

DEM KNOWLEDGE PAPER

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DEPARTMENT OF ENGINEERING MANAGEMENT

SUSTAINABLE DEVELOPMENT GOALS: THE BLUEPRINT FOR PAKISTAN

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1. INTRODUCTION

Sustainable Development (SD) emerged in response to growing environmental concerns and was first officially introduced in the World Charter for Nature, adopted by the United Nations in 1982 (Pearce & Atkinson, 1998). The idea gained prominence with the publication of "Our Common Future" by the World Commission on Environment and Development (WCED) in 1987, which defined SD as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This concept was further refined and operationalized during the Earth Summit in 1992, where it became a central theme of Agenda 21, "a comprehensive blueprint for SD" addressing a wide range of issues, including environmental protection, social equity, and economic growth, providing a global framework for integrating environmental sustainability into socio-economic development (United Nations, 1992).

From its conception, it has been clear that information and quantitative indicators will play an important role in SD. However, despite all the efforts of many national and international organizations and governments including long-term programs such as the European Commission's 'Beyond GDP' and the Organization for Economic Co-Operation and Development (OECD)'s 'Measuring the Progress of Societies' —there's still no universal agreement on the best way to measure sustainability (Stiglitz et al., 2009). However, indicators have played a key role in tracking global progress, from the Millennium Development Goals (MDGs) to today's Sustainable Development Goals (SDGs) (Sachs, 2012). The world leaders set us on a new course on September 25, 2015, by adopting the 2030 Agenda for SD, including the 17 Sustainable Development Goals (SDGs) shown in Figure I (United Nations, 2015).















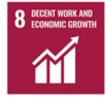




















Figure I: 17 Sustainable Development Goals

2. SDGS AND GLOBAL ARENA

The global Sustainable Development Goals (SDGs) provide an evidence-based framework for national, regional and global sustainable development planning and programming over a 15-year period until 2030 (United Nations, 2015). The categorization of SDGs is shown below in Figure II.



Figure II: Categorization of Goals

The framework of 17 goals, 169 targets and 232 indicators is built on the success of other target- and indicator-based frameworks such as the Millennium Development Goals (MDGs) (McArthur 2013; McArthur & Rasmussen 2017a) with the aim of addressing the limited progress made on major international environmental agreements. They offer better coverage and balance between the economic, social, and environmental dimensions of SD and provide an opportunity to trigger systemic change towards a sustainable future (Costanza et al., 2016). The matrix mapping MDGs to SDGs is shown in Table I.

Table I: Matrix Mapping 7 Pillars of MDGs with SDGs

Pillar	Link with MDGs	Link with SDGs
People First: Developing social and human capital and empowering women	The pillar encompasses poverty eradication (MDG 1), access to health and education services (MDGs 2, 4, 5, and 6), gender empowerment (MDG 3)	SDGs 1 (poverty), 3 (health), 4 (education), and 5 (gender)
Growth: Sustained, indigenous, and inclusive growth	While this was not an explicit goal, it was a key driver of MDGs, as well as being implicit in MDG 1 (equity, decent work), and MDG 6 (environmental sustainability).	The target is virtually identical to SDG 8 and SDGs 10, 12, 13, 14, and 15
Governance: Democratic governance: institutional reform and modernization of the public sector	Again, while not an explicit goal, there is abundant evidence that shows the positive impact of governance on human development goals.	Again, language is similar to that of SDG 16
Security: Energy, water, and food security	These are incorporated into MDG 1 (hunger) and MDG 6 (water)	Linked to SDG 2 (zero hunger), 6 (water security), 7 (energy security), and 11 (urban)
Entrepreneurship: Private Sector and entrepreneurship-led growth		This is linked to SDG 9 (foster innovation)
Knowledge Economy: Developing a competitive knowledge economy through value addition		SDG 9 (innovation) and SDG 4 (education)
Connectivity: Modernizing transport infrastructure and regional connectivity		SDG 9 (infrastructure) and SDG 17 (global partnership)

(Source: MOP, Govt. of Pakistan 2014)

The Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides all support for the SDGs and their related themes including but not limited to water, energy, climate, oceans, urbanization, transport, science, and technology. Global Sustainable Development Report (GSDR) is a regular document published to account for the efforts / partnerships and consequences. SDGs are built upon decades of work by member countries and the UNDESA.

