Building Bridges between Science and Diplomacy to Address Global Challenges in South Asia

Dr (Mrs) Malti Goel *
Founder President, Climate Change Research Institute, New Delhi
E-mail: maltigoel2008@gmail.com

The South Asian region is amongst the emerging areas of the world. It is an area of the extended heritage in prosperity, having solid cultural routes. With nearly one-quarter of the world's population, the region is rich both in human and natural resources. Yet, with low per capita income, South Asia accounts for nearly three per cent of the global gross domestic product (GDP).

South Asian Association for Regional Cooperation (SAARC) comprising Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka (with Afghanistan joining in 2007), came into existence in 1985. It has a Secretariat in Kathmandu, Nepal. Australia, China, Iran, Japan, Mauritius, Myanmar, the Republic of Korea, the United States of America and the European Union are having observer status in the SAARC meetings. The regional cooperation in the areas of science and technology (S&T) is receiving attention, but the SAARC S&T committee has not met since 2010. There is a growing distrust and lack of integration among South Asian countries. The SAARC has not met since 2014 after its eighteenth meeting. Before the SAARC had come into existence, there were several attempts made by India aimed at bilateral cooperation through technical and financial support extended to its neighbouring countries.[1] Committed to the peace, stability, and prosperity of the region, India has assisted in various initiatives such as grants, credits, soft loans, fellowships and trainings, and sharing of technical expertise. Could India take the lead in building bridges with science diplomacy as a tool among SAARC nations; this is a vital question before us.

Science and Diplomacy

Science diplomacy portrays a common area of overlaps in the two independent spheres of S&T and the Foreign Policy of a nation. Trinity of actions for contours of science and diplomacy is defined as; a) Science in Diplomacy, b) Diplomacy for Science and c) Science for Diplomacy. Science in diplomacy – suggests that science and scientists are in more synchronization toward social and sectoral issues, to be able to address them diplomatically between nations. Diplomacy for Science – aims at facilitating S&T collaborations to deal with global challenges such as climate change, sustainability, pandemics and others. It also promotes international scientific cooperation for the advancement of science. Science for diplomacy – highlights the role of the scientific community to maintain support structures in times of conflict, suggesting that science can serve as a tool for streamlining the relations among the nations with S&T community professionalism. In addition to these, 'Diplomacy in science' has been added recently as another dimension into consideration.[2]

* The author is Former Adviser and Scientist 'G', DST and CSIR Emeritus Scientist, Ministry of Science & Technology. The views expressed here are her own.

On certain occasions, it is being referred to as 'knowledge diplomacy'. It points towards "the use of diplomatic skills and tools in advocating for global scientific knowledge: the translation of science into societal impact".[3] Science diplomacy though apolitical, attempts threefold objectives of scientific, socio-economic and political actions.

Though science diplomacy has gained significant attention in the Global North, it is yet to achieve momentum in the Global South. Science diplomacy is still a lesser-known concept among developing countries. Slow penetration of science diplomacy in the Global South has been attributed to lack of awareness among the scientists & diplomats and understanding its benefits. Science diplomacy efforts are largely missing in South Asia. During a brainstorming session on science diplomacy in South Asia, the author recalls a dialogue with an eminent educationist, who said that geopolitics overpowers and the countries in this region do not see each other eye to eye, making it difficult for science diplomacy to progress in the region.

SDGs and Role of STI

Sustainable Development Goals (SDGs) are crucial global challenges for sustainable development, with targets for transforming society to eradicate poverty and address the other critical issues of food security, health, education, and gender equality, among others. Environmental, economic and social growth is considered its main pillars. The SDG17- 'Partnership for the Goals'- exclusively aims to implement 16 SDGs and offer a unique opportunity for global and regional partnerships towards sustainable development.

It is well-known that Science, Technology and Innovation (STI) has a fundamental role in achieving SDGs. A science-informed analysis of sub-targets can lead to an expansion of the assessment framework for SDGs. The International Science Council has stressed the need for stronger scientific and technological collaborations and exchanges around the other sixteen goals and their sub-targets.[4] It also highlighted the need for assessment of progress made in STI. Science diplomacy would have a critical role in promoting trans-disciplinary research collaborations required for attaining the interlinked goals and targets.

