PUNE INTERNATIONAL CENTRE

Appraising the Progress of Asian Nations Towards Achieving Sustainable Development Goals

February 2025

Authored by Dr. Madhur Bhatia
Supervised by Prof. Jyoti Chandiramani

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Abstract

This study thoroughly evaluates Asia's progression towards accomplishing the United Nations' Sustainable Development Goals (SDGs) between 2015 and 2023, employing a comprehensive framework to assess advancements and challenges. The study specifically answers the following important questions: (i) What is the current state of SDG progress across Asian countries, and how do regional trends vary? (ii) To what extent do Asian nations and regions exhibit convergence in SDG progress? And, (iii) Which specific SDGs and targets require targeted attention and intervention? The findings reveal a complex landscape, characterised by steady improvement across all SDGs, with significant progress observed in SDG 9 (Industry, Innovation, and Infrastructure), SDG 10 (Reduced Inequalities), and SDG 17 (Partnerships for the Goals). Nevertheless, regional disparities are evident, with Eastern Asia demonstrating exceptional performance in eight SDGs, primarily developmental indicators, whereas South Asia and Central Asia exhibit leadership in environmental and equality-related goals, respectively. Furthermore, Europe surpasses Asian regions in most SDGs, Asian regions have made notable strides, exhibiting greater compound progress towards achieving the SDG objectives. Finally, convergence analysis reveals the catching-up phenomenon among initially poor-performing nations, emphasising the requisite cross-cutting measures to combat regional distinctiveness and ensure effective SDG implementation through nationwide initiatives, ultimately informing evidence-based policymaking.

Contents

1. Introduction

In 2015, 93 United Nations member states approved the Sustainable Development Goals (SDGs) as a worldwide call to eradicate poverty, safeguard the environment, and assure that everyone lives in peace and prosperity by 2030. The goals and targets promote inclusive, egalitarian, and sustainable practices, encompassing interconnected global risks to the environment, health, and economy. SDGs are an extension of the Millennial Development Goals (MDGs) that primarily focus on poverty alleviation, food security, primary school enrolment, gender parity in primary and secondary level education, infant and under-five mortality ratio, and immunisation coverage. This agenda incorporates 17 developmental-related and environmental-related goals, encompassing 169 targets under these 17 goals. As we have marked more than halfway to achieving the 2030 Agenda for Sustainable Development and given the uneven and inadequate progress of Asian nations in achieving MDGs (Asadullah et al., 2020), it is important to examine the success and failure of the nations in achieving these goals to determine and define the set of policy goals for the SDGs. This is especially true given that the SDGs agenda is more ambitious than the MDGs, embracing a larger range of targets and requiring more resources. For the analyses, the study relies on the SDG scores at the disaggregate level for each goal provided by the United Nations in their SDGs data forum. These scores help us to make a comparative analysis of the successes and failures of the Asian nations as well as their position in comparison to the World, in general, and Europe, in particular. Since the majority of the countries in the top SDG ranking are from Europe, a comparison with the area is required to demonstrate its strong commitment to sustainable development (Sachs et al., 2024).

The Asian region, home to 60 per cent of the world's population across 48 countries, is the fastest-growing economic powerhouse, accounting for 40 per cent of global economic output and 30 per cent of international trade (UNDESA, 2021). Despite its impressive growth, Asia faces numerous economic, social, environmental, and political challenges. Thus, this paper contributes to the nascent body of research on evaluating the achievements and failures of Asian nations in achieving SDGs. The analysis is divided into four parts: the first part compares the current scenario of Asian nations with the world average. The analysis depicts that most Asian nations have performed better than the world average in terms of SDGs 1 (no poverty), 3 (good health and well-being), 4 (quality education), 6 (clean water and sanitation), 7 (affordable and clean energy), 10 (reduced inequality), 11 (sustainable cities and

communities), 14 (life below water), 16 (peace, justice, and strong institutions), and 17 (partnership for the goals). Meanwhile, in the rest of the SDGs, Asian nations are at a sub-par level compared to the world average. Most of these goals are environmental-related goals (12-15) which Asian nations are lagging, along with goal 2 (zero hunger), goal 8 (decent work and economic growth), goal 9 (industry, innovation, and infrastructure), and goal 17 (partnership for the goals). The second part examines the trend of the progress of SDGs in the Asian nations during the 2015-2023 period. The progress of Asian nations is evaluated using a t-test from 2015 to 2023, and it is found that Asian nations marked considerable improvement only in three SGDs: SDG9, SDG10, and SDG 17.

The third part analyses the region-wise progress of Asian nations across 17 SDGs. This analysis shows that the Eastern Asia region has been the outperformer in at least 8 SDGs across all Asian regions. These SDGs are developmental indicators, with a significant difference in the average score of the Eastern region and other regions. On the other hand, the Eastern region lags in most of the environmental-related goals and reducing inequalities. In the context of environmental-related goals (specifically, 7, 12, 13, and 14), South Asia has been the top performer, and in equality-related goals (5 and 10), Central Asia has been the best performer among the Asian nations. The final part investigates the convergence phenomenon among the Asian countries for all 17 SDGs. It is found that other than SDG2, SDG8, SDG11, SDG13, and SDG16, lower-performing Asian nations are catching up with the higher-performing nations in all SDGs. At the regional level, Western and Southeast Asian regions depict maximum convergence in realising the SDGs targets. Furthermore, the SDGs where almost all regions are progressing to achieve the targets are noted to be SDG1 (no poverty), SDG9 (industry, innovation, and infrastructure), followed by SDG4 (quality education), SDG6 (clean water and sanitation), SDG7 (affordable and clean energy), and SDG17 (partnerships for the goals).

The rest of the paper is standardised in the ensuing manner. Section two discusses the current situation of the Asian nations in comparison to the world average. Section three assesses the trend of the progress of SDGs in the Asian nations during 2015-2023 period. Section four analyses the region-wise progress of Asian nations across 17 SDGs and their comparison with Europe, and the convergence analysis in achieving the SDGs targets is provided in Section five. The paper is concluded with some policy suggestions and challenges in the concluding section.

2. Review of Literature

SDGs are a holistic set of goals and targets to address the most persistent challenges and achieve a more sustainable, equitable, and prosperous future. Within the scholarly discourse on the 2030 Agenda, the evaluation of national progress towards SDG attainment has become a prominent area of investigation (cf. Table 1 for a detailed list of studies on the subject matter). The literature on SDG progress assessment can be dichotomized into two distinct categories. Firstly, studies focused on developing composite indices facilitate the measurement of SDG progress and enable cross-country/regional comparisons. For instance, Huan et al. (2021) gauge the performance of 15 countries by constructing a composite SDG index. Their results reveal considerable improvement in achieving SDGs, with Russia being the best performer and Uzbekistan and Tajikistan being the worst performers. Likewise, Jabbari et al. (2020) composed a "DEVI" index, comprising development indicators, and, accordingly, classified developed and developing countries. Miola and Schiltz (2019) also developed a composite SDG index using three methods for EU28 countries and reveal that the technique used and the indicators strongly influence the nation's corresponding position.

Secondly, goal-wise assessment studies provide in-depth evaluations of SDG performance, examining each goal individually at the country or regional level. For instance, a thorough analysis of scholarly research, professional opinions, and national experiences implementing the SDGs in 26 countries was carried out by Allen et al. (2018). In addition to highlighting advancements in preliminary planning, their assessment points out significant deficiencies in evaluating target-to-target relationships, trade-offs, and synergies, as well as a lack of widespread use of integrated analytical techniques and systems thinking. These gaps hinder effective SDG implementation, emphasising the need for more nuanced and interconnected strategies to achieve the 2030 Agenda. Further, according to Allen et al. (2020), Australia's performance is uneven, with positive development made on health and education targets offset by weak progress made on climate action and inequality reduction goals. Using a longitudinal evaluation of EU nations' progress towards the objectives, Kostetckaia and Hametner (2022) evaluated the examination of trade-offs and synergies between the SDGs. The regression analysis depicts an adverse association between countries' progress and the shares of trade-offs among SDG indicators. Likewise, Bie et al. (2023) showed significant progress in SDG 10, SDG 3, and SDG 4 for the Arctic nations from the 2003 to 2020 period. Russia had the biggest progress among these countries, but Sweden achieved the highest

overall score for sustainable development. In their comprehensive review, Halkos and Gkampoura (2021) reveal a mixed landscape. While significant strides have been made in achieving economic growth-oriented goals, including SDG 8, SDG 9, and SDG 12, other critical areas require intensified efforts. Specifically, SDG 4, SDG 11, and SDG 13 necessitate heightened attention and accelerated progress to meet the targeted objectives.

In the Asian economic context, studies have commenced to assess SDG progress. Notably, Asadullah et al. (2020) undertook a retrospective analysis of Millennium Development Goals (MDGs) accomplishments in South Asia, providing valuable insights into SDG progress in the region. Sarkar et al. (2022) directed a comprehensive examination of the progress of select SDG indicators in South Asian economies. The study's key findings indicate that while notable advancements have been made towards achieving SDG 1 (No Poverty), approximately one-third of the world's impoverished population still resides in South Asia. Furthermore, the research highlights substantial gaps in achieving environmental sustainability indicators, with many South Asian countries struggling to meet these targets. The problem of finding a connection between the SDGs is discussed by Pingali and Plavsic (2022), specifically referring to SDG goal 2.3. Huan et al. (2019) evaluated the evolution of SDGs for Kazakhstan and Kyrgyzstan during 2000-2017 period and highlighted that Kazakhstan's SDG performance had been continuously fluctuating, whereas Kyrgyzstan's SDGs, particularly the economic SDGs, had been doing poorly.

Therefore, it is noted that most papers measuring SDG progress are either focused on specific regions or specific or composite measures of SDG. This study aims to bridge existing gaps in SDG progress assessments by comprehensively examining all 17 SDGs across Asian nations. Building on United Nations (UN) data (UNSDG), our research evaluates SDG progress at both regional and country levels, identifying areas requiring attention. Moreover, we substantially add to the literature by directing a convergence analysis of SDG progress among Asian nations and regions, shedding light on their trajectories towards achieving the 2030 targets. The following research questions are specifically intended to be addressed by this study:

1. What is the current state of SDG progress across Asian countries, and how do regional trends vary?
2. To what extent do Asian nations and regions exhibit convergence in SDG progress?
3. Which specific SDGs and targets require targeted attention and intervention?

