Sub-regional study

Financing strategies for inclusive, equitable and sustainable infrastructure development in South and South West Asia

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January 2017

The study was developed under a United Nations Development Account project entitled "Financing strategies for inclusive, equitable and sustainable development in Asia and the Pacific", which is implemented by the Macroeconomic Policy and Financing for Development Division, ESCAP. The views expressed in this document are those of the author and do not necessarily reflect the views of the United Nations Secretariat. This publication has been issued without formal editing.

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Acronyms and Abbreviations

AAAA	The Addis Ababa Action Agenda
ADB	Asian Development Bank
BOT	Built Operate & Transfer
BDT	Bangladesh Taka
BIFFL	Bangladesh Infrastructure Finance Fund Limited
CCFU	Climate Change Finance Unit
CIA	Central Intelligence Agency
FDI	Foreign Direct Investment
GCF	Global Climate Finance
GDP	Gross Domestic Product
GW	Gigawatt
IDF	Infrastructure Development Fund
IDCOL	Infrastructure Development Company Limited
IIED	International Institute for Environment Development
IIFCL	Indi Infrastructure Finance Company Limited
INVITS	Infrastructure Investment Trust
IMF	International Monetary Fund
LDC	Least Development Countries
LCRD	Low-Crabon resilient development
MDG	Millennium Development Goals
MoF	Ministry of Finance
NRB	Nepal Rastra Bank
NGO	Non-Government Organization
NPC	National Planning Commission
PPP	Public Private Partnership
PEIF	Private Equity Investment Fund
RBI	Reserve Bank of India
SAR	South Asia Region
SDG	Sustainable Development Goals
TYP	Three Years Plan
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNESCAP	United Nations Economic and Social Commission for Asia and Pacific
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollars

1. Background:

The South and South West Asia region continued its upturn from the global economic turmoil. In 2015, the average economic growth rate was 5.6 percent. The steady progress in the sub-region growth, mainly attributed to growth of India, is projected to marginally increase up to 5.9 percent in 2016 and 6.1 percent in 2017. (UNESCAP, 2016). The removal of sanctions on the Islamic Republic of Iran and Nepal's rebuilding from devastating earthquake, supported by Pakistan's new economic avenue such as the China-Pakistan Economic Corridor can contribute to accelerate the growth momentum, but the challenges are to make the region's growth more inclusive, and central to sustainable development as "growth prospects are held back across the sub-region by energy and infrastructure constraints" (UNESCAP, 2016). Achieving the economic development, and sustaining economic growth at a high rate crucially depends on access to good infrastructure. **The Addis Ababa Action Agenda (AAAA)** of the recently concluded Third International Conference on Financing for Development (Addis Ababa, 13-16 July 2015) recognizes infrastructure development as one of the critical factors for economic development, reducing poverty and inequality, and ensuring environmental sustainability, and puts forward it as a core element for attaining Sustainable development goals (United Nations , 2016).

The availability of sustainable and accessible infrastructure is crucial for South and South West Asia region as most part of the sub-region suffers from burgeoning population, urbanization, and infrastructure deficit. Urbanization is growing around 2.5 percent on an average since last decade[1] in the sub-region, where in India alone 10 million people move to towns and cities each year. The drag in infrastructure development is evident from the fact that in "The Global Competitiveness Report"[2] no South and South West Asian country has made it to the top 50 in infrastructure ranking. Apart from India, which climbed up from 85th to 68th rank, there has been no significant improvement in sub-region countries in the last four years (World Economic Forum , 2016).

