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Forging Collaborations and Evolving Strategies for Infrastructure Development

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Abstract: With growing population, the need to improve infrastructure facilities has increased even faster. Infrastructure development and economic growth of an economy are closely interlinked with each other. However, despite rapid economic growth, many countries around the world are facing challenges in meeting their growing infrastructure needs. Particularly in the case of developing countries, the rate at which the countries are growing is faster than their ability to match the simultaneous growth in infrastructure requirements. One effective way for countries to cover the existing infrastructure gap is to collaborate with other stakeholders. This paper analyzes various collaborative efforts that can be undertaken by countries in order to build resilient and sustainable infrastructure with of view of meeting its infrastructure needs.

Keywords: Collaboration, Infrastructure,Sustainability.

Introduction

With an aim "to end poverty in all its dimensions and craft an equal, just and secure world – for people, planet and prosperity by 2030", member states of United Nations adopted the 2030 agenda for sustainable development – the Sustainable Development Goals (SDGs). SDGs comprise of 17 goals and 169 targets aimed at inclusive and sustainable development. Under SDG-9, countries have agreed to build resilient and sustainable infrastructure across all sectors which includes both regional and trans-border infrastructure. SDG-9 focuses on technological progress as a key to finding solutions for both economic and environmental challenges. Similarly, SDG-11 on 'Sustainable Cities and Communities'

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encourages countries to make cities and human settlements inclusive, safe, resilient, and sustainable. Safe and affordable drinking water, and access to sanitation and hygiene facilities, which are the basic necessities for human beings, form the focus of SDG-6. As the global population continues to rise, so does the demand for alternative sources of energy. In this context, SDG-7 targets to ensure access to affordable, reliable, sustainable and modern energy for all. Thus, infrastructure development, across all sectors, has become a priority for the entire global economy.

Emphasizing the role and importance of infrastructure, The World Development Report (1994) on 'Infrastructure and Development' states: "The adequacy of infrastructure helps determine one country's success and another's failure in diversifying production, expanding trade, coping with population growth, reducing poverty, or improving environmental conditions." Infrastructure facilities, if well developed, have long term economic benefits on the growth, productivity and quality of life of a country. On the other hand, poor infrastructure, both in terms of quality and quantity, affects the productivity of a country and influences its ability to fight poverty.

Infrastructure and economic growth are interdependent in nature. Though higher economic growth improves the ability of a country to create more sophisticated infrastructure facilities, better infrastructure also results in greater economic growth. It is important for governments to realize that investment in infrastructure not only enables economic development and trade but also significantly improves the quality of life of the population, leads to job creation and encourages efficient use of financial resources.[1], However, despite fast economic growth, many countries are finding it difficult to meet their infrastructure targets. Particularly in the case of developing countries, the rate at which the economies are growing is faster than their ability to match the simultaneous expansion in infrastructure requirements.

Infrastructure investment in many emerging economies has been grossly inadequate mainly due to the following reasons:first,

infrastructure investments are lumpy and huge, and resource-constrained developing countries find it difficult to balance infrastructure demands against other pressing social and economic issues; second, there is often lack of familiarity or experience in building high quality sustainable infrastructure and an in-depth understanding of the accompanying sector-specific risks; third, infrastructure projects frequently suffer delays in execution and entail high upfront costs thus making investments in this sector less attractive; and last, there are often inadequate uniform data collection and monitoring systems which help in the proper assessment and viability of projects.[2]

India, one of the fastest growing economies in the world, also faces similar challenges. For India to sustain its current level of growth, it is important to address the required infrastructure needs across all sectors covering roadways, railways, airports, ports and coastal infrastructure, digital infrastructure, energy generation, provision of safe and affordable drinking water and waste management services. One effective way for developing countries like India, to overcome these challenges and meet the infrastructure demand, is to collaborate with other agencies. These partnerships would not only help in overcoming the investment gap but would also help in efficient and sustainable designing and implementation of infrastructure projects, including, paying adequate attention to environmental and social impacts of such projects.

