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Traditional Medicine in SAARC: A Regional Cooperation Framework

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Abstract: This paper explores the status of traditional medicine within the healthcare systems of SAARC countries, i.e. India, Nepal, Sri Lanka, Bhutan, Bangladesh, Maldives, Afghanistan and Pakistan. It makes a comparative assessment of health attainments, health infrastructure, and the burden of disease both communicable and non-communicable. It maps the institutional framework of traditional medicine including infrastructure, regulations and quality subscriptions. It profiles the integration of traditional medicine in healthcare services and its use in countering the current disease burden of the region. It also highlights the intra- SAARC trade and investment in traditional medicine and attractiveness of this sector with respect to goods and services including wellness tourism for countries in the region. The paper presents a proposal for a regional cooperation framework for strengthening the growth of traditional medicine systems in SAARC.

Keywords: Traditional medicine, SAARC, health attainments, infrastructure, trade, pharmacopoeia, GMP, FDI, wellness tourism

1. Introduction

1.1 Background

Health is a key indicator driving human development and economic growth of a region. Most countries in SAARC have policies on basic healthcare services. Both public and private sector investment in health infrastructure is being encouraged. However, much remains to be done. The continuing challenge of communicable diseases, increase in Non-communicable Diseases (NCDs) and associated co-morbidity of psychiatric illnesses call for decisive action. The current and emerging health challenges can potentially be met by improving equitable access to

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safe, quality and effective traditional medicines (TM) healthcare systems and has been acknowledged as such at international health platforms like the Astana Declaration in 2018[1]. Globally, the landscape for TM has been improving consistently and countries have been increasingly taking steps to promote safety, quality and effectiveness along with regulatory frameworks for integration of TM into health systems. World Health Organisation's Traditional and Complementary Medicine 2019 report (WHO, 2019) which evaluates reporting at four time points from 1999 to 2018, reported that the number of member states with a national policy on traditional medicine between 1999 and 2018 had increased from 25 countries to 98 countries. Countries with laws or regulations increased from 45 to 109, while and countries with a dedicated national programme for TM initiatives grew by more than thrice, from 23 to 79. South Asia itself is endowed with several historical systems of traditional medicine with strong intra-regional complementarities in practice and usage. Medical traditions specially *Ayurveda, Yoga, Siddha* and *Sowa Rigpa* share broadly common theoretical and similar therapeutic principles with all countries referring to the same classical texts for all regulatory management of goods and healthcare services. The common therapeutic principles of *Unani* medicine are another TM system practiced widely in the SAARC region. A majority of the population of South Asia uses TM for healthcare and with the increasing global popularity of several traditions such as *Yoga* and *Ayurveda*, efforts are given to strengthen the institutional and regulatory frameworks. Yet, the development of traditional medicine sector in healthcare and manufacturing witnesses a wide variation among countries in the region. Regional cooperation for strengthening TM is also negligible. SAARC remains a poorly integrated group even after 35 years after its genesis whereas sub-regional groupings such as BIMSTEC and other regional groupings like ASEAN are moving ahead with initiatives in cooperation for standardisation and quality control in the sector. The growing global demand for phytopharmaceuticals and the increasing usage of traditional herbal medicines beyond countries of origin offers several opportunities to manufacturing and allied sectors of medicinal plants, extracts and nutraceuticals in the region. As demonstrated in the subsequent sections, regional cooperation to harness the potential of strong complementarities in this sector could offer benefits to all countries.

1.2 Review of Literature and Data Sources

Literature on the status and prospects of regional cooperation in healthcare in SAARC has often highlighted the issues of affordability and accessibility in the region. Out of pocket expenditure has been the biggest determinant of health outcomes in the region (Rahman et al, 2018; Mohapatra, 2022). Khatun et al (2011) highlight that given the challenges associated with the nature of the health sector, health infrastructure and expenditure in the region, political and economic sensitivities in trade facilitation, liberalisation of health services within the South Asian Free Trade Agreement (SAFTA) could help realise benefits of free trade in SAARC. Some countries like India, however, do enjoy a considerable advantage in the healthcare services trade. India's medical tourism sector draws a high proportion of visitors from SAARC countries (Brookings, 2014). The available literature on SAARC cooperation with respect to traditional medicine has focussed on the commercially strategic medicinal plant sub-sector. This includes analysis of prospects in cooperation on medicinal plant subsector for SAARC countries (Karki, 2015), practice and relevance of ethno-veterinary medicine in the region (Suroowan et al, 2017). RIS (2015) also highlights that high dependence on natural resources for livelihood and economic activities and a culture of traditional medicine practice in the region implies that cooperation in traditional knowledge and traditional medicines will benefit all countries in the region as well the cooperation in responding to Nagoya Protocol under Convention on Biological Diversity. This brief review throws some light on discussions pertaining to health and traditional medicine in SAARC. The focus of this paper is to map the health status, infrastructure and attainments of SAARC countries relative to each other. It makes a comparative assessment of the institutionalisation of traditional medicine among member countries. It analyses intra-regional trade and investment in the traditional medicine sector and its possible attractiveness for member countries. The healthcare infrastructure data is drawn from WHO, World Bank and respective country reports. The India export data is drawn from DGCIS (Directorate General for Commercial Intelligence and Services, Ministry of commerce) and global trade data is drawn from UN ComTrade, WITS database. Trade data for Bangladesh has been unavailable, hence has been excluded from the analysis.

2. Health Status, Access and Burden of Disease in SAARC

There has been progress in the region in reaching health targets although the COVID-19 pandemic imposed pressures on health system resources. The delays caused by logistical challenges are projected to cause setbacks in key Sustainable Development Goals (SDG) targets, including child and maternal mortality rates, immunization rates, tuberculosis incidence, and HIV prevalence. Abnormal years of COVID-19 aside, advances in medical care, access to sanitation, safe drinking water and nutrition along with equitable access to healthcare services have contributed to improved health outcomes in South Asia.