The United Nations in the current decade has launched 'decade of action', 'decade of innovation', 'decade of ecosystem restoration' along with '2030 Agenda for sustainable development' previously there. South-South cooperation, a manifestation of solidarity among people & countries of the South for self-reliance, must focus on accomplishing SDGs. South Asian region is facing the most significant challenges for sustainable growth and would be playing a deterministic role in the global achievement of the SDGs targets given its large share in below poverty population. To overcome the challenges of bringing the nations together for implementation of the SDGs, international and national initiatives through training, workshops and documentation on science diplomacy are beginning to take place. The formal UN mechanism viz. Technology Facilitation Mechanism (TFM) supports the implementation and review of SDG activities. It is harnessing STI through the involvement of multi-stakeholders from different science disciplines. The multi-stakeholders STI Forum is expected to play a significant role in creating awareness and developing capacities to formulate STI strategies at the national and sub-national levels, strengthening science diplomacy. The Inter-Agency Task Force for furthering SDGs meets regularly to deliberate on the science-policy interface of the countries. In South Asia, the South Asia Forum on the SDGs (SAFS) is providing an opportunity to bring together multi-stakeholders from governments, academia, the international community, NGOs etc. and could accredit the crucial role of S&T and promote science diplomacy by taking new initiatives.

Current Initiatives: Perspective from India

India has launched several mission programmes for sustainable growth, ensuring that people at the "bottom of the pyramid" get the benefits through the schemes like *Pradhan Mantri Jan Dhan Yojana*, *Pradhan Mantri Sahaj Bijli Har Ghar Yojana* and *Swachh Bharat Abhiyan*. *Pradhan Mantri Jan-Dhan Yojana,* launched in 2014, has led to the opening of millions of new bank accounts. *Pradhan Mantri Sahaj Bijli Har Ghar Yojana* started in September 2017 to provide every household with 100% electrification at the village level. *Swachh Bharat*

Abhiyan is providing basic sanitation facilities to all. A 'Consolidated Foreign Direct Investment Policy' to foster sustainable growth support to micro, small and medium enterprises; 'Make in India' and promotion to Zero Defect, Zero Effect on the environment are some of the actions towards sustainable production and sustainable consumption. The National Skill Development Fund and *Deen Dayal Upadhyaya Gramin Kaushal Yojna* for village youth as well as Self Employment and Talent Utilization (SETU) scheme under NITI Aayog target entrepreneur education and skill development. Atal Mission of Rejuvenation of Urban Transformation and *Deen Dayal Upadhyaya Jyoti Yojana* are expected to ensure 24x7 power in urban areas and electricity to rural households for agriculture. India is leading to promote sustainability and adopting the vision of "Future Earth" to South Asian countries. To give further impetus to Public health care, the *Ayushman Bharat* scheme, also known as the *Pradhan Mantri Jan Arogya Yojana* (PMJAY), began in 2018. Science diplomacy demands proactive initiatives and knowledge about best practices in the partner countries.

During my visit to Sri Lanka in 2017 to explore science diplomacy potential at the behest of the International Council of World Affairs, I came across Programmes of Cooperation (PoCs) started by Sri Lanka to strengthen S&T ties with its neighbouring countries. In 2016, the Ministry of Science Technology and Research, Sri Lanka organized the STS forum (Science and Technology for Society) for the purpose of use of science, technology and innovations for sustainable development. The Forum has underlined the role of science diplomacy in overcoming the issue of underutilization of bilateral and multilateral S&T cooperation agreements with other developing countries.[5] A Science Counsellor's Programme is taking shape in Sri Lanka to streamline and better coordinate science diplomacy related activities. Learning from the best practices of each other and taking actions proactively in the areas of strengths should be the goal.

