

it is the second-most populous country on earth, contributing to 17.7% of the world population, with >50% and >65% of its population below the age of 25 and 35, respectively. Hence, a large proportion of the Indian population is in the younger age group. Table 1 depicts the data extracted for the labour force and employment rate for the Indian subcontinent. Among these nations, India is the most populated country but has the minimum employment to population ratio (43%) after Pakistan (47.91%). All the selected countries except for Bangladesh reveal negative Gross Domestic Product (GDP) per capita growth (annual %).

Table 1: Statistical details about employment in the Indian Subcontinent

| Country | Population in 2020 ² | Total labour force (LF) ² | Un-employment (% of total LF) ³ | Employment to Population Ratio, 15+, Total ³ | GDP per capita (USD) ² | GDP per capita growth (annual %) ² |
|------------|---------------------------------|--------------------------------------|--|---|-----------------------------------|---|
| Bangladesh | 164,689.38 | 68,412.68 | 4.37% | 52.77% | 1,961.6 | 2.5% |
| India | 1,380,004.39 | 457,779.81 | 4.68% | 43% | 1,927.7 | -8.2% |
| Sri Lanka | 21,919.00 | 8,105.65 | 4.79% | 48.65% | 3,680.7 | -4.1% |
| Nepal | 29,136.81 | 16,045.63 | 11.36% | 73.8% | 1,155.1 | -3.9% |
| Pakistan | 220,892.33 | 71,809.32 | 4.08% | 47.91% | 1,188.9 | -2.9% |
| Bhutan | 771,612 | 344,741 | 2.45% | 62.85% | 3,000.8 | -11.1% |

Sources: ²data.worldbank.org; ³tradingeconomics.com

The issue of unemployment in the Indian subcontinent is common and needs to be addressed through science diplomacy and policy deliberations at the bilateral and multilateral levels. In the forthcoming sections, suitable measures and steps have been enlisted to strengthen the collaborations and achieve the national goals.

COVID-19 Pandemic Impact on Employment

Not only the global recessions of the past, but the COVID-19 pandemic has also provoked institutions across the world to redesign the existing economic models and rethink ways to ensure that such events do not lead to employment loss in future. This pandemic has had an extreme impact on the labour market, raising the unemployment rate from 3.5% in February 2020 to over 10% in July 2020 (Bureau of Labour Statistics, American Community Survey, O*NET).⁴ The International Labour Organization (ILO) also [reported](#) that 1.6 billion workers in the informal economy risk losing their livelihood during the pandemic. Unemployment is a major issue in the present scenario. This pandemic has affected the entire world badly, and the economic revival of every stratum is the biggest issue now.

The major weakness here is the lack of SDGs integration into the national planning process. According to the 2021 report, presented at the UN General Assembly by the Secretary-General,⁵ *“Even before the current crisis, the global economy was growing at a slower rate than in previous years notwithstanding improvements in labour productivity and unemployment. The pandemic has abruptly and profoundly disrupted it, pushing the world into a recession. The unprecedented shock to the world’s labour markets is expected to result in a decrease of around 10.5% in aggregate working hours in the second quarter of 2020, equivalent to 305 million full-time workers. Small and medium enterprises, workers in informal employment, the self-employed, daily wage earners*

and workers in sectors at the highest risk of disruption have been hit the hardest.” The unemployment crisis due to the pandemic has hit the lower-income countries the most. Nations need to adopt inclusive and collaborative approaches to overcome such issues.

In the next section, existing measures and a future roadmap have been discussed to ensure decent work for the masses in the South Asian region.

Existing Regional Science Diplomacy Measures within Indian Subcontinent

The neighbouring nations should come forward to exploit research and collaboration opportunities through science diplomacy. They can improve the relations and bridge the gap between the S&T agencies to resolve common issues. Some of the prominent and successful programmes and initiatives by the Government of India with neighbouring countries are as follows:

ASEAN India S&T Development Fund (AISTDF): India has been the dialogue partner of ASEAN (Association of South-East Asian Nations) since 1992. ASEAN-India S&T [Collaboration](#) started formally in 1996 with the establishment of the ASEAN, India S&T working Group (AIWGST). Initially, the collaborative ASEAN-India S&T activities were supported through ASEAN India Fund (AIF). AISTDF was created in 2008 jointly by the Ministry of External Affairs (MEA), India and the Department of Science and Technology (DST), India, to support R&D projects in member states.

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC): BIMSTEC is a regional organisation comprising seven Member States, five from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand. BIMSTEC has also established a platform for intra-regional cooperation between SAARC and ASEAN members.

