunei Darussalam is 2018, Cambodia and Myanmar is 2019
2. The data for Malaysia and Thailand is not available at the time of publication
Source: ASEAN Secretariat, ASEANstats database

Pupil-Teacher Ratio in Primary Education

The pupil-teacher ratio refers to the number of pupils or students in primary education expressed as a ratio to the number of teachers in primary education. This indicator could indicate the teacher’s workload and human resource allocation in education. The lower the pupil-teacher ratio, the more teachers can focus on individual students’ needs, which may improve student performance.

Figure 1.2.4 describes the pupil-teacher ratio in primary education in the AMS for the year of 2021. While the lowest pupil-teacher ratio in primary education was observed in Brunei Darussalam at 9.9, Cambodia recorded the highest ratio at 45.1. The pupil-teacher ratio in primary education ranged from 12.0 to 26.6 in the remaining AMS.
**1.3. HEALTH**

Health-related statistics is important to monitor the social progress and to guide evidence-based policy making in public health of a country. While some statistics related to mortality and life expectancy were reported earlier in section 1.1, this section focuses on the indicators related to the provisions of health care facilities, namely births attended by skilled health personnel and immunisation coverage among the one-year old population.

**Births Attended by Skilled Health Personnel**

The proportion of births attended by skilled health personnel is defined as the number of births attended by doctor, nurse, midwife or other health professionals providing childbirth care as a percentage of total number of live births in the same period. This indicator assesses the health system’s capacity to provide adequate childbirth care and the utilisation of the health care provided. The presence of skilled health personnel during child labor is important for the survival of both mother and newborn. Achieving the target of this indicator would help towards reducing maternal and infant mortality and morbidity.
Figure 1.3.1 presents the most recent statistics on the births attended by skilled health personnel in all AMS. Brunei Darussalam, Malaysia, Singapore and Thailand performed well with more than 99% of childbirths were attended by skilled health personnel. In Viet Nam and Indonesia, the rate reached 96.0% and 95.2%. In Cambodia, 89.5% of births were attended by skilled health personnel, while in Philippines and Myanmar the rate stood at 84.4% and 84.0%, respectively. In contrast, in Lao PDR only 69.0% of childbirths were attended by skilled health personnel.

Figure 1.3.1. Births attended by skilled health personnel (%) by ASEAN Member States, 2020

Note: The latest available data for Cambodia, Lao PDR and Thailand is 2019, Philippines is 2017
Source: ASEAN Secretariat, ASEANstats database

Immunisation Against Measles

Immunisation among one-year old is one of the most cost-effective public health interventions to reduce child mortality and morbidity associated with infectious diseases. Vaccines protect children from certain diseases such as diphtheria, tetanus, pertussis, and measles, allowing them to grow up healthy and happy. Statistics on vaccination coverage of one-year-old children are used to assess the performance of healthcare system and the vaccination services provided.
The coverage of immunisation against measles among children aged one is defined as the percentage of children aged one-year who have received at least one dose of measles-containing vaccine in a given year. Figure 1.3.2 shows the measles vaccination coverage in all ASEAN Member States over the period of 2005-2021. Cambodia has achieved the target to provide measles vaccination to all children aged one year in 2020. Brunei Darussalam, Malaysia, and Singapore managed well with more than 95% of all children below one year of age have received their measles immunisation. In addition, Thailand, Myanmar, Philippines, and Indonesia also performed well with 86.7%, 84.6%, 80.4%, and 75.3% of their one-year children were vaccinated, respectively. The coverage, however, was lower compared to 2010. The lowest immunisation level was recorded in Lao PDR where only 56.1% of children aged one-year who have received measles vaccination, decreased from 78.0% in 2010.

Figure 1.3.2. Coverage of immunisation against measles among one-year old children (%) by ASEAN Member States, 2005, 2010, and 2021

Note: The latest available data for Brunei Darussalam, Cambodia, Malaysia, and Viet Nam is 2020, Myanmar is 2019, Philippines is 2017
Source: ASEAN Secretariat, ASEANstats database
Immunisation Against DPT

The coverage of immunisation against diphtheria, pertussis, and tetanus (DPT) among one-year old children in AMS for the period of 2005-2021 are depicted in Figure 1.3.3. All AMS recorded good achievement with the highest coverage recorded in Cambodia where all children have received DPT immunization, followed by Brunei Darussalam (99.9%), Singapore (97.2%), and Malaysia (97.7%). The coverage ranged from 75% to 87% in Indonesia, Lao PDR, the Philippines, and Thailand. Similar to measles vaccination, a lower DPT immunization coverage has been observed in some AMS in the last two years. The COVID-19 pandemic and its associated disruptions in the health systems were contributing factors to this slowdown.

Figure 1.3.3. Coverage of immunisation against DPT among one year old children (%) by ASEAN Member States, 2005, 2010, and 2021

Note: The latest available data for Brunei Darussalam, Cambodia, Malaysia, Myanmar, and Viet Nam is 2020 and Philippines is 2017
Source: ASEAN Secretariat, ASEANstats database
1.4. LABOUR

ASEAN’s growing population, including its working-age population, creates both opportunities for economic growth and challenges for employment opportunities. Labour statistics are needed to understand the dynamic of labour market over time as well as to design relevant and effective policy interventions. This section provides information on the trend of selected labour statistics in ASEAN, namely labour force participation rate, unemployment rate, and employment by economic activity.

Labour Force Participation Rate

One of the key indicators to monitor the working-age population and labour force is the labour force participation rate (LFPR). The LFPR measures the share of a country’s working-age population who are engaged actively in labour market, either by working or looking for work. It indicates the size of supply of labour available to be engaged in the production of goods and services, relative to population at working age (ILO, 2016).

Based on the latest available data presented in Figure 1.4.1a, some changes were observed in LFPRs across AMS over the period of 2010-2021. Four AMS experienced an increase in their LFPRs namely Cambodia (from 84.4% in 2010 to 87.4% in 2019), Indonesia (from 67.7% in 2010 to 67.8% in 2021), Malaysia (from 63.7% in 2010 to 68.6% in 2021), and Singapore (from 66.2% in 2010 to 70.5% in 2021). Meanwhile, others AMS recorded a decrease in their LFPRs during the same period. The LFPR in Lao PDR dropped from 77.7% in 2010 to 40.8% in 2017. This was due to the adoption of a new concept of work, employment and labor underutilisation by Lao PDR in their labour force survey conducted in 2017. While LFPR in Philippines only decreased by 0.8 percentage point, Viet Nam, Brunei Darussalam, Myanmar, and Thailand recorded a decrease by 9.6, 7.6, 6.7, and 4.5 percentage points, respectively.
Figure 1.4.1a. Labour force participation rates (%) by ASEAN Member States, 2010, 2015, and 2021

Note: The latest available data for Cambodia and Myanmar is 2019, Lao PDR is 2017
Source: ASEAN Secretariat, ASEANstats database

Figure 1.4.1b shows AMS’ LFPR by sex in 2021, and it indicates that female participation rate was lower than male in all AMS. The highest disparity in LFPR was found in Myanmar at 75.4% for males compared to 46.1% for females, followed by Indonesia at 82.3% and 53.3%. In addition, the LFPRs for Malaysia and Philippines were 80.9% and 55.5% for males as compared to 55.5% and 51.2% for females, respectively.

