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Evaluation of SCE's Progress Towards Achieving APEC Putrajaya Vision 2040

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I. Introduction and Background

In 2020, APEC leaders endorsed the Putrajaya Vision 2040¹ which sets out their aspirations for the region until 2040. With its three economic drivers of Trade and Investment; Innovation and Digitalisation; and Strong, Balanced, Secure, Sustainable and Inclusive Growth, the Putrajaya Vision 2040 lays down the foundation for the APEC forum’s future work agenda.

The following year, in 2021, Leaders endorsed the Aotearoa Plan of Action (APA)² that implements the Putrajaya Vision 2040 and ensures that objectives are operationalised into concrete actions. Each driver is divided into distinct objectives, which set out individual actions, collective actions, and high-level indicators for evaluating progress.

Figure A1.1. Six ECOTECH-related APA Objectives



Source: APEC Aotearoa Plan of Action and “Aligning the Economic and Technical Cooperation Medium-Term Priorities with the APEC Putrajaya Vision 2040.”

Under the section on “Review and Renewal,” the APA laid down a process for regular evaluation of progress in achieving Putrajaya Vision 2040:

Evaluating progress

With assistance from the PSU, APEC economies will evaluate progress towards achieving the APEC Putrajaya Vision 2040. Committees will work with the PSU to identify relevant indicators that will support this evaluation. Progress will be reported by Committees every two years through existing reporting processes. Senior Officials will also report progress on areas for continuous improvement to the APEC Ministers’ Meeting every two years.

¹ https://www.apec.org/meeting-papers/leaders-declarations/2020/2020_aelm/annex-a

² <https://www.apec.org/meeting-papers/leaders-declarations/2021/2021-leaders-declaration/annex-aotearoa-plan-of-action>

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Five-year review of collective actions

To ensure the Aotearoa Plan of Action is a “living document” and remains relevant, APEC will review the collective actions and continuous improvement actions every five years, in 2026, 2031 and 2036. Collective actions will be measured in terms of APEC's progress as a whole.

Existing collective actions may be renewed, revised or removed. New collective actions may be added. The collective actions for the following five-year period will be recommended to the APEC Ministerial Meeting for approval.

Mid-term review of progress and individual actions

In conjunction with the 2031 review of Collective Actions, APEC will also review the individual actions, and how we evaluate our progress towards achieving all elements of the Vision.

As mandated under the section on “Evaluating progress,” APEC Committees will report on progress in implementing Putrajaya Vision 2040 and APA every two years, with the first of these reports due in 2023. This evaluation aims to track progress in achieving the objectives and collective actions outlined in these high-level guidance documents. It also serves as a mechanism for ensuring that the work of the SCE and its sub- fora stay aligned with the objectives of the Putrajaya Vision 2040 and the APA, facilitating adjustments when deemed necessary by the Committee.

In June 2023, SCE members endorsed the paper on “SCE Evaluation of Progress in Implementation of the Putrajaya Vision 2040 including through the Aotearoa Plan of Action” to operationalise the process for the evaluation.³ The document lays out some guiding principles for the evaluation exercise, including:

1. Close consultation with SCE sub- fora as subject-matter experts;
2. When relevant, utilise existing SCE sub- fora indicators for the purposes of evaluating progress;
3. Utilise indicators based on information that is measurable, quantifiable, and comparable over time in order to enable an objective evaluation of progress; and
4. Utilise existing reporting processes and not to add additional burden or reporting for Committees.

II. Mapping of indicators and consultation with SCE sub- fora

As a first step, and stocktaking exercise, relevant SCE indicators were mapped against the objectives of the Putrajaya Vision 2040 and APA. Whenever available existing indicators were extracted from the Strategic Plans of various SCE sub- fora. For PPWE, the APEC Women and the Economy Dashboard (WED) was utilised. Another source of SCE sub- fora indicators included various APEC initiatives that have ongoing regular reporting mechanisms with important intersections with SCE workstreams. These included the APEC Connectivity Blueprint (ACB), the APEC Services Competitiveness Roadmap (ASCR) reviews, and the Policy Partnership on Food Security's (PPFS) Implementation Plan of the Food Security Roadmap Towards 2030⁴ (FSR).

Altogether, 193 ECOTECH-related KPIs were collated from the SCE sub- fora strategic plans as well as the reporting mechanisms under ACB, ASCR, FSR, and WED. Approximately 9% of these ECOTECH-related

³ http://mddb.apec.org/Documents/2023/SCE/SCE3/23_sce3_is01.pdf

⁴ Indicators as mentioned in the “Evaluation of Progress” section under each Objective.

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KPIs and actions were mapped against the Putrajaya Vision 2040’s first economic driver: trade and investment. Roughly 18% of these indicators were mapped against the second driver on innovation and digitalisation. The remaining 73% of the indicators were mapped against the third economic driver of strong, balanced, secure, sustainable, and inclusive growth.

More than 70% of the existing ECOTECH-related indicators from the SCE sub-fora strategic plans and reporting mechanisms were deemed subjective and not precisely defined (e.g., “coordinate with other fora” or “exchange information”). In other words, these indicators were determined to be unmeasurable and unquantifiable. The measurability of indicators is important because indicators must be measurable, trackable, and comparable over time to enable an objective evaluation of progress. Moreover, approximately 88% of the existing ECOTECH-related SCE sub-fora indicators were determined to be self-reported and sourced from sub-fora and economy surveys. Out of a total of 34 ECOTECH-related Collective Actions under the APA, 16 had no existing sub-fora indicators that were quantitative or measurable (Table A2.1). Ten ECOTECH-related Collective Actions were not mapped to any existing sub-fora indicators, including 3 Collective Actions under the third economic driver (e.g., advancing APEC’s work on circular economy is not a KPI of any SCE subforum). These observations were not surprising given that the sub-fora KPIs were identified to evaluate the work of specific sub-fora with defined work programmes to be achieved within a short time frame. On the other hand, the Putrajaya Vision 2040 and APA were designed to be high-level visions with long-term work agendas with extended planning horizons.

Given the gaps in existing sub-fora indicators when mapped with the objectives and collective actions of Putrajaya Vision 2040 and APA, data from sub-fora were augmented with supplementary indicators. These supplementary indicators were gathered from published secondary data selected based on their relevance to the Putrajaya Vision 2040 and APA objectives and collective actions; measurability and comparability; reliability of data source; coverage of APEC economies; frequency of updates; and data accessibility.

Table A2.1. ECOTECH-related indicators from SCE sub-fora that are not quantifiable

Putrajaya Vision 2040 Economic Driver	Total number of sub-fora indicators	% of indicators that are not quantifiable	Number of APA Collective Actions	% of Collective Actions without quantifiable indicators
Trade and Investment	18	39%	6	50%
Innovation and Digitalisation	34	68%	13	62%
Strong, Balanced, Secure, Sustainable and Inclusive Growth	141	78%	15	33%
TOTAL	193	73%	34	47%

Source: Putrajaya Vision 2040, Aotearoa Plan of Action, and authors’ calculations.

In July 2023, consultations were conducted with SCE sub-fora on relevant indicators for the assessment. A total of 46 preliminary indicators were submitted to the sub-fora experts for their technical review and comments. While most of the indicators were acceptable to the sub-fora technical experts, 9 preliminary indicators were suggested to be revised and up to 21 new indicators were suggested by various members. These suggestions were evaluated based on their use in SCE ongoing reporting mechanisms (e.g., use in ASCR or WED), coverage of APEC economies, and timeliness of data release. The list of ensuing indicators that incorporates comments from SCE sub-fora, as well as their linkage with ECOTECH-related objectives under APEC Putrajaya Vision 2040, is shown in Appendix 1.

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III. Evaluation Summary: Notable Achievements and Key Challenges

APEC has made general progress in many areas in its pursuit of the six ECOTECH-related APA objectives, which encompass all three economic drivers of the Putrajaya Vision 2040. On the other hand, APEC has also encountered key challenges and gaps in the context of pursuing some ECOTECH-related APA objectives. This section presents a high-level summary of key results of the evaluation analysis, with the aim of presenting successes and challenges in a short and intuitive manner.

This summary is based on an extensive and detailed analysis of available statistical data for each of the ECOTECH-related pillars of Putrajaya Vision 2040 as discussed in the earlier section. As not all of the statistical analysis can fit into this summary, what is presented here are the findings that present clear messages for the implementation of Putrajaya Vision 2040 and APA. Moreover, given that the first evaluation exercise due in 2023 is very close to the initiation of Putrajaya Vision 2040 (end-2020) and APA (end-2021), some indicators do not yet reflect the impacts of activities taken in 2020-2022. As such, some indicators established baselines and starting points rather than identified policy impact. The detailed analysis of indicators is available in Appendix 2.

A. Notable Achievements



Digital Transformation:
*Connecting Billions and
Bridging Divides*



Financial Inclusion:
*Improving Women’s Access
to Financial Services*



Low-Emission Mobility:
*Fuelled by Innovation and
Sustainability*

Digital Transformation: Connecting Billions and Bridging Divides

In the dynamic landscape of the Asia-Pacific region, APEC’s progress in the digital realm stands out as a testament to its commitment to empower all our people and businesses to participate and grow in an interconnected global economy. The growth of internet users in APEC from 1.88 billion to 2.27 billion between 2018 and 2021 demonstrates commitment toward accelerating digital transformation and narrowing the digital divide (Appendix 2, *Broadening Participation* section). It is worth noting that female internet users in APEC as percentage of female population also increased, especially during the pandemic years, with this indicator rising to 76% in 2021 from 73% in 2019, marking progress towards gender-inclusive digital access (Appendix 2, *Broadening Participation* section). APEC’s goal towards enhancing the trust and security in the use of ICTs is reflected by the increases in the trade of ICT goods and services between 2019 and 2021, as consumers and businesses scaled up their use of ICT as they shift to remote working, online classes, e-commerce, and telehealth services (Appendix 2, *Strengthening Trust and Security* section). In particular, the trade of ICT goods and services in APEC accelerated by about 20% and 13%, respectively between 2020 and 2021.

Financial Inclusion: Improving Women’s Access to Financial Services

Recent years have witnessed an acceleration in the proportion of adult women with access to financial services across the region. From a steady 73% in the pre-pandemic period, the proportion of women in

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APEC with an account in a financial institution jumped to 81% by 2022: that is an additional 62.5 million women in APEC with access to financial services compared to 2019 levels (Appendix 2, *Inclusion of Women* section). This achievement is a combination of exogenous and policy factors. The COVID-19 pandemic moved many transactions from the physical world to the digital, spurring many who previously did not have a pressing need into seeking financial accounts. Further, as demand for financial services went up, restrictions on women’s access to financial services went down. Between 2018 and 2022, the region’s average Social Institutions and Gender Index access to credit score—where a score of zero means parity between men and women—was more than halved from 0.12 to 0.05 (Appendix 2, *Inclusion of Women* section).

Low-Emission Mobility: Fuelled by Innovation and Sustainability

In line with APEC’s commitment to promote economic policies, which will support global efforts to comprehensively address all environmental challenges, including climate change, for a sustainable planet, several economies have implemented low-carbon regulations, provided EV sales incentives, and developed charging infrastructure to support the transition from internal combustion engines to EVs. As a result, the annual sales of EVs in APEC in 2022 reached 8.3 million, showcasing a significant shift toward cleaner and more sustainable transportation in the region, compared to approximately 4.4 million EV sales in 2021 and 1.8 million EV sales in 2020 (Appendix 2, *Energy Transition* section). This is complemented by a growing share of renewable energy in the APEC region’s total electricity production, reaching 29.4% in 2022, in comparison to just about 26.5% in 2021 and 25.9% in 2020 (Appendix 2, *Energy Transition* section).

B. Key Challenges



Revitalising Cross-border Mobility: Path to Recovery and Reconnection



Navigating Transition: Pandemic Impact on Labour and Health



Rising Disparities: Income Share Challenge and the Pursuit of Equity

Revitalising Cross-border Mobility: Path to Recovery and Reconnection

In the wake of a challenging tourism industry, APEC is still embarking on a journey of recovery and reconnection. The COVID-19 pandemic sent shockwaves through the international travel and tourism sector, leading to substantial declines in tourism receipts and international tourist arrivals in 2020 and 2021. In 2022, travel exports amounted to USD 299 billion, but they have not yet fully recovered to their pre-pandemic level of USD 598 billion in 2019 (Appendix 2, *People-to-people Connectivity* section). Similarly, international tourism receipts, valued at USD 185 billion in 2021, still fell short of pre-pandemic levels, which reached USD 688 billion in 2019. In tandem, international tourist arrivals in APEC in 2021 only totalled 77 million and remained below their pre-pandemic level of 471 million in 2019 (Appendix 2, *People-to-people Connectivity* section). Revitalising people-to-people connectivity in a sustainable manner remains a path forward for the region.