Table 1: Relevant literature review on assessing the performance of SDGs				
Study	Time-period	SDG	Countries	Method of analysis
Huan et al. (2021)	2000-2018	Composite SDG index	15 countries	Developed composite SDG index to examine SDG performance
Jabbari et al. (2020)	2017-2018	Construction of development and environmental-related goals indices	All countries	Developed a composite index, "DEVI", comprising "development indicators."
Miola and Schiltz (2019)	2018	17 SDGs	EU28 countries	Developed a composite index using simple mean, distance measure, and progress measure.
Allen et al. (2018)	2016 and 2017	Implementation of SDGs	26 countries	Systematic literature review of 40 academic papers and review of experiences in national SDG implementation
Allen et al (2020)	2000-2016	17 SDGs	Australia	Trends and progress assessment
Kostetckaia and Hametner (2022)	2020	17 SDGs	EU countries	Spearman rank correlation and ANOVA
Bie et al. (2023)	2000 to 2020	17 SDGs	Arctic countries	Geometric average to develop a composite index and Spearman rank correlation
Halkos and Gkampoura (2021)	2005 to 2020	17 SDGs	World	Trend and progress assessment
Studies focusing on Asian economies				
Asadullah et al. (2020)	1990 to 2015	MDGs	South Asia	Convergence analysis

Sarkar et al. (2022)	2015 to 2021	17 SDGs	South Asia	Trend and comparative analysis
Huan et al. (2019)	2000 to 2017	17 SDGs	Kazakhstan and Kyrgyzstan	Chow test
This study	**2015 to 2023**	**17 SDGs**	**Asian countries**	**Trend and comparative analysis, T-test, Progress measure and Simple average measure, and Convergence analysis**
Source: Author's elaboration based on existing literature.				

3. Methodology of the Study

Our study applies three primary methods to SDG data: (i) computing change over time by estimating the difference in the mean values of 2023 and 2015 using a simple average method. A simple average is computed as the average of an indicator index across all sample years, as follows: $SAV_i = \frac{\sum Index_{it}}{number\ of\ years}$. The statistical significance of the mean difference is evaluated using a t-test. T-test is a widely used statistical measure in hypothesis testing to measure whether two groups are different from each other, with a null hypothesis that the true difference between the groups is zero ($H_0: \mu_x = \mu_y$) and an alternative hypothesis that the true difference is different from zero ($H_1: \mu_x \neq \mu_y$). The null hypothesis is rejected when the computed t-value exceeds the table value, and vice versa.

(ii) Second, we compute the progress measure (PM), which is calculated by measuring the changes in the annual compound growth rate from 2015 to 2023, Progress measure is calculated as follows: $PM_i = \left(\frac{Index_{it}}{Indiex_{it_0}}\right)^{\frac{1}{t-t_0}} - 1$, where $Index_{it}$ is an index value of an indicator i in current period, $t, i.e., 2023; Index_{it_0}$ is the index value of an indicator i in past period, $t_0, i.e., 2015$.

(iii) The third method measures if the progress of initially low-performing nations catches up with those of the high-performing nations in Asia in terms of all 17 SDGs. The convergence phenomenon, extensively explored in growth literature (Barro et al., 1991; Quah, 1996), refers

to the decline in disparities across economies over time. In the context of growth economics, convergence manifests as the "catching-up" phenomenon, whereby initially poorer economies grow faster than their richer counterparts. This study applies the concept of β-convergence, which refers to whether Asian countries, initially low-performing on the SDG goals, are significantly improving at a higher rate, and tend to "catch up" with the initially high-performing Asian countries.

Following the Reserve Bank of India (2023), we adopt the following panel econometric specification to estimate the absolute β-convergence:

$$ln\left(\frac{score^{s}_{i,2023}}{score^{s}_{i,2015}}\right) = \alpha + \beta ln\left(score^{s}_{i,2015}\right) + \mu$$

where, growth in the SDG score of 's' Asian nations (regions) in a particular goal is the dependent variable, and the independent variable is the value of the SDG score in the initial period (i.e., 2015). μ is the white noise error term, and β is the absolute convergence coefficient, indicating the rate of the "catchup" effect, and it is said to occur if the coefficient on the initial period is negative and statistically significant ($\beta < 0$). If $\beta = 0$, nations are progressing independently of each other, and $\beta > 0$ indicates that Asian nations are diverging in making progress on SDGs. Therefore, the coefficient β serves as a convergence indicator; a higher β value signifies a greater tendency for Asian economies to converge, implying faster catch-up growth by lagging economies.

4. Current Scenario of Asian Nations in Achieving SDGs Target: A Comparison with the World Average

Figure 1 provides the current scenario of Asian economies in 17 SDGs. We divide the countries into two categories: countries with an SDG score of more than the world average and countries with an SDG score of less than the world average. It is noted that for SDG1, SDG7, SDG10, and SDG16, more than 70 per cent of the Asian nations are performing better than the world average (cf. Figs. 1.1, 1.7, 1.10, 1.16). Likewise, for SDG3, SDG4, SDG6, and SDG11, almost 60-70 per cent of the Asian nations are better than the world average (cf. Figs. 1.3, 1.4, 1.6, 1.11, 1.16). Furthermore, approx. 50 per cent of the Asian nations perform better than the world average in SDG12 and SDG17. On the other hand, in the rest of the goals, more than 50 per cent of the Asian nations are at a sub-par level compared to the world average. Most of these

goals are environmental-related goals (13-15) in which Asian economies are lagging, including SDG13, SDG14, SDG15, along with SDG2, SDG8, and SDG9 (cf. Figs. 1.2, 1.8, 1.9, 1.13, 1.14, 1.15). Thus, this preliminary analysis visualises the uneven situation of the Asian nations across different SDGs. It depicts that, as of 2023, most of the Asian economies are doing better than the world average in almost 50 per cent of the SDG goals. Thereby, we extend our analysis to further examine the evolution of the progress of the Asian economies from 2015 to 2023, and if the countries are converging in achieving SDGs. The analysis is performed at the national and regional levels to get a comprehensive picture.

Figure 1: Comparison of performance of Asian nations with world average in 17 SDGs.
Red indicates nations with a score less than the world average and
Blue indicates nations with score more than the world average.

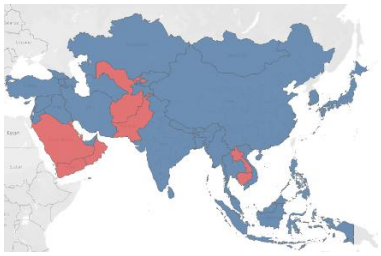


Fig. 1.1: Goal 1

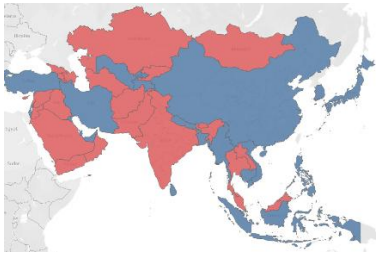


Fig. 1.2: Goal 2

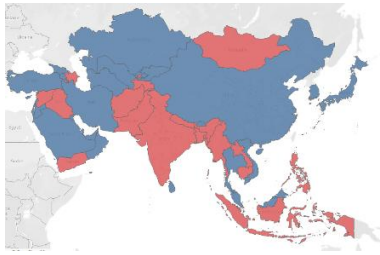


Fig. 1.3: Goal 3

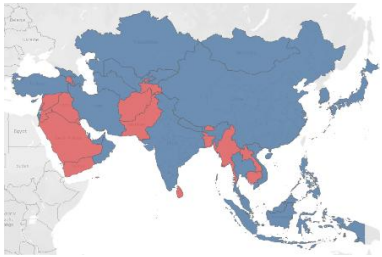


Fig. 1.4. Goal 4

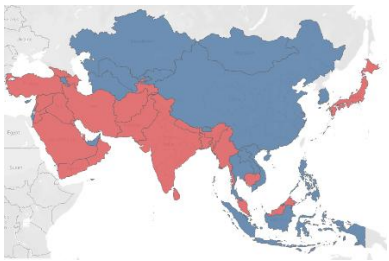


Fig. 1.5. Goal 5

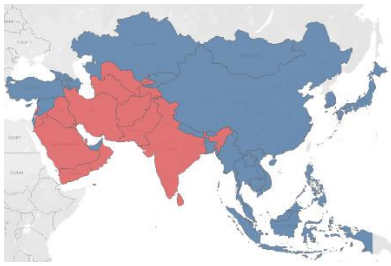


Fig. 1.6. Goal 6

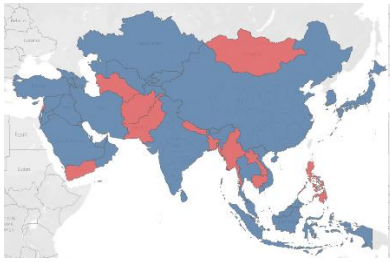


Fig. 1.7. Goal 7

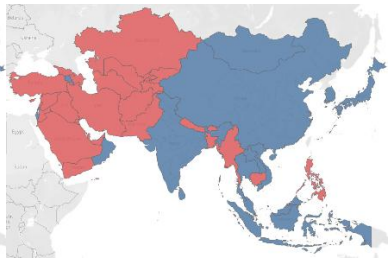


Fig. 1.8. Goal 8

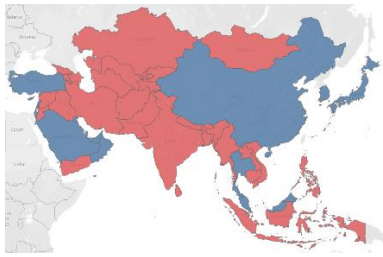


Fig. 1.9. Goal 9

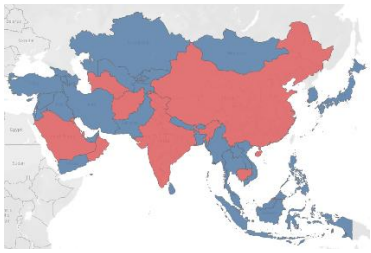


Fig. 1.10. Goal 10

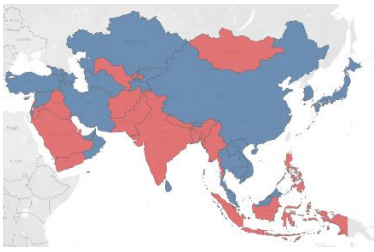


Fig. 1.11. Goal 11

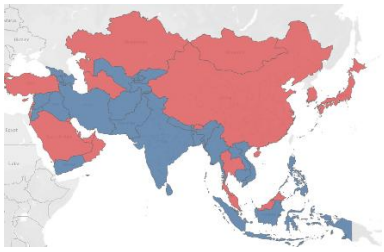


Fig. 1.12. Goal 12

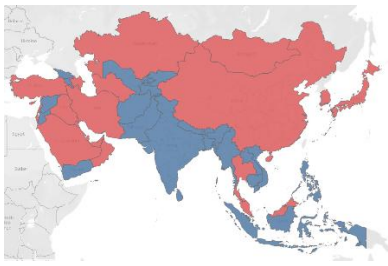


Fig. 1.13. Goal 13

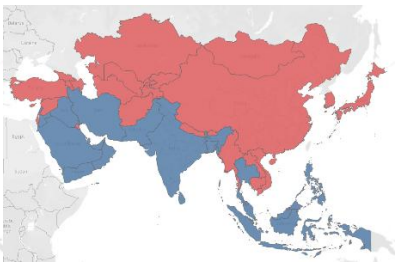


Fig. 1.14. Goal 14

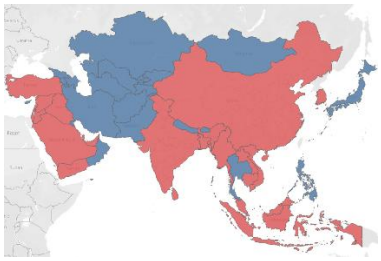


Fig. 1.15. Goal 15

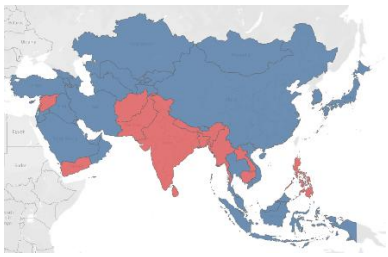


Fig. 1.16. Goal 16

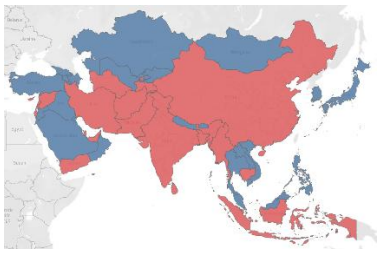


Fig. 1.17. Goal 17

Source: Author's computation based on UN data using Atlas software.