2.1 Health Attainments and Infrastructure

One of the best indicators of health outcomes is life expectancy at birth. During the period 2011- 19 in almost all SAARC countries there has been a significant improvement in life expectancy at birth. While Maldives enjoys the highest life expectancy at birth of 78 years, Afghanistan at 61 years has the least, not surprisingly given its long history of civil and political instability. Life expectancy of the region (71.6 years in 2019) however remains low when compared to groupings of economically advanced nations such as that of OECD countries whose average was 81 years for the same year. Life expectancy is on average longer in countries that invest more in health systems and delivery. In South Asia healthcare delivery has improved significantly, contributing to increased access to services. Bhutan and Bangladesh have recorded the highest growth rate in the number of physicians at 6.79 per cent and 5.78 per cent respectively between 2011-19. Maldives recorded the highest density of physicians per 1000 population in 2019. However the regional average of 0.96 physicians per 1000 people as compared to the OECD average of 3.6 highlights the need for an increased health workforce for the region. Besides human resources, infrastructure in the form of hospital beds indicates the resources available for services to inpatients. All countries of South Asia have increased the availability of hospital beds over the decade (2011-19), with encouraging growth being visible in Nepal (34 per cent), India (31 per cent) Maldives (10.7 per cent) and Bangladesh (10.5 per cent). In fact, India and Maldives have surpassed the average of OECD countries (which recorded 4.4 hospital beds per 1000 people) in 2019.

Table 1: Health Attainments: Life Expectancy and Infrastructure

Country Name	Life expectancy at birth			Physicians (per 1,000 people)			Hospital beds (per 1,000 people)		
	2011	2015	2019	2011	2015	2019	2011	2015	2019
Afghanistan	61.55	63.37	64.83	0.25	0.28	0.21	0.44	0.5	
Bangladesh	70.25	71.51	72.59	0.38	0.48	0.63	0.6	0.77	1.4
Bhutan	68.84	70.41	71.77	0.25	0.34	0.46	1.8	2.0	2.2
India	67.13	68.60	69.65	0.73	0.73	0.92	0.63	0.58	7.3
Sri Lanka	75.61	76.31	76.97	0.73	0.86	1.15	3.3	3.8	4.0
Maldives	76.29	77.69	78.92	1.43	2.32	2.41	2.5	4.9	6.35
Nepal	68.02	69.51	70.77	0.51	0.61	0.80	0.30	1.8	4.2
Pakistan	65.56	66.57	67.27	0.83	0.92	1.11	0.6	0.6	1.3

Source: Author's compilation based on various sources

Increased access to healthcare is also evidenced through the decrease in infant and under five mortality rates (U5MR). South Asia has seen a reduction in infant mortality rate (IMR) per 1000 live births over a decade with the regional average declining from 26.92 to 21.48 per 1000 live births between 2011- 2019. Similarly, there has been an almost 4-6 per cent reduction in U5MR per 1000 in almost all SAARC countries except Afghanistan and Pakistan. Afghanistan remains an outlier in terms of its performance in health indicators though the country has increased efforts to address gaps in healthcare.

2.2 Burden of NCDs and Wellness Approach to Prevention

As can be seen in Table 2 mortality from communicable diseases, maternal, prenatal and nutrition conditions has declined for almost all countries of the region, except Sri Lanka. Bangladesh, Afghanistan, Bhutan, India and Nepal have reduced mortality by at least four per cent between 2011-19. However, similar to the global trend, the region has seen a growth in mortality by NCDs. Improvements in life expectancy;

increasing socioeconomic development and urbanization in South Asia are some factors contributing to the escalation of NCDs. In 2019 the NCD mortality in South Asia was 69 per cent of all deaths while the global average was 71 per cent. In countries of Sri Lanka and Maldives, NCDs mortality is as high as 83 and 85 per cent respectively in 2019 while Afghanistan, India and Nepal have seen the highest growth of more than 2 per cent growth rate in mortality between 2011-19. As countries in the region succeed in bringing communicable diseases under control, the importance of NCDs control programmes will become increasingly critical. Leading NCDs as listed by WHO include cardiovascular diseases, cancers, diabetes and respiratory disorders. Epidemiological studies highlight psychiatric illnesses as an important group of co-morbidities that can occur among patients with NCDs. Interestingly, the leading health conditions/diseases treated with TM systems as recorded in South Asia include (among others) disorders of the bone and joints (such as spinal diseases); osteoarthritis; respiratory conditions, neuro-muscular disorders, metabolic disorders such as diabetes and gout, mental and psychological disorders, all listed as major NCDs in the region.

As yet, there is no clear global framework or guiding principles despite many calls for a holistic approach to health promotion and action. Simultaneously there is an emphasis, as outlined in the Astana Declaration in 2018, for primary healthcare driven by the application of scientific as well as traditional knowledge, and extending access to a range of health care services, which include TM. The chronic nature of most NCDs also drives the need to take appropriate health measures including a life course approach that considers needs of all age groups and addresses NCD prevention and control at its earliest stages, as recommended in the WHO's global action plan for prevention and control of NCDs. The concept of wellness, an integral component of TM in South Asia is being increasingly tapped by countries such as India to address the growing challenge of NCDs.

Table 2: Percentage of deaths caused by Communicable diseases, Maternal, Prenatal and Nutrition Conditions and Non-Communicable Diseases

Country Name	Communicable diseases, Maternal, Prenatal and Nutrition Conditions			Non-Communicable Diseases		
	2011	2015	2019	2011	2015	2019
Afghanistan	48.14	39.39	32.93	40.81	44.21	49.78
Bangladesh	32.97	28.8	22.61	59.43	63.70	70.25
Bhutan	27.35	21.48	18.21	63.52	69.43	72.74
India	35.00	28.26	24.16	54.79	62.04	65.93
Sri Lanka	8.26	9.22	9.47	75.96	82.67	82.51
Maldives	10.43	8.71	8.15	82.86	84.48	85.17
Nepal	36.81	27.52	24.82	54.21	59.84	66.45
Pakistan	39.21	35.87	33.14	53.02	56.77	59.85 (69.08)

Source: Author's compilation

3. Traditional Medicine in SAARC: Institutional Framework

The practice and preparation of TM in South Asia being spread over centuries, a broad range of concepts have evolved. Both codified and non-codified traditions exist. Codified knowledge systems include the 54 authoritative texts of Ayurveda, 29 authoritative texts of Siddha and 13 authoritative texts of Unani. Official recognition of these systems exists in all countries of SAARC. *Ayurveda* is recognised in India, Bangladesh, Nepal, Pakistan and Sri Lanka. *Unani* is recognised in India, Bangladesh, Nepal, Pakistan, Afghanistan and Sri Lanka. *Siddha* is recognised in Sri Lanka and India, and *Sowa Rigpa* is recognised in Bhutan and India.[2] A few other systems of medicine indigenous to the specific country include the *Deshiya Chikitsa* of Sri Lanka and the *Dhivehi Beys* of Maldives. All systems continue to enjoy widespread usage in the region and continue to be the first port of call to treat many diseases. States have capitalised the systems with an expansion of health service and education

infrastructure in national health systems. Buoyed by the resurgence in demand for traditional medicine goods and services in domestic and international markets and supported by domestic regulatory support, rapid modernisation in manufacturing, screening for quality, R&D for new product development and service delivery are underway in several countries. Member states have outlined commitments to regulating laws, policies and infrastructure of TM. Of the eight states in the region, seven have reported a national policy/programme for TM. Barring Afghanistan, all countries of the region have an institutional architecture for TM though varying levels of progress. Despite the prevalence of Unani medicine, laws/policies regulating TM in Afghanistan are yet to be formulated.