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Navigating Transition: Pandemic Impact on Labour and Health

The COVID-19 pandemic brought forth unprecedented challenges to APEC's labour force and the general wellbeing of the population. As the virus swept across the globe, life expectancy in the APEC region saw a dip in 2021, declining from 2019 levels to 79.22 years for females and 73.25 years for males (Appendix 2, *Inclusion of Women* section). In 2019, life expectancy in APEC for females and males were 80.04 and 74.32, respectively. The pandemic triggered a surge in excess mortalities, impacting life expectancy significantly. Likewise, labour force participation rates for both male and female fell in 2020 and have not fully rebounded to their pre-pandemic levels as of 2022 (Appendix 2, *Inclusion of Women* section). Specifically, the male labour force participation rate decreased from 73.68% in 2019 to 72.95% in 2022, while the female rate dropped from 58.27% to 58.03% in the same period. The pandemic was a massive challenge. However, broader structural challenges like climate change, demographic shifts, and technological advancements will likely prove to be more disruptive to people's livelihoods and income security over the longer term.

Rising Disparities: Income Share Challenge and the Pursuit of Equality

The COVID-19 pandemic had economic ramifications that exacerbated income disparities within the APEC region. From 2019 to 2021, income inequality in APEC exhibited a slight increase, with both the middle 40% and the poorest 50% of the population seeing declines in their income shares (Appendix 2, *Inclusion of Wider Society and MSMEs* section). Specifically, among APEC economies, the income share of the middle 40% decreased by an average of 0.65pp, while the income share for the poorest 50% dipped by about 0.03pp. Meanwhile, the richest 10% experienced marginal increases in their income shares between 2019 and 2021, rising by about 0.68pp. In 2022, the richest 10% of the APEC region's population continued to amass a significant portion of income, accounting for over 45%, while the poorest 50% held only less than 14%. The issue of equality and economic inclusion is even more pressing for women and others with untapped economic potential, such as Indigenous Peoples as appropriate, people with disabilities, and those from remote and rural communities. The numbers are readily available for women: they only occupy 27% of APEC parliamentary seats but are contributing more than double the time spent on unpaid labour, including domestic chores and care work, as men (Appendix 2, *Inclusion of Women* section).

IV. Recommendations for Future Action



*Revitalise
Cross-border
Connections*



*Improve Human Capital
and Address Inequities*



*Economic and
Technical Cooperation
for Data Collection and
Evaluation*

Revitalise Cross-border Connections

In a rapidly evolving world, promoting seamless connectivity and cross-border mobility is paramount to APEC's continued progress. The increasingly interconnected global economy has amplified the importance of seamless cross-border access, allowing people, goods, services, and ideas to flow seamlessly across APEC economies. This not only improves trade and cross-border investments, but also reinvigorates the travel and tourism sector, promoting trust, cultural exchange and understanding. To bridge the gaps and strengthen connections, policymakers should prioritise investments in digital infrastructure and

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collaborative regulatory frameworks. In doing so, APEC can unlock the full potential of its member economies, promoting innovation, shared prosperity, and a renaissance in regional cooperation.

Improve Human Capital and Address Inequities

Education and health are the cornerstones of a thriving and equitable society. APEC's commitment to fostering growth extends beyond economic aspects. This is reflected by APEC's objectives on intensifying inclusive human resource development and fostering quality growth that brings palpable benefits and greater health and wellbeing to all. Promoting inclusion and addressing inequities in social protection, skills development and healthcare access is vital. To achieve this, policymakers should focus on strengthening educational systems, ensuring access to quality healthcare, and promoting well-rounded, inclusive education. These efforts will empower individuals, particularly those with untapped economic potential, and will equip them with the skills and knowledge they need to adapt and thrive now and, in the future, thereby fostering an environment for growth that is high quality and inclusive.

Economic and Technical Cooperation to bridge Development Gaps

The APEC Putrajaya Vision 2040 and its implementation plan, the Aotearoa Plan of Action, highlighted the importance of economic and technical cooperation to better equip our people with the skills and knowledge for the future. However, development gaps between and within APEC economies continues to widen, especially due to the impacts of the COVID-19 pandemic. In this regard, the APEC economies should further strengthen economic and technical cooperation to enhance capacity building and promote inclusive development in the Asia-Pacific region. This includes cooperation on closing digital gaps; investment in skills development and access to technology; and capacity building in statistics on inclusive and sustainable development.

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Appendix 1: ECOTECH-Related APA Objectives/Evaluation of Progress and Selected Indicators

#	Objective	Evaluation of Progress	Indicators and Relevance
1.1	<i>We will promote seamless connectivity, resilient supply chains and responsible business conduct.</i>	To promote seamless connectivity, resilient supply chains and responsible business conduct, APEC economies will improve physical, institutional and people-to-people connectivity.	<p>Physical Connectivity</p> <ul style="list-style-type: none"> • Logistics Performance Index – Infrastructure (score) • Air transport, freight (billion ton-km) • Liner Shipping Connectivity Index (score) <p>The Logistics Performance Index contributes to the objective of promoting seamless connectivity by capturing logistics operators’ perceptions, which in turn informs improvements in trade and transport related infrastructure efficiency. The indicator directly assesses advancements in physical connectivity, which directly aligns with the goal of promoting resilient supply chains in the APEC region. In addition, air transport of freight and the Liner Shipping Connectivity Index play an important role in this process by measuring shipping activity levels in the aviation and maritime sectors and evaluating industry performance, which also contribute towards the goal of promoting seamless connectivity and resilient supply chains in APEC.</p> <p>Institutional Connectivity</p> <ul style="list-style-type: none"> • Regulatory Quality Index (score) • Logistics Performance Index – Customs Score <p>The Regulatory Quality Index, which assesses government capacity to implement policies favouring private sector development, helps economies by addressing anti-competitive practices and regulations that can hinder the inflow of investments and infrastructure development, thereby contributing to the advancement of seamless connectivity and responsible business conduct. Similarly, the customs score of the Logistics Performance Index, by gauging perceptions of customs and border management efficiency, offers an essential link to evaluating industry performance and trade facilitation in the region, thereby supporting APEC economies in improving institutional connectivity. By assessing delays, inefficiencies, and bottlenecks in the customs and border clearance process, this indicator directly contributes to the objective of facilitating seamless connectivity and to the broader goal of promoting trade in the region.</p>

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<p>People-to-people Connectivity</p> <ul style="list-style-type: none"> • Cross-border student mobility on the tertiary level (million) • International tourism receipts (USD billion) • transport and travel exports (USD billion) • International tourist arrivals (million) <p>The indicators on inbound mobility of tertiary-level students, international tourism receipts, transport and travel exports, and international tourist arrivals directly measure the level of cross-border movement in the region, which aligns closely with APEC's goal of improving people-to-people connectivity. Inbound mobility of international students at the tertiary level not only signifies the flow of knowledge and expertise across borders but also promotes the sharing of best practices. Likewise, international tourism receipts and arrivals directly reflect the cross-border movement of people, contributing to the goal of seamless connectivity within the region.</p>
2.1	<p><i>To empower all our people and businesses to participate and grow in an interconnected global economy, we will foster an enabling environment that is, among others, market-driven and supported by digital economy and innovation.</i></p>	<p>APEC's digital and innovation environment is market-driven and increasingly connected globally, including through the promotion of interoperability, allowing all APEC people and businesses to achieve increased participation in, and benefit from, innovation and the digital economy.</p>	<p>Digital Connectivity</p> <ul style="list-style-type: none"> • Mobile-cellular subscriptions (per 100 inhabitants) • Fixed broad subscriptions (per 100 inhabitants) • Active mobile-broadband subscriptions (per 100 inhabitants) <p>The measurement of digital connectivity in the APEC region through assessing data on subscriptions to telecommunication services, including mobile-cellular, fixed-broadband, and active mobile-broadband services, plays an important role in evaluating progress toward APEC's objectives of fostering an enabling environment that is market-driven. The number of mobile-cellular subscriptions per 100 inhabitants signifies the accessibility and the extent of utilisation of mobile communication services, an essential component of digital connectivity. Active mobile-broadband subscriptions highlight the extent to which APEC economies are connected to the Internet, reflecting their ability to participate in and benefit from the digitally interconnected global economy. Meanwhile, the number of fixed-broadband subscriptions indicates the prevalence of high-speed internet access, essential for fostering a market-driven digital economy and innovative environment.</p>

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<p>Participating in Innovation and the Digital Economy</p> <ul style="list-style-type: none"> • Patent applications (number) • Output per worker (in GDP constant 2017 international USD at PPP) • Output per hour worked (in GDP constant 2017 international USD at PPP) <p>The number of patent applications reflects the level of innovative activity within APEC, which is a key driver of productivity improvements and economic growth. The number of patent applications provides insights into the progress made in stimulating higher productivity through innovation. On the other hand, the assessment of output per worker and output per hour worked directly links to the impact of digitalisation and innovation on labour productivity. The efficiency gains achieved through digitalisation, improved technological management, and skill augmentation play a fundamental role in enhancing productivity.</p>
2.2	<p><i>We will strengthen digital infrastructure, accelerate digital transformation, narrow the digital divide, as well as cooperate on facilitating the flow of data and strengthening consumer and business trust in digital transactions.</i></p>	<p>The region improves digital connectivity among economies, businesses and people including by enhancing trust and security in the use of ICTs, accessibility and affordability of digital infrastructure in the region, broadening participation in the digital economy, and cooperating on facilitating the flow of data and strengthening consumer and business trust in digital transactions.</p>	<p>Broadening Participation</p> <ul style="list-style-type: none"> • Internet users (billion) • Broadband costs (USD) <p>The data on the number of Internet users within APEC serves as a critical indicator for assessing the region's progress in addressing the digital divide, which is in line with APEC's objective of broadening participation in the digital economy and narrowing the digital divide. By measuring the level of access to the Internet, this indicator directly reflects the extent to which people in the region are digitally connected and are able to participate in the digital economy. In addition to that, information on broadband costs complements the assessment by reflecting the affordability of available digital infrastructure in the region, a key element in the digital divide. It highlights the accessibility and affordability of digital services, directly impacting the extent to which people and businesses can participate in the digital economy.</p> <p>Strengthening Trust and Security</p> <ul style="list-style-type: none"> • Imports and exports of ICT goods and services (USD billion) • Imports and exports of digitally-deliverable services (USD billion) <p>The utilisation of data on the trade of information and communication technology (ICT) goods and services,</p>

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<p>along with digitally-deliverable services, is important in evaluating APEC's progress in strengthening trust and security in ICT and digital transactions. The trade of ICT goods and services reflects the extent to which economies are engaged in the digital economy and the exchange of digital products and services. This also underscores progress in accelerating digital transformation and fostering the flow of data, ultimately promoting trust and security in ICT use. In the same vein, digitally-deliverable services are essential in this evaluation as they reflect the extent to which businesses and consumers engage in digital transactions. The increase in such services not only signifies the growth in digital connectivity among APEC economies but also emphasises the need for enhancing trust and security in these transactions.</p>
3.1	<p><i>To ensure that the Asia-Pacific region is resilient to shocks, crises, pandemics and other emergencies, we will foster quality growth that brings palpable benefits and greater health and wellbeing to all, including MSMEs, women and others with untapped economic potential.</i></p>	<p>APEC's growth is high quality and inclusive, bringing palpable benefits and greater health and wellbeing to MSMEs, women and others with untapped economic potential.</p>	<p>Inclusion of Women</p> <ul style="list-style-type: none"> • Labour force participation by sex (percentage) • Life expectancy by sex (years) • SIGI access to credit (score) • Account at a bank or equivalent, female (percent) • Proportion of time spent on unpaid domestic chores and care work (percent) • Proportion of women in ministerial level positions (percent) • Proportion of seats held by women in parliament (percent) • How close women are to equality with men at the highest levels of political decision-making (scale 0-100) • Proportion of women subjected to physical and/or sexual violence in the last 12 months (modeled estimate, % of ever partnered women ages 15+) • Proportion of women who have ever experienced intimate partner violence (modeled estimate, % of ever partnered women ages 15+) <p>The inclusion of various statistics on women's wellbeing and empowerment, such as labour force participation, unpaid work, life expectancy, female political leadership, access to finance, and gender-based violence, is vital in the evaluation of APEC's progress in achieving its objective of fostering high quality and inclusive growth that benefits all, including</p>

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<p>women and others with untapped economic potential. Female labour force participation, for instance, reflects women's active involvement in the workforce, directly contributing to the region's high quality and inclusive growth objective. Similarly, indicators on female political leadership underline the promotion of gender equity in policymaking, aligning with APEC's goal of greater wellbeing for all. In addition, the indicator on women's access to finance is crucial in ensuring that women have equal opportunities to participate in economic activities through enhanced access to finance and technical assistance, which captures the aspect of inclusive growth. Reducing gender-based violence makes work safe and equitable, including care work and online spaces, which contribute to improving the overall health and wellbeing of women in the Asia-Pacific region, contributing to the objectives of fostering quality growth that brings greater health and wellbeing for all.</p> <p>Inclusion of Wider Society and MSMEs</p> <ul style="list-style-type: none"> • Size of MSME sector (percent of GDP) • Income shares (percent of income) <p>Evaluating data on the size of the micro, small, and medium enterprise (MSME) sector and income shares of the APEC population is essential in assessing APEC's progress in achieving its objective of fostering high quality and inclusive growth that brings palpable benefits to all, including MSMEs and others with untapped economic potential. The size and economic activity of the MSME sector directly influence the economic wellbeing and livelihoods of a significant portion of the population. This, in turn, reflects the extent to which APEC economies are fostering quality growth and bringing palpable benefits to a wide cross-section of society. Additionally, data on income distribution and the reduction of income inequality are important in achieving inclusive growth. High levels of income inequality can impede progress and hinder efforts to advance economic inclusion, affecting the health and wellbeing of all, including those with untapped economic potential.</p> <p>Food Security and Safety</p> <ul style="list-style-type: none"> • Food Security Index (score) • Prevalence of undernourishment (percent)

