

**AN EMPIRICAL ANALYSIS OF TRADE PERFORMANCE
AMONG BIMSTEC NATIONS WITH REFERENCE
TO INDIA**

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CERTIFICATE

This is to certify that this thesis entitled, “**An Empirical Analysis of Trade Performance among BIMSTEC Nations with Reference to India**” embodies the work carried out by **Miss Gurpreet Kaur** herself and under our supervision. To the best of our knowledge, the present work is the result of her original investigation and study. No part of this work ever been submitted for any other degree at any university. The thesis is worthy of consideration and fulfillment of the conditions for the award of degree of Doctor of Philosophy in Economics.

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I hereby affirm that the thesis entitled, “**An Empirical Analysis of Trade Performance among BIMSTEC Nations with Reference to India**” has been prepared under the guidance of **Dr. Jasdeep Kaur Dhani**, Professor and Director, CT Institute of Management and Information Technology, Jalandhar, Punjab and **Dr. Vishal Sarin**, Associate Professor and Head (Department of Economics) at Lovely Professional University, Phagwara, Punjab is exclusively my own work. There are no collaborators and it does not contain any work for which a degree/diploma has been awarded by any other university/institution or fellowship previously.

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LIST OF ABBREVIATIONS

AC	—	<i>Auto Correlation</i>
ACD	—	<i>Asia Cooperation Dialogue</i>
ADF	—	Augmented Dicky Fuller
APEC	—	Asia-Pacific Economic Cooperation
ARIMA	—	Auto Regressive Integrated Moving Average
ASEAN	—	Association of Southeast Asian nations
BIM	—	BIMSTEC Member
BIMSTEC	—	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BOR	—	Border
BRICS	—	Brazil, Russia, India, China and South Africa
BTA	—	Bilateral Trade Agreements
CAGR	—	Compound Annual Growth Rate
CMLG	—	Common Language
CP	—	Competitive Positioned
CSO	—	Central Statistical Organization
DIS	—	Distance
DW	—	Durbin Watson
ECO	—	Economic Cooperation Organization
EM	—	Emerging Product
FDI	—	Foreign Direct Investment
FTA	—	Free Trade Area
GCC	—	Gulf Cooperation Council
GDP	—	Gross Domestic Product

GOI	—	Government of India
HIIT	—	Horizontal Intra Industry Trade
HS	—	Harmonised System
HT	—	High Technology
IMF	—	International Monetary Fund
LDC	—	Least Developed Countries
LT	—	Low Technology
MEA	—	Ministry of External Affairs
MGC	—	<i>Mekong–Ganga Cooperation</i>
MT	—	Medium Technology
NER	—	North Eastern region
ODA	—	Official Development Assistance
PAC	—	Partial Auto Correlation
PCGDP	—	Per Capita Income
PTA	—	Preferential Trade Area
QR	—	Quantitative Restrictions
RB	—	Resource Based
RBI	—	Reserve Bank of India
REF	—	Relative Factor Endowment
RTA	—	Regional Trade Agreements
SAARC	—	South Asia Association of Regional Cooperation
SAFTA	—	South Asian Free Trade Area
SAPTA	—	South Asia Preferential Trade Agreement
SCO	—	Shanghai Cooperation Organization
SIM	—	Similarity Index
TP	—	Threatened Product

UNCOMTRADE	—	United Nation Commodity Trade Statistics
UNCTAD	—	United Nations Conference on Trade and Development
UNDP	—	United Nation Development Program
UNESCO	—	United Nations Educational Scientific and Cultural Organization
UNO	—	United Nations Organization
VIIT	—	Vertical Intra Industry Trade
WITS	—	World Integrated Trade System
WP	—	Weakly Positioned Product
WTO	—	World Trade Organization

ABSTRACT

The globalisation wave gave rise to a number of regional arrangements. The concept of economic regionalism expanded the importance in international trade as well as regional diplomacy. In present world, no nations survive into economic isolation. So, Trade liberalisation alone is not a sufficient condition for countries to turn to either single or multiple “Regional Integration Arrangements” (RIA). The huge pressures of globalisation are forcing nations to seek greater efficiency through larger markets, increased competition, access to superior technology, and greater investment channels through RIA’s. Within such arrangements, there is also desire to assist neighbouring nations for mutually beneficial reasons, as well as to take anticipatory action against the spill over of unrest and mass economic migration. The compelling logic of regional groupings, coupled with the obvious failure of SAARC and the near debilitating East Asian crisis of 1997, collectively contributed to the formation of BIMSTEC. The BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) grouping, brainchild of Thailand, is a unique initiative in sub regional economic cooperation. It has the distinction of combining five geographically contiguous countries of SAARC with two of ASEAN, thus creating a vast scope for regional development. BIMSTEC is a relatively young organization among the various regional and sub-regional grouping in Asia. The creation of BIMSTEC can be accredited to two things one is the breakdown of SAARC to form a energetic regional environment for trade and economic cooperation and second concern is ongoing procedure of liberalization of South Asian economies worried to find out latest markets in the ASEAN region as alternative of SAARC, whose scale is restricted due to non-economic aspect that is improbable to alter in the close future. One more aspect, which might be cited for the creation of this bloc, is Thailand’s craving to set up strong grip on the Indian subcontinent as of escalating competition it has been facing in the ASEAN markets. The approach of South Asian nations to establish connection and enlarge economic cooperation shows their purpose to support economic associations with the ASEAN countries. BIMSTEC might be used as instrument for South Asian nations to set up and enlarge a good quality relationship with the ASEAN nations. India’s keen desire to promote regional cooperation in the South Asian region had been fulfilled after obtaining membership in regional grouping of the BIMSTEC. India’s role is pivotal