Box 1: The Ayushman Bharat - Health and Wellness Centres (AB-HWCs) in India

India's policy focus of revamped holistic primary healthcare systems has been implemented through the Ayushman Bharat Programme introduced in 2018. The Programme moves away from selective health care to a more comprehensive range of services with the introduction of wellness as a focussed intervention along with prevention and promotion. The programme includes transforming 1,50,000 rural and urban primary health centres (PHCs) as Health Wellness Centres (HWCs). This came with the appreciation that while comprehensive primary healthcare, with its gate-keeping functions, ensures reduction in morbidity and mortality at much lower costs and significantly reduces the need for secondary and tertiary care, the focus on wellness creates an enabling environment for diet, yoga and lifestyle programmes as part of holistic intervention for prevention of NCDs. 10 per cent (12,500) of the total Health and Wellness centres (HWCs) targeted under the Ayushman Bharat Scheme are being developed by the Ministry of AYUSH, the Ministry for TM systems. These will provide primarily AYUSH Health services that focus on preventive and promotive interventions like wholesome diet, Yoga and lifestyle modifications. It also provides treatment for common ailments using AYUSH medicines and lifestyle advises. Cultivation of commonly available medicinal plants and their use will be promoted through AYUSH HWCs to strengthen the concept of traditional remedies for common ailments.

Source: Ministry of Ayush, Government of India

3.1 Regulations and Quality Subscription of Traditional Medicine: Country Profiles

Establishment of effective and efficient regulatory mechanisms is crucial for safety and quality of products and services in healthcare. In South Asia, given the experience spanning centuries in the preparation and practice of TM, proof of efficacy has been on the basis of demonstrated curative properties established over time. In response to the growing demand for quality and efficacy assurance as per globally recognized scientific parameters for TMs, all countries of the region have acknowledged the need to do so. Regulatory instruments are underway in most countries though there exists a wide variation in norms and standards compliance.

Afghanistan: Unani medicine is a popular TM practiced in Afghanistan (Mir et al, 2017) although there is no reported national law or regulation for TM practice. However, the National Medicines Policy 2014-19 aims at designing 'systems to make safe, efficacious, high quality, and cost-effective essential, complementary, and traditional medicine s available and accessible for rational use in both the public and private sectors'.[3] The Policy also emphasises on phramacovigilance for quality control, integration in general healthcare and medical practice, sustainable cultivation and documentation of medicinal plants along with registration of 'traditional healers'[4]

Bangladesh: The Drug Act (1940)[5], the Drug (Control) Amendment Act (2006)[6], the Drug Regulation (1946) are the major laws regulating TM. An office of the Director, Homeo and Traditional Medicine (DHTM) was established in 1991, as part of the Directorate General of Health Services (DGHS)[7]. Regulation of herbal medicines is the same as that for modern pharmaceuticals; both are under the Registration Guidelines of Herbal Medicine, issued in 2006. Herbal medicines are categorized as non-prescription medicines. There is no national pharmacopoeia. For standards reference, the British herbal pharmacopoeia, the American herbal pharmacopeia and the therapeutic compendium are used, although they are not legally binding. With reference to Good Manufacturing Practices (GMP) standards, Bangladesh follows the WHO GMP guidelines for herbal medicines, and the regulations for GMP are the same as that for modern pharmaceuticals. While phramacovigilance systems are established, TM is not covered under this system, thus according to low priority to safety monitoring of TM in the country. As per the

WHO report (2020 (a)) four major pharmaceutical companies produce 80 per cent of TM products though there are 500 manufacturers in the sector. No information is available on the status of GMP subscriptions of manufacturing units.

Bhutan: Bhutan has a fairly well regulated TM sector with a strong institutional structure. Bhutan's Medicines Act of 2003[8], governs all medicines and medicinal products in the country. The Drug Regulatory Authority (DRA) enforces the Act and carries out regular monitoring of medicine and medicinal products in the country. All traditional medicine and medicinal products produced in Bhutan or imported from other countries must be registered with the DRA to ensure patient safety. A national monograph on TM was developed in 2015. GMP are carried out according to the Bhutan Medicines Rules and Regulation 2012 and WHO guidelines are also followed. Further, TM is covered as a part of the pharmacovigilance system of the country ensuring the safety of TM as a national priority. There is, however, only one manufacturer licensed to provide traditional medicines to the government. Menjong Sorig Pharmaceuticals (MSP) a state-owned enterprise under the Ministry of Finance (MoF) transferred from Druk Holdings and Investments (DHI) in January 2021[9] is responsible for manufacturing and supplying traditional and complementary medicines. It applies GMP standards and carries out quality control for raw materials and finished products, research activities and marketing of products.

Maldives[10]*:* There is no law on TM in Maldives. The Maldives Food and Drug Authority of the Ministry of Health and Family is mandated to regulate all medicines including TM. Currently, no regulations apply to the manufacture of herbal medicines in order to ensure their quality. Also, there are no existing safety requirements for such medicines. Overall, while a strong legacy of TM exists in Maldives, laws and regulations for safety and quality are still in nascent stages.