In India, the Ministry of Science & Technology (MST) has the nodal responsibility in the International Science & Technology Cooperation. It is giving a new thrust to science diplomacy. It has introduced India Science and Research Fellowship (ISRF) to provide opportunities to the mid-career level researchers and scientists from the SAARC countries to undertake advanced research for 3 to 6 months in a reputed university or research institute in India. The Research Information System for Developing Countries (RIS) in India has envisioned a Forum for Indian Science Diplomacy (FISD) for fostering effective policy dialogue and holds capacity-building programmes on Science Diplomacy with the participation from developing countries. The premier organization of national R&D Laboratories, the Council of Scientific & Industrial Research (CSIR), has taken the initiative to launch a quarterly digest of Science Diplomacy.

With the COVID-19 pandemic declared as a public emergency on 11 March 2020, India's Prime Minister extended a helping hand to South Asian countries and held a series of virtual meetings starting on 15 March 2020 to develop joint strategies for the management of the pandemic. A 'COVID-19 Emergency Fund' was created for the SAARC countries. India contributed 10 million USD and used the fund to send drugs, medical supplies and machines to Afghanistan, Bhutan, Bangladesh, Nepal, Maldives, and Sri Lanka. Voluntary contributions amounting to 21.8 million USD fund was made from the member nations. The second video conference of health ministers of SAARC Member States was held on 27 March 2020, and a third e-conference of SAARC trade officials was convened on 8 April 2020. The issues related to measures to be taken to safeguard public health and the impact of COVID-19 lock-down & travel restrictions across the boundaries on intra-regional trade were discussed. It is evident that in matters of global concerns such as public health, citizen participation has become a mandatory requirement for sustainable growth and social development. India earned the title of 'Pharmacy of the World' by extending multi-dimensional vaccine support to more than a hundred countries.

The electricity trade is increasing rapidly for sharing electricity between India and the neighbouring countries. An agreement on Electricity Cooperation and Trade was enacted by India in 2016. The concept of a common South Asia Grid is emerging for energy security and sustainability. Though insurmountable challenges remain in carrying out these objectives, it is a step forward towards clean energy transitions

and for attaining the goal of 'One Sun, One World, One Grid' (OSOWOG). The project OSOWOG proposed for meeting the targets of the International Solar Alliance has been globally launched jointly with the UK during of the 26th meeting of the Conference of Parties (COP26) held in Glasgow during November 2021. In clean energy transitions, science diplomacy has a vital role in building bridges among the countries in South Asia.[5]

Conclusions

Science diplomacy is an International cooperation to lead to a win-win situation for its partners. Achievement of SDGs requires complex STI inputs from partnering countries by leapfrogging over the diplomatic hurdles. The SAFS is providing an opportunity to bring together the multi-stakeholders from governments, academia, the international community, NGOs and others. A relook at Indian initiatives and mission areas along with science diplomacy in pandemic times provides a framework to reinforce science diplomacy. Underpinning political motivation and improving decision-making requires mutual trust, understanding, skills and constant interactions with the use of STI. Learning from the best practices of each other and taking more actions proactively in the areas of strengths for developing a common agreement as 'South Asia Science Diplomacy Plan' should therefore be a priority. It is opined that Science Diplomacy is gathering momentum in developing nations and becoming the fourth pillar in realizing SDGs. Science diplomacy could become a future springboard for meeting the social & technical aspirations of the South Asian countries and for achieving global goals.

References

1. Goel M (2018) Science Diplomacy as a Tool for Development Cooperation in South Asia. *Development Cooperation Review*, 1(3): 9-12.
2. Šime Z (2021) Science Diplomacy in the Context of the EU-India Strategic Partnership: Looking Beyond the European Sandbagging Contest. *Science Diplomacy*, 4(4): 1-4.
3. Van Langenhove L, Burgelman JC (2021) Viewpoint: Science diplomacy needs a refresh to meet contemporary European needs. *Science Business*, 29 March 2021. https://sciencebusiness.net/viewpoint/viewpoint-sciencediplomacy-needs-refresh-meetcontemporary-european-need
4. Griggs DJ, Nilsson M, Stevance A, McCollum D (2017) A guide to SDG interactions: from science to implementation. International Council for Science (ICSU), Paris.
5. Goel M (2020) Clean Energy Transitions and Role of Science Diplomacy. *Science Diplomacy Review*, 2(1): 27-34.