Figure 1.4.1b. Labour force participation rates (%) by sex by ASEAN Member States, 2021

Note: The latest available data for Cambodia and Myanmar is 2019, Lao PDR is 2017
Source: ASEAN Secretariat, ASEANstats database

Unemployment rate is defined as the number of unemployed people as a percentage of the labour force, reflecting the proportion of the labour force that does not have a job but is available and actively looking for work. This indicator measures the underutilisation of labour supply and indicates the inability of working age population to find employment. Disruption of economic activity during the COVID-19 pandemic led to an increase of unemployment rates in some AMS in 2021 (Figure 1.4.2). Malaysia recorded 4.6% unemployment rate (increased from 3.3% in 2010), while Thailand reported 1.9% unemployment rate (increased from 1.0% in 2010). Philippines and Singapore also experienced an increase from 7.4% and 3.1% in 2010 to 7.8% and 3.5% in 2021, respectively. Available data shows that unemployment rate in Lao PDR reached 9.4% in 2017, tripled the rate observed in 2010, while Cambodia posted unemployment rate at 2.4% in 2019, an increase from 0.3% in 2010. On the other hand, Brunei Darussalam narrowed their unemployment rate from 9.1% in 2010 to 4.9% in 2021, while Myanmar recorded the lowest rate below 1.0% in 2019, down from 4.0% in 2010.

Figure 1.4.2 Unemployment rates (%) by ASEAN Member States, 2010-2021
Unemployment Rate

Unemployment rate is defined as the number of unemployed people as a percentage of the labour force, reflecting the proportion of the labour force that does not have a job but is available and actively looking for work. This indicator measures the underutilisation of labour supply and indicates the inability of working age population to find employment. Disruption of economic activity during the COVID-19 pandemic led to an increase of unemployment rates in some AMS in 2021 (Figure 1.4.2). Malaysia recorded 4.6% unemployment rate (increased from 3.3% in 2010), while Thailand reported 1.9% unemployment rate (increased from 1.0% in 2010). Philippines and Singapore also experienced an increase from 7.4% and 3.1% in 2010 to 7.8% and 3.5% in 2021, respectively. Available data shows that unemployment rate in Lao PDR reached 9.4% in 2017, tripled the rate observed in 2010, while Cambodia posted unemployment rate at 2.4% in 2019, an increase from 0.3% in 2010. On the other hand, Brunei Darussalam narrowed their unemployment rate from 9.1% in 2010 to 4.9% in 2021, while Myanmar recorded the lowest rate below 1.0% in 2019, down from 4.0% in 2010.

Figure 1.4.2 Unemployment rates (%) by ASEAN Member States, 2010, 2015, and 2021

Note: the latest available data for Cambodia and Myanmar is 2019, Lao PDR is 2017
Source: ASEAN Secretariat, ASEANstats database
**Employment by Economic Activity**

The economic activity classification refers to the primary activity of the establishment in which an individual is involved during the reference period and is based on the international standard of industrial classification (ISIC). Statistics presented in this section are aggregated into three (3) broad categories namely agriculture, industry, and services. Agriculture includes crop, animal production, forestry and fishing. Industry covers manufacturing, construction, mining and quarrying, electricity, gas and water supply. Services comprises market services (trade, transportation, accommodation and food, and business and administrative services) as well as non-market services (public administration, community, social and other services and activities).

Figure 1.4.3 describes the latest available data on shares of employment by economic activity for all AMS in 2021. In majority of AMS, services were the largest sector in term of employment. The highest share of employment in services activities was found in Singapore at 86.4%, followed by Brunei Darussalam and Malaysia with 75.0% and 63.8%, respectively. Philippines, Indonesia, Thailand and Viet Nam recorded 57.4%, 49.3%, 45.8%, and 37.8%, respectively, of services employment. On the other hand, agriculture activity still dominated employment structure in Myanmar (48.9%) and Lao PDR (45.4%).

**Figure 1.4.3. Shares of employment by economic activity (%) by ASEAN Member States, 2021**

Note: The latest available data for Cambodia and Myanmar is 2019, Lao PDR is 2017
Source: ASEAN Secretariat, ASEANstats database
1.5. POVERTY AND INEQUALITY

Poverty and inequality are two different concepts, but they are closely related. Poverty is defined as inability to meet a minimum standard of living, whereas inequality refers to disparities in a broad range of areas, which include not only income and wealth, but also education, health, nutrition, among others. Inequality could worsen poverty, and vice versa. Therefore, one of the SDGs agenda is to end poverty in all its forms everywhere by 2030. This section discusses the national poverty as measured by population living below the national poverty line and inequality as measured by Gini Ratio in the AMS.

**Poverty**

The national poverty rate is defined as the percentage of the total population living below the national poverty line. The national poverty line is used to more accurately estimate poverty based on the country’s specific economic and social circumstances. Figure 1.5.1 shows that AMS, in general, performed relatively well in reducing poverty in the last five years. Philippines recorded the biggest drop in poverty rate from 23.5% in 2016 to 16.7% in 2018, followed by Lao PDR with a decline from 24.0% to 18.3% during the same period. Viet Nam, Thailand and Indonesia also performed well in improving the well-being of their population, with the poverty rates stood at 4.8%, 6.8%, and 9.8%, respectively, in 2020. However, a few countries experienced a rise in poverty rate in the same period. Malaysia’s poor household was 8.4% in 2020, increased from 7.6% in 2016. Cambodia also recorded an increase in their national poverty rate from 13.5% in 2016 to 17.8% in 2020. Myanmar reported the highest poverty rate at 24.8% in 2017.
Figure 1.5.1. Population living below the national poverty lines (%) by ASEAN Member States, 2016 and 2020

Notes:  
1. The indicator is not applicable to Brunei Darussalam and Singapore  
2. The latest available data for Lao PDR and Philippines is 2018, Myanmar is 2017  
3. The data for Malaysia refer to proportion of households living below the national poverty line while for Viet Nam, the data refer to proportion of households living below the national multidimensional poverty rate  
Source: ASEAN Secretariat, ASEANstats database

Income Inequality

Income inequality refers to the uneven distribution of income between individuals or households in a given country. The gini coefficient (ratio) is commonly used to measure the degree of income inequality. A gini ratio of 0 represents perfect equality, while a ratio of 1 implies perfect inequality. Gini ratio of AMS during 2005-2021 is presented in Figure 1.5.2. It shows that the majority of AMS had improved their income inequality during the period. Cambodia had successfully pushed its gini ratio down from 0.42 in 2005 to only 0.29 in 2017, followed by Viet Nam with a decrease from 0.42 in 2005 to 0.35 in 2019. Thailand, Malaysia and Singapore also recorded a reduction in their income inequality. In addition, Singapore and Philippines reported the highest income inequality with gini ratio stood at 0.44 in 2021.
Figure 1.5.1. Population living below the national poverty line (%) by ASEAN Member States, 2016-2020

Cambodia 13.5
Indonesia 17.8
Malaysia 9.8
Lao PDR 23.5
Myanmar 18.3
Philippines 8.6
Viet Nam 9.2
Thailand 24.0

Notes:
1. The indicator is not applicable to Brunei Darussalam and Singapore.
2. The latest available data for Lao PDR and Philippines is 2018, Myanmar is 2017.
3. The data for Malaysia refer to proportion of households living below the national poverty line while for Viet Nam, the data refer to proportion of households living below the national multidimensional poverty rate.