Nepal: The Drug Act, 1978[11], controls and regulates allopathic and TM in the country. The Department of Drug Administration regulates the manufacture, import and export of traditional medicine products. The Ayurvedic Pharmacopoeias of India (First Edition Vol I ,1999, Vol II, 2001, III, 2004, and IV) are used (but are not legally binding) along with classical texts such as *Bhaisajya Ratnawali, Siddayog Sangrah, Rasshastra.* GMP standards are not specific for traditional

medicine but are the same as that for conventional pharmaceuticals (WHO, 2020 (a)). In the absence of mechanisms on compliance quality assurance of products may be a challenge. Further, like Bangladesh, Nepal's pharmacovigilance systems do not include TM creating further challenges in safety monitoring. According to the Ayurveda Medicine Producer Association of Nepal (AMPAN), there are 80 Ayurvedic drug manufacturers registered in the DDA, of these only 36 are in operation whereas nearly two dozen have applied for GMP certification[12] Given the widespread usage of TM, specially Ayurveda, with domestic demand having to be met by imports, the country is constraint with limited capacity for quality assessment of such medicines.

India: India takes the lead in the development of a strong structural framework for TM. The Indian Medicines Central Council Act 1970[13], the Homeopathy Central Council Act 1973[14] and the Drugs and Cosmetics Act of 1940 (amended in 2009)[15] regulate TM in India. To give impetus to the sector an independent Ministry of AYUSH was formed in 2014. The Ayurveda pharmacopoeia of India, the Unani pharmacopoeia of India and the Siddha pharmacopoeia of India are used for standards reference and are legally binding[16]. There are also monographs on single herbs and formularies. GMP standards exist for Ayurveda, Unani and Siddha and compliance is mandatory. Compliance mechanisms include periodic inspections by authorities at the manufacturing plants or laboratories. Licences given to manufacturing units are renewed every three years, although waiving of renewal of licences has been initiated to make way for perpetual licences obtained initially. This is to facilitate ease of business in the sector. In addition, several voluntary standards have been brought out for the sector both for medicinal plants and manufactured goods. These include GAP standards based on WHO guidelines, Ayush Standard Mark and Ayush Premium Mark. Collaboration with ISO for ISO standards for Ayurveda goods is also in the process (Jauhri and Pathak, 2022). In 2021, there were 8648 licenced AYUSH drug manufacturing units in the country. GMP-compliant units comprised 95.19 percent of the total Drug Manufacturing Units. The distribution of total licensed pharmacies of all the four systems Ayurveda, Unani, Siddha and Homoeopathy are 7491, 608, 208 and 341 respectively[17].

Pakistan: In Pakistan, regulatory frameworks for quality and safety are comparatively underdeveloped despite wide usage. The Unani,

Ayurvedic, Homeopathic Act of 1965 (amended in 1982 and 2003) administers while the Ministry of Health regulates TM (WHO, 2020 (a)). Herbal medicines are sold with medical, health and nutrient content claims but these are unregulated. The American herbal pharmacopeia, WHO monographs and EU monographs are used. Pharmacopoeia standards however are not legally binding. GMP standards for traditional herbal medicines are followed. Further, an online adverse drug reaction (ADR) reporting form is available since 2018. Information manufacturing units and the respective compliance of standards in unavailable.

***Sri Lanka*:** TM in Sri Lanka includes Ayurveda, Siddha, Unani and other traditional medicine systems are controlled by the Ayurveda Act 1961[18]. The Ministry of Indigenous Medicine serves as the national office for TM. The Ayurvedic pharmacopoeia (1975) is used and is legally binding. Under certain circumstances, references are made to the Indian pharmacopoeia. GMP are followed, and manufacturing information in pharmacopoeias and monographs is applied to the manufacturing of herbal medicines to ensure their quality.

Although information relating to production by private firms is not available, Sri Lanka Ayurvedic Drugs Corporation is known to be the largest single manufacturer of Ayurvedic drugs in the country. It is state-owned unit manufacturing a variety of items for Ayurveda, Siddha and Unani systems of medicine. Like Nepal and Bangladesh, Sri Lanka too does not have pharmacovigilance on TM for safety assurance of TM.

In conclusion, SAARC has a wide range of regulatory and standards enforcement for the TM sector. India, Bhutan, Nepal, Bangladesh and Sri Lanka have comparatively stronger institutional infrastructure with mandatory compliance to pharmacopeial standards for quality assurance. It may be noted that mutual reference to established Pharmacopoeias as in the case of Sri Lanka and Nepal's use of Indian pharmacopoeia highlights the complementarities in the systems and prospects of cooperation in the same.

3.2 TM Integration in Healthcare Services

The wide diversity of systems, healthcare delivery institutions and practitioners in TM, both formal and non-formal, provide an important health resource to South Asia. TM as a part of general public health

systems has become a strategic step in the expansion of UHC. It includes the increased density of infrastructure, integration and finance of TM. The wide network and penetration of TM along with the sheer number of practitioners as outlined in Table 3 implies that they must be accounted for in any assessment of overall human resources in the health sector.

Table 3: TM Healthcare Infrastructure in SAARC

Country Name	Physicians	Medical Education Institutes	Facilities	
			Hospitals	Dispensaries
Bangladesh	12,000	7	19	
Bhutan	100	2	25	41
India	7,12,132	780	3859	29951
Maldives	83			16
Sri Lanka	8033	2	62	208
Nepal	1,300	12	4	305
Pakistan	56,537	137	360	457

Source: Author's compilation from various sources

In SAARC most countries barring Afghanistan have strengthened TM infrastructure. India and Nepal have a high penetration of service delivery, although countries like Sri Lanka and Bangladesh too have made strides in recent years. Between 1977-2019 the number of Ayurvedic hospitals in Sri Lanka has grown from 10 to 62 (WHO, 2020). Integrating TM systems and practices into health systems is being undertaken in several countries though the level of integration varies. Bhutan, Bangladesh, Nepal, Sri Lanka and India have a strong integration of TM in public healthcare delivery. Bhutan, Bangladesh and India have co-located TM and allopathic medical care in the public sector. Bhutan, India, Nepal and Sri Lanka have standalone public TM services.

Public health insurance coverage for TM is only available in Bhutan. However, in countries like India and Nepal, public funding ensures services in TM are available at public health facilities at minimal costs. Essentially, Bhutan stands out as a country with a strong integration of TM in public health delivery.