South Asian Association for Regional Cooperation (SAARC): The SAARC was established in 1985 to improve the quality of life of the people of South Asia by creating ties with international and regional organisations in economic, social, cultural, technical and scientific fields. SAARC is an economic and political organisation of eight Member States: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. Regional cooperation acts as a complement to the bilateral and multilateral relations of Member States.

India Science and Research Fellowship (ISRF): This programme was initiated by DST, India in 2015. It provides opportunities to researchers and scientists from neighbouring countries to get access to the state of the art facilities available in the Indian higher education institutions. The recent fellowship call for the year 2021-22 was announced on 18 February 2022, for the nations: Afghanistan, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Sri Lanka and Thailand.

Roadmap and Recommendations

The aforementioned initiatives are examples of successful programmes promoting collaborative research, improving the quality of life of people, employment, domain-specific activities among the nations, capacity building and organising developmental activities in the Indian subcontinent. The youths' (15-24 years) inactivity rate⁶ for India and Sri Lanka is 55%, followed by Pakistan at 52%, Nepal at 44% and Bangladesh at 39%. The issues of unemployment, inactivity among youths and economic growth can be effectively resolved by developing science diplomacy systems and structures. To ensure sustainable economic growth and decent work, the nations of the South Asian region can collaborate on the following aspects:

Knowledge sharing: Knowledge sharing between the science agencies can be a crucial mechanism to establish scientific ties between South Asian nations through science diplomacy. Countries can collaborate on the attributes like scientific content sharing, exchange programmes, collaborative R&D and partnerships between institutions, industries and research organisations of the neighbouring countries.

Natural resource sharing: Every country possesses diverse natural resources like oil, gas, minerals, water and land, etc. By sharing these resources as catalysts, nations can ensure employment and economic development.

For example, hydropower can act as a catalyst for regional cooperation in South Asia; the International Centre for Integrated Mountain Development, Asia-Pacific Research and Training Network on Trade, etc., for building the capacities of national and regional actors. Agreements, Memorandum of Understanding (MoUs) and contracts can be signed to share the benefits of natural resources. Trade fairs can be organised for exhibiting Traditional Knowledge and Geographical Indications produced in the member countries.

Diversity: Every nation has different cultures, languages, governing systems, working ethics and religions. South Asian countries can organise events and programmes like skill development, employees exchange activities, collaborative education, scientific research, etc., to explore and study the diversity of the neighbouring nation. These initiatives will ensure skill development, investments, connectivity, talent pooling, and employability of the youths of collaborating countries.

Collaborative approach: Some nations sharing borders and boundaries have resentful relations and indulge in unpleasant activities harming their esteem and prosperity. Nations should ignore political issues. The research & scientific institutions should work on collaborative objectives, missions and projects to resolve the real challenges. The neighbouring countries can study and explore the successful social and scientific models and adopt the relevant ones in their respective nations.

Corporate tie-ups: Business tie-ups can play a crucial role in economic development and employment. Some of the initiatives taken by the countries are like PHD Chamber in India and Pakistan bilateral trade in various domains. Similarly, in the field of science & technology, start-ups, education, research, and innovation, can be promoted by signing pacts, MoUs, agreements, etc. Such activities will encourage optimum use of markets, technologies, potential skills, manpower and appetite of neighbouring nations.

Institutional mechanisms sharing: No nation can possess the whole ingredients to address the complexities of scientific research, required funding and resolve global challenges. Each country has a distinct infrastructure and institutional mechanisms to address social, educational and political issues. The international collaborations through signing bilateral agreements, initiating dedicated programmes and collaborative institutional setup with member countries in different S&T areas need to be strengthened. This practice will ultimately boost inter and intra-country research and innovation partnerships.

Conclusions

The need of the hour is to address issues like employment for youths, skill development, and reforms in national/ international labour laws & policies, more programmes to enhance employability through skill development, hands-on training, self-awareness, etc., and fostering social and bilateral dialogues between the nations. India can be a driving force in implementing policies for regional economic development as it is the only key partner of OECD (Organisation for Economic Co-operation and Development) from the Indian subcontinent. Furthermore, countries must devise effective education and training institutions to anticipate labour market needs and adapt to new jobs and rapid technological change. Although science diplomacy as an operational concept cannot resolve all the challenges, a collaborative approach at the national, regional and international levels can be bolstered to address the common issues. More programmes may be initiated for sharing knowledge, technologies, recourses, institutional mechanisms, monetary support, corporate tie-ups, scientific research collaborations, etc., by ignoring political and border difficulties and leveraging diversity positively and constructively.

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