3. GLOBAL SDG PROGRESS REPORTS

There is a lot of ambiguity in definitions and measurement methods of indicators that determine achievement of SDGs (Siddiqui et al., 2023). As of 30 November 2022, the UN SDG page presents a three-tier classification table comprising 148 Tier I indicators, 77 Tier II indicators, and 6 indicators having multiple tiers (different components of the indicator are classified into different tiers).

Tier Classification Criteria/Definitions are provided as follows: -

Tier I: Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by at least 50 per cent of countries and of the population in every region where the indicator is relevant.

Tier II: Indicator is conceptually clear, has an internationally established methodology, and standards are available, but data are not regularly produced by countries.

Tier III: No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being (or will be) developed or tested. (As of the 51st UNSC, the global indicator framework does not contain any Tier III indicators) (United Nations, 2023).

It is generally understood that SDG measurement is a complex and unstandardized process, and the data retrieved from various sources is used to estimate the progress on SDGs (Ordaz, 2019) because measuring 232 indicators, 17 goals and 169 targets offers a lot of complexity (Bidarbakhtnia, 2020). The global edition of the Sustainable Development Report (SDR) provides the most up-to-date data to track and rank the performance of all UN member states on the SDGs. The report focuses on the UN Summit of the Future, with an opening chapter endorsed by 100+ global scientists and practitioners. The report also includes two thematic chapters, related to SDG 17 (Strengthen the means of implementation and revitalize the Global Partnership for SD) and SDG 2 (End hunger, achieve food security, improve nutrition and promote sustainable agriculture). UN constantly reports progress on SDGs in a consolidated report on a yearly basis, the most recent being the report in the year 2024. The spread in SDG performance across countries remains very wide (80+ to -50). At the global level, SDG 2 (Zero Hunger), SDG 11 (Sustainable Cities and Communities), SDG 14 (Life Below Water), SDG 15 (Life on Land), and SDG 16 (Peace, Justice and Strong Institutions) are particularly off track.

4. PAKISTAN AND SDGS

Pakistan has prioritized the Sustainable Development Goals (SDGs) as part of its national development strategy, aiming to elevate the country to upper-middle-class status by 2030. Key milestones are shown in Figure III.



Figure III: Key Milestones of Pakistan's Commitment to SDGs

Government of Pakistan claims to be the first country to adopt the SDGs as its own national development agenda through an unanimous National Assembly Resolution in 2016. Sustainable Development Goals (SDGs) Index is a document that claims to track a country's performance on the 17 SDGs. This index is based upon data and analyses produced by the United Nations, the World Bank and others as well as from non-official sources (Cheema et al., 2021).

The UN report published in 2024 places Pakistan at 137th out of 167 countries on the global achievement index (United Nations, 2024). This low ranking is particularly alarming considering the country's status as a nuclear power. Despite global setbacks in SDG progress among top-performing nations, Pakistan's position reflects consistent underperformance, with only one green indicator in SDG 13 (Climate Action) and most others marked in orange or red, highlighting serious development challenges.

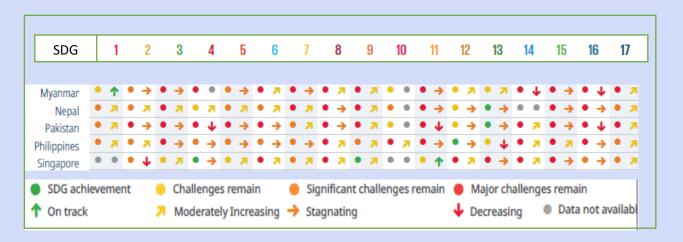


Figure IV: Progress of Selected Asian Countries on Sustainable Development Goals (SDGs) - 2024

5. CONCLUSION

Pakistan's status on SDGs is far from desired state. The country is in dire need of a collaborative effort from the government, international organizations, businesses, and civil society to develop inclusive, well-funded, and data-driven policies that drive sustainable development. Strengthening governance, ensuring policy transparency, and integrating SDGs into national and regional development plans are critical steps toward progress. Sustainable financing, including public-private partnerships and international aid, can provide the necessary resources to implement large-scale initiatives. Improving data collection and monitoring mechanisms will enable evidence-based decision-making, while investing in technology and innovation can accelerate solutions to sustainability challenges. Additionally, empowering communities through capacity-building and education is essential for fostering long-term resilience. Strong global partnerships can enhance cooperation and knowledge-sharing, while targeted efforts to reduce inequalities and promote inclusive policies will ensure that no one is left behind. A comprehensive, well-coordinated, and adequately funded approach is key to helping Pakistan achieve its SDG targets by 2030.

6. REFERENCES

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