Box 2: Bhutan: Traditional Medicine's Integration in National Healthcare Delivery

In Bhutan, traditional medicine (gSo-ba Rig-pa) has been integrated into the national health-care delivery system since 1968. The traditional medicine unit is co-located in 20 conventional district hospitals out of 22, and 29 basic health units out of 41 in total, together with the National Traditional Medicine Hospital, which provides standalone traditional medicine services. There is cross-referral of patients between the two systems and people can choose a service as per their preference. Traditional medical services are monitored and evaluated through the hospital management information system, in terms of a number of OPD visits and health conditions, in comparison with allopathic medical services. For instance, according to the data from 2018, about 10 per cent–15 per cent of OPD services at the district levels were associated with traditional medical services. The main health conditions managed with traditional medicines were gastrointestinal conditions such as indigestion, stomach pain, constipation, diarrhoea, bone and joint disorders, respiratory disorders (such as sinusitis, cold, cough, sputum and asthma), cardiovascular diseases (such as hypertension, hyperlipidaemia and stroke), chronic liver and kidney disorders, skin diseases and mental disorders. These were managed with about 128 items of traditional medical products that are included in the national essential drugs list.

Source : WHO, 2020

Inclusion of TM in the national essential medicines list is another indicator of its relevance in public health priorities. Essential medicines are selected with due regard to disease prevalence and public health relevance, evidence of efficacy and safety and comparative cost-effectiveness. They are intended to be available in functioning health systems at all times, in appropriate dosage forms, of assured quality and at prices individuals and health systems can afford and are updated and adapted in accordance with country specific requirements[19]. TM as part of the National Essential Medicine List (NEML) at present is included in Bhutan, Bangladesh, India and Pakistan.

The effectiveness of the healthcare system is also critically dependent on a credible information base. Development of national policies based on field data will help and guide the growth and diversification of the TM systems. At present key data are inadequate. Ninety-nine out

of 143 countries as per the WHO Global Report on Traditional and Complementary Medicine (2019) reported a lack of research data and credible information causing one of the biggest challenges for regulatory systems. This includes countries of SAARC.

4. Intra SAARC Trade and Investment in Traditional Medicine

Intra-SAARC trade in healthcare and pharmaceuticals is robust although exports are dominated by India. India gains significantly under Mode 2[20] of services trade through its medical tourism sector. In 2021, more than 65 per cent of all tourist arrivals in India from SAARC countries were for medical treatments[21]. Afghanistan (53.6 per cent), Bangladesh (77.6 per cent) Maldives (85.8 per cent) and Bhutan (15.4 per cent) were major importers. Data on medical treatments through traditional medicines is unavailable.

A variety of goods constitute traditional medicine exports. This includes medicinal and aromatic plants (MAP), extracts, cosmetics, nutraceuticals and pharmaceuticals and proprietary products. Trade classification of the herbal medicine industry, however, is not universally defined for all segments of the industry in terms of HS or Standard International Trade Classification (SITC) codes and therefore, all segments of the industry cannot be estimated accurately in a transparent manner. In this industry, MAPs segments can be estimated accurately and to a large extent for the plant extracts segment of the industry. China and India are the two major exporters of MAPs across the globe, accounting for around 25.65 and 17.25 per cent of the total exported value of MAPs in 2021, respectively. While China registered a CAGR of -0.36 per cent in the export of MAPs for 2017-21, India recorded a CAGR of 6.14 per cent (Pathak and Agarwal, 2023).

For the purpose of this paper focus has been on MAPs (HS 12), extracts (HS 13) and pharmaceuticals (HS 30). Although TM products are also consumed in the form of nutraceuticals, food supplements, spices, and cosmetics and they are traded via HS chapters 21, 29 etc but owing to the unavailability of codes under these chapters it is difficult to separate TM components. Intra SAARC trade in TM is less than 10 per cent of the region's global trade and India dominates the region as a major global exporter. The relevance of intra-regional trade in TM for countries of

SAARC however cannot be ignored. The present scenario needs to be analysed to understand the conditions that exist for stepping up intra-regional trade in the future. This would also help identify the potential for future trade cooperation in the sector. Trade data for Bangladesh has been unavailable, hence has been excluded in the analysis.

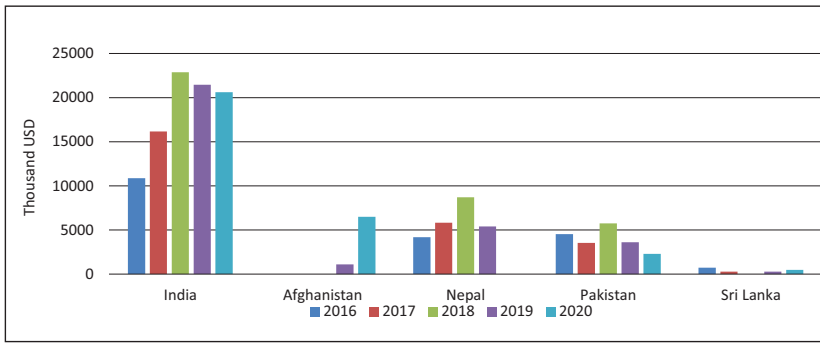
4.1 Intra SAARC MAPs, Extracts and Pharmaceuticals Exports

The region is an important MAP export destination for India, Nepal, Pakistan and Afghanistan. During 2016-19 India and Nepal registered a growth rate of 18.5 per cent and 6.54 per cent respectively in MAPs exports. During the same period, Pakistan and Sri Lanka's export to the region declined by 5 per cent and 21.5 per cent respectively. Despite this, MAPs export by the two countries to SAARC constituted 30.5 per cent and 45 per cent of their global exports in 2019. (Figure 1)

Based on the limited data available on Afghanistan, the country dominates extracts exports to SAARC. It constituted 99 per cent of the total exports of the region in 2019 (Figure 2). India has been the major recipient of extracts exports from Afghanistan constituting 99 per cent in 2019. India, Pakistan and Sri Lanka have shown a declining trend in extracts exports. Notwithstanding this declining trend, Sri Lanka and Pakistan exported 40 per cent and 67.9 per cent of their total exports to the region in 2019 respectively.