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<p>Assessing food security through indicators like the Food Security Index and the prevalence of undernourishment is integral in evaluating progress toward APEC's goal of fostering high quality growth that brings greater health and wellbeing to all. The Food Security Index provides a comprehensive view of food security, reflecting the region's resilience to shocks, crises, and emergencies. It serves as a fundamental component of high quality growth by ensuring that the basic needs of the population are met. Meanwhile, the prevalence of undernourishment indicator directly assesses the health and wellbeing of the population, reflecting the region's ability to provide sufficient access to nourishing food. By reducing undernourishment and enhancing food security, APEC contributes to achieving greater health and wellbeing for all, which aligns with the overarching objectives of fostering quality growth and inclusivity.</p>
3.2	<p><i>We will intensify inclusive human resource development as well as economic and technical cooperation to better equip our people with the skills and knowledge for the future.</i></p>	<p>All our people are well equipped with the skills and knowledge they need to adapt and thrive now and in the future.</p>	<p>Adaptability of the Current Workforce</p> <ul style="list-style-type: none"> • Unemployment rate by sex (percent) • Employment-to-population ratio (percent) <p>The use of data on unemployment and the employment-to-population ratio is instrumental in assessing APEC's progress in achieving its objective of intensifying inclusive human resource development and equipping people with the skills and knowledge for the future. The unemployment indicator directly reflects the degree to which the existing labor force's skills match employer demands and their ability to secure adequate employment. It is a key measure of human resource development and the adaptability of the workforce. On the other hand, the employment-to-population ratio signifies the economy's effectiveness in creating jobs to accommodate the working-age population. A higher employment-to-population ratio implies that the workforce is well adapted to the labor market. This aligns with APEC's objective to ensure that all people are well-equipped with the skills and knowledge needed to adapt and thrive, not just in the present but also in the future.</p> <p>Educating the Future Workforce</p> <ul style="list-style-type: none"> • Population with at least some secondary education by sex (percent) • Expected years of schooling • Mean years of schooling

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<ul style="list-style-type: none"> • Literacy rate • How close women are to achieving equality with men in literacy <p>The use of the four key metrics, including the population with at least some secondary education, expected and mean years of schooling, and literacy rates by sex, is essential in assessing the quality of the education system's role in preparing the future workforce. These indicators directly link to APEC's objective of intensifying inclusive human resource development and equipping people with the skills and knowledge for the future. The population with at least some secondary education reflects the reach and inclusivity of the education system, emphasising access to a minimum level of education that is crucial for future employability. Literacy rates, expected and mean years of schooling offer insights into the quality of education and the depth of knowledge acquired by the population. Literacy underpins employability and the quality of jobs that individuals may secure.</p>
3.3	<p><i>We will promote economic policies, cooperation and growth, which will support global efforts to comprehensively address all environmental challenges, including climate change, extreme weather and natural disasters, for a sustainable planet.</i></p>	<p>APEC's growth and prosperity is achieved on an increasingly environmentally sustainable basis.</p>	<p>Energy Transition</p> <ul style="list-style-type: none"> • Energy consumption per capita (in thousands of kWh per person) • GHG emissions (in gigatons of CO₂ equivalent) • Share of renewables in electricity production (percent) • Sales of electric vehicles (number of vehicles) <p>The indicators on energy consumption per capita, greenhouse gas (GHG) emissions, the share of renewables in electricity production, and electric vehicle (EV) sales directly assess APEC's commitment to addressing climate change and achieving growth on an increasingly environmentally sustainable basis. Reduced energy consumption per capita and decreased GHG emissions signify progress in transitioning away from fossil fuels, aligning with APEC's goal of comprehensively addressing environmental challenges, including climate change. Additionally, the growth of renewables in electricity production and EV sales reflects the region's increasing reliance on alternative energy sources, contributing to the goal towards a sustainable planet and environmentally conscious growth.</p> <p>Environmental Sustainability</p> <ul style="list-style-type: none"> • World Risk Index (score)

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#	Objective	Evaluation of Progress	Indicators and Relevance
			<ul style="list-style-type: none"> • Proportion of population with primary reliance on clean fuels and technologies for cooking (percent) <p>The two key indicators, the World Risk Index and reliance on clean fuels and technologies, contribute to the assessment of risk levels stemming from environmental challenges and APEC's progress in achieving an environmentally sustainable basis for growth and prosperity. The World Risk Index provides a comprehensive view of the vulnerability of the region to a range of environmental risks, which is in line with APEC's objective to comprehensively address all environmental challenges, including climate change, extreme weather, and natural disasters. It reflects the region's ability to anticipate, respond to, and recover from such challenges, highlighting the importance of promoting economic policies and regional cooperation. Reliance on clean fuels and technologies is an important indicator that addresses multiple environmental challenges, particularly pollution and its impact on health outcomes. The use of clean fuels for cooking at home not only mitigates health risks but also reduces environmental degradation, contributing to the broader goal towards a sustainable planet.</p> <p>Resource Stewardship</p> <ul style="list-style-type: none"> • Size of aquaculture and fisheries sector (million metric tons) • Legal timber trade (million cubic meters) <p>Monitoring the size and economic activity of the aquaculture and fisheries sector underscores their importance not only for economic growth but also for environmental and social wellbeing. Sustainable management in these sectors are integral to ensuring that the region can comprehensively address environmental challenges, including climate change. Additionally, the indicator related to legal timber trade reflects the region's commitment to responsible resource management. Ensuring that timber trade is legal is a crucial step in environmental sustainability. It signifies APEC's dedication to combating illegal logging, conserving forests, and mitigating the environmental impacts of unsustainable forestry practices.</p>

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Appendix 2: Detailed Statistical Analysis

1. Trade and Investment

1.1 Objective: “We will promote seamless connectivity, resilient supply chains and responsible business conduct.”

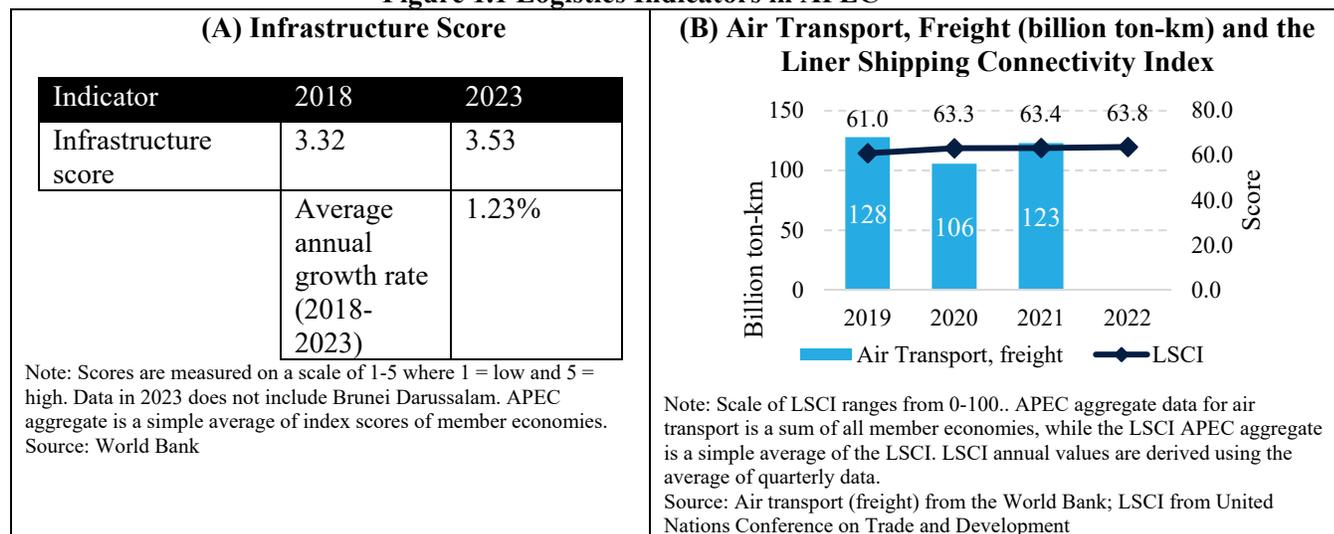
Evaluation of Progress: “To promote seamless connectivity, resilient supply chains and responsible business conduct, APEC economies will improve physical, institutional and people-to-people connectivity.”

Key Responsible SCE Sub-fora: HWG, HRDWG, PPSTI, PPWE, SMEWG, TWG, TELWG, and TPTWG Under trade and investment, the APEC Putrajaya Vision 2040 through the APA aims to strengthen supply chain resilience, address infrastructure gaps, improve connectivity, and promote safe cross-border movements of people.

Physical Connectivity

Fostering a sound logistics system is crucial to strengthen connectivity and build a resilient supply chain. The Logistics Performance Index (LPI) captures logistics operators’ perceptions on the efficiency of trade and transport related infrastructure. Meanwhile, air transport of freight and the Liner Shipping Connectivity Index (LSCI), which calculates an average of factors ranging from the number of ships to the number of companies deploying those ships at port, help indicate shipping activity levels in the aviation and maritime sectors and assess industry performance.

Figure 1.1 Logistics Indicators in APEC



In 2023, APEC’s infrastructure score displayed an improvement from its 2018 baseline, increasing by around 1.23% every year (Figure 1.1A) on the average due to initiatives pursued by member economies to reduce trade transaction costs, such as via investments in port infrastructures to enhance productivity. This has led to substantial increases in scores in Canada; Korea; the Philippines; and Singapore, amongst other economies.

Data on air freight and the LSCI in 2021 suggest that a rebound in shipping activities is occurring following the brunt of the COVID-19 pandemic. Air freight has nearly returned to its pre-pandemic levels (123 billion ton-km in 2021 vis-à-vis 128 billion ton-km in 2019) as distributors turned to air freight to overcome disruptions in deliveries via maritime and land freight despite higher prices (Figure 1.1B). In 2019-2021,

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APEC’s LSCI increased from 61 to 63.4 (+3.79%) but this slightly declined to 59.9 by 2022 due to supply chain disruptions, resurging COVID-19 cases to labour strikes at ports in an APEC economy. Yet, in APEC the logistics sector has demonstrated more resilience to tourism, which is discussed in more detail below.

Institutional Connectivity

Addressing infrastructure gaps and improving connectivity require economies to have a robust regulatory environment. The World Bank’s Regulatory Quality index surveys public perception on government capacity to implement sound policies to promote private sector development. Factors for consideration include anti-competitive practices and regulations faced by firms, which are crucial to attract investments and build quality infrastructure to further spur trade and investment. Another indicator is the LPI’s Customs Score, which surveys perception on the efficiency of customs and border management clearance.

Table 1.1 Institutional indicators in APEC (index scores)

(A) Regulatory Quality				(B) Customs Score		
Indicator	2019	2020	2021	Indicator	2018	2023
Regulatory quality	0.77	0.77	0.73	Customs score	3.19	3.28
Growth rate	-4.26%	0.55%	-5.20%	Average annual growth rate (2018-2023)		0.58%

Note: The index measures performance on a scale of -2.5 to 2.5. APEC aggregate is a simple average of the index scores on regulatory quality.
Source: World Governance Indicators (WGI) from the World Bank

Note: Scores are measured on a scale of 1-5 where 1 = low and 5 = high. Data in 2023 does not include Brunei Darussalam. APEC aggregate is a simple average of index scores of member economies.
Source: World Bank

APEC’s aggregate regulatory quality showed a 0.04 unit decrease between 2019 and 2021, declining by 5.20% in the two-year timespan (Table 1.1A). The score remained largely constant between 2019 and 2020 due to the mixed performance of APEC’s member economies. The steeper 0.04 decrease in 2021 can be attributed to an outlier rather than a broader trend amongst all APEC economies. On the other hand, 15 of 21 APEC economies exhibited slight increases in scores in 2020-2021. Unlike regulatory quality, customs scores enjoyed growth in APEC, rising by an average of 0.58% yearly between 2018 and 2023 (Table 1.1B) as economies adopted technologies like automation to quicken the export and import process. Yet, perception on the efficiency of APEC economies’ customs process still lags behind the quality of its infrastructure.

People-to-people Connectivity

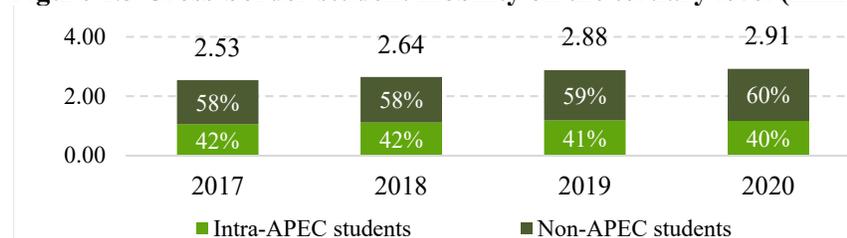
To assess the progress of capacity building efforts on facilitating people-to-people connectivity, data measuring cross-border education and tourism are used, specifically the inbound mobility of students on the tertiary level together with international tourism receipts and exports of transport and travel. The two indicators signal the level of cross-border mobility in the region.