in the evolution and growth of BIMSTEC regional grouping. The present study conducted for identifies the India's trade development with BIMSTEC member countries on the basis of trade performance and providing the policies formulation to gain from the integrations. To analyse the empirical analysis of trade performance among BIMSTEC nations with reference to India. India's approach to the BIMSTEC is one of the reasons for its progress. Being a founder member and the largest member in terms of population as well as territory, India despite being preoccupied with the idea of getting its partnership with ASEAN enhanced made efforts to live up to the expectation of its colleagues in the BIMSTEC and to carry forward the BIMSTEC vision of mutually beneficial regional cooperation. Mutual cooperation in numbers of area in the BIMSTEC region are more or less covered by India bilateral economic relations with individual economy and this foster the rate of economic growth by tapping regional synergies. The present study has been focus on the analysis of BIMSTEC and India and performance of trading bloc named BIMSTEC, grouping of seven nations including India as regional bloc and impact of BIMSTEC on India's trade. For this purpose secondary data since 1997 has been used from various authentic sources. These are UNCTAD, UNCOMTRADE, World Bank, Trade Map, World Trade Organization (WTO), and BIMSTEC.org etc. For empirical analysis of trade performance among BIMSTEC nations with reference to India Compound Annual Growth Rate, Percentage Share, Real Value of Exports etc. have been be used to calculate the performance of BIMSTEC nations before and after formation of the bloc. To perform the empirical analysis various statistical and econometric methods/models such as Granger Causality, Gravity Model, ARIMA model, Revealed Comparative Index (RCA), Intra Industry Trade Index (IIT) has been used. The scope of study has been limited to trade performance of BIMSTEC nations. To concluding, BIMSTEC nations are prosperous in resources, but they remain underdeveloped and disengaged from Asia's development story. Although the member nations of BIMSTEC are linked by regional cooperative process, and remained on the margins of Asian market integration. The high potential of mutual trade with rest of the world has remained unexploited for various hurdles such as lack of shipping and road connectivity. For making BIMSTEC a "vibrant regional entity", there are needs to revitalize coastal shipping preparations and inter-modal transport, practices that had flourished in the past, for easy flow of goods and services.

CHAPTER – 1

INTRODUCTION

The first chapter begins with the background of the study and portrays the reason justifying the selection of this topic for Research. The chapter entails the scope of international economics and economic integration in a precise manner. Furthermore the chapter sheds light on the status of the BIMSTEC economies, objectives of the study, research methodology, data sources, relevance of the study, and the chapter scheme of the study. The main focus of the chapter is to present deeper insight for research topic.

1.1. INTRODUCTION

In present world, no nations survive into economic isolation. Each and every aspects of economy- its industries, service sector, employment and levels of income, and living standard are associated to the economies of its trading cohorts. This association takes the shape of international arrangements of goods and services, labor, business venture, investment funds, and technology. The high level of economic interdependence between economies reflects the historical advancement of the world's economic and political regulation (Carbaugh, 2008). International economics continues to flourish present world because the analytical and policy issues that brought it into being still demand attention. International economics deals with those international forces which influence the domestic economic conditions as well as those which shape the economic relationship between countries world economic integration and transition. International economics which emerged as 'Specialistic' field of economic long ago, has developed in depth and width over a time by a lot of theoretical and descriptive contribution. The global economy is made up of large number of politically independent nations which have different type and degree of interdependencies and very diverse economic characteristics between and within them.