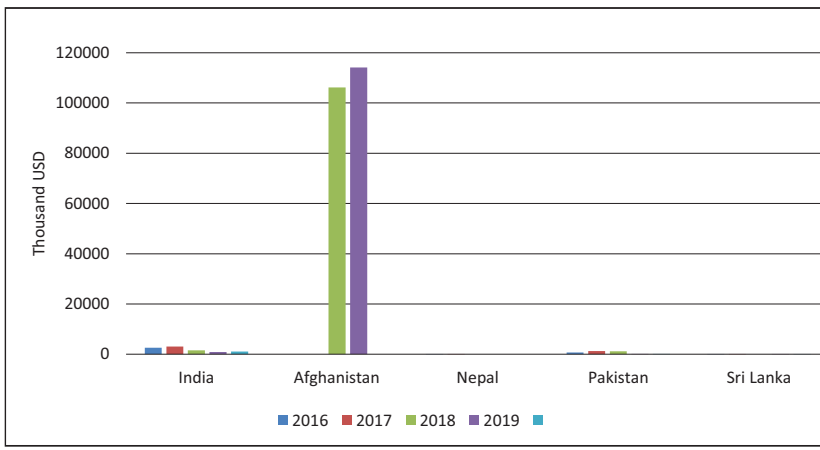
Although traditional medicine pharmaceuticals constitute a small proportion of its global exports (3 per cent in 2019) India dominates exports of these pharmaceuticals to the region in value terms, having grown by 6 per cent between 2016-19. For Nepal, Pakistan and Sri Lanka, exports to the region constituted 95 per cent, 41 per cent and 36 per cent of their global exports respectively in 2019. SAARC has been an attractive destination for these countries as exports have grown by 3.3 per cent (Nepal), 8 per cent (Pakistan) and 24 per cent (Sri Lanka) between 2016-19. (Figure 3)

Figure 1: Intra SAARC MAP Exports



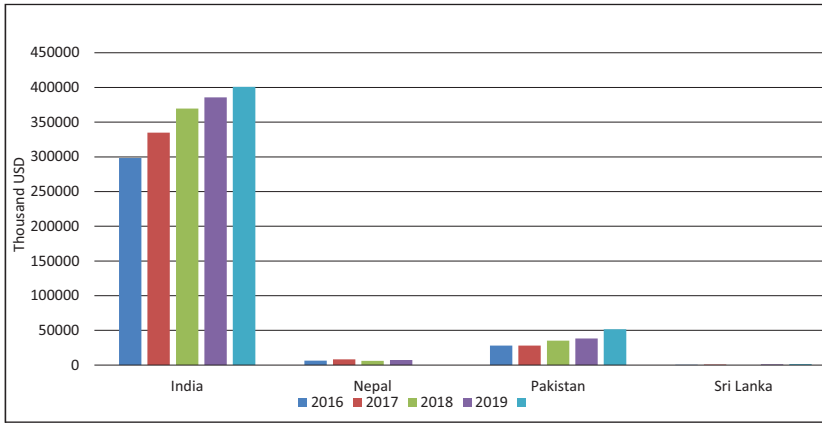
Source: WITS.

Figure 2: Intra SAARC Extracts Exports



Source: WITS .

Figure 3: Intra SAARC Exports : Medicants and Medicaments



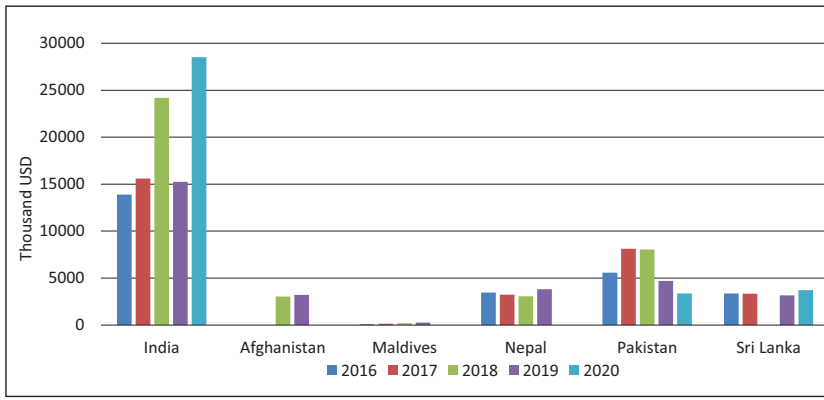
Source: WITS .

4.2 Intra SAARC imports of MAPs, Extracts and Pharmaceuticals:

Trends in intra – SAARC imports highlight the region's importance as an import source for MAPs (Figure 4). Between 2016-19 India, Nepal, and Maldives' imports of MAPs have increased by 2. 4 per cent, 2.6 per cent and 34 per cent respectively. Despite declining trends, imports from the region have constituted a major proportion of total imports for Pakistan (65.7 per cent) and Sri Lanka (30 per cent) in 2019. India remains the biggest importer with per centage of its total imports of MAPs from South Asia having increased from 18. 8 per cent in 2019 to 28 per cent in 2020 during the COVID-19 pandemic. Afghanistan's imports of MAPs are almost entirely from India.

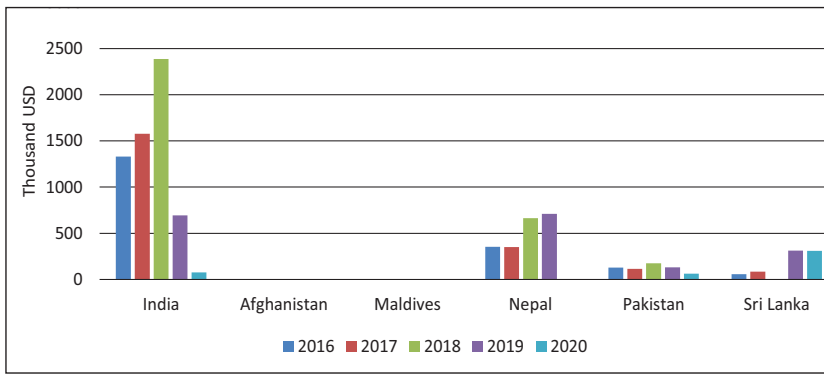
With respect to extracts, Nepal and Sri Lanka's imports have increased by 19 per cent and 53 per cent between 2016-19 constituting 95 per cent and 62 per cent respectively of their total imports in 2019 (Figure 5).

Figure 4 Intra-SAARC MAPs Imports



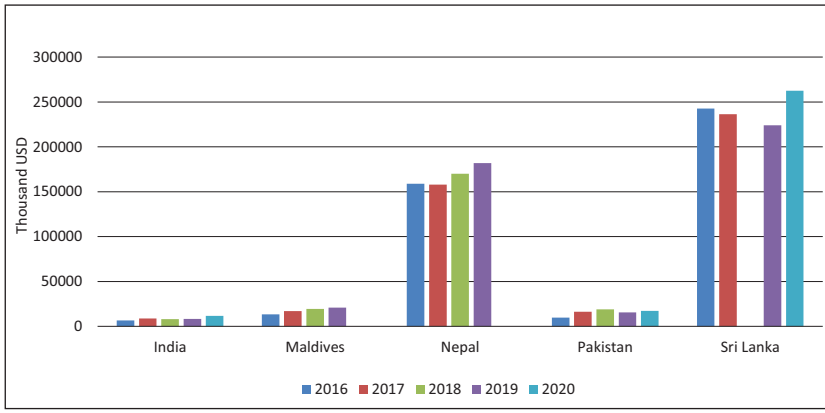
Source: WITS .