5. The Trend of the Progress of SDGs in Asian Nations (2015-2023)

This section analyses the trend of SDG scores in Asian nations from 2015 to 2023. Table 2 provides the data on the average of all SDGs for Asian nations and the world from 2015 to 2023. The Table also indicates the difference in the average index score from 2015 to 2023, and the mean difference's statistical significance is evaluated using a t-test. Following are the primary observations. First, Asian nations perform consistently better than the world average in terms of SDGs 1, 3, 4, 6, 7, 10, 11, 14, and 16. While, concerning SDGs 2, 5, 8, 9, 12, 13, and 15, the Asian average lags behind the world average.

Second, it should be emphasised that until 2020, Asian nations fall behind the global average for SDG 17, which focuses on improving implementation mechanisms and revitalising the Global Partnership for Sustainable Development. This objective is crucial in realising the other 16 SDGs, recognising the need for partnerships between governments, corporations, and civil society organisations (UNDESA, 2021). The development on Goal 17 indicators for Asian states displays notable successes in various fields, including the number of internet users, personal remittances, FDI inflows, commercial service exports, and financial resources allocated to improving statistical capacity (ESCAP, 2024).

Table 2: Evolution of Asian average in all 17 SDGs: 2015 to 2023

	Goal 1		Goal 2		Goal 3		Goal 4		Goal 5		Goal 6		Goal 7		Goal 8		Goal 9	
Year	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average
2015	82.291	75	57.597	62	71.931	68	78.211	78	50.733	55	61.124	61	63.148	59	67.640	70	45.058	54
2016	83.378	76	57.567	62	72.467	69	78.730	78	51.030	56	61.784	61	63.793	60	67.625	70	46.965	56
2017	83.982	77	57.415	63	73.394	69	79.589	78	51.718	56	61.632	61	64.238	61	68.410	71	49.090	58
2018	84.672	78	58.120	63	73.773	70	80.009	78	51.818	57	61.781	61	64.261	61	68.636	72	50.994	60
2019	85.098	79	58.276	63	74.376	70	80.053	78	53.134	58	61.950	62	64.777	62	68.681	72	52.648	62
2020	84.210	78	58.283	63	73.984	71	80.189	79	54.163	59	63.820	62	65.334	63	68.093	71	54.335	65
2021	84.734	79	58.098	62	74.037	70	79.186	78	54.584	59	63.588	62	65.402	64	68.761	72	56.090	66
2022	85.384	80	58.100	62	74.447	71	79.549	79	54.512	59	63.605	63	65.761	64	69.132	73	57.448	68
2023	85.687	80	58.100	62	74.672	71	79.781	79	54.934	60	63.623	62	65.761	63	69.156	73	59.113	69
$\Delta(2023-2015)$	4.535		0.718		2.771		1.505		4.185		2.634		2.743		1.474		**14.182*****	

Source: Author's calculations

Notes: ** and *** denote the statistical significance at 5 per cent and 1 per cent, respectively. $\Delta(2023-2015)$ denotes the value of t-statistics of the difference in score from 2015 to 2023. Blue denotes the values higher than the world average and red denotes the values lesser than the world average.

Table 2: Contd…

	Goal 10		Goal 11		Goal 12		Goal 13		Goal 14		Goal 15		Goal 16		Goal 17	
Year	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average	Asian average	World average
2015	68.126	38	67.634	64	76.526	79	75.597	87	59.907	59	53.886	57	63.924	58	54.014	56
2016	69.302	38	68.614	65	76.775	80	75.782	87	60.420	59	54.009	57	63.269	58	54.112	55
2017	70.147	38	68.631	65	76.620	80	75.448	87	60.359	59	54.110	57	63.442	58	54.727	56

2018	70.614	39	68.387	65	76.430	79	74.972	87	60.322	59	54.408	57	63.466	58	55.694	56
2019	71.644	39	68.793	65	76.474	79	75.202	87	61.677	62	55.046	57	63.798	58	56.122	57
2020	72.206	40	69.481	66	77.197	80	76.985	88	61.835	62	55.252	57	63.898	58	57.597	57
2021	72.431	40	68.998	65	76.914	80	76.280	87	61.989	62	55.227	57	63.256	57	58.912	58
2022	74.463	41	68.776	65	77.526	80	76.274	87	61.962	62	56.199	57	61.636	56	58.802	58
2023	74.432	41	68.776	65	77.592	80	76.274	87	62.189	62	55.999	57	61.173	55	58.761	58
$\Delta(2023-2015)$	**14.182*** **		0.323		1.156		1.057		0.632		2.457		2.346		**4.682** **	

Source: Author's calculations based on UN data.

Notes: ** and *** denote the statistical significance at 5 per cent and 1 per cent, respectively. $\Delta(2023-2015)$ denotes the value of t-statistics of the difference in mean score from 2015 to 2023. Blue denotes the values higher than the world average and red denotes the values lesser than the world average.

Third, it is found that out of all 17 goals, Asian nations marked considerable improvement only in three SDGs: SDG9, SDG10, and SDG 17. SDG 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialisation, and supporting innovation. The primary indicators where Asian nations have marked considerable improvement include (cf. Fig 2.1) (i) Population using the internet (%); (ii) Mobile broadband subscriptions (per 100 population); (iii) The Times Higher Education Universities Ranking: Average score of top 3 universities; and (iv) Articles published in academic journals (per 1,000 population).

Fig 2.1. SDG9: Evolution from 2015 to 2023

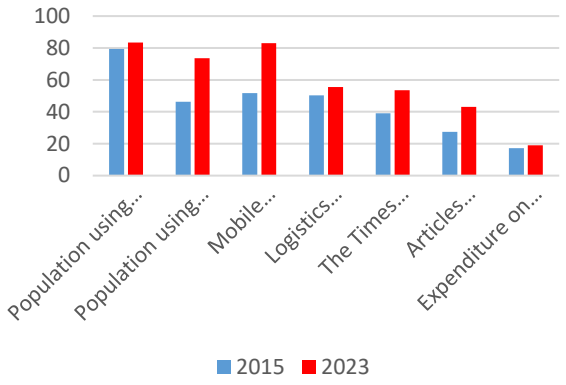
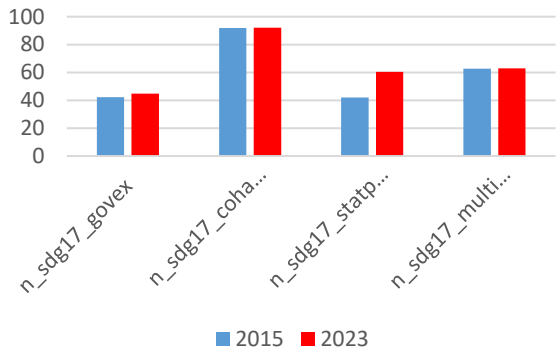


Figure 2.2. SDG17: Evolution from 2015 to 2023

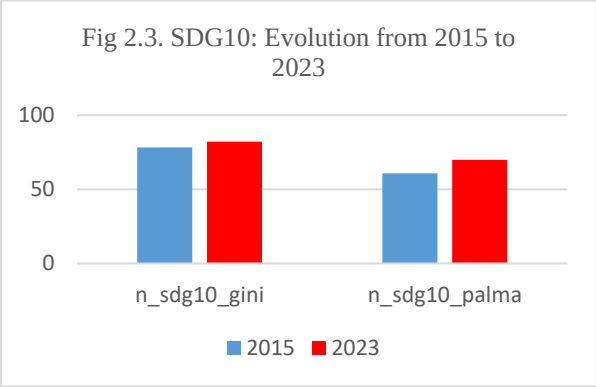


Source: Author's compilation based on UN data on SDG9.

Another area where Asian nations have marked considerable improvement is SDG17, which focuses on strengthening the means of implementation and revitalising the Global Partnership for Sustainable Development. It is noted that during the study period, the index score increased from 54.014 to 58.761, which is statistically significant at a 1 per cent level of significance (cf. Table 2). The primary area of improvement is the Statistical Performance Index, which assesses the progress of national statistical systems (cf. Fig. 2.2). It aggregates five pillars of statistical performance: data use, data services, data products, data sources, and data infrastructure. There has also been a slight improvement in the government expenditure on health and education (% of GDP); while no change has been observed for the corporate tax haven score and index of countries' support to UN-based multilateralism.

Finally, Asian nations exhibit a significant decline in inequalities within and among countries (SDG10). The difference in index scores in 2015 and 2023 is 14.182, which is statistically significant at a 1 per cent significance level (cf. Table 2). However, the data for

Asian nations is available only for two indicators: the Gini coefficient[1] and the Palma ratio[2]. Based on the data available, the primary decline in inequalities is indicated by the Palma ratio, whereby, higher normalised values of the Palma ratio indicate lower inequality (cf. Fig. 2.3). The normalised value of the Gini coefficient has also augmented in Asian nations. These indicators depict a decline in inequalities within and across Asian nations.