Source: ASEAN Secretariat, ASEANstats database

Income Inequality

Income inequality refers to the uneven distribution of income between individuals or households in a given country. The gini coefficient (ratio) is commonly used to measure the degree of income inequality. A gini ratio of 0 represents perfect equality, while a ratio of 1 implies perfect inequality.

Gini ratio of AMS during 2005-2021 is presented in Figure 1.5.2. It shows that the majority of AMS had improved their income inequality during the period. Cambodia had successfully pushed its gini ratio down from 0.42 in 2005 to only 0.29 in 2017, followed by Viet Nam with a decrease from 0.42 in 2005 to 0.35 in 2019. Thailand, Malaysia and Singapore also recorded a reduction in their income inequality. In addition, Singapore and Philippines reported the highest income inequality with gini ratio stood at 0.44 in 2021.

Notes:
1. The latest available data for Cambodia and Myanmar is 2017, Lao PDR is 2013, Malaysia and Thailand is 2019.
2. The data for Myanmar prior to 2015 is not available.
3. The data for Brunei Darussalam is not available.

Source: ASEAN Secretariat, ASEANstats database
2

ECONOMY
**ECONOMY**

### 2.1. ECONOMIC SIZE AND GROWTH

**Gross Domestic Product**

Gross domestic product (GDP) is the value of all goods and services produced in an economy during a given period. It is usually used to measure the size of an economy. In 2021, ASEAN kept its position as the fifth largest economy in the world with US$3.3 trillion of combined GDP of the ten AMS (Figure 2.1.1). Only the United States (US$23.0 trillion), China (US$17.7 trillion), Japan (US$4.9 trillion), and Germany (US$4.2 trillion) had higher GDP than ASEAN. The share of ASEAN to the world economy was around 3.5% in both 2020 and 2021, slightly lower than 3.6% in 2019.

**Figure 2.1.1. GDP (US$ trillion) and growth rate (%) of top ten economies, 2020 and 2021**

<table>
<thead>
<tr>
<th>Country</th>
<th>2020 GDP (US$ trillion)</th>
<th>2021 GDP (US$ trillion)</th>
<th>2020 Growth Rate</th>
<th>2021 Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>23.0</td>
<td>20.9</td>
<td>-3.4%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>China</td>
<td>17.7</td>
<td></td>
<td>8.1%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Japan</td>
<td>4.9</td>
<td>4.7</td>
<td>2.2%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Germany</td>
<td>4.2</td>
<td>3.8</td>
<td>1.6%</td>
<td>1.9%</td>
</tr>
<tr>
<td>ASEAN</td>
<td>3.3</td>
<td></td>
<td>2.9%</td>
<td>3.4%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2.8</td>
<td></td>
<td>3.0%</td>
<td>3.2%</td>
</tr>
<tr>
<td>India</td>
<td>2.1</td>
<td>2.0</td>
<td>7.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>France</td>
<td>2.0</td>
<td></td>
<td>-9.3%</td>
<td>-7.9%</td>
</tr>
<tr>
<td>Italy</td>
<td>1.9</td>
<td>1.8</td>
<td>-6.6%</td>
<td>-5.2%</td>
</tr>
<tr>
<td>Canada</td>
<td>1.6</td>
<td>1.5</td>
<td>4.6%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Source: ASEAN Secretariat, ASEANstats database
2.1. ECONOMIC SIZE AND GROWTH

Gross Domestic Product

Gross domestic product (GDP) is the value of all goods and services produced in an economy during a given period. It is usually used to measure the size of an economy. In 2021, ASEAN kept its position as the fifth largest economy in the world with US$3.3 trillion of combined GDP of the ten AMS (Figure 2.1.1). Only the United States (US$23.0 trillion), China (US$17.7 trillion), Japan (US$4.9 trillion), and Germany (US$4.2 trillion) had higher GDP than ASEAN. The share of ASEAN to the world economy was around 3.5% in both 2020 and 2021, slightly lower than 3.6% in 2019.

Figure 2.1.1. GDP (US$ trillion) and growth rate (%) of top ten economies, 2020 and 2021

Source: ASEAN Secretariat, ASEANstats database
Positive growth was recorded in 2021 following the downturn in the previous year, indicating sign of economic recovery. GDP growth rebounded to 3.4% in 2021 from a contraction of 3.2% in 2020. Similar to ASEAN, the other ninth-largest economies recorded a rebound in their economic growth, with China experiencing acceleration of their growth rate from 2.2% in 2020 to 8.1% in 2021.

Figure 2.1.2 shows that ASEAN’s GDP recorded a positive trend upward throughout the period of 2005-2021, with the exception of 2008-2009 due to economic crisis, and 2020 because of the COVID-19 outbreak. The region’s total GDP at current prices in 2021 was almost fourfold the value in 2005 (US$0.9 trillion). ASEAN’s GDP per capita was also in the rise, increasing from US$1,706.5 in 2005 to US$5,024.2 in 2021.

Figure 2.1.2. ASEAN GDP (US$ trillion) and GDP per capita (US$), 2005-2021

Source: ASEAN Secretariat, ASEANstats database

AMS also varies in term of their economic size (Figure 2.1.3). In 2021 Indonesia was the largest economy in ASEAN with 35.4% share of the region’s GDP, followed by Thailand (15.1%), Philippines (11.8%), and Singapore (11.8%).

Figure 2.1.3. Shares of GDP (%) by ASEAN Member States, 2005 and 2021

Source: ASEAN Secretariat, ASEANstats database
Positive growth was recorded in 2021 following the downturn in the previous year, indicating signs of economic recovery. GDP growth rebounded to 3.4% in 2021 from a contraction of 3.2% in 2020. Similar to ASEAN, the other nine-largest economies recorded a rebound in their economic growth, with China experiencing acceleration of their growth rate from 2.2% in 2020 to 8.1% in 2021.

Figure 2.1.2 shows that ASEAN's GDP recorded a positive trend upward throughout the period of 2005-2021, with the exception of 2008-2009 due to the economic crisis, and 2020 because of the COVID-19 outbreak. The region's total GDP at current prices in 2021 was almost fourfold the value in 2005 (US$0.9 trillion). ASEAN's GDP per capita was also on the rise, increasing from US$1,706.5 in 2005 to US$5,024.2 in 2021.

Source: ASEAN Secretariat, ASEANstats database

GDP per capita (GDP of an economy divided by its total population) is often used as a proxy of living standard. In 2021, Singapore and Brunei Darussalam recorded the highest GDP per capita among AMS at US$72,399.7 and US$32,383.1 respectively, which is 19.2% and 22.4% higher compared to the previous year (Figure 2.1.4).