The number of international students undertaking tertiary education in APEC has increased by 15% from 2.5 to 2.9 million students from 2017-2020, consistently increasing each year (Figure 1.3). However, between 2019-2020 growth slowed down to 1.3% as the COVID-19 pandemic suspended in-person classes and halted admissions of international students. In 2017-2020, the share of intra-APEC students fell slightly from 42% to 40% of all cross-border students in the region. Yet, in absolute terms intra-APEC students increased in tandem with non-APEC students from 1.1 million in 2017 to 1.2 million in 2020. However, this share is likely still an underestimation as it excludes several APEC economies.

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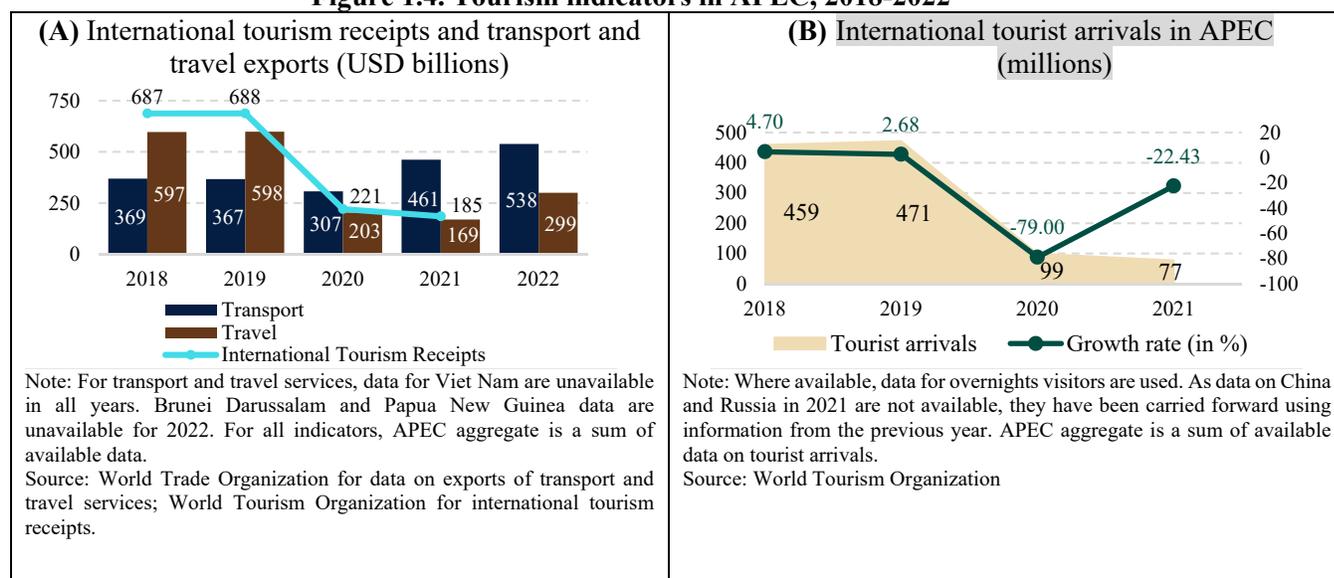
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Figure 1.3 Cross-border student mobility on the tertiary level (millions)



Note: Tertiary inbound student data in Papua New Guinea; Peru; the Philippines; and Chinese Taipei are unavailable. Share of intra-APEC students does not include APEC students in the economies as well as China and Singapore. APEC aggregate is a sum of available data on total tertiary level students in the region.
Source: United Nations Educational, Scientific and Cultural Organization

Figure 1.4. Tourism indicators in APEC, 2018-2022



As a hard-hit sector during the pandemic, tourism in APEC is currently in recovery after significant declines in tourism receipts in 2020-2021. This is demonstrated by the increase in both transport and travel exports in 2022 (Figure 1.4A), with transport in 2022 increasing to around USD538 billion and exceeding 2019 levels by 75.5%. Meanwhile, in 2022 travel exports kickstarted its recovery as it spiked by 76.8% to USD538 billion from the 2021 trough. International tourism receipts have also not returned to pre-pandemic levels in 2021, but the decline has slowed down to -6.1% from -67.9% in 2020, with USD185 billion.

After peaking at 471 million international tourist arrivals in 2019, by 2021 arrivals within the APEC region dropped by 83.7% from 2019 levels to 77 million due to the COVID-19 pandemic (Figure 1.4B). With international travel restrictions as well as additional quarantine, vaccination, and COVID-19 testing requirements for travellers, tourism declined sharply. While tourist arrivals have not yet reached pre-pandemic levels in 2021, the decline has slowed significantly to -22.4% compared to -79% in 2020.

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2. Innovation and Digitalisation

2.1 Objective: “To empower all our people and businesses to participate and grow in an interconnected global economy, we will foster an enabling environment that is, among others, market-driven and supported by digital economy and innovation.”

Evaluation of Progress: “APEC’s digital and innovation environment is market-driven and increasingly connected globally, including through the promotion of interoperability, allowing all APEC people and businesses to achieve increased participation in, and benefit from, innovation and the digital economy.”

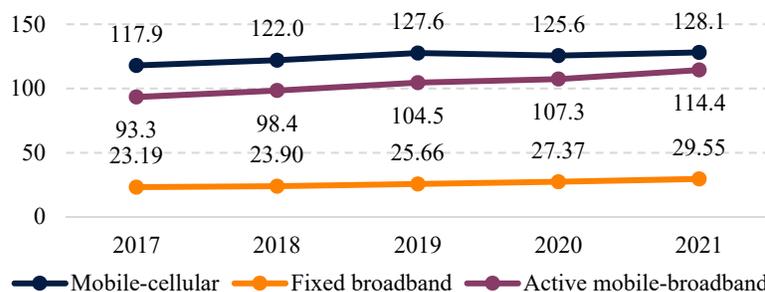
Key Responsible SCE Sub-fera: ACTWG, EPWG, EWG, HWG, HRDWG, PPSTI, PPWE, SMEWG, TWG, TELWG, and TPTWG

The APA identifies innovation and digitalisation as the second set of engines to fuel sustainable and inclusive economic growth. Innovation and digitalisation have directly transformed various industries from agriculture, manufacturing, to retail amongst many others, and with emerging tools such as data analytics and artificial intelligence increasingly being adopted, this state is likely to continue. Further integration in the digital environment can increase the propensity for businesses to innovate while also allowing them to connect with and participate in the global economy, gaining access to new markets and resources. Thus, prioritising the two engines can help create a more dynamic market, increase competition, and enhance productivity of businesses with APEC economies.

Digital Connectivity

To measure how well-connected APEC is to the digital environment, data on the region’s subscription to various telecommunication services is used. This report will highlight subscriptions to mobile-cellular, fixed-broadband, and active mobile-broadband services. First, the ITU defines mobile-cellular as public mobile-telephone services that provide access to the public-switched telephone network using cellular technology. The indicator includes post-paid and active prepaid accounts, and it applies to all mobile-cellular subscriptions that offer voice communications while excluding subscriptions to public mobile data services. Second, active mobile-broadband includes standard mobile-broadband and dedicated mobile-broadband subscriptions to the public Internet. Finally, fixed-broadband subscriptions refer to high-speed access to the public Internet at downstream speeds equal to or greater than 256 kbit/s, including cable modem, fibre-to-the-home/building, and other fixed (wired)-broadband subscriptions. The indicators will paint a picture on how inclusive the adoption of digital services have been amongst the APEC population, which is vital in ensuring that businesses and consumers are empowered to exchange knowledge and participate in the global economy.

Figure 2.1 Telecommunication Services Subscriptions (per 100 inhabitants)



Note: APEC aggregate is a population-weighted average of available data.
Source: International Telecommunication Union

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Subscriptions for mobile-cellular, fixed broadband, and active mobile-broadband subscriptions all increased during the 2020-2021 period (Figure 2.1). With values above 100, mobile-cellular and active mobile-broadband subscriptions are widespread and accessible in the APEC region with more than one subscription per inhabitant on average. Despite dipping slightly in 2020 to 125.6, in 2021 mobile-cellular subscriptions remained the highest amongst the three types of telecommunication services in APEC with 128.1 per 100 inhabitants (+1.96% from 2020). The slower growth rates for mobile-cellular subscription are likely due to the already high saturation rates from the years prior.

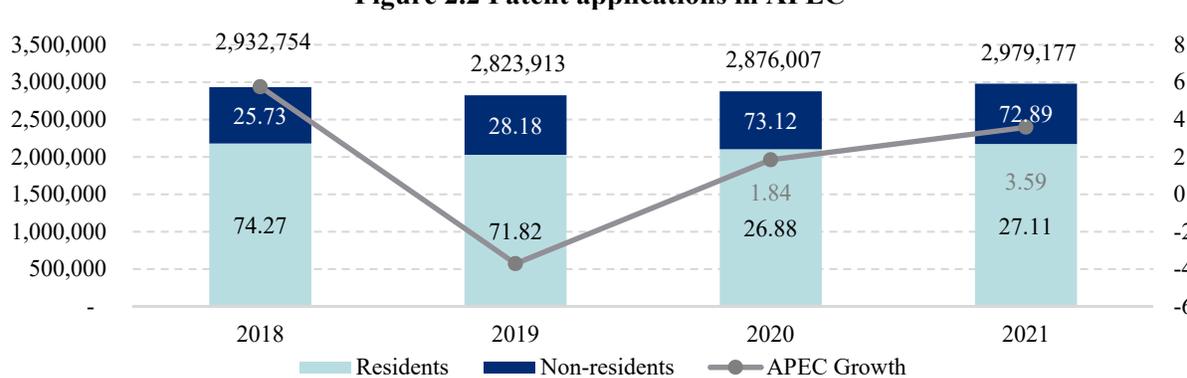
A steeper increase occurred for active mobile-broadband subscriptions as subscriptions reached 114.4 per 100 inhabitants (+6.54% from 2020) in 2021, narrowing the gap in subscriptions with mobile-cellular services. The higher increase relative to mobile-cellular services likely reflects the evolving preferences within telecommunication services, as consumers may now also prioritise access to internet services in addition to cellular network alone.

The number of fixed-broadband subscriptions in the APEC region remains far below mobile-cellular and active mobile-broadband subscriptions. Nevertheless, fixed-broadband subscription experienced the highest growth in APEC to 29.55 per 100 inhabitants (+7.97% from 2020). While it does not offer portability, the surge in demand for fixed broadband can be explained by its higher reliability and speed, which can also be a crucial element in unlocking higher productivity amidst the digitalising economic environment.

Participating in Innovation and the Digital Economy

Sustained innovation and improvements in labour productivity are necessary to speed up growth. Two indicators will be used to assess innovation and productivity, respectively. First, patent applications can help gauge the level of innovative activity in an economy, which could help stimulate higher productivity. On the other hand, digitalisation and innovation are expected to contribute to labour productivity through improved technological efficiency, management, and monitoring, and/or skills augmentation. Therefore, to assess the impact of digitalisation and innovation, a second set of indicators on output per worker and output per hour worked will be used, with GDP as a measure of output.

Figure 2.2 Patent applications in APEC



Note: APEC aggregate is a sum of available data on patent applications. The bars included in the chart represent growth in the corresponding period.

Source: World Bank, World Intellectual Property Organisation, Chinese Taipei Intellectual Property Office.

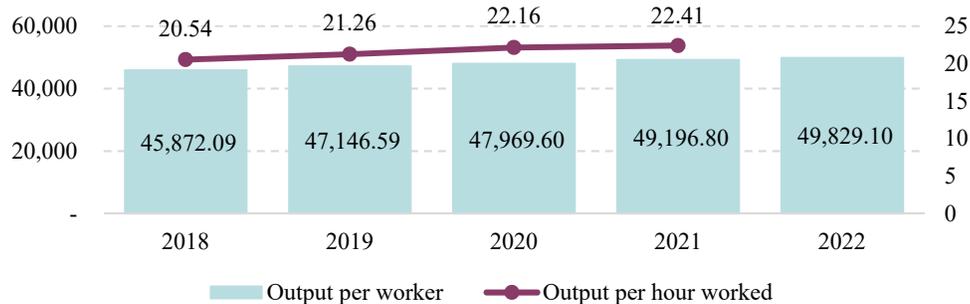
APEC economies showed an increase the number of patent applications filed per year from 2020-2021, increasing from 2.9 million to 3.0 million or 3.59% (Figure 2.2). Patent applications have accelerated compared to the 2019-2020 period when it grew by 1.84%, marking continued innovative activity despite

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challenges brought by the COVID-19 pandemic. The increase in resident patents filed in 2021 has largely been driven by China and Korea, with patents in computer technology and measurements making up a notable share of the two economies' patent applications. From 2018-2021, around 70-75% of patent applications in the APEC region are filed by the residents of each respective APEC economy.

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Figure 2.3 Labour productivity indicators (in GDP constant 2017 international USD at PPP)



Note: APEC aggregate is a weighted average based on the share of persons employed in the labour force. Due to missing data, data on output per worker for Russia in 2022 is carried forward from 2021.