Source: Author's compilation based on UN data on SD10

6. Region-wise Analysis of Asian Nations in SDGs

6.1 Trend in Regional Performance in Asia

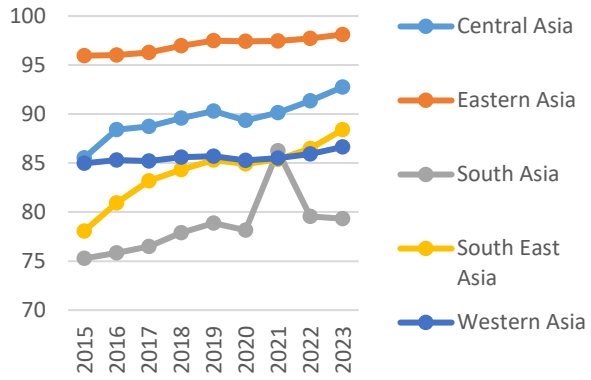
This section analyses the region-wise progress of Asian nations across 17 SDGs. According to the United Nations classification, the Asian region is divided into the following five regions: Eastern Asia, South Asia, South East Asia, Western Asia, and Central Asia. The information on countries comprising these regions is provided in Table 3. The evolution of all these regions across 17 SDGs is depicted in Figure 2 (2.1-2.17).

Table 3: Countries comprising different Asian regions		
Region	Countries	Number of Countries
East Asia	China, Japan, Korea, Mongolia	4
South Asia	India, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, Sri Lanka, and Afghanistan	8
South East Asia	Indonesia, Philippines, Vietnam, Thailand, Myanmar, Malaysia, Cambodia, Laos,	11

[1]. The Gini coefficient measures the extent to which the income distribution among individuals or households within an economy deviates from a perfectly equal distribution.
[2] Palma ratio measures the share of all income received by the 10% people with the highest disposable income divided by the share of all income received by the 40% people with the lowest disposable income.

	Singapore, Timor-Leste, Brunei-Darussalam	
West Asia	Armenia, Azerbaijan, Georgia, Cyprus, Lebanon, Palestine, Israel, Jordan, Saudi Arabia, Yemen, Oman, Bahrain, Qatar, Kuwait, Iraq, Turkey, Syrian Arab Republic, United Arab Emirates	18
Central Asia	Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan	5
Source: UN classification.		
Note: Only those countries are listed for which SDG data is available.		

Figure 3.1: Evolution of SDG 1 across Asian regions



The figure depicts the evolution of SDG1 across Asian regions. Eastern Asia is the top-performing region, followed by the central region. The average score of the South East Asian region has considerably increased during the study period, overpassing the Western region during the 2022 and 2023 years. The South Asian region is the worst performer, though the average score consistently increased till 2019, before a spike in 2021, and then declined in 2022 and 2023. However, it is to be noted that all regions experienced a dip during the pandemic period (Shuai et al., 2024). Nevertheless, the decline is more significant for South Asia, which is primarily due to increased poverty in Afghanistan with the return of the Islamic fundamentalist group in 2021 (UNDP, 2021).

Figure 3.2: Evolution of SDG 2 across Asian regions

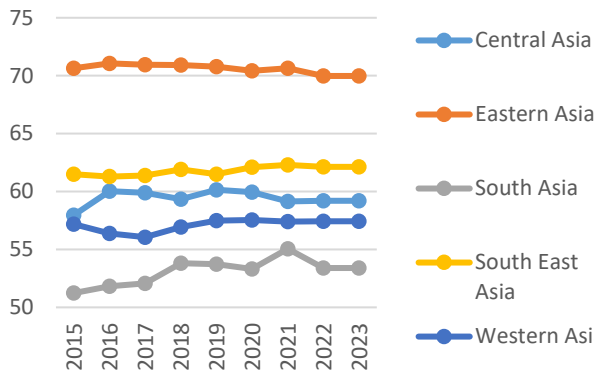


Figure 3.2 examines the evolution of SDG2 (zero hunger) across Asian nations. Similar to SDG1, Eastern Asia has been the top performer, followed by Southeast, Central, Western, and South Asia. However, there is a considerable difference in the average score of Eastern Asia and other regions. Moreover, the regions have not made substantial progress in achieving food security, ending hunger, and promoting sustainable agriculture.

Figure 3.3: Evolution of SDG 3 across Asian regions

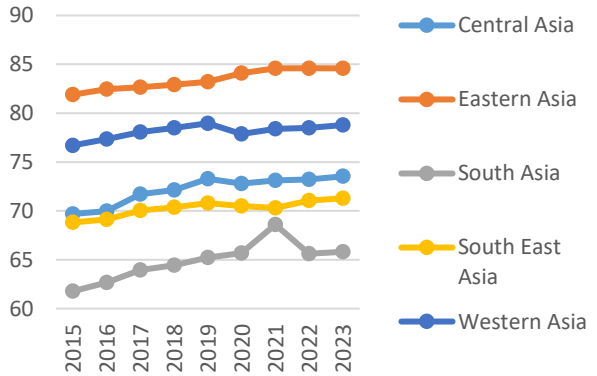
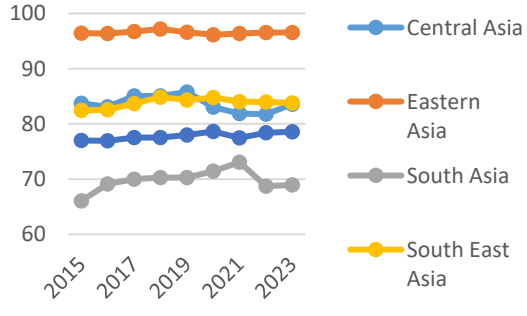


Figure 3.3 provides the evolution of SDG3 (good health and well-being) in the Asian regions. Eastern Asia continues to be the top performer, with a consistent improvement in the average score during the study period. Additionally, its average score significantly differs from those of the other regions (t-statistics=6.705, p-value=0.000). It is followed by Western Asia; nevertheless, there has not been much improvement in its average score. Other regions show a slight increase in the average score, except for South Asia, which shows a decline in 2022.

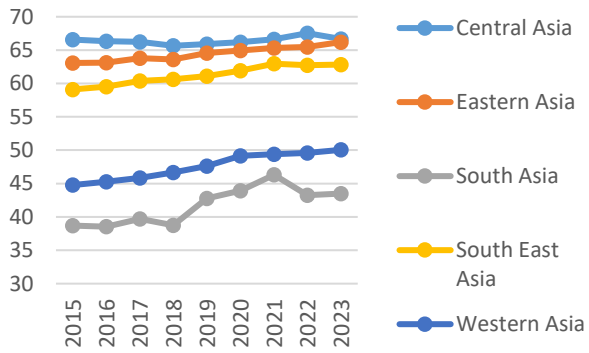
Figure 3.4: Evolution of SDG 4 across Asian regions



For SDG4 (quality education), Eastern Asia has been at a high position, with a considerable difference in its score compared to the other Asian regions (t-statistic=7.193, p-value=0.000). this might be because in Asia, specifically South East

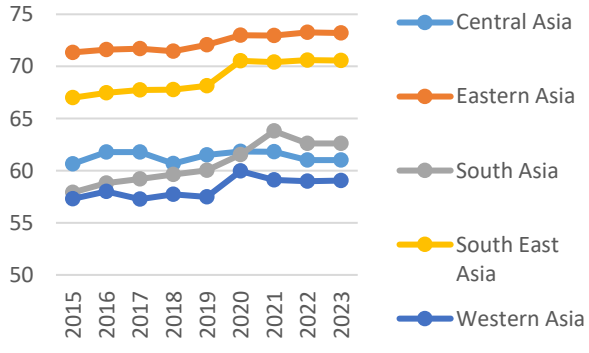
Asia and Western Asia, learners from vulnerable and marginalised groups face a combination of multiple exclusionary challenges, which pose a barrier to equity and inclusion in education. The average score of Western Asia has almost been stagnant, while that of South Asia, showed considerable improvement till 2021, before rippling down in 2022.

Figure 3.5: Evolution of SDG 5 across Asian regions



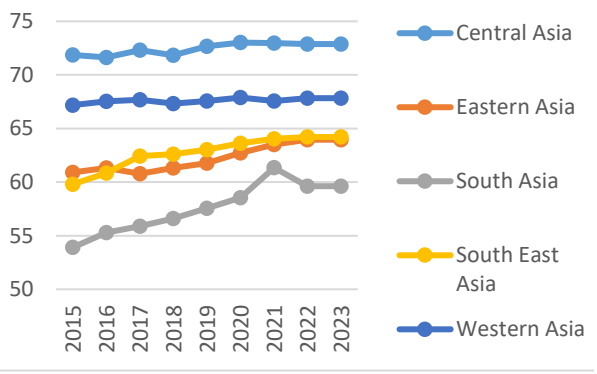
In SDG5 (gender equality), Central Asia and Eastern Asia converge to an average score of 66, though Central Asia started with a higher score than Eastern Asia. South East Asia also signifies an improvement in enhancing equality and empowering women and girls. The average score of Western and Southern Asia also exhibits significant improvement; nevertheless, there exists a significant difference in their average score and other regions' scores (t-statistic=20.740, p-value=0.000).

Figure 3.6: Evolution of SDG 6 across Asian regions



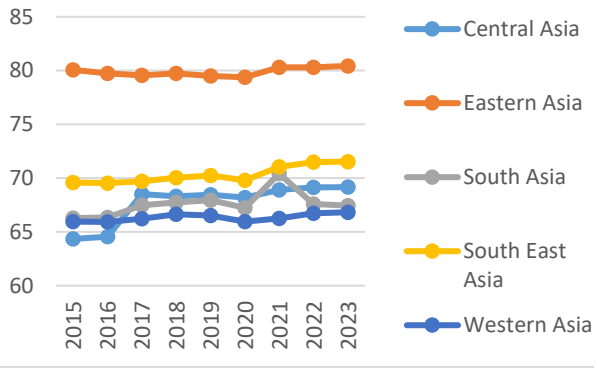
In the case of SDG6 (clean water and sanitation), Eastern Asia continues to be the top performer, followed by South East Asia. The rest of the regions are at a low level; yet, south Asian regions overpass Western and Central Asia during the post-2020 years in ensuring availability and sustainable management of water and sanitation for all. Nevertheless, a substantial difference exists in the average score of Eastern and Southeast Asian regions in comparison to the other regions (t-statistic=17.648, p-value=0.000).

Figure 3.7: Evolution of SDG 7 across Asian regions



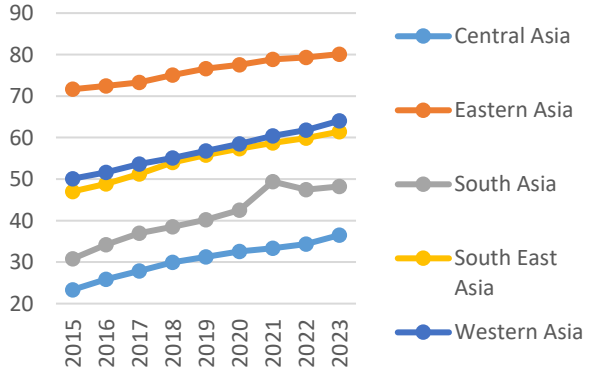
For SDG7 (affordable and clean energy), Eastern Asia is performing worse than Central Asia (top-performing) and Western Asia. South East Asia outperforms Eastern Asia during the years 2017 to 2021, and then both converge to a common average. Though South Asia exhibits considerable progress, it continues to be the worst-performing region.