Keeping this in view, this paper focuses on the collaborative actions and efforts that can be undertaken by countries such as India with other stakeholders to build infrastructure capabilities at home and abroad. The paper is organized as follows: Section 2 analyzes the state of infrastructure in India,Section 3 describes various collaborations and partnerships that can be formed in order to build resilient and sustainable infrastructure, Section 4 illustrates various collaborative efforts that have been adopted in India and across the world which can be implemented by other countries and finally, Section 5 concludes the paper.

State of Infrastructure in India

Recognizing the importance of infrastructure development in the country, the Government of India has maintained a constant focus on developing various forms of infrastructure facilities with the aim of sustaining faster and more inclusive growth. For instance, the 11th Five Year Plan document (2007-2012) "outlines the new priorities for the public sector…..[which] includes a major thrust for infrastructure development in general, which is a critical constraint on our development." It further "outlines a comprehensive strategy for development of both rural and urban infrastructure, defined to include electric power, roads, railways, ports, airports, telecommunications, irrigation, drinking water, sanitation, storage, and warehousing."

Acknowledging the macroeconomic conditions prevailing in the Indian economy, the 12th Five Year Plan document (2012-2017), expressed concern over the slowing down of the economy due to infrastructure projects that have run into implementation problems and dampened animal spirit of the investors in developing countries. To correct these problems, the 12th Five Year Plan proposed removing bottlenecks that would speed up the clearance of projects and revive the pace of investment. To enable private participation in infrastructure projects like roads, airports, ports, power generation and distribution, the Government undertook several initiatives to simplify the bidding and approval procedures for projects that involve Public Private Partnership (PPP) (for more details refer Mishra, Narendra and Kar; 2013). Table 1 gives a snapshot of private investment in India's infrastructure development from 1990-2017. It is evident from Table 1 that sectors with largest investment share include 'Electricity' and 'Roads', comprising nearly 90 percent of total private investment made so far. It is interesting to note that private investment in 'Roads' has increased at an average annual rate of 18 percent from 2014 onwards.[3]

Table 1: Project Count and Total Private Investment, 1990-2017

Sector	Project Count	Total Investment (USD Million)
Airports	8	5,400
Electricity	424	146,847
ICT	25	3,272
Natural Gas	5	831
Ports	41	8,883
Railways	11	8,037
Roads	424	79,151
Water and Sewerage	17	648
Total	955	253,069

Source: Private Participation in Infrastructure Database (https://ppi.worldbank.org/snapshots/country/india)

Despite significant investments in infrastructure in recent years, India's infrastructure needs are still huge and far from adequate. The Government of India has recognized this need and has made infrastructure development as a national priority. In the recent budget for FY 2018-19, the government has increased the total capital outlay on infrastructure to Rs. 5.97 trillion (or USD 88 billion), an increase of around 50 percent from the previous year. With the aim of achieving universal household electrification in both rural and urban areas, the government is spending Rs. 160 billion (or USD 2.3 billion) towards the 'Sahaj Bijli Har Ghar Yojana' (Saubhagya). Of the total households in the country, nearly 23 percent or 40 million households were unelectrified at the time of the launch of this scheme in September 2017. Since then this number has come down to nearly 16 percent. As India aims to be self-reliant in meeting its energy demand, which is expected to reach 15,820 TWh by 2040,[4] focus has also shifted towards advancing the renewable energy sector. Accordingly, allocation to the state-owned Solar Energy Corporation of India has increased by nearly 22 percent to Rs 2.17 billion (or 32 million USD), this year. Further, the government aims to work with the states for installation of solar water pumps to help farmers irrigate their fields.[5]

Rapid urbanization has put great pressure on the current infrastructure available in urban areas. Therefore the Government of India aims to develop 100 smart cities by 2022 that would provide for the needs of the citizens in terms of sustainable and comprehensive infrastructure services. These smart cities will not only improve the quality of life of the residents but would also stimulate economic growth, create employment and harness new technology. Greenfield areas would be developed around the cities in order to accommodate the growing population. Further, in order to address the housing requirement of urban poor and slum dwellers, the Pradhan Mantri Awas Yojana (Urban) has also been launched which aims to provide 'Housing for All' by 2022.