Source: International Labour Organization

Labour productivity indicators showed an overall increase from 2019-2022 (Figure 2.3). On the other hand, the growth in hourly output slightly slowed down in 2021 (+1.13%) relative to 2020 (+4.23%). Output per hour worked increased to USD PPP 22.41 compared to USD PPP 22.16 the year prior. Yet, increases in output per hour worked throughout this time is driven by the compositional effect of the indicator rather than inherent improvements in economies’ performance. The proportion of total working hours carried out by small firms decreased. Meanwhile, larger firms produced more output per hour worked than smaller firms on average, which led to the rise in labour productivity.

At the same time, output per worker also grew by 2.56% to USD PPP 49,196.80 in 2021. However, output per worker growth then slowed down to 1.29% in 2022, reaching USD PPP 49,829.10. While still experiencing positive growth, the 2021-2022 performance represents a slowdown in labour productivity when compared to the pre-pandemic years, where growth peaked at 3.37% in 2018.

In addition to the COVID-19 pandemic, the slowdown in growth in terms of output per worker could be attributed to other factors, including the plateauing of the growth in the labour force’s educational attainment as well as an aging workforce.⁵ However, it should be noted that there could also be a positive lag yet to arrive as businesses hire more workers and invest in new technologies following the COVID-19 pandemic. Employees may take some time to gain the skills to adjust to their new workplaces as well as adapt to new technologies. Another factor that helps explain the slowdown in labour productivity is the measurement error arising from the way GDP is calculated. The United Nations’ System of National Accounts, which provides guidelines on how GDP is measured, is still geared towards brick-and-mortar economic activities and may not fully account for the benefits brought by the digital economy, such as emails, social media, and navigation services.

2.2 Objective: “We will strengthen digital infrastructure, accelerate digital transformation, narrow the digital divide, as well as cooperate on facilitating the flow of data and strengthening consumer and business trust in digital transactions.”

Evaluation of Progress: “The region improves digital connectivity among economies, businesses and people including by enhancing trust and security in the use of ICTs, accessibility and affordability of digital infrastructure in the region, broadening participation in the digital economy, and cooperating on facilitating the flow of data and strengthening consumer and business trust in digital transactions.”

⁵ <https://blogs.worldbank.org/developmenttalk/broad-based-productivity-slowdown-seven-charts>

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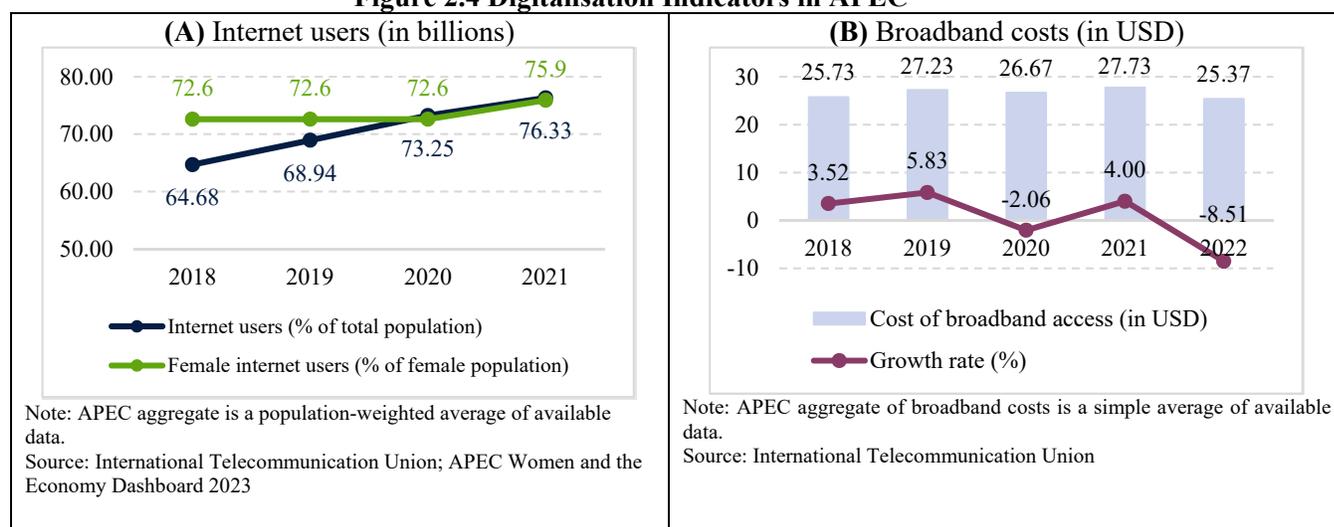
Key Responsible SCE Sub-fora: ATCWG, ACTWG, HWG, HRDWG, PPSTI, PPWE, SMEWG, TWG, TELWG, and TPTWG

As one of the three drivers of inclusive and sustainable economic growth, enhancing innovation and digitalisation will require joint measures to improve affordable access to and the quality of digital infrastructure within APEC. Improving the region’s digital infrastructure can help businesses and people increase seamless integration in the global economy and unlock new opportunities. To achieve this, there is a need to address the digital divide, promote and share best practices on digital trade, and standardise international and regional norms for the digital economy.

Broadening Participation

To help show progress in mitigating the digital divide in APEC, data on Internet users in a population, defined as people who have used the Internet via a computer, mobile phone, personal digital assistant, games machine, digital TV, in the last three months, is used. In addition to the level of access, the number of Internet users will also help indicate the level of digital skills and literacy in the population. Information on broadband costs will also be used to assess the quality of available digital infrastructure and the capacity for data exchange along with its affordability.

Figure 2.4 Digitalisation Indicators in APEC



Between 2020 and 2021, internet users in the APEC region grew by 4.85% from 2.16 to 2.27 billion people, covering 76.33% of the region’s population (Figure 2.4A). Growth over the years has been driven by economies that had lower rates of internet usage historically, such as China; Indonesia; Thailand; and Viet Nam. The growth rate in 2020-2021 is a slowdown from previous years, which averaged at around 7% in 2017-2020, likely due to high base effects. Likewise, the upward trajectory also applies to percentage of female internet users particularly during the COVID-19 pandemic years, which led to 75.9% of female internet users in 2021 from 72.6% in 2019 (+3.3pp).

Data on broadband costs also show positive signs in terms of improving accessibility (Figure 2.4B). The cost of broadband access is defined as the cost of obtaining the cheapest plan to obtain 5GB of broadband data at a high speed (≥ 256 Kbit/second) from the network operator with the largest market share in an economy. After having increased in 2018-2019, broadband costs within APEC have since become cheaper, steadily decreasing from USD27.23 in 2019 to USD25.37 in 2022 (-6.80%), another impact of increasing the supply and quality of digital infrastructure through more investments.

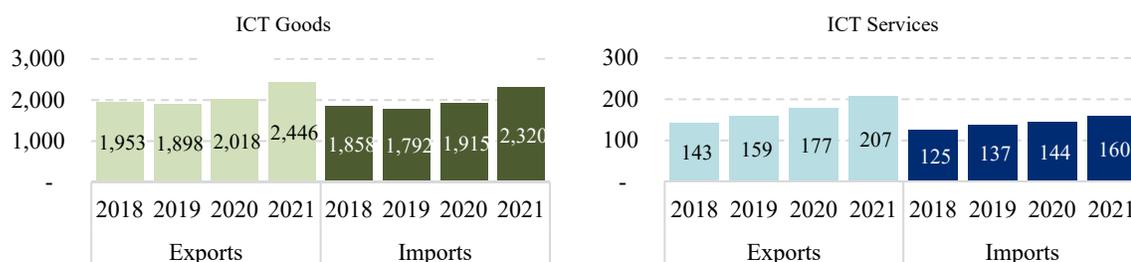
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Strengthening Trust and Security

To measure progress of initiatives to improve trust and security in ICT and digital transactions, the report will use data on the trade of ICT goods and services, and digitally deliverable services.

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Figure 2.5 Imports/exports of ICT goods and services (in billions USD)



Note: APEC aggregate is a sum of available data. Trade data of ICT goods and services for Papua New Guinea, and ICT services for Brunei Darussalam and Chinese Taipei are not available. Bars indicate growth in the 2020-2021 period.
Source: United Nations Conference on Trade and Development

The COVID-19 pandemic led to the implementation of lockdown restrictions as a precautionary measure to protect public health. Such restrictions also resulted in the shift to remote working, online classes, as well as e-commerce and telehealth services in place of brick-and-mortar stores. Thus, it accelerated the trade of ICT goods and services in APEC between 2020 and 2021 by around 20% and 13%, respectively (Figure 2.5). Growth rates in exports and imports for both categories of ICT more than doubled compared to 2019 as businesses and consumers scaled up their use of ICT in economies such as China; Malaysia; and Korea. However, in APEC, imports and exports of ICT goods still far exceed that of services, largely driven by East Asian economies as the global production centre of ICT goods.

Figure 2.6 Imports and exports of digitally-deliverable services



Note: APEC aggregate is a sum of available data on digitally deliverable services.
Source: United Nations Conference on Trade and Development

Increasing the cross-border provision of services via ICT could act as a fuel for growth by reducing transaction costs and making jobs tradable between different economies, enhancing connectivity in the process. Trade in digitally deliverable services (DDS) help measure this exchange. DDS are services that can be delivered over ICT networks, including ICT services themselves, sales and marketing, insurance and finance, professional services, research and development, and education. APEC data show that exports and imports of DDS have increased between 2020-2021 by 12.8% and 10.4%, respectively, a notable increase from approximately 5-6% for both exports and imports in 2018-2020 (Figure 2.6A). As a percentage of total services, the share of DDS in APEC fell in 2021 after a temporary increase the year prior as in-person services activities began resuming to their pre-pandemic rates (Figure 2.6B).

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3. Strong, Balanced, Secure, Sustainable and Inclusive Growth

3.1 Objective: “To ensure that the Asia-Pacific region is resilient to shocks, crises, pandemics and other emergencies, we will foster quality growth that brings palpable benefits and greater health and wellbeing to all, including MSMEs, women and others with untapped economic potential.”

Evaluation of Progress: “APEC’s growth is high quality and inclusive, bringing palpable benefits and greater health and wellbeing to MSMEs, women and others with untapped economic potential.”

Key Responsible SCE Sub-fora: ATCWG, ACTWG, EPWG, HWG, PPWE, SMEWG, and PPSTI

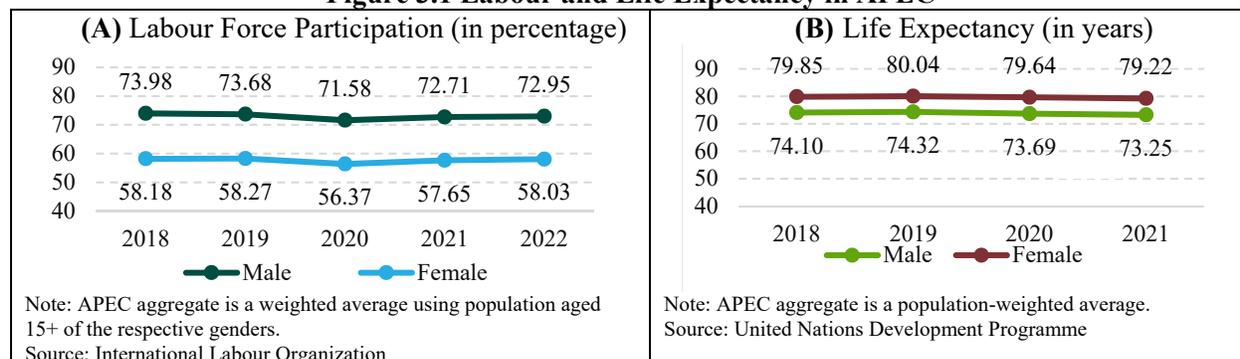
The third pillar of the APEC Putrajaya Vision 2040 builds on APEC’s agenda on Strong, Balanced, Secure, Sustainable, and Inclusive Growth to enhance economic inclusion for all. APEC recognises the need to implement policies to ensure that women, micro, small and medium enterprises (MSMEs), and other groups can benefit from and take ownership of the prosperity brought by economic growth, which culminated in initiatives such as the La Serena Roadmap for Women and Inclusive Growth. Such policies would help improve the quality of life for all and safeguard these groups against future economic shocks and health crises.

Inclusion of Women

To measure the impact of initiatives on women’s wellbeing and empowerment, statistics on health, work, and representation will be used, labour force participation, time spent on unpaid work, life expectancy, indicators on female political leadership, access to finance, as well as gender-based violence. In addition to health and participation in the workforce, having increased female representation could help push policies that prioritise gender equity to the forefront of policymaking, such as career advancement or remuneration of work with equal value.

From 2020-2022, labour force participation rate grew for male and female workers to 72.95% and 58.03%, respectively (Figure 3.1A). Some causes cited to have caused the rift between the two figures include prevailing gender norms on family responsibilities limiting women’s availability to work, lack of affordable care, as well as the lack of safe and accessible transportation.⁶ While the gap in participation rates did gradually narrow from 15.8 percentage points (pp) in 2018 to 14.92pp in 2022, it should be highlighted that this is also partly due to the steeper decline in male labour force participation relative to female rates. From 2018-2022, female labour force participation rate has not rebounded to the same extent as females (-1.03pp for males and -0.14pp for females).