Figure 3.8: Evolution of SDG 8 across Asian regions



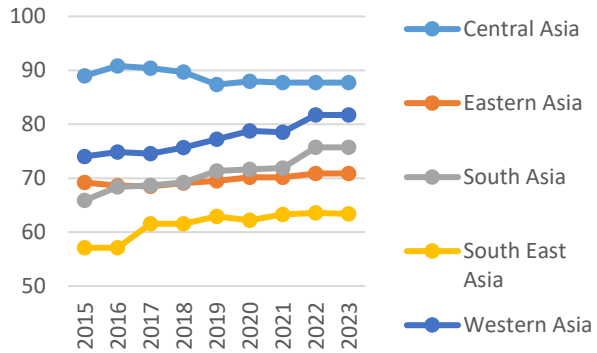
For SDG8 (decent work and economic growth), Eastern Asia stands at a comparable higher level, than its counterparts. The difference in its average score with those of other regions is statistically significant (t-statistics=18.827; p-value=0.000). The other regions are lagging behind the Eastern region. Among these regions, Central Asia considerably improved its progress in achieving sustainable and inclusive economic growth and decent work conditions.

Figure 3.9: Evolution of SDG 9 across Asian regions



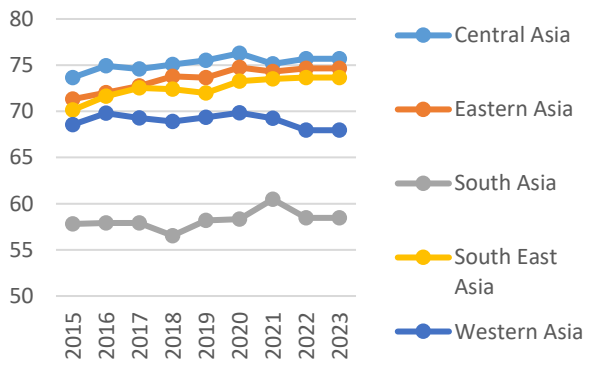
For SDG9 (industry, innovations, and infrastructure), all Asian regions made considerable improvements during the study period. Nevertheless, substantial disparities exist within these regions (t-statistics=7.456, p-value=0.000), with Eastern Asia performing the best, followed by Western and South East, South, and Central Asia.

Figure 3.10: Evolution of SDG 10 across Asian regions



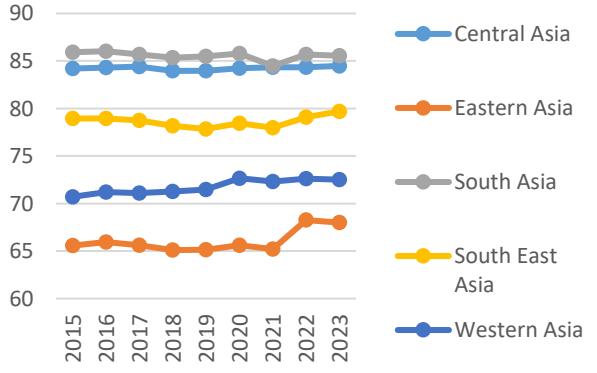
For SDG10 (reduced inequalities), Central Asia tops the list, followed by Western, Southern, Eastern, and South Eastern Asia. Though Central Asia has the highest average score, the score exhibited a declining trend from 2017 to 2019 and then remained stagnant. This indicates increased inequalities within and among Central Asian countries. Western Asia has depicted a considerable improvement in reducing inequalities, as its average score increased from 74 in 2015 to 82 in 2023. Nevertheless, there remains a significant difference in reducing inequalities between Central Asia and other Asian regions (t-test=-4.948; p-value=0.000).

Figure 3.11: Evolution of SDG 11 across Asian regions



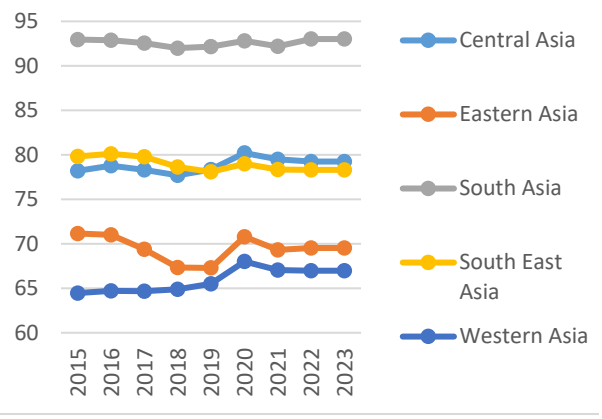
In the case of SDG11 (sustainable cities and communities), Central, Eastern, and South East Asia depict improvement in ensuring that cities are inclusive, robust, and sustainable. In contrast, Western Asia's average score shows a declining trend, and South Asia has been stagnant in its progress.

Figure 3.12: Evolution of SDG 12 across Asian regions



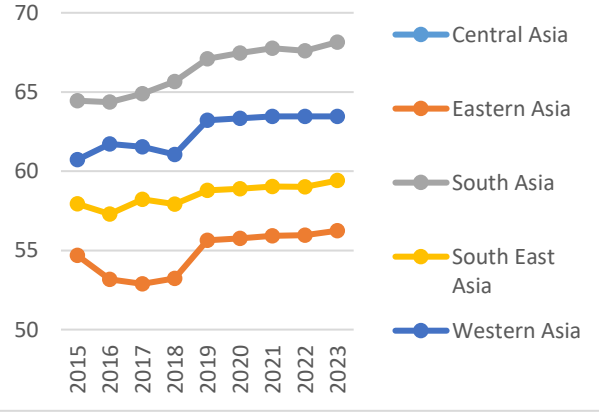
For SDG12 (responsible consumption and production), Central and South Asia display a converging pattern, with the highest average score in the Asian region. Indeed, none of the regions has shown significant progress during the study period, except Eastern Asia, which displays improvement from 2021 to 2023.

Figure 3.13: Evolution of SDG 13 across Asian regions



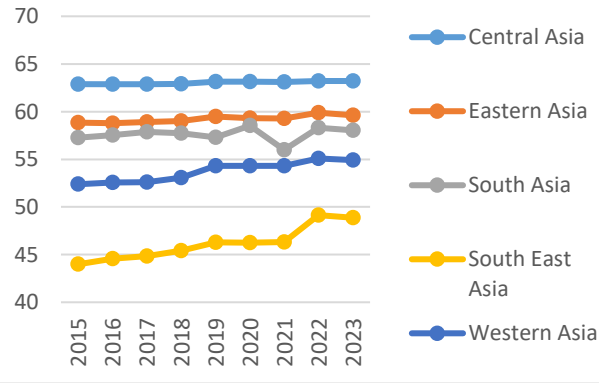
For SDG13 (climate action), the Asian regions have not shown much progress in the average score. South Asia exhibits the highest average score with a significant difference in the average score of South Asia and other regions (t-statistic=9.713, p-value=0.000). Eastern Asia showed a slight improvement in efforts to combat climate change from 2018 to 2020, then remained constant in more recent years. Likewise, Western Asia has shown slight improvement since 2020.

Figure 3.14: Evolution of SDG 14 across Asian regions



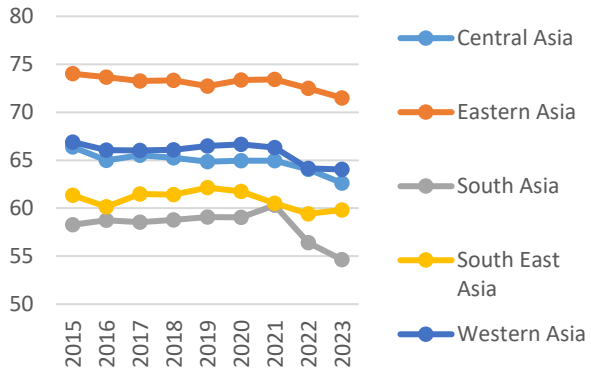
For SDG14 (life below water), all Asian regions have made steady improvement, nevertheless, the average scores for all regions have been quite low (cf. Table 2). Among these regions, South Asia marked noteworthy improvement in the post-2018 period and possessed the highest average score during the study period. This pattern is followed by Western Asia, South East Asia, and Eastern Asia.

Figure 3.15: Evolution of SDG 15 across Asian regions



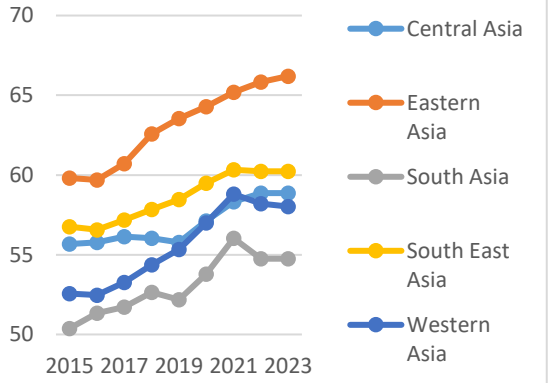
For SDG15 (life on land), all Asian regions are below par, and progress has also been stagnant for all regions, except for South East Asia. Nevertheless, it is the worst-performing region among all Asian regions.

Figure 3.16: Evolution of SDG 16 across Asian regions



regions has remained alarmingly slow. Indeed, Asian regions depict a declining trend, specifically in the post-2021 period. The decline is more prominent in South Asia, primarily in Afghanistan. Moreover, South East Asia has exhibited a minor progress in the past few years, which pertains to advancing human rights protection in the region. Nevertheless, there exists a considerable difference in the average score of Eastern Asia and other Asian regions (t-statistics=10.099, p-value=0.000).

Figure 3.17: Evolution of SDG 17 across Asian regions



For SDG16 (peace, justice, and strong institutions), the performance of all Asian

For SDG17 (partnerships for the goals), all Asian regions show considerable improvement, with the highest progress indicated in the Eastern region, followed by South East Asia, Central and Western Asia, and South Asia. Nevertheless, there exists a significant difference in the average score of Eastern Asia and other Asian regions (t-statistic=7.041, p-value=0.000).

Source: Author's computation based on UN data

This analysis shows that the Eastern Asia region (comprising China, Japan, Korea, and Mongolia) has been the outperformer in at least 8 SDGs across all Asian regions. These SDGs are developmental indicators, with a significant difference in the average score of the Eastern region and other regions. On the other hand, the Eastern region lags in most of the environmental-related goals and in reducing inequalities. In the context of environmental-

related goals (specifically, 7, 12, 13, and 14), South Asia has been the top performer, and in equality-related goals (5 and 10), Central Asia has been the best performer among the Asian nations. In all, though Asian regions depict a pattern of convergence in some of the SDGs, substantial disparities exist within Asia. Thus, in the next section, we intend to investigate the convergence phenomenon among the Asian countries for all 17 SDGs.