Under the Swachh Bharat Mission (SBM) and National Rural Drinking Water Programme (NRDWP), the government has made tremendous efforts to provide safe and affordable drinking water and sanitation facilities to all segments of the society. Under SBM, sanitation coverage in India has more than doubled, since its inception on 2nd October 2014. Over 72 million household toilets have been constructed under this mission, as a result of which, number of people defecating in the open has come down from 550 million to less than 200 million today. With NRDWP, water supply for habitations with over 40 litres per capita per day (LPCD) has increased to 78 percent , of which 57 percent of the population is also covered by piped water supply through public stand posts.

India is a significant investment destination for long-term global infrastructure investors. The WEF's latest 'The Global Competitiveness Report, 2017–2018' ranks India 40th (of 137 countries) on an overall basis and 46th in terms of 'Quality of overall infrastructure' (Figure 1). Given the already booming IT and services sector in India, there is great potential for embracing and implementing new and innovative technologies for infrastructure development. Technological innovations for capacity building can happen in the form of building smart cities, using renewable sources of energy, enhancing regional connectivity, finding new financing options and for digitization.

Figure 1: India's Infrastructure Ranking, 2017–2018

Index Component	Rank/137	Value	Trend
2nd pillar: Infrastructure	66	4.2	
2.01 Quality of overall infrastructure	46	4.6	
2.02 Quality of roads	55	4.3	
2.03 Quality of railroad infrastructure	28	4.4	
2.04 Quality of port infrastructure	47	4.6	
2.05 Quality of air transport infrastructure	61	4.6	
2.06 Available airline seat kilometers millions/week	8	4,888.9	
2.07 Quality of electricity supply	80	4.7	
2.08 Mobile-cellular telephone subscriptions /100 pop.	110	87.0	
2.09 Fixed-telephone lines /100 pop.	111	1.9	

Source: The Global Competitiveness Report, 2017–2018. Value represents score ranging from 1-7 where 1 is the lowest and 7 the highest.

However, the financial requirements for meeting India's desired level of infrastructure are considerably large. According to the "Global Infrastructure Outlook" for 2017, released by Global Infrastructure Hub, India would require US$ 4.5 trillion worth of investments till 2040 to develop its infrastructure.[6] Economic Survey, 2017-18, notes that India can meet a very significant portion (US$ 3.9 trillion, about 87 percent) of the required investment, but this still leaves a financing gap of about US$ 526 billion.[7] Similar is the situation in other parts of the world. According to the ADB (2017) report on 'Meeting Asia's Infrastructure Needs', Asia and Pacific region needs to invest US$22.6 trillion through 2030, or US$1.5 trillion per year (not including climate-adjusted costs), given its current growth rate, to overcome the infrastructure shortage that exists in this region.[8]

Infrastructure development does not just imply building additional facilities. Given the change in climatic conditions around the world and depleting natural resources, it is important to build infrastructure that is sustainable and climate resilient. Due to lack of resources, developing countries in particular, find it difficult to create infrastructure facilities using cutting edge technology which are environment-friendly. In order to meet this demand-supply gap, collaborations with other bodies like national and international financial institutions, private players, and

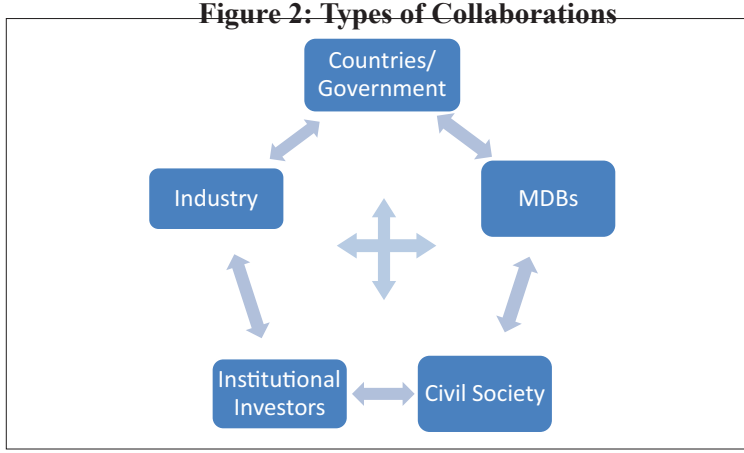
civil society, philanthropic institutes, among others could be a potential solution. Undertaking collaborative efforts and learning from similar experiences from across the globe can bring about the required balance in the infrastructure sector. The next section discusses in detail, different stakeholders that could potentially collaborate with each other to bring about the desired output in the infrastructure sector.