Figure 3.1 Labour and Life Expectancy in APEC

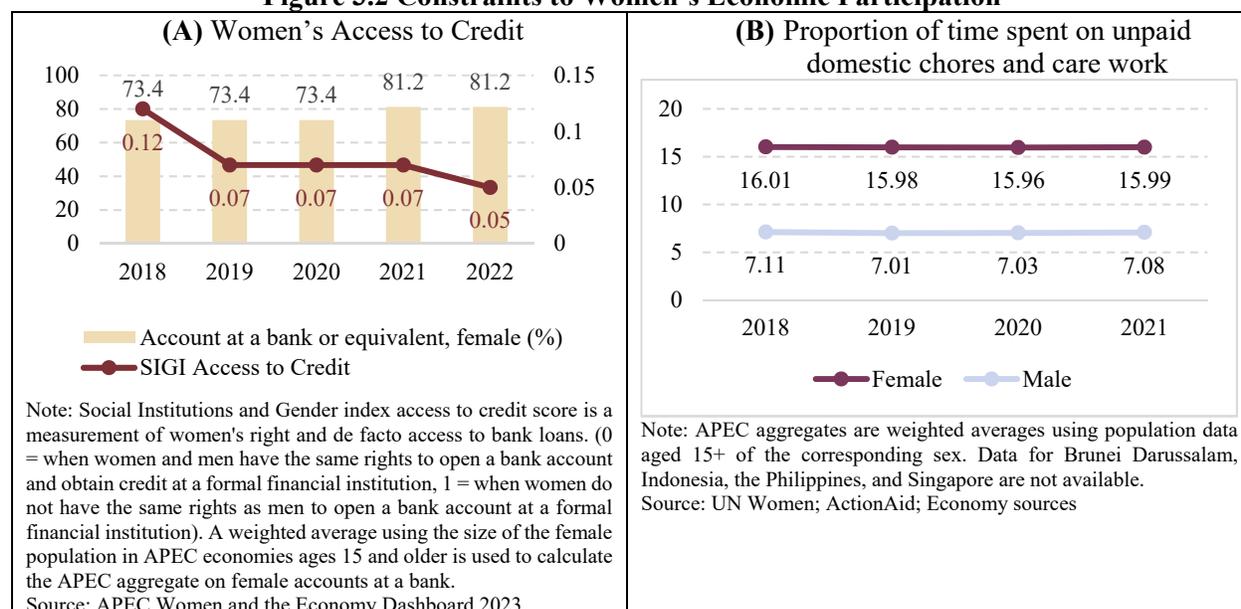


⁶ <https://www.ilo.org/infostories/en-GB/Stories/Employment/barriers-women#persistent-barriers>

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For both sexes, life expectancy in 2021 slightly declined from 2019 levels to 79.22 years and 73.25 years for females and males, respectively, as the COVID-19 pandemic caused a surge in excess mortality. Data on life expectancy at birth from 2019-2021 show that life expectancy of females exceed that of males by around 6 years (Figure 3.1B). In the same period, the gap in life expectancy between the two sexes has slightly widened from 5.73 years to 5.93 years, which was also driven by a steeper decline from males (-1.09 years) relative to females (-0.97 years).

Figure 3.2 Constraints to Women's Economic Participation



Access to capital enables women's economic participation as it allows them to start and grow their businesses. Data on women with bank accounts or an equivalent show that the COVID-19 pandemic had accelerated account creations from 73.4% in 2020 to 81.2% in 2022 after staying unchanged in the years prior (Figure 3.2A). This could likely be due to the uptick in online and cashless transactions, which often require an account with a financial institution. This increase is reflected by the statistic on women's access to credit, which is nearing full equality to men after decreasing from 0.12 in 2018 to 0.05 in 2022 due to decreases in economies such as Japan and the Philippines.

Data on time spent on unpaid work (Figure 3.2B) show that the amount of time that women spent on domestic chores and care work has declined marginally by .02pp from 2018-2021, while for men this has also decreased by 0.03pp. However, as many economies update the data every five years, the data does not fully capture yearly variations of this indicator. Overall, the gap between females and males in this measure has persisted with a gap of 8.99pp in 2021.

Table 3.1 Female political leadership in APEC

Indicator	2019	2020	2021	2022
Proportion of women in ministerial level positions (%)	19.4	20.1	20.1	26.6
Proportion of seats held by women in parliament (%)	23.3	24.4	26.2	26.7
How close women are to equality with men at the highest levels of	21.3	23.5	25.6	27.6

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political decision-making (scale of 0-100)				
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Note: APEC aggregate is a simple average of available data. To obtain annual data, end-of-year estimates are taken.
Source: APEC Women and the Economy Dashboard 2023

The share of women-held seats in APEC’s parliaments steadily grew from 2019-2022, exceeding 25% of the share of total seats by 2021 (Table 3.1). While 2022 recorded the highest diversity in parliament composition in this period, the growth rate decelerated compared to prior years. The uptick in 2021 occurred mainly due to two Latin American economies, Chile and Peru, which experienced a spike in the share of women-held seats. In addition to changing social norms, one factor that led to the increase in share of female seats in the two economies is the use of legislated and voluntary sex-based quotas for party candidacies, which has been shown to have persistent impact on increasing the share of women holding parliamentary seats.

Table 3.2 APEC Statistics on Gender-Based Violence

Indicator	2018
Proportion of women subjected to physical and/or sexual violence in the last 12 months (modelled estimate, % of ever partnered women ages 15+)	6.32
Proportion of women who have ever experienced intimate partner violence (modelled estimate, % of ever partnered women ages 15+)	22.46

Note: APEC aggregate is a simple average of available data. Data for Brunei Darussalam, Russia, and Chinese Taipei are unavailable for both indicators. Data on gender-based violence within the last 12 months is unavailable for Canada and Korea, while lifetime data is unavailable for Malaysia.
Source: UN Women

Due to the availability of data, only results for the baseline year of 2018 are reported. In terms of lifetime intimate partner violence, Singapore reported the lowest value at 9.41%, while Papua New Guinea reported a high 48.13%. Meanwhile, in 2018 alone, Papua New Guinea reported that 25.47% of women experienced physical and/or sexual violence, while Canada had the lowest reported share of cases with 1.68%. However, these numbers may be an underestimate due to under-reporting. UN Women found that less than 40% of women⁷ who experience violence seek help of any sort. The majority of survivors who seek help will go to family and friends instead of utilizing formal channels like the police and/or the hospital. Less than 10% of survivors seeking help will report to the police.

Inclusion of Wider Society and MSMEs

In addition to gender, other measures of societal wellbeing include the size of the MSME sector, and the income shares of the APEC population. Many people obtain their income by working for MSMEs, highlighting its role in the economy and people’s wellbeing. Similarly, higher degrees of income inequality may slow down growth and hinder efforts to enhance economic inclusion.

Differences in the way MSMEs are classified and the way the contribution to the overall economy is calculated in each APEC economy result in a lack of comparability between MSME data of the different economies. For example, in 2019 MSMEs contributed to 61.07%⁸ of GDP in Indonesia, whereas in Chinese Taipei they brought in 29.58%⁹ of the economy’s total sales. However, economy-level data from 2019-2021 show that MSMEs account for more than 50% of the total share of employment in most APEC

⁷ <https://www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures>

⁸ https://kemenkopukm.go.id/uploads/laporan/1650868533_SANDINGAN_DATA_UMKM_2018-2019%20=.pdf

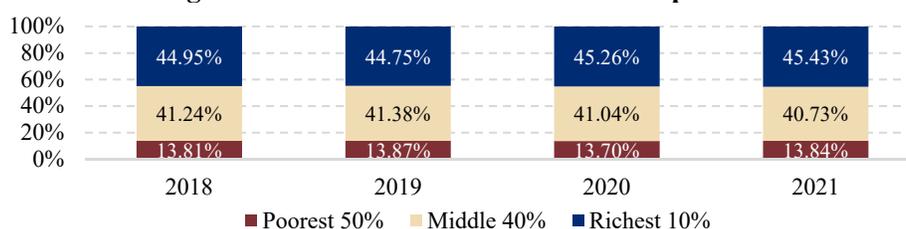
⁹ <https://www.moeasmea.gov.tw/files/5944/E1A2BA05-38DF-4221-9349-509B875B211C>

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economies, The most recent data showcase the variability within APEC; the figures start from 10.80% in Papua New Guinea,¹⁰ which excludes informal businesses, to 96.62% of employment in Indonesia.¹¹

From 2019-2021, income inequality showed a slight increase throughout APEC (Figure 3.3). The income share of the middle 40% of the population and the poorest 50% declined (−0.65pp and −0.03pp respectively), while the richest 10% slightly increased (+0.68pp), signalling the gradual decline of share of the middle 40% and the poorest 50% population within the last two years (Figure 3.3). The richest 10% of APEC’s population takes in around 45% of the region’s income, while the poorest 50% holds only around 14%. Overall, the COVID-19 pandemic played a role in exacerbating preexisting inequalities as remote employment opportunities tended to favour those with higher educational attainment and digital skills.

Figure 3.3 Income Share of the APEC Population



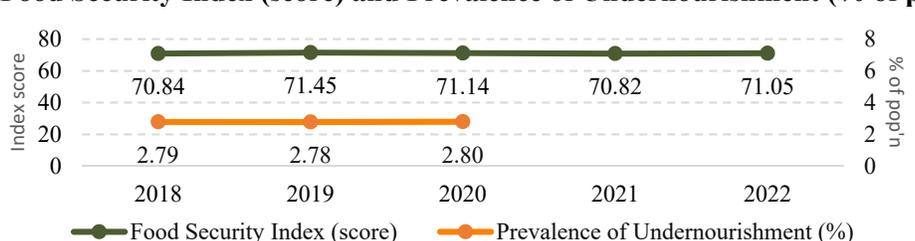
Note: APEC aggregate is a population-weighted average. APEC aggregate is the weighted average of available data on income shares based on population.

Source: World Inequality Database

Food Security and Safety

As food is the foundation of societal wellbeing, it is vital to ensure food security for the region. Two indicators will be used to assess food security in APEC, the Food Security Index (FSI) and the Prevalence of Undernourishment (PoU).

Figure 3.4 Food Security Index (score) and Prevalence of Undernourishment (% of population)



Note: APEC aggregate of the FSI is a simple average of available data. Data for Brunei Darussalam; Hong Kong, China; Papua New Guinea; and Chinese Taipei are unavailable. For prevalence of undernourishment, APEC aggregate is a population-weighted average. Data for Singapore is not available.

Source: The Economist Impact and Food and Agriculture Organization

APEC’s performance in the FSI, which includes metrics on food affordability, availability, quality and safety, as well as sustainability and adaptation, fell in 2019-2021 compared to the 2019 peak of 71.45. Yet, the score began its recovery in 2022 to 71.05, an uptick of 0.33% from 2021 (Figure 3.4). The 2022 sub-indices reveal that while the APEC region has a decent level of affordability (84.12), figures for availability (65.14) along with and sustainability and adaptation (57.88) are relatively weaker, particularly amongst Southeast Asian economies which are vulnerable to natural disasters.

On an aggregate level, the PoU, defined as the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life, remained stable at 2.79-2.80% of the population from 2018 to latest available data in 2020.

¹⁰ https://www.pngwbr.com/_files/ugd/f7ee5b_c61ea80422244788b6edf53b7f5b3e8f.pdf

¹¹ https://kemenkopukm.go.id/uploads/laporan/1650868533_SANDINGAN_DATA_UMKM_2018-2019_.pdf

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The PoU only rose by 0.02pp in 2020 from 2019 despite the pandemic’s economic impacts, possibly signalling the positive impact of member economy initiatives to deliver food assistance and financial support for affected members of society.

3.2. **Objective:** “We will intensify inclusive human resource development as well as economic and technical cooperation to better equip our people with the skills and knowledge for the future.”

Evaluation of Progress: “All our people are well equipped with the skills and knowledge they need to adapt and thrive now and in the future.”

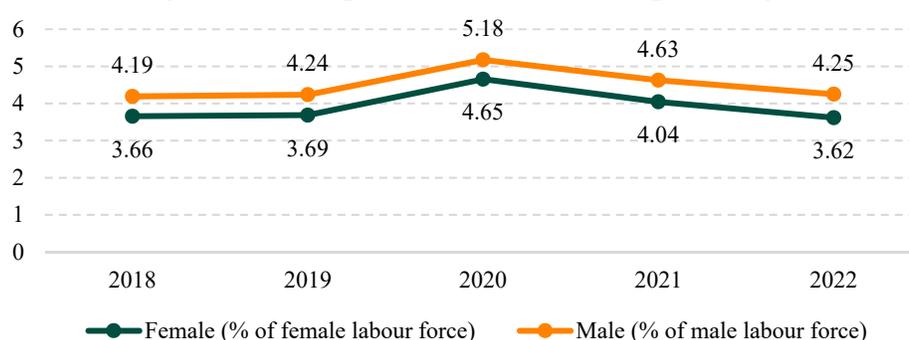
Key Responsible SCE Sub-fora: HRDWG, PPWE, SMEWG, TWG, TELWG, and PPSTI

Achieving Sustainable and Inclusive Economic Growth in APEC will require investments and capacity building in the region’s human resources amidst digital transformation and evolving in-demand skills in the labour market. Such investments will open up opportunities for social and economic mobility and increase insurance against poverty, particularly for women and those with untapped potential. In response, several initiatives, such as APEC’s Education Strategy and the APEC Framework on Human Resources Development in the Digital Age have been put in place to set this in motion.