Source: ASEAN Secretariat, ASEANstats database
GDP Growth

Economic growth is usually defined by the growth of real GDP, which is a year-on-year comparison of the value of all goods and services produced in an economy expressed in base-year prices. In 2021, Singapore, Philippines, and Indonesia recorded the highest GDP growth in ASEAN with 7.6%, 5.6%, and 3.7%, respectively, after experiencing a contraction by 4.1%, 9.6% and 2.1% in 2020 (Figure 2.1.5). Meanwhile, Myanmar and Brunei Darussalam still experienced contraction by 5.9% and 1.6% in 2021.

Figure 2.1.5. ASEAN GDP at current prices (US$ billion) and growth rate (%) by ASEAN Member States, 2020 and 2021

<table>
<thead>
<tr>
<th>Country</th>
<th>2020 GDP (US$ billion)</th>
<th>2021 GDP (US$ billion)</th>
<th>2020 Growth Rate</th>
<th>2021 Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>1,185.8</td>
<td>1,059.1</td>
<td>3.7</td>
<td>-1.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>505.9</td>
<td>499.6</td>
<td>-6.2</td>
<td>-4.1</td>
</tr>
<tr>
<td>Singapore</td>
<td>394.6</td>
<td>345.2</td>
<td>-4.1</td>
<td>-6.2</td>
</tr>
<tr>
<td>Philippines</td>
<td>393.6</td>
<td>361.5</td>
<td>-5.6</td>
<td>-2.9</td>
</tr>
<tr>
<td>Malaysia</td>
<td>372.8</td>
<td>337.6</td>
<td>-5.6</td>
<td>-2.9</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>362.0</td>
<td>271.8</td>
<td>-5.9</td>
<td>-1.6</td>
</tr>
<tr>
<td>Myanmar</td>
<td>72.9</td>
<td>70.2</td>
<td>-3.1</td>
<td>-1.6</td>
</tr>
<tr>
<td>Cambodia</td>
<td>27.2</td>
<td>26.0</td>
<td>1.1</td>
<td>-1.6</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>19.6</td>
<td>19.0</td>
<td>3.5</td>
<td>-1.6</td>
</tr>
<tr>
<td>Brunei</td>
<td>13.9</td>
<td>12.0</td>
<td>3.3</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Source: ASEAN Secretariat, ASEANstats database

Figure 2.1.6 presents the latest quarterly GDP growth rate of seven AMS. Most AMS recorded, relatively high growth stating 2nd quarter of 2021. In the following quarters up till 2nd quarter of 2022, the rate of growth was relatively stable.
Economic growth is usually defined by the growth of real GDP, which is a year-on-year comparison of the value of all goods and services produced in an economy expressed in base-year prices. In 2021, Singapore, Philippines, and Indonesia recorded the highest GDP growth in ASEAN with 7.6%, 5.6%, and 3.7%, respectively, after experiencing a contraction by 4.1%, 9.6% and 2.1% in 2020 (Figure 2.1.5). Meanwhile, Myanmar and Brunei Darussalam still experienced contraction by 5.9% and 1.6% in 2021.

Figure 2.1.5. ASEAN GDP at current prices (US$ billion) and growth rate (%) by ASEAN Member States, 2020 and 2021

<table>
<thead>
<tr>
<th>GDP (US$ billion)</th>
<th>Growth rate (%)</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>5.5</td>
<td>5.0</td>
<td>5.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.6</td>
<td>5.0</td>
<td>8.9</td>
</tr>
<tr>
<td>Philippines</td>
<td>4.3</td>
<td>7.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.6</td>
<td>7.5</td>
<td>7.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>7.7</td>
<td>7.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>4.5</td>
<td>2.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Brunei</td>
<td>1.8</td>
<td>2.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>0.2</td>
<td>1.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>0.3</td>
<td>1.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.6</td>
<td>3.5</td>
<td>3.6</td>
</tr>
<tr>
<td>Singapore</td>
<td>5.0</td>
<td>7.8</td>
<td>6.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>7.5</td>
<td>7.0</td>
<td>7.5</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2.3</td>
<td>8.2</td>
<td>7.7</td>
</tr>
<tr>
<td>Brunei</td>
<td>5.2</td>
<td>8.9</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Source: ASEAN Secretariat, ASEANstats database

GDP by Main Economic Sectors

The economy, in general, could be divided into three main sectors, namely primary, secondary and tertiary. Primary sector includes agriculture industry and mining & quarrying industry, secondary sector includes manufacturing industry, electricity, gas and water supply industry, and construction industry, while tertiary sector includes services industries. The decomposition of GDP by these main sectors could indicate the economic structure of the country and the contribution of each sector to the economy.
In the last decade, tertiary sector consistently became the leading sector in ASEAN’s economy (Figure 2.1.7). The share of tertiary sector to the region’s GDP increased from 46.6% in 2010 to 49.6% in 2021. On the contrary, the shares of the other two sectors decreased during the same period. Secondary sector contributed 30.5% of total GDP in 2021, a slight decrease from 31.0% in 2010. The share of primary sector also decreased from 18.9% in 2010 to 15.4% in 2021.

Economic structures also differed across AMS. Tertiary sector remained the leading sector in all AMS, except Brunei Darussalam (Figure 2.1.8). The share of the tertiary sector was found to be the largest in Philippines reaching 61.1% of the country’s total GDP, followed by Singapore (59.3%), Thailand (56.7%), and Indonesia (42.8%). Meanwhile, primary sector was the leading sector in Brunei Darussalam, contributing 42.0% to total GDP of the country. Primary sector also remained an important sector for Myanmar (26.4%), followed by Cambodia (26.1%), Indonesia (22.3%), Lao PDR (20.4%), Malaysia (17.6%) and Viet Nam (14.8%).
2.2. INTERNATIONAL MERCHANDISE TRADE

In 2021, sign of economy recovery in ASEAN was also indicated by the positive trend observed in the region’s merchandise trade. Following the declines in total exports and imports of goods in 2020 due to the COVID-19 pandemic, ASEAN merchandise trade rebounded in 2021. The total value of ASEAN’s merchandise trade increased from US$2,670 billion in 2020 to US$3,340 billion in 2021, consisting of US$1,713 billion in exports and US$1,627 billion in imports (Figure 2.2.1).

ASEAN continued to record surplus in merchandise trade balance since 2005. Even during the financial crisis in 2009, ASEAN’s trade balance was in a surplus of US$83.8 billion. The surplus was at its lowest level in 2013 (US$23.8 billion) and was at its peak at US$123.6 billion in 2020 in the midst of the COVID-19 pandemic.
ASEAN trade was severely hit by the COVID-19 pandemic in 2020 with a significant decrease observed for both exports (-1.9%) and imports (-8.6%), resulting in a contraction of 5.2% in total trade. All of the AMS recorded contraction in total trade, except for Viet Nam and Cambodia who registered positive growth of 4.8% and 5.2% respectively.
In 2021, ASEAN total trade rebounded with a growth of a 25.1%. The imports grew significantly by 27.8% while exports increased by 22.6% (Figure 2.2.2). The highest growth rate was recorded by Brunei Darussalam at 56.4%. Other AMS also recorded growth in total trade ranging from 16.7% to 40.4%, except for Myanmar which saw a contraction of 18.5%.