Collaborations and Collective Efforts

Understanding Collaboration

The world around us is growing rapidly, as a result of which new investment avenues and sources of expertise are emerging faster than ever. Many countries across the world face the same roadblocks and challenges, and have similar aspirations in developing infrastructure facilities. Thus, activities could be more effectively scaled up and implemented if stakeholders come together to develop and plan future projects. These stakeholders include the countries themselves, Multilateral Development Banks (MDBs) (such as the Asian Infrastructure Investment Bank (AIIB), Asian Development Bank (ADB), New Development Bank (NDB), World Bank (WB), and others), institutional investors, civil society and the industry.

Figure 2: Types of Collaborations



Source: Adapted from Mercer and IDB , 2017

Collaboration implies that partners work together in order to achieve a common objective. Public sector alone cannot meet the rising infrastructure demand and partnerships with the private sector both in resource mobilization and project implementation are not only strongly desirable but also inevitable. Public and private sector participants have different unique comparative advantages and their complementarities can be used to meet a country's growing infrastructure needs. Collaboration does not necessarily need a strict leadership order and can successfully produce results if the ideals and objectives of all parties involved are properly aligned. Figure 2 shows different types of collaborations and their links that can potentially be formed between various stakeholders. The infrastructure ecosystem can be better evolved by exploiting the synergies that exist between these agents. For example, on one hand, the public sector can contribute towards an enabling environment by providing exemptions on acquisition of land and legal matters, and on the other, private sector can contribute towards smooth and timely execution of projects. Similarly, the civil society, which represents the interest of people, can play an important role in enhancing transparency, creating awareness and helping the government make an impact at the grassroots level.

Ways to Collaborate

There are many ways in which different stakeholders can collaborate with each other. Collaboration between countries or governments which are at different stages of development can be effectively used to tackle infrastructure related issues through knowledge and resource sharing. South-South Cooperation or partnership between countries at similar levels of development will also be useful as the political, economic, cultural and environmental challenges faced by developing countries are similar in nature.

Similarly, collaboration between Governments and MDBs can help countries cover the investment gaps that cannot be met domestically. MDBs can also provide the recipient countries with planning and financial support which is more regional in nature and takes into consideration

country and region specific challenges and opportunities. This form of partnership also helps MDBs to form a clear framework for investment that is in tune with the policies and initiatives adopted by a country.

Collaboration between governments and industry helps in creation, diffusion, and implementation of new age solutions. It also helps to recognize the challenges faced by the industry in adopting the framework suggested by the government. Investment in infrastructure reaps fair returns. Thus, a partnership between the industry and Government can help both the sides to generate revenue while proving sustainable infrastructure to the citizens.

One of the biggest challenges in monitoring and accessing an infrastructure project is the absence of substantial and standardized data. Collaborations can also come about between industry, Governments, and MDBs that enables proper collection and dissemination of data.

In order to ensure that infrastructure benefits reach the masses, the government can collaborate with public-spirited organizations like the civil society that work at the grassroots level. Civil society plays a pivotal role in ensuring transparent execution of projects. It thus becomes essential to engage the civil society in high level political consultations and dialogues. At the micro level, the government can connect with individual citizens to enable timely and effective implementation of projects by collecting and incorporating regular feedback. As mentioned in the World Bank Annual Report (2017), "those citizens directly targeted by and expected to benefit from a Bank-financed development project—is a priority." Indicators and feedback mechanisms should thus be developed by governments in collaboration with the financial institutions and/or private players to capture the real-time response of the expected beneficiaries.