Adaptability of the Current Workforce

To measure how well-adapted the current workforce is to the labour market, this section will use data on unemployment and employment-to-population ratio. The two indicators reveal whether the existing labour force’s skills match what employers seek and that they could find adequate jobs. The employment-to-population ratio denotes the proportion of the adult population (aged 15 years and above) who are working. Higher employment-to-population ratios could mean that the economy is doing well in creating jobs to accommodate the total adult population. The two metrics have different implications. Unlike unemployment, which measures the population not working as a share of the labour force, the employment-to-population ratio captures the entire working age population.

Figure 3.5 Unemployment rate by sex (in percentages)



Note: APEC aggregate is a weighted average based on the size of the labour force of each sex. Data for Russia in 2022 is not available.

Source: International Labour Organization

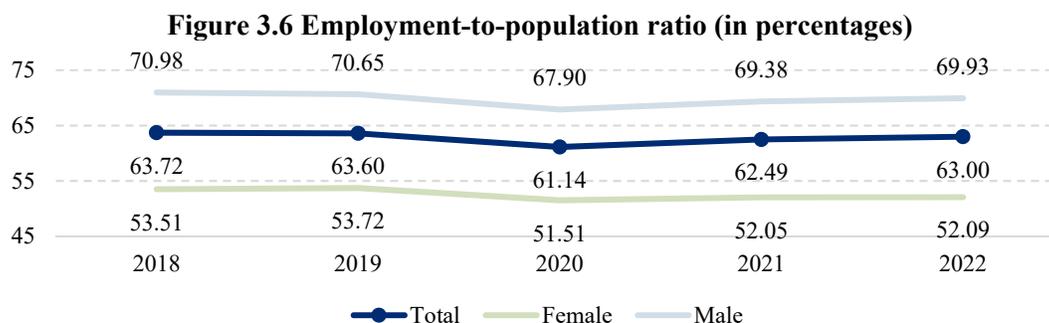
In 2020, the negative economic shock caused by the COVID-19 pandemic led to an uptick in unemployment to 5.18% for males and 4.65% for females (Figure 3.5). As APEC economies began their recovery, in 2022 unemployment fell once again to 4.25% for men and 3.62% for females. As of 2022, unemployment rates have fallen below pre-pandemic levels for females (−1.90pp), while it is about to reach 2019 levels for males (+0.31%). In APEC, male unemployment rates exceed those of females, going against worldwide averages where female unemployment is higher.

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Compared to unemployment data, the gap between male and female employment-to-population ratios are demonstrably larger at approximately 18pp from 2019-2021 (Figure 3.6). Furthermore, unlike unemployment, in APEC men have starkly higher employment-to-population ratios year-on-year relative to women due to prevailing social norms, which discourage women from entering the workforce as they pursue marriage, and more crucially, motherhood.¹² After falling slightly in previous years, APEC's total employment-to-population ratio dropped to 61.14% of the population in 2020 as some segments of the population left the labour force, with some becoming carers. While it has not yet climbed to pre-pandemic rates, the ratio did rebound from its 2020 trough to 63% in 2022.

¹² <https://ilostat.ilo.org/having-kids-sets-back-womens-labour-force-participation-more-so-than-getting-married/>

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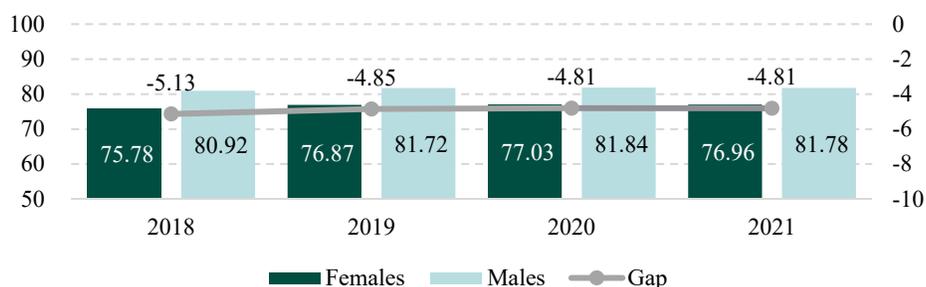


Note: APEC aggregate is a weighted average using population aged 15 and over. Data for Russia is unavailable for 2022.
Source: International Labour Organization

Educating the Future Workforce

Three metrics will be used to evaluate the quality of the education system in preparing the future workforce: the population with at least some secondary education, expected and mean years of schooling, and literacy rates by sex. Expected years of schooling (EYS) are defined as the number of years of schooling a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's schooling life. Mean years of schooling (MYS) indicate the average number of completed years of education of an economy's population aged 25 years and older. Increased years of schooling help signal to employers that job seekers have sufficient skills for the workplace, while literacy acts as the foundation to improved communication and digital skills. Both measures affect the quality of jobs that applicants may obtain.

Figure 3.7 Population with at least some secondary education by sex (in percentages)

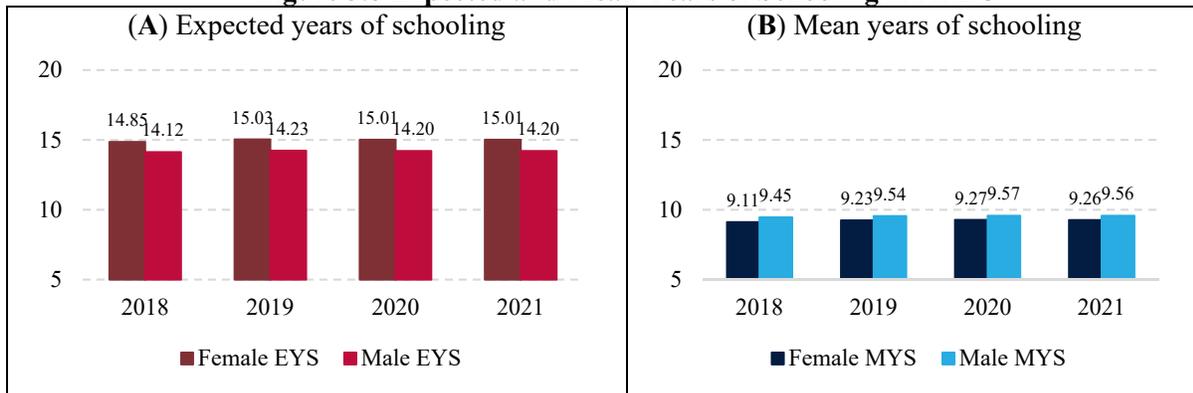


Note: Data on the total population comprise the percentage of the total adult population which completed at least lower secondary education. APEC aggregate of this indicator is a weighted average using population aged 25+.
Source: United Nations Development Programme and Chinese Taipei Ministry of Education

Throughout the baseline years of 2018-2020, the proportion of the total population with at least some secondary education increased slightly for both males (80.92% to 81.84%) and females (75.78% to 81.78%) (Figure 3.7) before falling slightly in 2021. Notably, from 2018-2021 growth for females (+) has outpaced that of males, as the proportion grew by 1.56% and 1.06%, respectively. During this time, the increase in the proportion of the population with at least lower secondary education is shared across the board amongst all APEC economies. The gap in outcomes between males and females has also fallen in this period from 5.13pp to 4.81pp.

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Figure 3.8 Expected and Mean Years of Schooling in APEC

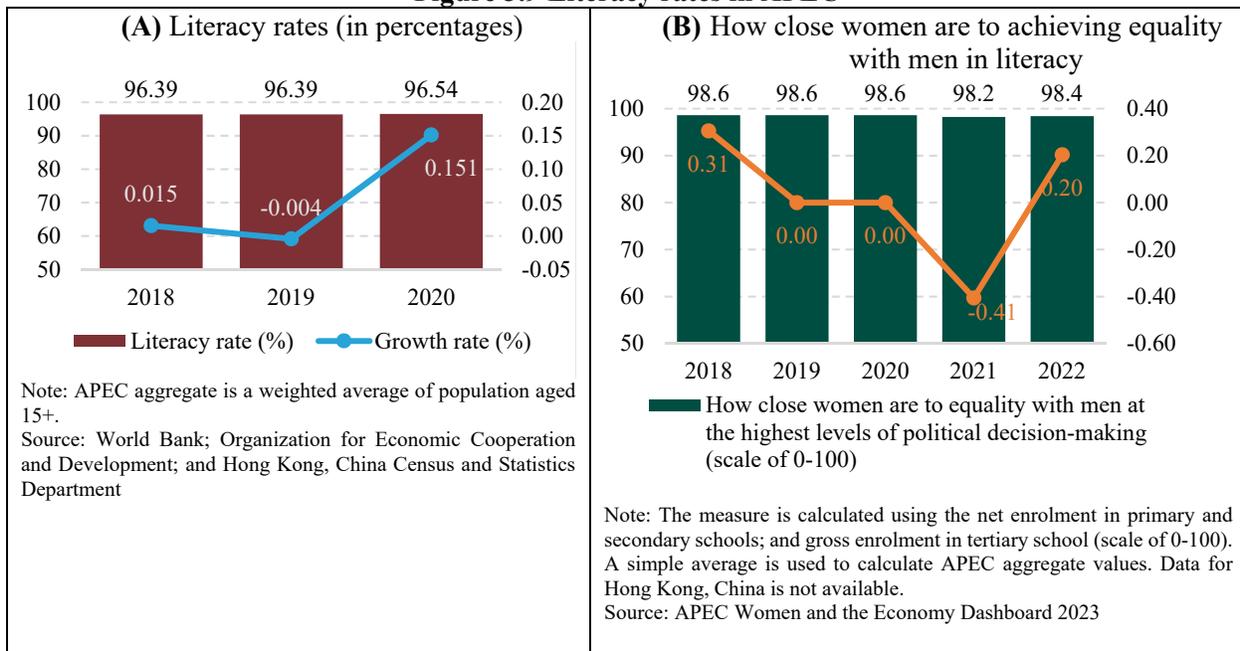


Note: Expected and mean years of schooling data cover the population at school entry age and aged 25+, respectively. For the respective indicators, APEC aggregates are weighted averages using the population aged 5-24 and 25+. Mean years of schooling data for Chinese Taipei is not available.

Source: United Nations Development Programme

In APEC, gains in the provision of education persisted during the COVID-19 pandemic. From 2019-2021, EYS fell slightly for both genders, from 15.03 to 15.01 (-0.02pp) for females and 14.23 to 14.20 (-0.02pp) for males (Figure 3.8A). MYS, on the other hand, increased for both males and females, specifically from 9.23 to 9.926 years for females (+0.03pp) and from 9.54 to 9.56 years for males (+0.02pp) (Figure 3.8B). Although males have higher MYS in 2019-2021, females have higher EYS. One contributing factor to higher EYS for women could be due to the higher expected returns to education for women, which has been estimated to be higher by around 2pp on average.¹³ The data also show that males and females are close to reaching parity in education, with both indicators having gaps of less than 1 year throughout 2019-2021.

Figure 3.9 Literacy rates in APEC



Note: APEC aggregate is a weighted average of population aged 15+.

Source: World Bank; Organization for Economic Cooperation and Development; and Hong Kong, China Census and Statistics Department

Note: The measure is calculated using the net enrolment in primary and secondary schools; and gross enrolment in tertiary school (scale of 0-100). A simple average is used to calculate APEC aggregate values. Data for Hong Kong, China is not available.

Source: APEC Women and the Economy Dashboard 2023

¹³ <https://blogs.worldbank.org/education/realizing-returns-schooling-how-covid-19-and-school-closures-are-threatening-womens>

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Baseline data from 2018-2020 show that literacy rates have remained relatively unchanged in APEC, ranging from 96.39-96.54% (Figure 3.9A). Growth rates have been minimal primarily due to high base effects and data availability, with fluctuations staying below 0.2%. Based on existing data, economies contributing to the increase throughout this period include China; Indonesia; Malaysia; Mexico; and Peru. Overall, recent data show that virtually all economies have literacy rates above 90% apart from Papua New Guinea, where the latest available data from 2010 marked a literacy rate of 61.6%.

Data measuring how close women and men are in achieving parity in literacy rates (Figure 3.9B) show equality has been nearly achieved for this indicator. However, after staying at 98.6 from 2018-2020, the indicator slightly declined to 98.2 in 2021, likely due to disruptions in educational outcomes arising from the pandemic.¹⁴ Nevertheless, the measure has remained relatively unchanged throughout this period, with yearly changes staying within 0.1%.

3.3. Objective: “We will promote economic policies, cooperation and growth, which will support global efforts to comprehensively address all environmental challenges, including climate change, extreme weather and natural disasters, for a sustainable planet.”

Evaluation of Progress: “APEC’s growth and prosperity is achieved on an increasingly environmentally sustainable basis.”

Key Responsible SCE Sub-fora: ATCWG, EPWG, EWG, EGILAT, OFWG, PPWE, SMEWG, TWG, TELWG, TPTWG, and PPSTI

APEC economies play a significant role in curbing climate change as they account for over 50% of the world’s forests¹⁵ and share the world’s largest ocean, the Pacific Ocean, both of which act as buffers against climate change. In response to the growing volatilities derived from climate change, APEC has taken steps to uphold its commitment to the APEC Putrajaya Vision 2040 and maintain environmental sustainability, from doubling the share of renewable energy in APEC by 2030 to abiding by the APEC Roadmaps on Marine Debris, and Combatting Illegal, Unreported and Unregulated (IUU) Fishing and the APEC Disaster Risk Reduction Framework, amongst other initiatives.