Singapore continued their role as the highest contributor to ASEAN merchandise trade in 2021, with exports and imports recorded at 26.7% and 25.0% of total ASEAN exports and imports, respectively (Figure 2.2.3). The next five larger exporters and importers in the region were Viet Nam, Malaysia, Thailand, Indonesia, and Philippines which contributed 70.4% and 71.8%, respectively, to the ASEAN exports and imports of goods. The remaining 3% was contributed by Brunei Darussalam, Cambodia, Myanmar, and Lao PDR.
The total merchandise trade in ASEAN is expected to continue growing in 2022 as indicated by the value of total trade in the 1st semester of 2022 which was 14.9% higher compared to the same period in the previous year (Figure 2.2.4). All ASEAN member states recorded positive growth of total merchandise trade in the 1st and 2nd quarter of 2022, except for Singapore who recorded a contraction of 29.0% in the 1st semester. However, trade in Singapore rebounded by 23.9% in the following quarter. Meanwhile, Myanmar’s trade in goods recorded positive growth in 1st semester of 2022 after experiencing negative growth in 2021.
The total merchandise trade in ASEAN is expected to continue growing in 2022 as indicated by the value of total trade in the 1st semester of 2022 which was 14.9% higher compared to the same period in the previous year (Figure 2.2.4). All ASEAN member states recorded positive growth of total merchandise trade in the 1st and 2nd quarter of 2022, except for Singapore who recorded a contraction of 29.0% in the 1st semester. However, trade in Singapore rebounded by 23.9% in the following quarter. Meanwhile, Myanmar’s trade in goods recorded positive growth in 1st semester of 2022 after experiencing negative growth in 2021.

Intra-ASEAN trade continued to hold the largest share of ASEAN total trade. In 2021, intra-ASEAN contributed 21.3% to total merchandise trade in the region, constituting 21.7% and 20.9% shares of ASEAN’s total merchandise exports and imports, respectively (Figure 2.2.5 and 2.2.6). This figure was slightly higher compared to 2020 where intra-ASEAN’s share to the region’s total trade was 21.2%. The shares of ASEAN’s main trading partners slightly declined in 2021 compared to the previous year, except for China (20.0% in 2021 from 19.4% in 2020). China was also the largest external markets for ASEAN exports in 2021 with 16.4% shares, followed by USA (14.9%), EU-27 (8.9%), and Japan (6.6%). As for imports (Figure 2.2.6.), China was also the region’s most important partner with a share of 23.9%, followed by Japan (7.8%), USA and Republic of Korea with similar share (7.4%), and EU-27 (7.2%).
Figure 2.2.5. Shares of merchandise exports (%) by trading partners, 2005-2021

Source: ASEAN Secretariat, ASEANstats database

Figure 2.2.6. Shares of merchandise imports (%) by trading partners, 2005-2021

Source: ASEAN Secretariat, ASEANstats database

The impact of COVID-19 pandemic can also be seen through the increase in trade value of some health commodities, particularly those that are related with COVID-19. The value increased from US$53.6 billion in 2020 to US$60.2 billion in 2021, although the shares to total ASEAN trade declined from 2.1% in 2020 to 1.9% in 2021. Figure 2.2.7. shows a high trade value of disinfectant and sterilisation (US$16.4 billion), followed by other medical consumables (US$16.2 billion), medical test kits (US$10.7 billion), other medical devices and equipment (US$9.7 billion), oxygen therapy equipment (US$7.2 billion).

2.3. INTERNATIONAL TRADE IN SERVICES

The value of services exported and imported by ASEAN as well as the trade balance from 2005 to 2021 are depicted in Figure 2.3.1. The volume of ASEAN trade in services has significantly increased over the period of 2005 to 2019 with a slight decrease in 2009 and 2016 due to global financial crisis. Following a nearly 20% drop in 2020 due to the COVID-19 pandemic, total trade in services in the region increased by 7.3% to reach US$ 745.8 billion in 2021. Imports increased by 12.8% to reach US$ 397.5 billion while exports increased by only 1.6% to US$ 348.3 billion.
The impact of COVID-19 pandemic can also be seen through the increase in trade value of some health commodities, particularly those that are related with COVID-19. The value increased from US$53.6 billion in 2020 to US$60.2 billion in 2021, although the shares to total ASEAN trade declined from 2.1% in 2020 to 1.9% in 2021. Figure 2.2.7. shows a high trade value of disinfectant and sterilisation (US$16.4 billion), followed by other medical consumables (US$16.2 billion), medical test kits (US$10.7 billion), other medical devices and equipment (US$9.7 billion), oxygen therapy equipment (US$7.2 billion).

Figure 2.2.7. Top-5 merchandise trade products relate to COVID-19, 2021

<table>
<thead>
<tr>
<th>Product</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinfectant and sterilisation</td>
<td>US$16.4 billion</td>
</tr>
<tr>
<td>Other Medical Consumables</td>
<td>US$16.2 billion</td>
</tr>
<tr>
<td>Medical Test Kits</td>
<td>US$10.7 billion</td>
</tr>
<tr>
<td>Other Medical Devices and Equipment</td>
<td>US$9.7 billion</td>
</tr>
<tr>
<td>Oxygen Therapy Equipment</td>
<td>US$7.2 billion</td>
</tr>
</tbody>
</table>

Source: ASEAN Secretariat, ASEANstats database

2.3. INTERNATIONAL TRADE IN SERVICES

The value of services exported and imported by ASEAN as well as the trade balance from 2005 to 2021 are depicted in Figure 2.3.1. The volume of ASEAN trade in services has significantly increased over the period of 2005 to 2019 with a slight decrease in 2009 and 2016 due to global financial crisis. Following a nearly 20% drop in 2020 due to the COVID-19 pandemic, total trade in services in the region increased by 7.3% to reach US$ 745.8 billion in 2021. Imports increased by 12.8% to reach US$ 397.5 billion while exports increased by only 1.6% to US$ 348.3 billion.
In terms of trade balance, ASEAN has always been a net importer of services from 2005 to 2015. However, during the same period, ASEAN exports in general grew at a higher rate than its imports. As a result, ASEAN became a net exporter of services starting from 2016 to 2019, with a growing surplus from US$15.4 billion in 2016 to US$56.9 billion in 2019. However, ASEAN returned to being a net importer in the last two years with a deficit of US$9.8 billion and US$49.2 billion in 2020 and 2021, respectively.

Figure 2.3.1. ASEAN exports and imports of services and trade balance (US$ billion), 2005-2021

Figure 2.3.1 also shows the value of services traded among AMS from 2005 to 2021. Intra-ASEAN trade in services had nearly tripled from around US$24 billion in 2005 to around US$70 billion in 2019. However, its value had decreased in the last two years to only around US$44 billion in 2021. The shares of intra-ASEAN to ASEAN’s total trade in services decreased from around 19% in 2005 to around 15% in 2019, and further decreased to around 12% in 2021.

Source: ASEAN Secretariat, ASEANstats database

Figure 2.3.2. Exports and imports of services (US$ billion) by ASEAN Member States, 2021

Figure 2.3.2 shows that Singapore had the highest total trade in services value in 2021 at US$453.3 billion, accounted for 60.8% of the ASEAN trade in Services, followed by Thailand (US$88.8 billion, 11.9%), Malaysia (US$56.5 billion, 7.6%), and Philippines (US$53.1 billion, 7.1%). In addition, Myanmar, Philippines, Singapore, and Viet Nam had a positive trade balances, whereas the rest of AMS experienced negative trade balances.