Enabling Collaborations

In order to ensure that the stakeholders collaborate successfully, it is important that the following concerns are addressed:[9]

- Administrative and organizational complexities should be reduced in order to facilitate smooth functioning of all the agents involved.
- Adequate measures should be adopted by the government to boost private investment in long and bulky infrastructure projects. These include accountable and transparent implementation of policies, ensuring price stability, undertaking receptive measures for adopting new technology, following an open competitive bidding process, and setting clear standards of service.
- Partnerships between different agents require a well-defined system and coordination structure. Thus, a clear framework should be instituted at the initiation of each project which distinctly defines the role of all the stakeholders involved to avoid duplication of efforts.
- To ensure a meaningful participation from the private sector, the government should lay out specific targets in a systematic manner which can be adopted by the industry.
- Both short-and long-term planning can be improved by making use of infrastructure assessment tools. Thus, a mechanism to monitor the progress of infrastructure projects should be instituted which is both accurate and flexible to integrate with other platforms.
- Given the diversity in the nature of the organizations involved, all participating agents must show a willingness to not only learn from each other's experience but also to adopt the best practices from across the world.

Collaborative Efforts from Across the World

Collaborative Efforts by India

In this section, we look at collaboration initiatives undertaken by India, across different infrastructure sectors, which have resulted in proper utilization of resources and productive gains for all the stakeholders. These past experiences not only help us in learning from previous collaborations but also guide us in planning sustainable infrastructure for the future.

India and Russia share collaborative ties in various sectors. One of them, for example, is the mass rapid transportation system. The Indian Railways has collaborated with the Russian Railways to increase the speed of passenger trains in India up to 200 kmph, which is currently 160 kmph.[10] A joint venture between Hindustan Construction Company Ltd and Russia's Mosmetrostroy has also been signed to construct a part of Mumbai's first underground metro line. It also involves collaboration between Larsen & Toubro (L&T) with STEC, its Chinese partner.[11] On completion, this would be a 33.5 km long line providing the much needed North-South connectivity in the city, which will help in smoother movement for passengers. India has also signed a Memorandum of Understanding (MoU) with Russia for implementation of its smart cities programme by using the IT solutions offered by Russian companies like Skolkovo which is a leading Russian technology hub. This collaboration will help the government to realize its vision of upgrading the way urban India lives.Further, India is looking to expand its ties with Sweden, in the capital goods market. Though there are many Swedish companies operating in India, like Sandvik and ABB and SKF, the government further aims to expand the scope of Indo-Swedish collaboration in industrial goods.[12]

Sustainability is a crucial element for new capacity building across all sectors. MDBs have agreed to deepen their collaboration to encourage private sector investment in vital infrastructure needed to support sustainable and inclusive economic growth throughout the world. In one such effort, to address infrastructure gaps in Asia, the AIIB has followed a collaborative approach and invested US$150 million in the IFC's Emerging Asia Fund and also co-financed a project with the ADB to improve energy connectivity in India by strengthening its power transmission system. This collaborative effort will also promote job creation through availability of capital and expertise. In another such initiative, the Government of India and World Bank have signed an agreement to set up large-scale solar parks which will help India in increasing its power generation capacity. Furthermore, the Government of India and ADB under the Clean Energy Finance Investment Programme

are working towards providing long term financing options for renewable energy projects like wind, biomass, hydropower, and solar.[13]

India-Bhutan partnership in the hydropower sector is another illustration of a successful and mutually beneficial collaboration where renewable energy is used for supplementing the energy requirements of a country. These projects not only provide clean electricity to India but also generate export revenue for Bhutan, further strengthening their relationship. So far, the two countries have signed several agreements concerning development of joint venture hydropower projects and have commissioned various hydropower projects like 336 MW Chukha Hydropower Project (CHP), 1020 MW Tala Hydroelectric Project and 600 MW Kholongchu hydro-electric project to name a few.[14]

India also plays a pivotal role in strengthening connectivity within the ambit of Heart of Asia (HoA) by developing various facets of connectivity through mutually beneficial cooperative initiatives. One such example is the proposed 1,814 kilometer long Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline that aims to export nearly 33 billion cubic meters of natural gas, annually from Turkmenistan to Afghanistan, Pakistan and India.[15] This project will not only help in supplementing energy needs of the countries involved but will also hopefully provide significant peace dividends.