6.2 Comparison of Regional Performance of Asia with Europe

This sub-section performs a comparison analysis of the SDG performance of Asian regions with Europe. Since the majority of the countries in the top SDG ranking are from Europe, a comparison with the area is required to demonstrate its strong commitment to sustainable development (Sachs et al., 2024). For this, we rely on two measures: (i) the progress measure (PM), which is computed by measuring the changes in the annual compound growth rate from 2015 to 2023, and (ii) the simple average (SAV) across all indicators from 2015 to 2023. We present the findings of the progress and simple average measures using scatter plots to graphically compare the estimates (cf. Figures 4.1-4.17). These plots reveal varying relationships between the progress and simple average measures across different SDGs. Figure 4.1 shows a negative relationship between progress and simple average measures for SDG1, indicating that Europe and East Asia have higher simple average values, while South East Asia and Central Asia have made considerable progress. A similar trend is observed for SDG2, SDG3, SDG4, SDG6, SDG9, SDG10, SDG11, and SDG15.

In contrast, a positive relationship between the two measures is observed for SDG14, SDG16, and SDG17, with Europe performing highest and East Asia performing lowest in SDG14. South Asia ranks lowest in SDG16 and SDG17. Notable regional variations are observed in specific SDGs. For instance, in SDG5, Europe has the highest simple average, while Central Asia has a high simple average but low progress, and South Asia and West Asia show the highest progress. Regional variations are also observed in SDG7, where West and Central Asia are the lowest performing in terms of progress, while South Asia continues to be highest in progress measure and lowest in simple average measure. In SDG8, East Asia performs well in simple average measures compared to Europe, while Central Asia has the lowest average. Furthermore, in SDG12, Europe exhibits the lowest performance in both progress and simple average measures, while Asian regions perform better, with South and Central Asia topping the simple average list, and East Asia ranking highest in progress measure.

The analysis reveals that Europe performs considerably higher than Asian regions in most SDGs. However, Asian regions have shown greater progress in achieving the SDG goals. **Asian regions outperform Europe in SDG12 (responsible consumption and production).** Conversely, Europe outperforms all Asian regions in SDG14, SDG16, and SDG17, with all Asian regions lagging behind in terms of both measures.