There are various factors which promote global economic integration and among all those international trade holds more importance. All the factors of production are not adequately available in a country. For grafting their varied needs, countries engage

in international trade. It serves as an essential engine of economic growth and development. The world economy has changed rapidly both in horizontal and vertical spectrum. The changes in the world economy have made it clear that no nation can isolate itself completely from the rest of the world and survive. The recent explosion of the information technology has generated new waves of dynamism and reduced virtually the entire world into a global village. This process of increasing economic integration and growing economic interdependence among the nations of the world is widely known as globalization. By emerging in global trade, all nations can use its assets most proficiently, focused on the activities i.e. best suitable to pursue and can obtain significant economies of scale. The global trading system has been witnessing a proliferation of regional economic integration scheme or trade blocs also known as Regional Trade Agreements (RTAs) designed to achieve various economic and political purposes. The growth of RTAs has been very rapid, particularly since 1990's. The total number of RTA up to 2016 was 291 notified to GATT/WTO. A large additional number of RTAs are expected to become operational and substantial and 583 RTAs are proposal under negotiation (World Trade Organization, 2016). As the latest quick development of RTAs begin in 1990's but the seeds of development were arguably sown in 1980's.

Regional collaboration is a stepping stone for economic integration in a geographic region. It might be market determined integration with no some explicit accord implying that personal zone is energetically engaged in bringing convergence between the economies. Economic integration might also be pursuing through cooperation agreements between the nations of the region which are mostly policy induced integration. Several regions across the world are engaged in inclusive economic corporation agreements. Balassa (2006) defines economic integration as a 'process' and as a 'state of affairs'. Regarded as a process, it encompass measures designed to abolish discrimination among economic units belonging to different national states. Viewed as a state of affairs, it can be represented by the absence of various forms of discrimination between national economies. The more frequent used forms of agreement are Preferential Trade Area, Free Trade Area, Custom Union, Common Market, Economic Union, and Economic Integration. Different forms of integration represent different level of integrations. The number of RTAs

signed among developed and developing nations has enlarged over the years. The European Union played a key role in this respect through a chain of agreements with number of countries including Turkey, Mexico, South Africa and Chile. The EU is the largest trading bloc worldwide. More than half of the trade now occurs within actual or prospective trading blocs. More than one third of world trade already takes place within the existing Regional Trade Agreements (Cherunilam, 2006). The history of economic integration starting with the formation of European Union, the European Free Trade Association, the North American Free Trade Area, and the Southern American Common Market and after that economic integration among developing nations and among republic of the former Soviet Union came into force (Salvatore, 2004). As quoted by Cherunilam (2001), economic integration covers several kinds of arrangement by which two or more countries agree to draw their economies closer together. All of the agreements have one common features i.e. the use of tariffs to discriminate against goods among different countries. This type of discrimination is achieved by according preferential treatment to the goods produced by the other member countries. The major trade blocs in the world are:

Table 1.1: Major Trading Blocs in World

Regions	Name of Trading Blocs
In Europe Region	The European Union (EU), The European Free Trade Agreement (EFTA), The European Agreements, and The European Economic Area (EEA)
In United State (US)	North American Free Trade Agreement (NAFTA), The Canada-US Free Trade Agreement (CUSTA), and The US Israel Free Trade Agreement.
In Asia	The Association of Southeast Nations (ASEAN), The ASEAN Free Trade Area (AFTA), The Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA), SAARC (South Asia Association of Regional Cooperation), and BIMSTEC (The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation).

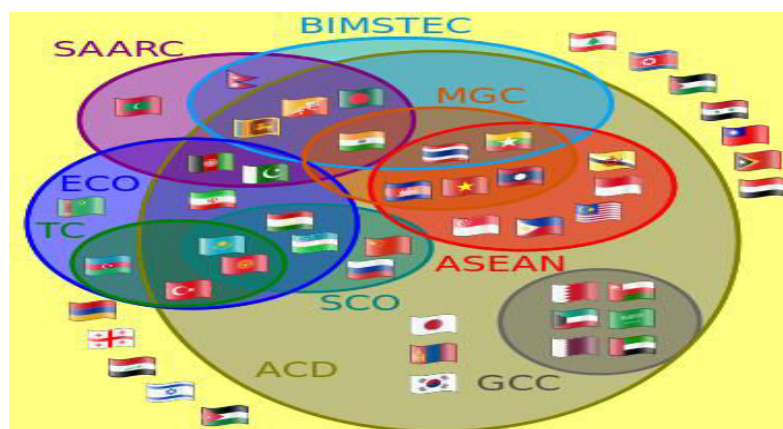
Contd. ...

Regions	Name of Trading Blocs
In Latin America	The Common Market of the South (MERCOSUR), The Central American Common Market (CACM), The Andean Pact, The Latin American Integration Association (LAIA), and The Caribbean Community and Common Market (CARICOM) in Sub-Saharan Africa, West African Economic and Monetary Union, Customs and Economic Union of Central Africa, The Common Market of Eastern and Southern Africa (COMESA)/Preferential Trade Area for Eastern and Southern African States (PTA), The Southern African Customs Union (SACU)

Source: World Trade Organization

Regional economic integration between developing nations is advocated in the context of preferential and free trade arrangements, specialization, economies of scale and enlargement of markets, as most of these countries cannot attain in isolation. Unlike the accomplishment of economic integration among the developed nations, regional groupings in the developing world are by and large successful, barring the ASEAN which is often commended as a model of third world regional cooperation. The SAARC, the other most important regional grouping in Asia but slow rate of progress in the SAARC was main cause for the formation of BIMSTEC in Asia. The BIMSTEC grouping, brainchild of Thailand, is a unique initiative in sub regional economic cooperation. It has the distinction of combining five geographically contiguous countries of SAARC with two of ASEAN, thus creating a vast scope for regional development. BIMSTEC is a relatively young organization among the various regional and sub regional grouping (Upreti, 2007).