Collaborative Efforts from Other Parts of the World

Across the world, countries both rich and poor are adopting new partnerships to develop sustainable infrastructure facilities. Adopting practices that are eco-friendly will not only safeguard our existing resources but will also benefit the generations to come. With this view in mind, the 2017 Global Infrastructure Forum hosted by various MDBs,[16] was organized to discuss ways for delivering inclusive and sustainable infrastructure and comprehending ways for governments in developing countries and their working partners to attract more resources for infrastructure. While these collaborations provide synergies, they also create challenges for execution given concerns on sustainability and

popular support. It is important to draw upon such experiences to guide policy makers as well as investors in pursuing collaborative partnerships.

There is a need amongst countries across the globe to collaborate in order to ensure that technologies pertaining to renewable energy are utilized appropriately. A recent example is the 'International Solar Alliance' (ISA), based in New Delhi, a coalition of solar resource rich countries, launched with the aim of using solar energy to meet energy requirements in a safe, convenient, affordable, equitable and sustainable manner. It aims to deploy over 1000 GW of solar energy and mobilize more than US$ 1000 billion of investments in solar power by 2030. ISA is open to 121 prospective member countries, of which 61 countries have signed the ISA Framework Agreement and 33 countries have ratified it. ISA formally acquired the status of 'International Organization' in December 2017.[17]

In an effort to reduce poverty in Asia and Pacific, ADB has formulated co-financing partnerships with other development organizations to enable the flow of financial resources and technical know-how in the region. These partnerships are formulated jointly with Multilateral Development Banks and agencies (like AIIB, Commonwealth Secretariat, Eurasian Development Bank, Islamic Development Bank, etc.), bilateral institutions under respective Governments (like Abu Dhabi Fund for Development, China Exim Bank, Spanish Agency for International Development Cooperation, Export-Import Bank of India, etc.), global funds (like Climate Investment Fund, Green Climate Fund, etc.), private sector partners (like Bill & Melinda Gates Foundation, Credit Suisse, The Rockefeller Foundation etc),[18] and other emerging development partners. For example, to develop an energy project in China, ADB has partnered with the Bank of Beijing and with the Saudi Fund to develop a transportation project in Kyrgyz Republic.[19]

World Bank and AIIB also signed their first co-financing agreement in 2016 to jointly fund infrastructure development projects that would help in addressing development challenges across the world. The two institutions are also discussing several co-financed projects in areas such

as transport, water and energy in Central Asia, South Asia and East Asia.[20] Recently, ADB has committed to help Vietnam in developing green and resilient cities. An agreement totaling USD 223.87 million was signed between ADB and the Provincial People's Committees of Ha Giang, Vinh Phuc and Thua Thien-Hue for the Secondary Green Cities Development Project. The Bank will help the three cities of Ha Giang, Vinh Yen and Hue in preparing Green City Action Plans to bring about "the right mix of integrated urban planning and blended financing [that] can improve livability, resilience and economic opportunities in cities." [21]

Many countries are increasingly adopting new technologies for introducing greener infrastructure amenities. These initiatives have brought about improved utilization of resources to create resilient infrastructure that is essential for sustainable community development. They also help in identifying and preparing a roadmap to meet the gaps in creation and financing infrastructure development. Sweden, for example, has put in tremendous efforts to create climate resilient and sustainable infrastructure. These efforts range from introduction of green buses that run on biogas and ethanol to trains powered by electricity. The new purchases made by Stockholm Public Transport (SL) are at least 98 percent recyclable. Sweden has also shifted from oil to district heating with an aim of reducing country's greenhouse gas emissions. Swedish Prime Minister Stefan Lofven, set the aim for Sweden to become the 'first fossil fuel-free country in the world' by 2040.[22]

Similar efforts are being carried out by different countries around the globe. Mato Grosso do Sul State Road Transport Project, in Brazil, adopted more sustainable approaches to control for erosion which saved the country US$ 46 million. Another such example emerged in the natural dry forest area of Argentina – a 60 km long road through this biodiverse area was built keeping in mind sustainable measures like installation of awareness signs, speed reduction measures in critical habitat areas, and construction of special wildlife crossing/connectivity points.[23] Likewise, Hudson Valley in the New York State region has adopted Green Infrastructure practices for stormwater management.Examples of such kind are a repository of best practices that could be scaled up

and replicated by other countries in collaboration with those that have already implemented such technologies.