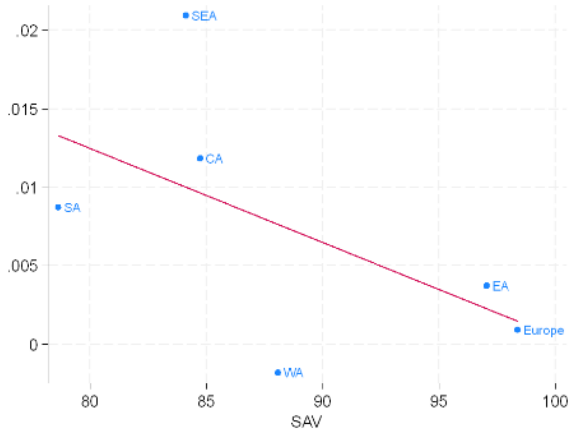


Figure 4.1: SDG1

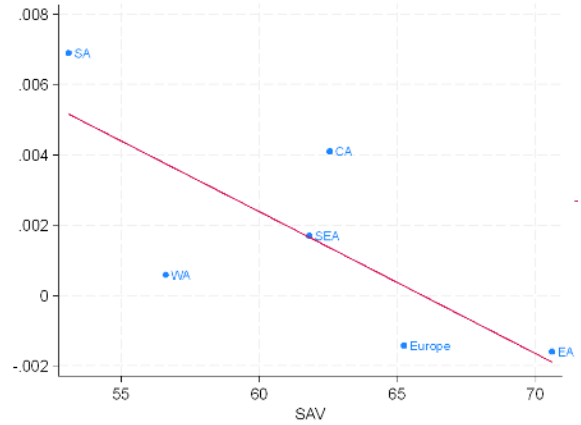


Figure 4.2: SDG2

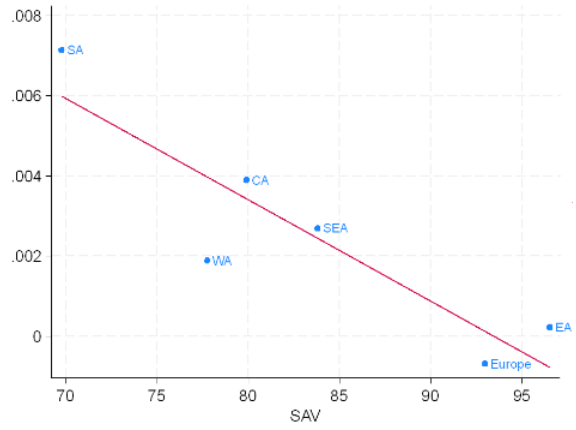


Figure 4.3: SDG3

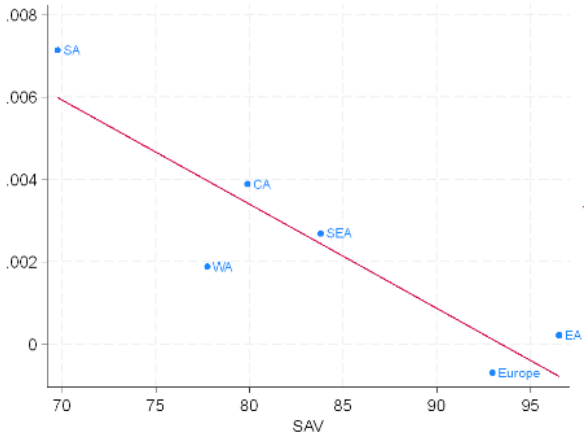


Figure 4.4: SDG4

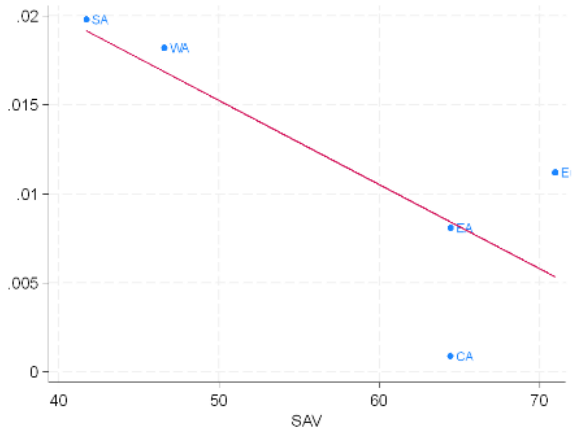


Figure 4.5: SDG5

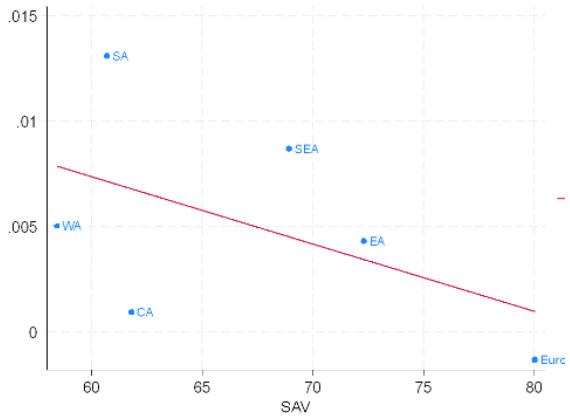


Figure 4.6: SDG6

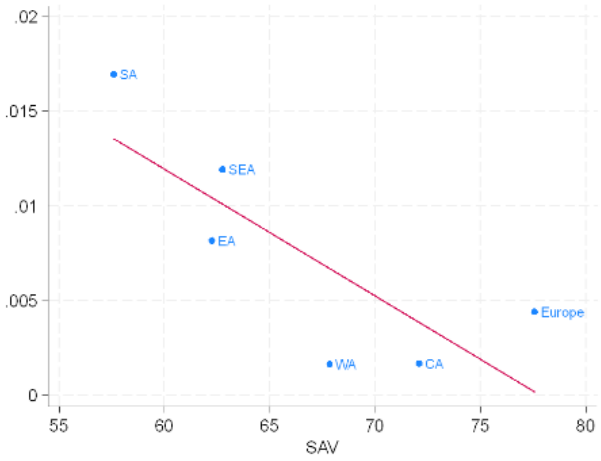


Figure 4.7: SDG7

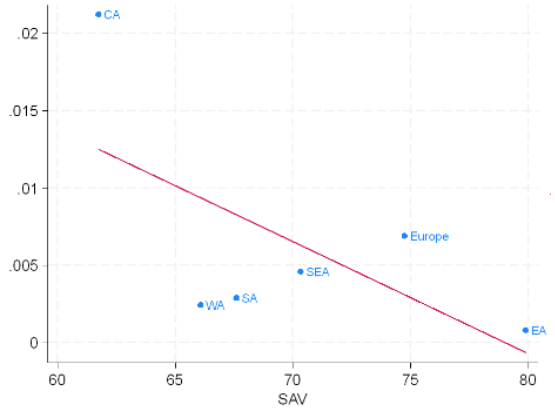


Figure 4.8: SDG8

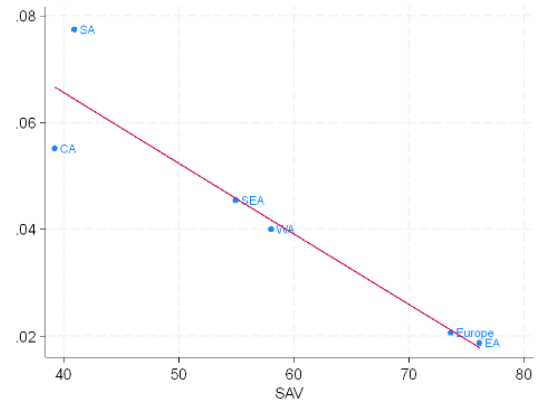


Figure 4.9: SDG9

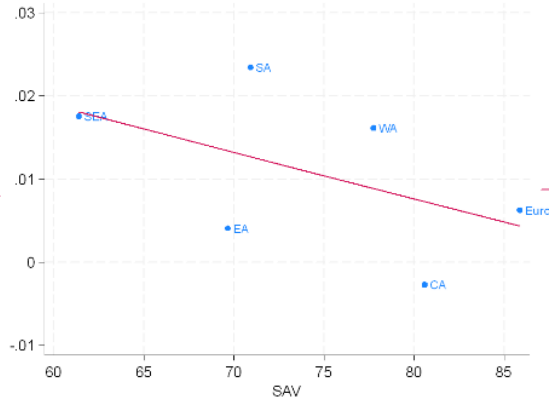


Figure 4.10: SDG10

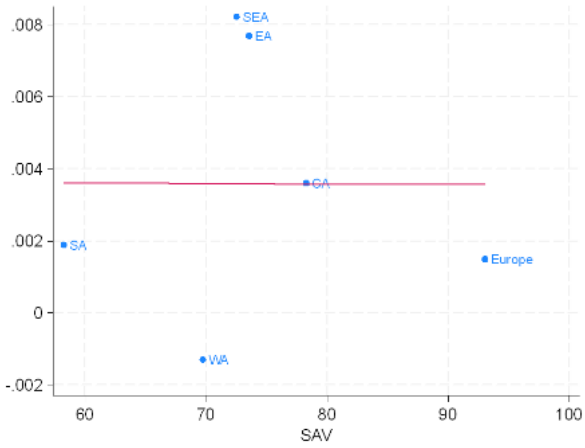


Figure 4.11: SDG11

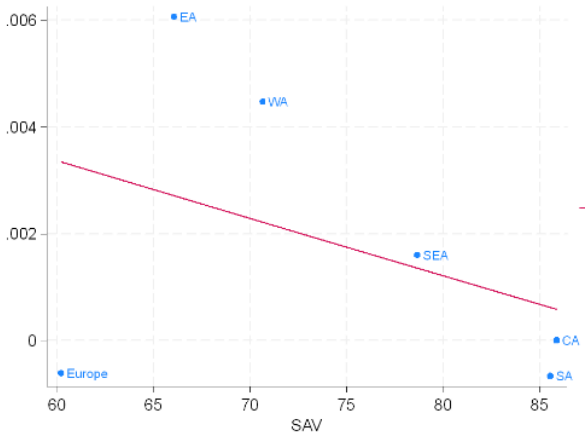


Figure 4.12: SDG12

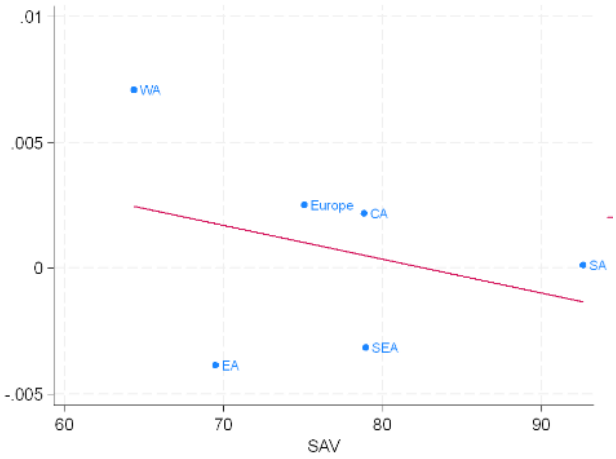


Figure 4.13: SDG13

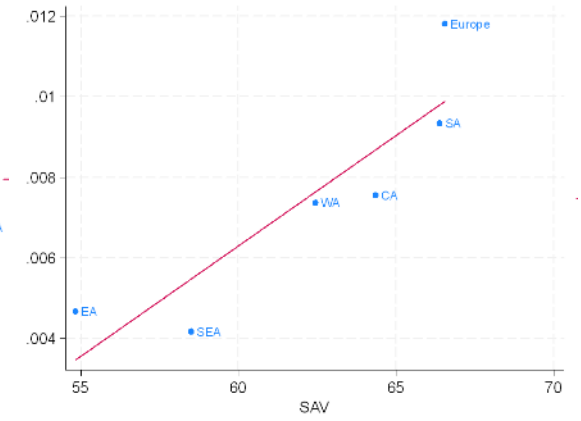


Figure 4.14: SDG14

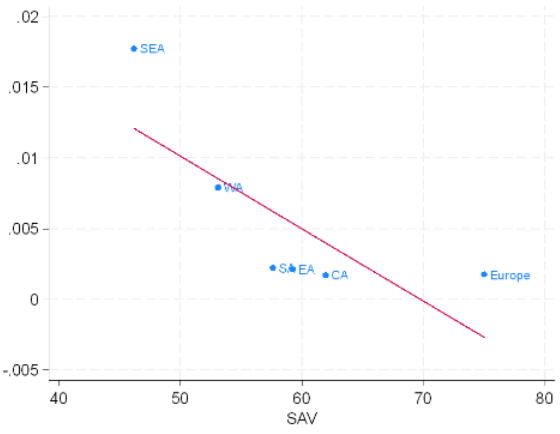


Figure 4.15: SDG15

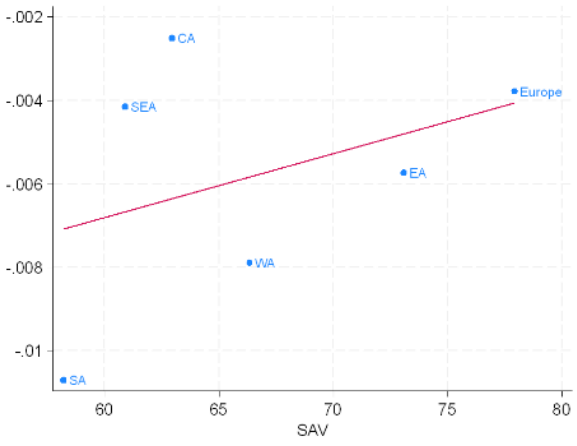


Figure 4.16: SDG16

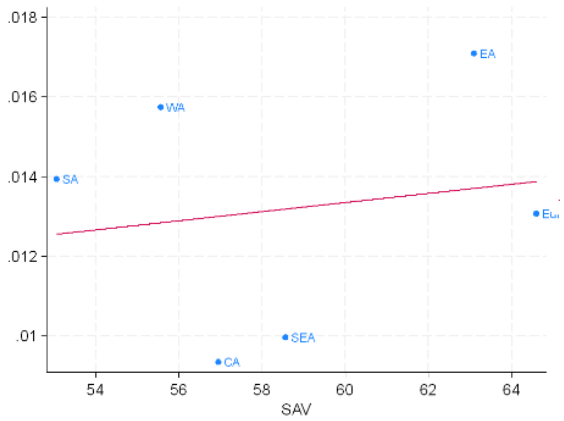


Figure 4.17: SDG17

Source: Author's computation based on UN data on Asia and Europe

Notes: CA is Central Asia, WA is West Asia, SEA is South East Asia, EA is East Asia, and SA is South Asia.

7. Convergence Analysis in the Progress of Asian Nations in Achieving SDGs

We estimate equation (1) of β-convergence for all Asian nations as a whole, and the different Asian regions. We extend the analysis to different groups to investigate if the convergence phenomenon substantially differs across these groups. Model 1 outlines the estimates of absolute β-convergence in the growth rate of the 17 SDGs. Models 2-6 provide the estimates of absolute β-convergence for the five Asian groups. The regression estimates depict that the base value, i.e., the value of the SDG score in 2015, has a negative and statistically significant influence on the growth rate of the SDG for the following goals: SDG1, SDG3, SDG4, SDG5, SDG6, SDG7, SDG9, SDG10, SDG12, SDG14, SDG15, and SDG17. This implies that nations with lower SDG scores in 2015 experienced higher growth in these sub-indices. However, for SDG2, SDG8, SDG11, SDG13, and SDG16, lower-performing Asian nations are not catching up with the higher-performing nations.

The region-wise convergence analysis helps to examine whether the convergence pattern differs within the different Asian regions. It is found that the Central Asian region shows the presence of beta convergence in only two SDGs: SDG1 and SDG5. Likewise, the East Asian region also depicts the converging pattern in only 3 SDGs: SDG1, SDG8, and SDG9. Western, Southeast, and South Asian regions depict the catching-up pattern in 11 SDGs, 10 SDGs, and 8 SDGs, respectively. At the goal level, it is noted that in SDG13 (climate action),

only South East Asia depicts a converging pattern, whereby low-performing nations catch up with the high-performing nations to combat climate change. Likewise, in SDG15 (life on land), the catching-up effect is visible only for the Western region, where initially low-performing nations are making efforts and catch up with high-performing nations specifically in protecting and restoring ecosystems, sustainably managing forests, combating desertification, reversing land degradation, and halting biodiversity loss. In all, the SDGs where almost all regions are progressing to achieve the targets are noted to be SDG1, SDG9, followed by SDG4, SDG6, SDG7, and SDG17.

Table 4: Regression results for absolute beta-convergence

	All Asian nations	Central Asia	Western Asia	South Asia	South East Asia	Eastern Asia
	$\ln(score_{2015})$	$\ln(score_{2015})$	$\ln(score_{2015})$	$\ln(score_{2015})$	$\ln(score_{2015})$	$\ln(score_{2015})$
SDG1	-.790* (0.431)	-.617*** (0.024)	.827 (.595)	1.419** (0.418)	-.497** (0.163)	-.818* (0.230)
SDG2	-.060 (0.049)	-.050 (0.852)	-.060 (.080)	-.114 (0.149)	.174 (0.132)	.003 (0.034)
SDG3	-.089*** (0.022)	.050 (0.127)	-.089*** (.022)	-.096** (0.034)	-.056 (0.066)	-.095 (0.046)
SDG4	-.245** (.115)	-.213 (0.400)	-.245** (0.115)	-.378* (0.175)	-.226** (0.078)	-.104 (0.200)
SDG5	-.212*** (0.075)	-3.534*** (0.361)	-.212*** (0.075)	.014 (0.189)	.010 (0.077)	-.099 (0.210)
SDG6	-.199*** (0.064)	-.028 (0.080)	-.199*** (0.064)	-.342** (0.112)	-.441*** (0.078)	-.219 (0.122)
SDG7	-.230*** (0.051)	-.115 (0.163)	-.230*** (0.051)	-.307*** (0.049)	-.310*** (0.069)	-.075 (0.089)
SDG8	.030 (0.073)	.024 (1.892)	.030 (0.073)	.142 (0.122)	-.198* (0.098)	-.244* (0.066)
SDG9	-.239*** (0.032)	-.229 (0.215)	-.239*** (0.039)	-.207** (0.079)	-.296*** (0.041)	-.324** (0.066)
SDG10	-.262** (0.101)	-.134 (0.178)	-.262** (0.101)	-.219 (0.336)	-.570* (0.234)	-.049 (0.035)
SDG11	.019 (0.020)	.076 (0.318)	.019 (0.020)	.019 (0.026)	-.007 (0.027)	-.199 (0.101)
SDG12	-.176*** (0.039)	-.076 (0.092)	-.176*** (0.039)	.020 (0.072)	-.146*** (0.028)	-.283 (0.323)
SDG13	-.066 (0.137)	-.107 (0.110)	-.066 (0.048)	-.020 (0.107)	.336*** (0.074)	.052 (0.501)
SDG14	-.157*** (0.055)	NA	-.157*** (0.055)	-.475** (0.147)	.082 (0.157)	-.687 (0.231)
SDG15	-.132* (0.075)	-.109 (0.138)	-.132* (0.075)	.178 (0.196)	-.181 (0.182)	.087 (0.062)
SDG16	-.063 (0.041)	-.282 (0.621)	-.063 (0.041)	.042 (0.068)	-.095 (0.103)	-.131 (0.142)
SDG17	-.109*	-.094	-.109*	-.260**	-.293***	.281

	(0.056)	(0.054)	(0.056)	(0.100)	(0.073)	(0.113)
Source: Author's computation based on UN data						
Note: *, **, and *** denote the statistical significance at 10%, 5%, and 1%, respectively. NA implies that the data for SDG14 for Central Asian countries is not avaiable.						