In 2021, other business services, transport services, and financial services topped the list of ASEAN’s exports of services, with a combined share of 70.2% (Figure 2.3.3). On the other hand, the main sectors for ASEAN’s imports of services were transport services, other business services, and telecommunications, computer, and information services, accounted for 75.6% to ASEAN imports of services. Prior to the COVID-19 pandemic, travel services were the largest contributor with around 30% of share. However, in 2021, its share was reduced to only 2.9% of exports and 4.5% of imports.
In term of trade balance, ASEAN has always been a net importer of services from 2005 to 2015. However, during the same period, ASEAN exports in general grew at a higher rate than its imports. As a result, ASEAN became a net exporter of services starting from 2016 to 2019, with a growing surplus from US$15.4 billion in 2016 to US$56.9 billion in 2019. However, ASEAN returned to being a net importer in the last two years with a deficit of US$9.8 billion and US$49.2 billion in 2020 and 2021, respectively.

Figure 2.3.1. ASEAN exports and imports of services and trade balance (US$ billion), 2005-2021

Source: ASEAN Secretariat, ASEANstats database

Figure 2.3.2 shows that Singapore had the highest total trade in services value in 2021 at US$453.3 billion, accounted for 60.8% of the ASEAN trade in Services, followed by Thailand (US$88.8 billion, 11.9%), Malaysia (US$56.5 billion, 7.6%), and Philippines (US$53.1 billion, 7.1%). In addition, Myanmar, Philippines, Singapore, and Viet Nam had a positive trade balances, whereas the rest of AMS experienced negative trade balances.

In 2021, other business services, transport services, and financial services topped the list of ASEAN’s exports of services, with a combined share of 70.2% (Figure 2.3.3). On the other hand, the main sectors for ASEAN’s imports of services were transport services, other business services, and telecommunications, computer, and information services, accounted for 75.6% to ASEAN imports of services. Prior to the COVID-19 pandemic, travel services were the largest contributor with around 30% of share. However, in 2021, its share was reduced to only 2.9% of exports and 4.5% of imports.
2.4. FOREIGN DIRECT INVESTMENTS

Figure 2.4.1 shows that foreign direct investment (FDI) inward flows to ASEAN had increased over the last two decades, with the exception of 2009, 2011, and 2016 due to global financial crisis, and 2020 due to COVID-19 pandemic. In 2021, FDI inward flows to ASEAN recorded a rebound with an increase of 46.6% to reach US$179.2 billion compared to a decline of 30% decline in 2020.

An upward trend was also observed for intra-ASEAN FDI inward flows from 2000 to 2021, albeit at a slower rate in recent years. In 2021, intra-ASEAN FDI inward flows increased by 3.9% from US$22.7 billion in 2020 to US$23.5 billion in 2021.
ASEAN Key Figures 2022

Figure 2.4.1. Inward flows of FDI, extra and intra-ASEAN (US$ billion), 2000-2021

Source: ASEAN Secretariat, ASEANstats database

Figure 2.4.2. FDI inward flows (US$ billion) by ASEAN Member States, 2000, 2010, and 2021

Source: ASEAN Secretariat, ASEANstats database
Singapore has been the highest recipient of inward FDI throughout the period of 2000-2021 (Figure 2.4.2.). In 2021, Singapore attracted US$99.1 billion of FDI, accounting for more than half of total FDI inward flows to ASEAN, followed by Indonesia (11.2%), Viet Nam (8.7%) and Thailand (8.2%).

In 2021, the United States, the European Union, China, Japan and ASEAN were the major investors in the region (Figure 2.4.3). FDI inward flows from top-5 sources accounted for 65% of total FDI inward flows in ASEAN. USA was the main investor with US$40.2 billion or 22.5% of the total ASEAN FDI inward flows, followed by EU with 14.8% (US$26.5 billion). Meanwhile, inward FDI originated from the region was recorded at US$23.5 billion, representing 13.1% of total ASEAN FDI inward flows. Other major sources of FDI to ASEAN were China and Japan with a share of 7.7% and 6.6%, respectively.

Figure 2.4.4. depicts the region’s FDI inward flows by economic activity in 2021. The economic activities receiving the biggest amount of inward FDI flows was financial and insurance, contributing US$57.4 billion or 32.0% of total FDI inward flows in ASEAN. The second largest recipient was manufacturing with a share of 25.8%, followed by wholesale and retail trade, real estate, and information and communication with a share of 13.5%, 4.6%, and 4.2%, respectively. In terms of growth, inward FDI in information and communication activities experienced the highest growth (4.3%) in 2021.
Singapore has been the highest recipient of inward FDI throughout the period of 2000-2021 (Figure 2.4.2.). In 2021, Singapore attracted US$99.1 billion of FDI, accounting for more than half of total FDI inward flows to ASEAN, followed by Indonesia (11.2%), Viet Nam (8.7%) and Thailand (8.2%).

In 2021, the United States, the European Union, China, Japan and ASEAN were the major investors in the region (Figure 2.4.3). FDI inward flows from top-5 sources accounted for 65% of total FDI inward flows in ASEAN. USA was the main investor with US$40.2 billion or 22.5% of the total ASEAN FDI inward flows, followed by EU with 14.8% (US$26.5 billion). Meanwhile, inward FDI originated from the region was recorded at US$23.5 billion, representing 13.1% of total ASEAN FDI inward flows. Other major sources of FDI to ASEAN were China and Japan with a share of 7.7% and 6.6%, respectively.

Figure 2.4.4. depicts the region’s FDI inward flows by economic activity in 2021. The economic activities receiving the biggest amount of inward FDI flows was financial and insurance, contributing US$57.4 billion or 32.0% of total FDI inward flows in ASEAN. The second largest recipient was manufacturing with a share of 25.8%, followed by wholesale and retail trade, real estate, and information and communication with a share of 13.5%, 4.6%, and 4.2%, respectively. In terms of growth, inward FDI in information and communication activities experienced the highest growth (4.3%) in 2021.

Source: ASEAN Secretariat, ASEANstats database
3

CONNECTIVITY
Connectivity is crucial for fostering growth and productivity, as well as facilitating access to markets and opportunities. To improve connectivity in the region, the Master Plan on ASEAN Connectivity 2010 (MPAC 2010) was adopted in 2010 and the Master Plan on ASEAN Connectivity 2025 (MPAC 2025) was adopted in 2016, which encompass the physical, institutional, and people-to-people linkages. This chapter discusses physical connectivity and people-to-people linkages of ASEAN Member States by examining indicators on land and air transport, tourism, and communication.