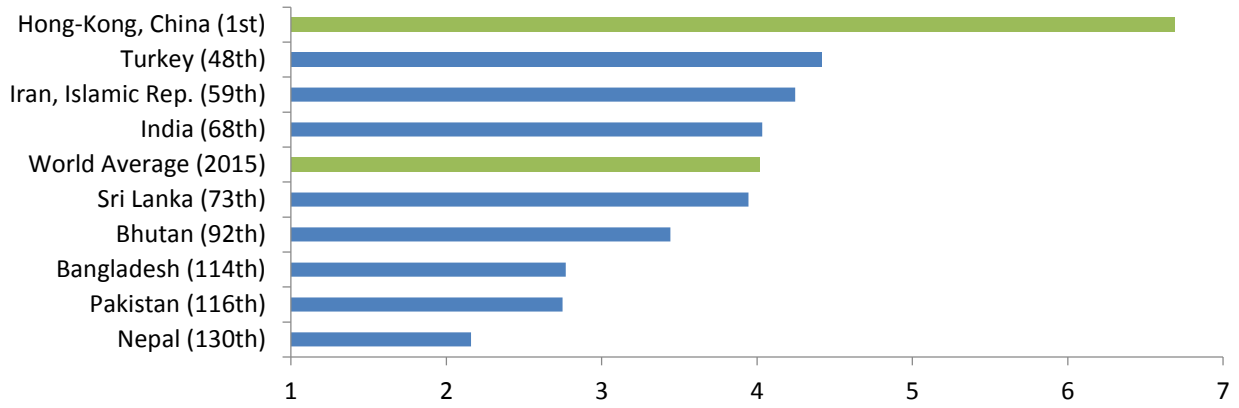
Most part of the sub-region still doesn't have full and regular access to basic infrastructures, such as access to water, sanitation (SDG-6) and access to electricity (SDG-7). In the sub-region, except in Turkey, and the isolated islands in Maldives which have their own decentralized generation resulting in 100 percent electrification, the majority of the population remains detached from the safe and adequate water supply, electricity, roads and infrastructure services. For example, in Nepal, even though an estimated 91.6 percent of the total population has access

[1] http://www.unescap.org/stat/data/statdb/DataExplorer.aspx (South and South West Asia)

[2] In the Global competitiveness report (2016-2017) the competitive indicators are grouped into 12 pillars: Institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. In line with the theory of stages of development, the GCI report states that pillars affect different economies in different stages of development in different ways. The GCI report enlists most of the countries in South and South West Asia except Turkey in the stage one (factor-driven economies), and highlights that maintaining competitiveness hinges primarily on a well-developed infrastructure (2nd pillar) for countries in the initial stage. The second pillar, infrastructure, consist of transport infrastructure, and electricity and telephony infrastructure.

to drinking water, it is not safe (Suwal, 2015)[3]. The majority of the population spends substantial time fetching water, and relies on mountain streams. The disparity is more pronounced in the availability of road infrastructure, measured by road density, where South and South West Asia average is 831 km per 1000 km^2, and Afghanistan, Iran, and Nepal stands at 35 km per km^2, 141km per km^2 and 139 km per km^2 respectively (UNESCAP-Statistical Database , 2016). The access to electricity is also not impressive either for some countries, where, Afghanistan and Bangladesh suffer from lowest access to electricity in the region, standing at 43 and 60 percent respectively (UNESCAP-Statistical Database , 2016).

Figure 1 Infrastructure Index in selected countries in South and South West Asia



Source: Global Competitiveness Report (2016-2017) accessed from CEIC Database – The number in parenthesis is the global ranking of each country in terms of infrastructure.

Nevertheless, government in the region, in order to ensure 100 percent access to basic infrastructure services like electricity, have introduced varied approaches ranging from standalone government initiatives to integrating public private models of electrification. Governments have also approached partnership with civil society organization and rural NGO, for example, Palli Bidyut Samities in Bangladesh, and community user groups in India and Sri Lanka. The government of Bangladesh envisaged power in Perspective Plan (2010-2021) which has a vision to deliver "Power for All" by 2021. Similarly, Afghanistan, aspires to provide access to electricity to 83 percent of the population by 2032, as mentioned in Power Sector Master Plan, but requires over $10 billion investment (Mercados Energy Markets India Pvt Ltd, 2013).