Figure 5: Intra-SAARC Extracts Imports



Source: WITS .

Figure 6: Intra SAARC Imports of medicants and medicaments



Source: WITS .

Growth in TM pharmaceuticals imports has also registered increases in the five year period between 2016-19. Positive trends are observed for India (6.4 per cent) Maldives (12 per cent) , Nepal (3.4 per cent) and Pakistan (12 per cent). Even though Sri Lanka's imports have declined by 2 per cent during this period, the country is the biggest importer in the region with 62 per cent of its total imports being sourced from SAARC in 2019 (Figure 6).

Summing up, it may be highlighted that the South Asian region has remained important for TM for countries for several reasons. A country wise analysis suggests that the importance of the region as a market for exports as well as a source of imports has been strengthened over the past several years. There are varying levels of attractiveness of the region for all three components of TM trade, i.e. MAPs, extracts and pharmaceuticals.

4.3 FDI in TM

Investments are major determinants of growth and can serve as vehicles of growth for both manufacturing and services in TM. Some countries in the region like India are taking important steps to promote entrepreneurship and start-ups in the sector. Leading pharmaceutical and FMCG firms in India like Lupin and Hindustan Unilever have dedicated business strategies for TM products. 100 per cent FDI in the

sector has further incentivised interest and investment. Intra-SAARC FDI in the health sector has grown over the years although their volume, sectoral and country coverage can be amplified as it remains a challenge. Currently, intra-SAARC FDIs have been dominated by India. Major Indian healthcare establishments like Apollo, B M Birla Group, Fortis and others have established super speciality or tertiary care outlets in neighbouring countries of Nepal, Bangladesh and Sri Lanka[22]. Ayurveda manufacturing giants Dabur and Patanajali Ayurved have been major investors in Nepal and Sri Lanka.

The last few years have also witnessed the launch of joint ventures within the region. These include Fair Pharma, an Indo Sri Lankan Joint Venture in Ayurveda products operating from Sri Lanka[23], the Spa Ceylon from Sri Lanka[24] and Emerald Isle Luxe Pvt. Ltd in India. 'Azista Bhutan Healthcare Ltd (ABHL)', a Joint Venture Company of Druk Holdings and Investments (DHI) Bhutan (which owns Menjong Sorig Pharmaceutical Corporation, the only enterprise manufacturing and supply traditional medicine s and other herbal production in Bhutan) and Azista Industries Ltd, India[25] is another example of intra SAARC investments in TM.

Box 3: South Asia as a Global Ayurveda and Yoga Tourism Destination

The Asia and Pacific region has been one of the fastest-growing tourism regions with 208 million international arrivals in 2010, increasing by 75 per cent to 363.6 million by 2019. While South Asia constituted only 2 per cent of the global market share, the region witnessed the second highest growth between 2018-19 at 7.7 per cent in the region (Wayne and Russel, 2021). Wellness tourism in South Asia is based on the strength of Yoga and Ayurveda is fast emerging as a major source of services export, specially for India, Nepal and Sri Lanka, countries with a strong prevalence of these systems.

Sri Lanka:

Wellness tourism is fast emerging as an important service export component of Sri Lanka. Around 1.9 million tourists visited Sri Lanka in 2019 helping the nation earn nearly $4.4 billion, out of which around 25 per cent was from Ayurvedic wellness tourism26. Specialised Ayurveda resorts cater almost exclusively to visitors to Sri Lanka where they are generally

encouraged to stay up to two or three weeks to obtain the maximum benefit from a combination of a largely vegetarian diet, yoga, meditation and individually designed Ayurvedic treatments27. Recognising the potential of Ayurveda, Sri Lanka has identified wellness tourism as a developing industry. The national export strategy 2018- 2022 identifies wellness tourism as a focus sector, with the projected framework for institutional and regulatory support for strong quality assurance systems as an important part of its brand building strategy28.

India :

India is South Asia's largest tourism destination and is growing at a rapid pace. This growth is also reflected in India's international tourism receipts that reached almost $29 billion in 2018 and their domestic tourism expenditure surpassed $2 billion in 201929. In the wellness tourism segment, India ranked seventh as a wellness tourism destination in 2017 with a wellness tourism expenditure of $16.3 billion, India had five million international wellness tourist arrivals in 2017. Its wellness tourism market is estimated to be growing 22 percent annually, which makes it the fastest growing in the world. A growing number of hotel/resort spas in India, including traditional Ayurvedic resorts, are becoming destination spas and wellness retreats that provide a holistic package. Kerala and Uttarakhand are major drivers of the wellness tourism. Kerala branded itself as the "Land of Ayurveda" two decades ago, and now 40 per cent of their tourism revenue is generated by Ayurveda related offers. Similarly, the State of Uttarakhand has become renowned for its yoga study center of Rishikesh. The Government of India has also implemented strategies to promote wellness and medical tourism, including the establishment of a National Medical & Wellness Tourism Promotion Board, which provides policy advice to this sector, including guidelines for quality and training, financial assistance, and investment promotion for wellness centers. The introduction of Ayush visas is further expected to boost the TM service sector under wellness tourism.

Nepal:

As per Nepal's Ministry of Tourism, Culture and Covil Aviation (2019) 1173072 tourists visited Nepal in 2018 which is 24.77 per cent higher than the previous years (Nepal Tourism Statistics, 2019). However, while several tourists visit Nepal's yoga retreats data on this component is not known. Initial surveys show more than 85 Yoga and Wellness retreat centers registered in Kathmandu valley alone (Kunwar and Sharma, 2020). There are more than one hundred certified yoga masters in Kathmandu with more than half of them having graduated from yoga universities in India. Others have competed yoga-training course run by Nepal Sanskrit University since more than two decades.