Land Transport
Total road length, as a measure of land connectivity, is defined as the total kilometer length of all roads in the country in a given year, including all existing road types, but excluding dedicated cycle paths. Land transportation infrastructure network in ASEAN continued to improved, as reflected by an increase in total road length from 1.4 million kilometers in 2010 to more than 2.5 million kilometers in 2021, equivalent to an annual growth of 5.6%. Figure 3.1.1 shows that the fastest growth in the period was recorded by Thailand with an average annual growth of 12.7%. This is followed by Viet Nam with 7.6% average annual growth, Myanmar (6.9%), and Malaysia (7.8%). As for Brunei Darussalam, Cambodia, and Lao PDR, they recorded an average annual growth of around 2.8%-4.3%, while the growth in Indonesia, Singapore and Philippines was 1.2%, 0.4% and 0.9% respectively.
INTRODUCTION

Connectivity is crucial for fostering growth and productivity, as well as facilitating access to markets and opportunities. To improve connectivity in the region, the Master Plan on ASEAN Connectivity 2010 (MPAC 2010) was adopted in 2010 and the Master Plan on ASEAN Connectivity 2025 (MPAC 2025) was adopted in 2016, which encompass the physical, institutional, and people-to-people linkages. This chapter discusses physical connectivity and people-to-people linkages of ASEAN Member States by examining indicators on land and air transport, tourism, and communication.

3.1 TRANSPORT

Land Transport

Total road length, as a measure of land connectivity, is defined as the total kilometer length of all roads in the country in a given year, including all existing road types, but excluding dedicated cycle paths. Land transportation infrastructure network in ASEAN continued to improved, as reflected by an increase in total road length from 1.4 million kilometers in 2010 to more than 2.5 million kilometers in 2021, equivalent to an annual growth of 5.6%. Figure 3.1.1 shows that the fastest growth in the period was recorded by Thailand with an average annual growth of 12.7%. This is followed by Viet Nam with 7.6% average annual growth, Myanmar (6.9%), and Malaysia (7.8%). As for Brunei Darussalam, Cambodia, and Lao PDR, they recorded an average annual growth of around 2.8%-4.3%, while the growth in Indonesia, Singapore and Philippines was 1.2%, 0.4% and 0.9% respectively.
The improvement in road infrastructure has partly contributed to the significant increase in the number of registered motor vehicles in AMS during the period of 2010-2021 (Figure 3.1.2). In 2021, the total number of registered motor vehicles in ASEAN stood at 243.7 million units, 76.5% higher compared to 2010, or a 5.8% growth per annum. However, the total number of registered motor vehicles in 2020 had decreased by 8.7% due to the COVID-19 pandemic.

Indonesia had the highest number of registered motor vehicles in ASEAN in 2021 with 145.9 million units (around 60%), followed by Thailand with 42.3 million units, Malaysia (33.6 million units) and Myanmar (7.6 million units). On the other hand, the highest number of registered motor vehicles per 1000 population was recorded in Brunei Darussalam at 1,052.5, followed by Malaysia and Thailand with 1,030.5 and 648.9 respectively (Figure 3.1.2). Brunei Darussalam also recorded the highest growth of registered motor vehicles during 2010-2021 at 25.8% per annum, followed by Myanmar (20.3%), Viet Nam (19.0%), and Lao PDR (10.6%).
The improvement in road infrastructure has partly contributed to the significant increase in the number of registered motor vehicles in AMS during the period of 2010-2021 (Figure 3.1.2). In 2021, the total number of registered motor vehicles in ASEAN stood at 243.7 million units, 76.5% higher compared to 2010, or a 5.8% growth per annum. However, the total number of registered motor vehicles in 2020 had decreased by 8.7% due to the COVID-19 pandemic.

Indonesia had the highest number of registered motor vehicles in ASEAN in 2021 with 145.9 million units (around 60%), followed by Thailand with 42.3 million units, Malaysia (33.6 million units) and Myanmar (7.6 million units). On the other hand, the highest number of registered motor vehicles per 1000 population was recorded in Brunei Darussalam at 1,052.5, followed by Malaysia and Thailand with 1,030.5 and 648.9 respectively (Figure 3.1.2). Brunei Darussalam also recorded the highest growth of registered motor vehicles during 2010-2021 at 25.8% per annum, followed by Myanmar (20.3%), Viet Nam (19.0%), and Lao PDR (10.6%).

Air Transport

One of the most severely impacted industry by the COVID-19 pandemic is air transportation due to the implementation of travel restriction measures by all AMS. The recent figures on international air passengers (Figure 3.1.3) show that the number of international passengers arrived in ASEAN dropped by 94.2% from 331.6 million in 2019 to 19.4 million in 2021.

Similar situation was also recorded in domestic air passengers where the number dropped by 66.0% from 308.8 million in 2019 to 105.0 million in 2021. In the same year, the drop in domestic air passenger is observed in ranging from 22.4% in Viet Nam to 98.1% in Cambodia.
International Air Cargo Loaded and Unloaded

ASEAN’s international air cargo loaded and unloaded in 2021 increased by 20.4% and 29.5%, a rebound from a decline by 28.8% and 35.1% in 2020 due to the COVID-19 outbreaks (Figure 3.1.4). The Figure also shows that Singapore, Thailand, and Indonesia’s air cargo services kept their position as the major distribution hub of air cargo delivery in the region, with an increase in cargo loaded by 29.9%, 25.7%, and 111.6%, respectively, compared to 2020. At the same time, unloaded cargo increased by 22.5%, 21.3%, and 120.3%.
3.2 VISITOR ARRIVALS

The COVID-19 pandemic has had a significant impact to tourism industry, including in ASEAN. This is evidenced by the continuous decline in the number of visitor arrivals in the region during the last two years. In 2020, total visitors to the region dropped by 81.8% to 26.2 million and further fell by 88.7% to only 2.9 million in 2021 (Figure 3.2.1). The main reason was the travel and movement restrictions that were widely enforced throughout 2021 due to increasing number of COVID-19 cases.

Figure 3.2.1. also shows that Indonesia had the highest number of visitor arrivals (1.6 million) among AMS in 2021. While Thailand and Singapore received approximately 0.4 million and 0.3 million visitors, respectively. About 0.2 million visitors arrived in Cambodia and the Philippines, and approximately 0.1 million travelled to Malaysia and Myanmar. Meanwhile, Brunei Darussalam and Viet Nam recorded the lowest with only about 3,500 visitors.
As shown in Figure 3.2.2, number of intra and extra ASEAN visitors in 2021 was the lowest ever recorded. Around one million of visitors or about 33% of total visitors in ASEAN were originated from the region, a 96.1% decrease from 9.2 million visitors recorded in 2020.
3.3 INTERNET SUBSCRIBERS

In 2021, another major impact of the COVID-19 pandemic is in term of the adoption of technology and the growth of digitalisation in ASEAN. Despite the lower intensity of lockdown and social distancing measures in many countries, the use of telecommuting, video conference, online shopping and online schooling remain prevalent.

The total number of internet subscribers\(^1\) in ASEAN reached 79.5 per 100 population in 2021, nearly triple of 2019. Singapore, Malaysia and Cambodia recorded very high coverage of internet use with 96.9, 96.8 and 93.0 subscribers per 100 population, respectively. Lao PDR recorded the lowest internet subscribers at 49.0 per 100 population.