Finally, the convergence analysis depicts that in SDG2, SDG11, and SDG16, **neither at the aggregate level nor at the regional level, low-performing Asian nations are progressing to eradicate hunger and achieve food nutrition, create inclusive and sustainable cities, reverse land degradation, and stall biodiversity loss** (cf. Figs. 5.1-5.3). Specifically, as noted in Fig. 5.1, Asian nations have not made any noteworthy improvement in any of the targets of SDG2 from 2015 to 2023. Indeed, **the prevalence of stunting and wasting has increased in children under 5 years of age**. Though the globe is rapidly becoming more urbanised (Devisscher et al., 2019), based on data available on the four targets of SDG11, there is no visible improvement in Asian countries (cf. Fig. 5.2). In SDG16, Asian nations depict a fair performance in targets 1, 4, and 7. Though there is a slight improvement in target 2, nations are far from meeting this goal of effectively controlling crime. While, in terms of other targets, Asian countries are very far from meeting them, indeed, performance in target 8, i.e., the **press freedom index, has considerably declined in the Asian countries.**

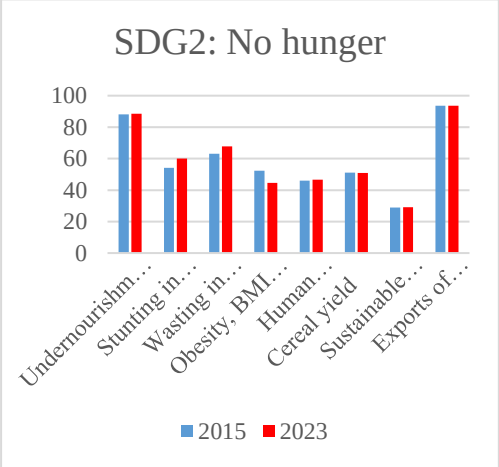


Figure 5.1

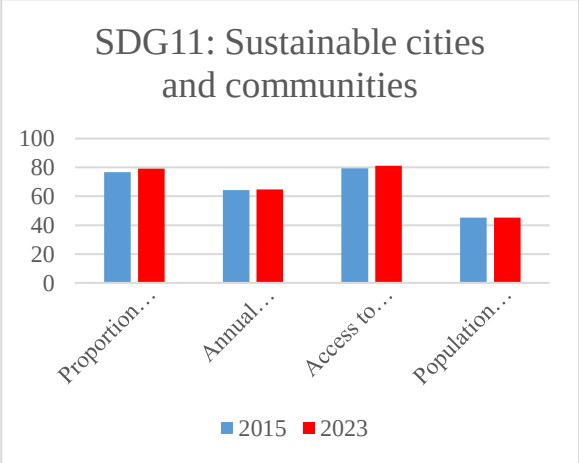


Figure 5.2

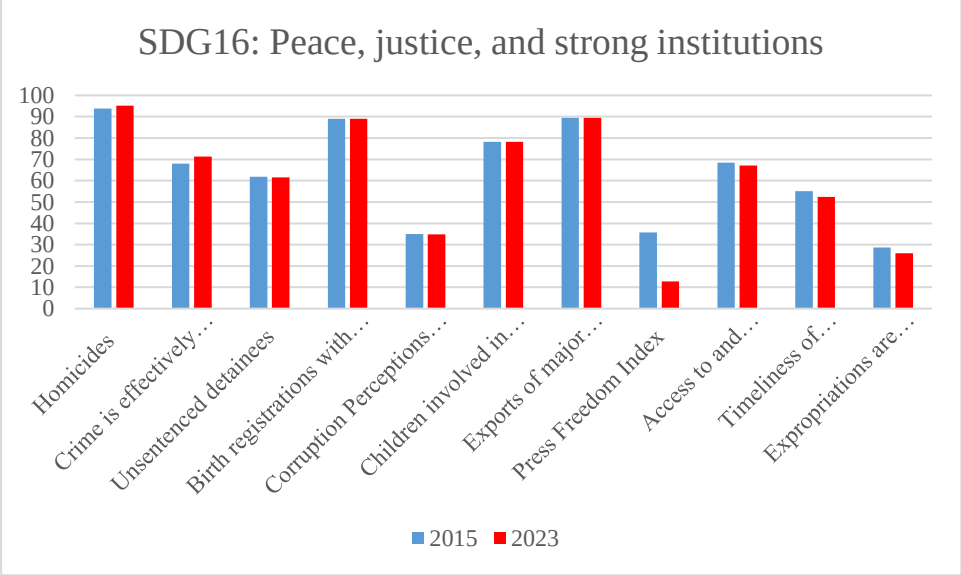


Figure 5.3

Source: Author's computation based on UN data on SDG2, 11, and 16

8. Conclusions, Opportunities, and Challenges

This paper revisits the progress and growth of Asia at both the aggregate (Asia as a whole) and disaggregate (regional) levels to realise the targets of SDGs during 2015-2023 period. We discovered that **Asian nations exhibit consistent advancement in all SDGs, yet, considerable progress has been made only in three SDGs: SDG9, SDG10, and SDG 17.** Among various indicators, primary indicators where Asian nations have marked a significant improvement include population using the internet; mobile broadband subscriptions; the Times Higher Education Universities Ranking; and articles published in academic journals. Likewise, for SDG17, the primary area of improvement is noted to be the Statistical Performance Index, which evaluates the performance of national statistical systems. SDG10 (reduced inequality) shows a decline in inequalities, which is primarily indicated by the Palma ratio, which divides the share received by the richest 10 per cent by the share of the poorest 40 per cent. The analysis shows that the East Asia region (comprising China, Japan, Korea, and Mongolia) has been the outperformer in at least 8 SDGs across all Asian regions. These SDGs are developmental indicators, with a significant difference in the average score of the Eastern region and other regions. On the other hand, the Eastern region lags in most of the environmental-related goals and reducing inequalities. **In the context of**

environmental-related goals (specifically, 7, 12, 13, and 14), South Asia has been the top performer. This achievement can be attributed to the relatively low consumption levels, which presents a unique opportunity for South Asia to transition towards more sustainable development trajectories. In equality-related goals (5 and 10), Central Asia has been the best performer among the Asian nations. In all, though Asian regions depict a pattern of convergence in some of the SDGs, substantial disparities exist within Asia. Further, the comparative analysis reveals that **Europe performs considerably higher than Asian regions in most SDGs as their average index is higher than those of all Asian regions**. Nevertheless, Asian regions show higher progress in achieving the SDG goals, as indicated by the progress measure. Asian regions outperform Europe in SDG12 (responsible consumption and production). Conversely, Europe outperforms all Asian regions in SDG14, SDG16, and SDG17, with all Asian regions lagging behind in terms of both measures. It indicates that **Asia needs to go a long way to achieve the 2030 agenda.**

Furthermore, the analysis depicts that the value of the SDG score in 2015, has a negative and statistically significant influence on the growth rate of the SDG for the following goals: SDG1, SDG3, SDG4, SDG5, SDG6, SDG7, SDG9, SDG10, SDG12, SDG14, SDG15, and SDG17. Thus, our analysis depicts that initially, poor-performing Asian nations are improving upon these 12 SDGs and catching up with the high-performing nations. At the regional level, Western Asian nations exhibit the highest convergence in SDG achievements, closely followed by Southeast Asian and South Asian nations.

Nevertheless, various areas need subsequent attention from the policymakers and regulators in the Asian economies. However, given the multivariate nature of SDGs, these interventions need to be goal-specific and cross-cutting and will require nationwide interventions. The journey towards SDG2 (zero hunger) in Asia is at a standstill, with most countries showing minimal improvement and no signs of regional convergence. This lack of regional convergence is troubling, as lower-performing nations continue to fall further behind their higher-performing counterparts. Eastern Asia stands out, particularly China, Japan, and Korea, demonstrating stronger scores. However, even their advancements have stagnated between 2015 and 2023. Therefore, nations need to act decisively, like investing in more sustainable resource management systems and minimum tillage practices (Pingali and Plavsic, 2022), moving to crop-neutral agriculture policy (Pingali, 2015) along with proper implementation of the schemes (Keil et al., 2017) to reverse this trend and ensure that all nations move towards a future without hunger. Likewise, another challenging area for Asia is

SDG11 (sustainable cities and communities), where no noteworthy improvement is visible. Urbanisation has devastating impacts on the environment and human well-being, including biodiversity loss, climate disruption, environmental deterioration, compromised public safety, and adverse health effects (Devisscher et al., 2019; Bibri and Krogstie, 2017). Therefore, nations should prioritise their actions to (i) identify and analyse urban domains critical to sustainability using big data and contextual insights; (ii) develop urban intelligence and simulation models to inform strategic, data-driven decision-making for sustainable urban development (Al Nuaimi et al., 2015); and, (iii) adopt an ecosystems-based approach to examine the influence of climate conditions and disasters in urban areas. Finally, SDG16 (peace, justice, and strong institutions) is an area that requires urgent attention from the regulators and policymakers in the Asian region, which is very necessary for achieving sustainable development (Hope Sr., 2020). Among the various targets, areas including effective control of crime, unsentenced detainees, corruption perception index, press freedom index, access to and affordability of justice, timeliness of administrative proceedings, and adequate compensation of expropriations require prompt attention.

Therefore, **it is observed that the Asian trajectory towards achieving the SDGs by 2030 remains suboptimal, with uneven progress across the different SDGs and regions.** While economic advancements have been observed, significant disparities persist in environmental-related goals and reducing inequalities. This underscores the need for intensified efforts encompassing extensive governance and supervision measures at the regional level to address these deficiencies and ensure timely attainment of the SDGs. However, future studies may focus on individual goals, analysing the performance of Asian nations in the respective targets. Additionally, conducting governance analyses in conjunction with SDG progress assessments can elucidate the causal relationships between governance factors and SDG outcomes. This approach will enhance the efficacy of SDG implementation policies, facilitating the understanding of regional disparities, thereby ensuring meaningful progress towards the desired future by 2030.

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