Source:

5. A SAARC Framework on Traditional Medicine Cooperation

Regional cooperation has offered demonstrated benefits, helping countries overcome divisions that impede the flow of goods and services within the region and providing a strategic advantage with respect to global outreach of the region as a whole. Traditional medicine cooperation has featured in other groupings of SAARC countries. This includes BIMSTEC and ASEAN where progress has been made. In BIMSTEC Task Force on Traditional medicine (BTFTM) comprising experts from all seven BIMSTEC Member States has so far held three meetings and efforts are towards the harmonization of curricula for the mutual recognition of traditional medicine degrees of BIMSTEC countries, and the development of a Traditional medicine Portal. Similarly, in ASEAN, the ASEAN Traditional Medicines and Health Supplements Products Working Group has been working on harmonisation of technical standards in the sector[30]. In 2020 ten harmonised standards were finalised among member states.

Commitment to cooperation on TM in SAARC has been made early on in 2003 during the first meeting of SAARC Health Ministers[31]. However, progress on the same since then has been limited. India's MoUs on TM cooperation with several SAARC countries include Sri Lanka, Bangladesh and Bhutan, although a regional cooperation framework on TM is yet to be designed. For SAARC immense complementarities exist in the region primarily due to shared history of knowledge and usage of these systems and geographical proximity. Further, as demonstrated above, South Asian region has remained attractive to individual SAARC countries as an export destination for some goods vis a vis rest of the world. Currently, although countries in the region have either specific policies or government departments to deal with traditional medicine , the traditional medicine industry varies across countries and there are common challenges like standardisation, availability of raw materials and institutionalisation. The TM sector in the region is unlikely to optimise the opportunities made available by the resurgence in demand for traditional medicine unless these challenges are addressed. A regional cooperation framework is proposed with the objective of maximising the benefits of regulatory harmonisation and collaboration on TM for all countries.

Harmonisation of manufacturing and labelling standards: In the TM sector supply chains are deeply interwoven with products sold in one country made up of raw materials such as medicinal plants being sourced from another country. The safety and uniformity of the TM drugs become a challenge when raw materials are procured from several sources. While WHO guidelines on manufacturing and agricultural/collection standards for herbal products exist in most SAARC countries, adherence to GMP and GAP norms is not uniform. The growing international demand for herbal medicines and products is creating opportunities for companies in SAARC which may be lost in the absence of assurance of standards subscriptions. The creation of harmonised GMP and GAP standards for TM in SAARC, harmonised technical requirements on product placement requirements, including safety, efficacy and stability guidelines and harmonised technical requirements on labeling requirements may provide a greater competitive edge for trade within and outside the region.

Harmonisation of TM Pharmacopoeias: Pharmacopoeial standards are another vital instrument for marketing authorisation, market surveillance and free movement and trade of medicines amongst regions and countries. Countries in South Asia either have their own TM pharamacopoeia as in the case of India and Bhutan or refer to herbal pharmacopoeias of countries such as US and UK as in the case of Bangladesh. Some countries like Sri Lanka and Nepal refer to the Ayurvedic Pharmacopoeia of India. Given that TM pharmacopoeias specially those of Ayurveda, Siddha and Sowa Rigpa are embedded within the historical practice of the region, a harmonised pharmacopoeia will reflect the development of the systems and processes for the region. In line with harmonised pharmacopoeias of ASEAN, a SAARC pharmacopoeia of traditional medicine systems beginning with Ayurveda would create a reference for standards for all countries within and outside the region.

Regional Protocol on MAPs and extracts: As the earlier sections demonstrate, there exists a strong trade network in MAPs and extracts in the region. During 2016-19 India and Nepal registered a growth rate of 18.5 per cent and 6.54 per cent respectively in MAPs exports. MAPs export by Pakistan and Sri Lanka to SAARC constituted 30.5 per cent and 45 per cent of their global exports in 2019. Trade data show surprisingly encouraging prospects from countries like Afghanistan, which despite the domestic instability and limited regulatory development have emerged as

important exporters of extracts to SAARC. It constituted 99 per cent of the total exports of the region in 2019. Sri Lanka and Pakistan exported 40 per cent and 67.9 per cent of their total exports to the region in 2019. Hence there is immense scope for growth of this regional trade and investment in MAPs and extracts. This can be better coordinated for the benefit of both the traditional medicine industry and the cultivators with regional protocol on cultivation, harvesting and post-harvest handling. MAPs thatwould ensure to a great extent the quality of raw materials that are traded within the region.

MRA of services: Cross-border movement of practitioners is an essential component of intra-regional engagement in traditional medicines for South Asia. At present, there are problems of mutual recognition of academic degrees and restrictions in periods of practice which affect the trade in services in TM. For South Asia as a region, the challenge has been that health in general and TM in particular governance is essentially driven at the domestic level with varying progress in service standardisation and regulation across states. Hence, harmonisation of standards of service delivery is a challenge. Initiation of common minimum MRAs could start the process of facilitating mutual recognition of authorization, licensing or certification of professional service suppliers obtained in one member state by another.

Joint collaboration in R&D: Exchange/deputation of experts to universities and other educational institutions in SAARC countries, linking up of institutions working on traditional medicines are important initiatives enabling R&D. India has established MoUs with countries like Bangladesh and Nepal aimed at academic and regulatory cooperation in promotion of Ayurveda and Unani. A SAARC regional centre on R&D is proposed to generate evidence based outcomes on TM.

Addressing policy induced constraints to trade: One of the policy induced constraints that could be considered for TM trade in SAARC includes the Sensitive Lists under SAFTA. While Bangladesh, Bhutan, Maldives and Nepal have not included any item under TM, Afghanistan, India, Pakistan and Sri Lanka have included tariff lines under chapters 12, 13 and 30. Policy coordination between nations can be initiated to remove existing lists.

6. Conclusion

Historical medical traditions of SAARC have long served the healthcare needs of the region. Commonality of theory and practice provides a unique opportunity for cooperation with tangible benefits for all countries. Strong trade complementarities further amplify these prospects. For countries like Afghanistan with long years of political instability leading to economic challenges, the sector demonstrates a strong export potential. SAARC also remains an attractive destination for Nepal, Sri Lanka and Pakistan. Intra-SAARC FDIs and Joint Ventures further lend weight to the relevance of the sector. Some countries like Bhutan, India and Sri Lanka have created a strong institutional integration of traditional medicine in the healthcare delivery systems and provide a learning opportunity for replication and adaptation for other countries to meet their health goals. A regional cooperation framework outlined earlier would strengthen the net gains that SAARC countries already harness from the sector.

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