Figure 3.3.1. Number of internet subscribers per 100 persons by ASEAN Member States, 2010, 2015, and 2021

Note: The latest available data for Brunei Darussalam and Philippines is 2019
Source: ASEAN Secretariat, ASEANstats database

---

\(^1\) Data for Brunei Darussalam and Myanmar were calculated based on the number of subscriptions to internet provider companies. Consequently, there is possibility for one person to be counted multiple times if he/she subscribed to more than one provider.
4

ENERGY AND ENVIRONMENT
INTRODUCTION

Energy plays an important role in economic development. Access to energy services is essential to fulfilling basic social needs, driving economic growth and fostering human development. Additionally, energy facilitates investments, innovations, and creation of new industries leading to job creation, economic growth, and shared prosperity.

On the other hand, production and use of energy is also one of the biggest contributors to the environmental problems. Air pollution, climate change, and water pollution are examples of environmental issues that are directly associated with the production and consumption of energy. The production of electricity from fossil fuels results in emissions that contribute to climate change. In addition, wood and charcoal are still used as major cooking and heating fuels in some part of the world, which can lead to deforestation if the wood is harvested faster than trees can regenerate. Furthermore, the impact of environmental degradation contributes to an increase in the number of casualties as a result of climate-related disasters, as well as growing concern on the survival of some species.

4.1 ENERGY

Access to Electricity

The level of access to electricity reflects the level of development, which may vary between countries. Figure 4.1.1 presents the percentage of population with access to electricity in AMS in 2016 and 2020 which has shown some improvement. In 2020, the entire population of Brunei Darussalam and Singapore had access to electricity while the rate reached more than 99% of population in Indonesia, Malaysia, Thailand and Viet Nam. In addition, Lao PDR, Philippines, and Cambodia had electricity coverage of 93.0%, 87.9% and 85.8%, respectively. Meanwhile, despite the progress made, only 56.0% of population in Myanmar had access to electricity in 2020.
ENERGY AND ENVIRONMENT

INTRODUCTION

Energy plays an important role in economic development. Access to energy services is essential to fulfilling basic social needs, driving economic growth and fostering human development. Additionally, energy facilitates investments, innovations, and creation of new industries leading to job creation, economic growth, and shared prosperity.

On the other hand, production and use of energy is also one of the biggest contributors to the environmental problems. Air pollution, climate change, and water pollution are examples of environmental issues that are directly associated with the production and consumption of energy. The production of electricity from fossil fuels results in emissions that contribute to climate change. In addition, wood and charcoal are still used as major cooking and heating fuels in some part of the world, which can lead to deforestation if the wood is harvested faster than trees can regenerate. Furthermore, the impact of environmental degradation contributes to an increase in the number of casualties as a result of climate-related disasters, as well as growing concern on the survival of some species.

4.1 ENERGY

Access to Electricity

The level of access to electricity reflects the level of development, which may vary between countries. Figure 4.1.1 presents the percentage of population with access to electricity in AMS in 2016 and 2020 which has shown some improvement. In 2020, the entire population of Brunei Darussalam and Singapore had access to electricity while the rate reached more than 99% of population in Indonesia, Malaysia, Thailand and Viet Nam. In addition, Lao PDR, Philippines, and Cambodia had electricity coverage of 93.0%, 87.9% and 85.8%, respectively. Meanwhile, despite the progress made, only 56.0% of population in Myanmar had access to electricity in 2020.
Figure 4.1.1. Population with access to electricity (%) by ASEAN Member States, 2016 and 2020

<table>
<thead>
<tr>
<th>Country</th>
<th>2016 (%)</th>
<th>2020 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Cambodia</td>
<td>80.9</td>
<td>85.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>91.2</td>
<td>99.2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>93.0</td>
<td>99.9</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>56.0</td>
<td>33.0</td>
</tr>
<tr>
<td>Philippines</td>
<td>88.4</td>
<td>67.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>99.6</td>
<td>99.8</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>98.4</td>
<td>99.5</td>
</tr>
</tbody>
</table>

Note: The latest available data for Indonesia, Philippines, and Viet Nam is 2020, Cambodia, Malaysia and Thailand is 2019, Lao PDR is 2018
Source: ASEAN Secretariat, ASEANstats database

4.2 ENVIRONMENT

Climate-related Disasters Losses

This indicator measures the number of people who died, went missing, or were directly affected by disasters per 100,000 population. It is part of the SDGs 2030 agenda, particularly Goal 1 - end poverty in all its forms everywhere, Goal 11 - make cities and human settlements inclusive, safe, resilient and sustainable, and Goal 13 - take urgent action to combat climate change and its impacts. Figure 4.2.1 shows that the number of climate-related disaster deaths, missing persons, and directly affected persons varies across the AMS from 2016 to 2020. In 2020, Thailand reported the highest number of casualties, where a total of 14,768 persons per 100,000 population died, went missing, or were directly affected by climate-related disasters, which was double the number reported in 2019. Meanwhile, the number of victims in Philippines was 8,723 persons per a hundred thousand population. Elsewhere, 2,388 persons and 2,494 persons per 100,000 population had either died, went missing or were directly affected by climate-related disasters in Indonesia and Myanmar, respectively.
Figure 4.2.1. Number of deaths, missing persons and directly affected persons attributed to climate-related disasters per 100,000 population by ASEAN Member States, 2016-2020

Notes:
1. Brunei Darussalam and Singapore are not prone to climate-related disaster, hence the data is not available.
2. Data for Viet Nam only cover number of deaths, missing and injured.

Source: ASEAN Secretariat, ASEANstats database

Forest Area

Figure 4.2.2. describes the proportion of forest area to total land area across AMS in 2020. Brunei Darussalam had the highest proportion of forest area, with 72.1% to total land area, followed by Malaysia and Indonesia with 55.3% and 50.9%, respectively. The forest area in other AMS ranged from 20.8% to 48.2% of their total land area.
The red list index (RLI) measures the change in aggregate extinction risk across groups of species. It is based on genuine changes in the number of species in each category of extinction risk on the international union for conservation of nature (IUCN) red list of threatened species. RLI supports the SDGs agenda, more specifically the target 15.5, to take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. The value of RLI ranges from 1 (all species are categorized as ‘least concern’ - not expected to become extinct in the near future) to 0 (all species are categorized as ‘extinct’). RLI of AMS for 2021 is shown in Figure 4.2.3 below. It is observed that RLI for all AMS ranges from 0.7 to 0.9, reflecting that all major species groups found in each AMS would probably remain extant in the near future.
The red list index (RLI) measures the change in aggregate extinction risk across groups of species. It is based on genuine changes in the number of species in each category of extinction risk on the International Union for Conservation of Nature (IUCN) red list of threatened species. RLI supports the SDGs agenda, more specifically the target 15.5, to take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. The value of RLI ranges from 1 (all species are categorized as 'least concern' - not expected to become extinct in the near future) to 0 (all species are categorized as 'extinct'). RLI of AMS for 2021 is shown in Figure 4.2.3 below. It is observed that RLI for all AMS ranges from 0.7 to 0.9, reflecting that all major species groups found in each AMS would probably remain extant in the near future.

Figure 4.2.3. Red List Index by ASEAN Member States, 2021

Note: The indicator is not applicable for Singapore
Source: UNstats - SDG Global Database
REFERENCE