Energy Transition

Addressing climate change requires the reduction of greenhouse gas (GHG) emissions, which can be achieved by transitioning away from the fossil fuel-based energy system inherited from the Industrial Revolution. The indicators that will be used to measure this objective are energy consumption per capita and GHG emissions, followed by the share of renewables in electricity production and electric vehicles (EV) sales to track the growth in alternative energy sources.

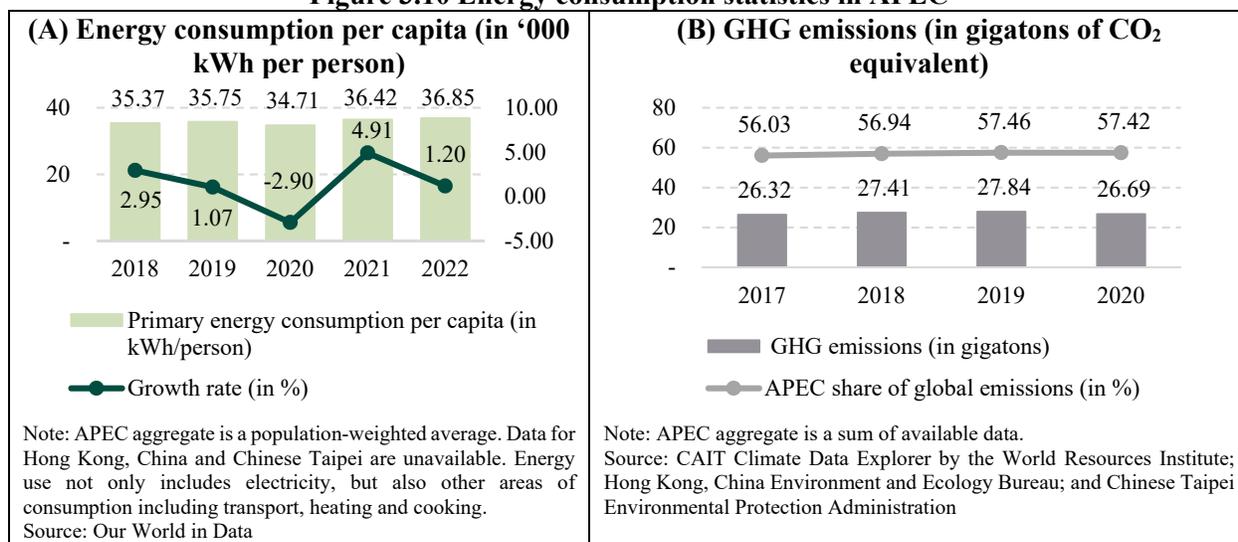
Energy consumption per capita maintains its upward trajectory from 2019-2022. Per capita consumption went through a 2.9% decline in 2020 as economic activities declined during the COVID-19 lockdowns (Figure 3.10A). The rise in energy consumption per capita resumed in 2021 by a notable 4.91%, with most economies posting an increase. GHG emissions share similar patterns in the baseline years 2018-2020, declining by 4.12% in 2020 (Figure 3.10B). At the same time, APEC’s share of total worldwide GHG emissions has also increased in 2020 to 57.42%.

¹⁴ <https://blogs.worldbank.org/education/realizing-returns-schooling-how-covid-19-and-school-closures-are-threatening-womens>

¹⁵ <https://www.agriculture.gov.au/agriculture-land/forestry/policies/illegal-logging/get-updates#103>

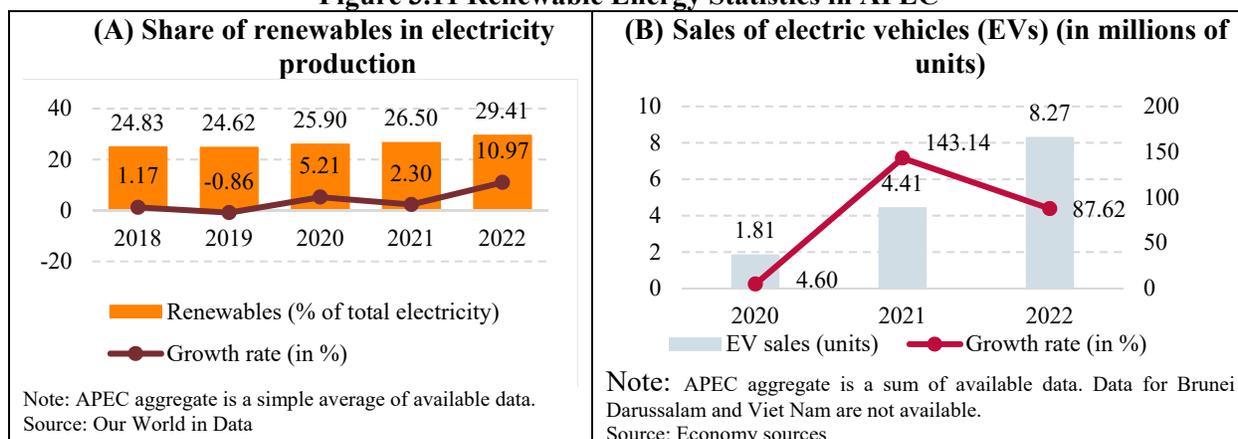
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Figure 3.10 Energy consumption statistics in APEC



APEC-wide growth in the share of renewables in electricity production increased considerably to 10.97% in 2022 as alternative energy sources became more cost-effective (Figure 3.11A). Most economies showed incremental increases in its share of renewable energy, but Chile and Viet Nam recorded notable increases above the APEC average. Programmes such as public-private partnerships and feed-in tariffs in Chile and Viet Nam respectively contributed to the substantial rise in the share of renewables.

Figure 3.11 Renewable Energy Statistics in APEC



EV sales recorded steep growth (Figure 3.11B) from 2020-2022. Sales more than doubled (+143.14%) in 2021 and maintained high growth in 2022 (+87.62%), reaching at least 8.27 million in annual sales in APEC. The spike in large part can be attributed to sizeable EV sales in China. Although other economies have also stepped up sales during this period, China still dominates the APEC EV market, making up almost 80% of EV sales in APEC in 2022 based on available data.

Environmental Sustainability

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Two indicators are used to assess risk levels from the environment: the World Risk Index and reliance on clean fuels and technologies. Aside from climate change, other environmental challenges such as pollution still affect the population’s health outcomes, which could come from fuels used to cook at home, warranting the use of the latter indicator.

Overall, APEC’s overall World Risk Index score has slightly increased from 21.61 in 2018 to 21.65 in 2022 (+0.04pp) (Table 3.3). Examining the 2018-2022 period more closely, vulnerability has risen by 0.74, which in turn is caused by the increases in the lack of coping and adaptive capacities (+0.10 and +0.64). Meanwhile, the score for susceptibility declined (−0.29). This means that while APEC member economies in general may have the infrastructure in place to face potential natural disasters and extreme weather, there are opportunities for improvements in governance and adaptability for future disasters.

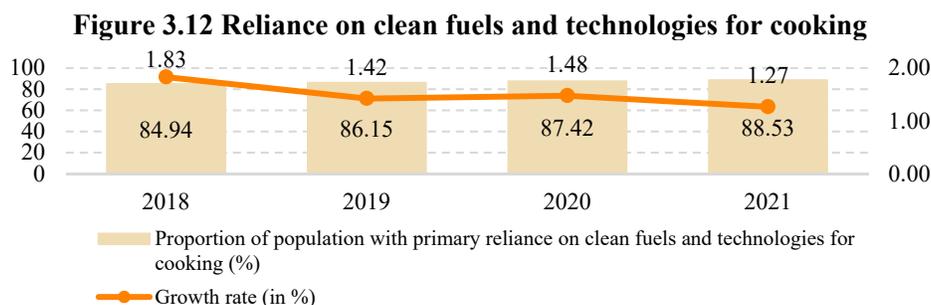
Table 3.3 World Risk Index

Indicator	2018	2019	2020	2021	2022
Exposure	25.80	25.80	25.78	25.78	25.78
Vulnerability	20.64	22.06	21.38	21.38	21.38
Susceptibility	18.40	20.57	18.11	18.11	18.11
Lack of coping capacities	18.46	18.32	19.56	19.56	19.56
Lack of adaptive capacities	33.59	36.00	34.23	34.23	34.23
Overall	21.61	22.28	21.65	21.65	21.65

Note: Exposure measures towards various natural hazards such as earthquakes, cyclones, flooding, drought and sea level rise. Vulnerability is aggregated from (1) susceptibility depending on infrastructure, food, housing and economic framework conditions, (2) coping capacities depending on governance, risk reduction, early warning, healthcare, and (3) adaptive capacities related to future natural hazards. The score indicates 100 for higher risk and 0 for lower risk. APEC aggregate of this indicator is a simple average of available data. Data for Hong Kong, China and Chinese Taipei are not available.

Source: Bündnis Entwicklung Hilft’s World Risk Report via United Nations Office for the Coordination of Humanitarian Affairs Humanitarian Data Exchange

Data show that many APEC economies have already reached 100% reliance on clean fuels and technologies for cooking, contributing to lower yearly growth rates. Increases are driven by economies with lower values of clean fuel reliance in prior years; i.e., mainly developing economies where significant portions of the population use firewood or charcoal for cooking. With just 9.7% of the population using clean fuel for cooking in 2021, Papua New Guinea is notably an outlier in the region, followed by the Philippines with 48%.



Note: APEC aggregate is a population-weighted average. Data on Hong Kong, China and Chinese Taipei are not available. Clean fuels and technologies are those that attain the fine particulate matter (PM2.5) and carbon monoxide (CO) levels recommended in the WHO global air quality guidelines.

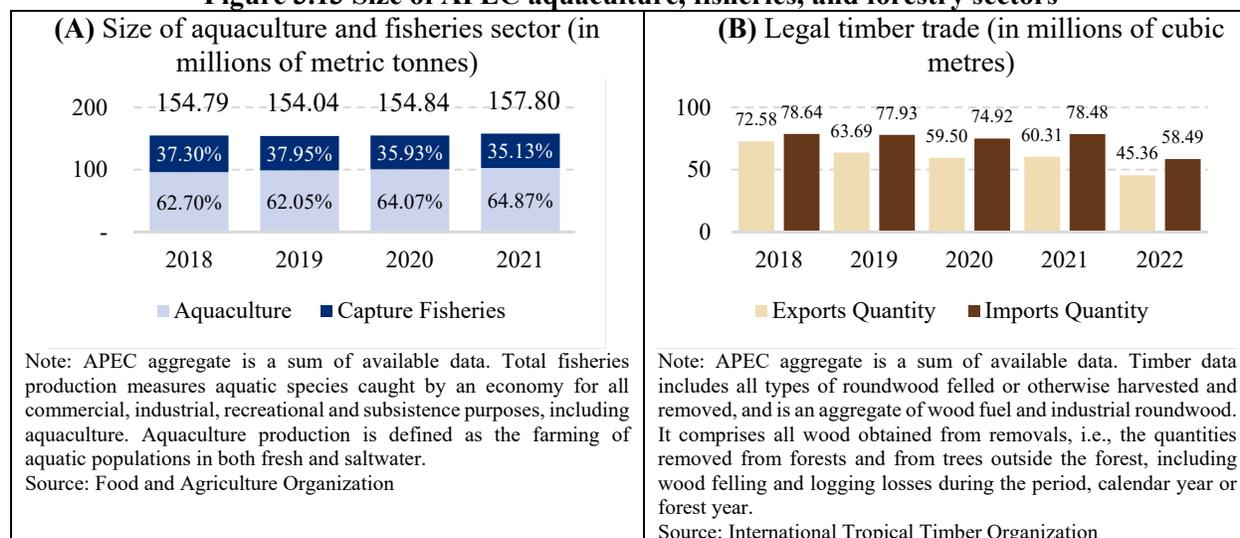
Source: World Health Organization

Resource Stewardship

Evaluation of SCE's Progress Towards Achieving APEC Putrajaya Vision 2040

Managing natural resources effectively is essential to maintaining sustainable economic, particularly in the fisheries and forestry sectors. As major sources of employment for those in APEC, both sectors sustain people's livelihoods, while also providing nutrition in the case of fisheries. Indicators on the size of aquaculture and the fisheries sector as well as legal timber trade are used to signal the health of the industries.

Figure 3.13 Size of APEC aquaculture, fisheries, and forestry sectors



From 2019-2021, the size of the aquaculture and fisheries sector increased by 2.44% (Figure 3.13A), with the aquaculture production, which is more sustainable than traditional fishing methods of capture, increasing as a share of fisheries output. Meanwhile, legal timber trade data show that on aggregate, APEC is a net importer of timber. Exports have decreased by 5.3% in 2021 compared to 2019, while imports increased marginally by 0.71% (Figure 3.13B). Both exports and imports decreased significantly in 2022, largely driven by reductions in timber trade in Russia (-70%) and China (-31.28%), respectively.