Table 1 Access to electricity, and Improved water source

Country	Access to electricity	Access to an Improved water source
Afghanistan	43	55.3
Bhutan	75	100
Pakistan	93	91.4
India	78.7	94.1

[3] https://thewaterproject.org/water-crisis/water-in-crisis-nepal

Iran	100	96.2
Maldives	100	98.6
Nepal	76	91.6
Turkey	100	100
Sri Lanka	88.6	95.6
Bangladesh	59.6	87

Source: World Development Indicators

However, the growing urbanization, the population and climate change could stretch the demand and cost of infrastructure services and imperil growth aspirations of the countries like Nepal, Bangladesh, Sri Lanka, Pakistan and India. It is also discussed that if benefits are to be sized in real terms, gaining access is not enough; the quality and sustainability of services need to improve with substantial and efficient investment (Andres, et al., 2014).

A study reveals that to meet the increasing infrastructure demand Bangladesh, India, Nepal, Sri Lanka, Pakistan and Afghanistan in total "needs to invest between USD 1.7 trillion and USD 2.5 trillion (in current prices)" (Andres, et al., 2014), whereas, according to Turkey infrastructure finance program launched in 2014 the country needs to invest USD 700 billion by 2023 (Emek, 2015). Additionally, UNESCAP estimated that in transport sector alone the cost of investment projects exceeded USD 100 billion per year for South and South West Asia (UNESCAP, 2013). This is mainly attributed to large demand for investment in the transport sector in terms of infrastructure and services, as well as for maintenance.

Table 2 Infrastructure investment requirements 2011–2020 (in 2010 US$ billions)

Country	Estimated infrastructure investment requirements 2011–2020 USD Billions (Lower-Higher)	Investment requirements 2011–2020, % of GDP, per year	Investment Per capita (USD)- Approximately
Bangladesh	74-100	7.4-10.2	638
Bhutan	0.9	-	1291
India	1133-1726	6.6-10	1378
Nepal	13-18	8.2-11.8	647
Sri Lanka	21-36	4.2-7.2	1757
Pakistan	116-165	6.6-9.9	906
Total	1357 – 2045	-	-

Source (Andres, et al., 2014)*, Bhutan's estimate is from* (Bhattacharya, 2010)

The infrastructure investment is imperative not only to improve the quality of life but also to avoid any binding constraint ensued from the infrastructure deficit affecting the economic growth. The required investment is huge, and challenging, given the macroeconomic situation in the sub-region and the size of funding requirement. Moreover, with recent change of global economic situation, the trends of long term official foreign financing from bilateral and multilateral sources have been declining in recent years. In this context, while each country has been practicing policies, programme and interventions to increase the infrastructure investment and close the infrastructure gap, this report aims at bringing out the commonalities and

differences among these countries, and highlights the best practices and feasible policy options/interventions emerging from the South and South West Asia region.

2. Methodology:

This research is based on periodic plans, National reports, SDG reports, and updated data from Central Banks and Ministry of Finance of the respective countries in South and South West Asia. Data from the international organization, publications, multi-year development plans, and reports from ministries were also referred in order to contextualize a complete picture.

Further, financial Acts and Policies, relevant reports and studies from the research institution, development partners including ADB, World Bank, and UN agencies are reviewed wherever relevant.

The report studies South and South West Asia, which refers collectively to Afghanistan, Bangladesh, Bhutan, India, the Islamic Republic of Iran, Maldives, Nepal, Pakistan, Sri Lanka and Turkey.

3. Availability/ Sources of Funds for Infrastructure Development

Infrastructure services are mostly driven by fiscal spending by governments and government agencies in South and South West Asia. Despite varying degrees of progress in mobilizing domestic public resources, available financial resources are limited as government has to prioritize in many other sectors apart from physical infrastructure. This section examines the available public and private sources that could provide support to the efforts of the infrastructure development in the region. It will reflect on trends and practices of domestic resource mobilization in these countries to meet growing and emerging requirements for infrastructure services, and also reflect on how public and private institutions are working to finance the infrastructure needs.

3.1 Public Infrastructure Expenditure

The countries in South and South West Asia have been prioritizing their budget in the development of the infrastructure and its related institutions. In terms of capital expenditure to GDP, Bhutan spent the highest, which stands at 3.84 percent in 2014, followed by the capital expenditure of Nepal and Sri Lanka which are 3.08 percent and 2.59 percent of GDP