Conclusion

Most countries across the globe have realized the importance of sustainable and resilient infrastructure. With this view in mind, the UN Sustainable Development Goals 2030 were envisioned with an aim of creating a holistic world that focuses on the 5 Ps – People, Prosperity, Peace, Partnership, and Planet.

However, the resources available with countries alone are not sufficient to develop infrastructure facilities that also comply with the SDGs. One way out for countries is to collaborate with other agencies in order to meet its growing infrastructure needs. These agencies or stakeholders include different countries, multinational development banks, institutional investors, private players, civil society and the citizens themselves.

Collaborative efforts of such kind have many benefits. It brings to the table expertise from each stakeholder, helps to cover the investment gap that exists within a country or between partner nations, and ensures good infrastructure planning and delivery. However, for such collaborations to come about, it is important that following issues are dealt with. First, administrative complexities should be minimized; second, adequate measures should be adopted by the government to attract private investment; third, a well-defined framework should be established from the beginning that clearly defines the role of all the stakeholders involved; fourth, the government should have a clear focus and precise objectives that are to be adopted by the private players; fifth, self- assessment tools for timely evaluation of the project should be used; and sixth, there should be both a willingness and incentive to adopt best practices from across the world.By adopting measures that will facilitate partnership between different stakeholders, countries will not only be able to achieve their development goals but will also be in a position to contribute in improving the quality of life of its citizen and protecting the natural resources.

Endnotes

[1] Refer Montgomery (2015), World Economic Forum

[2] Refer Mercer and IDB (2016)

[3] Annual figures are not provided in the text.

[4] Refer NITI Aayog. (2017) Draft National Energy Policy

[5] Government of India (2018), Union Budget 2018-19

[6] https://outlook.gihub.org/

[7] Economic Survey (2018), Industry and Infrastructure

[8] ADB (2017), Meeting Asia's Infrastructure Needs

[9] For more details also refer World Economic Forum (2015), Infrastructure Investment Policy Blueprint: Country Performance Assessment

[10] http://www.thehindu.com/news/national/With-Russia%E2%80%99s-help-India-to-increase-train-speed-to-200-kmph/article17077775.ece

[11] http://www.makeinindia.com/article/-/v/investing-in-infrastructure

[12] http://www.makeinindia.com/article/-/v/india-sweden-industrial-goods-collaboration

[13] https://www.adb.org/projects/46268-001/main

[14] Refer Royal Bhutanese Embassy (2016), Bhutan-India Hydropower Relations

[15] https://www.adb.org/news/infographics/tapi-gas-pipeline

[16] The 2017 forum held in Washington D.C. was co-hosted by the European Investment Bank and the Inter-American Development Bank. It was jointly organised by the following MDBs – African Development Bank, ADB, AIIB, European Bank, European Investment Bank, IIC, IsDB, NDB and WB in close partnership with the United Nations.

[17] Refer International Solar Alliance Mission statement (http://isolaralliance.org/ISAMission.aspx)

[18] https://www.adb.org/site/cofinancing/partners#tabs-0-4

[19] Refer ADB News Release (2017), ADB Cofinancing Operations Hit New High, Reaches $14 Billion in 2016

[20] Refer The World Bank Press Release (2016), World Bank and AIIB Sign First Co-Financing Framework Agreement

[21] http://dtinews.vn/en/news/017/57282/adb-helps-develop-green-and-resilient-cities-in-vietnam.html

[22] http://www.makeinindia.com/five-sustainable-green-initiatives

[23] https://www.weforum.org/agenda/2015/11/how-can-we-promote-sustainable-infrastructure/

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