Fig. 1.1 : The major regional blocs in Asia.



Source: Asia.org

Figure no. 1.1 explained the relationship between various Asian regional trading blocs. It depicts that India is a part of various regional trading blocs exist in Asia. India is member of SAARC (South Asia Association of Regional Cooperation), MGC (Mekong–Ganga Cooperation), and BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation). India's has trade relation with others regional trading blocs in Asia such as ASEAN (Association of Southeast Asian nations), ECO (Economic Cooperation Organization), ACD (Asia Cooperation Dialogue), GCC (Gulf Cooperation Council), and SCO (Shanghai Cooperation Organization).

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization linking a cluster of nations in South Asia and South East Asia. These are: India, Thailand, Bangladesh, Myanmar, Sri Lanka, Bhutan and Nepal. The Bay of Bengal is a bay that forms the north-eastern part of the India's oceanic. It resembles a triangle in form bordered by India, Sri Lanka, Bhutan, Bangladesh, Myanmar, Thailand, Malaysia and Indonesia. In 1990s these countries determined to get engaged in a regional corporation with a view to attain superior economies of scale in production, achieve specialism, boost competitiveness, expand export basket and make exploit of their under-utilized economic impending in terms of human being, technological and natural resources with lesser potential of back-sliding. On 6 June 1997, a new sub-regional alliance was created in Bangkok and given the name BIST-EC (Bangladesh, India, Sri Lanka, and Thailand Economic Cooperation). Myanmar present at the foundational June gathering as an spectator and connected the organization as a complete member at a Special Ministerial conference held in Bangkok on 22 December 1997, upon which the name of the alliance was changed to BIMSTEC. BIMSTEC was initiative with the objective to merge the 'Look West' policy of Thailand and ASEAN with the 'Look East' policy of India and South Asia. So BIMSTEC can be explaining as association among ASEAN and SARRC. The uniqueness of BIMSTEC is in multi-sectoral approach compared to other Asian blocs. Seven members of BIMSTEC cover up fourteen main concern sectors escort by member nations in a voluntary approach, i.e., Trade & Investment, Technology, Energy, Transport & Communication, Tourism, Fisheries, Agriculture, Cultural Cooperation,

Environment and Disaster Management, Public Health, People-to- People Contract, Poverty Alleviation, Counter-Terrorism & Intercontinental Crimes and Climate Change. The main thing that makes BIMSTEC dissimilar as of other organizations is that BIMSTEC represent one of the most varied region of the world, be it the way of life, religion, language, or culture.

Table 1.2 : Area or Sectors of Cooperation in BIMSTEC Alliance

Sectors	Led By: (Country Names)
i. Counter-Terrorism and Transnational Crime ii. Natural Disaster Management and Environment	India
i. Public Health ii. People to People contact	Thailand
Poverty Alleviation	Nepal
Culture	Bhutan
Agriculture	Myanmar

Source: BIMSTEC.org

BIMSTEC has visibly recognized issues of development and common concern into fourteen main concern sectors which covers a diversity of facets of 'development' and the issue of general concern like counter-terrorism and intercontinental crime. The seven new sectors were discussed in the 1stBIMSTEC summit and there has been various activities to augment those co-operations always ever since.

Historically, the Bay of Bengal space has been an integral part of India's strategic, economic and civilization areas of interest and consciousness. BIMSTEC was formed at the time when the process of globalization was sweeping the world. At the end of cold War, the nonaligned movement lost its relevance. China had emerged as a strong economy. WTO had been formed in 1995. SAARC, the South Asian regional organization, which was formed in 1985, was not making any headway due to mutual dissensions and mistrust of member countries. This was broadly the international and regional scenario when BIMSTEC was being conceived and

formed in 1997. The creation of BIMSTEC can be accredited to two things one is the breakdown of SAARC to form an energetic regional environment for trade and economic cooperation and second concern is ongoing procedure of liberalization of South Asian economies worried to find out latest markets in the ASEAN region as alternative of SAARC, whose scale is restricted due to non-economic aspect that is improbable to alter in the close future. One more aspect, which might be cited for the creation of this bloc, is Thailand's craving to set up strong grip on the Indian subcontinent as of escalating competition it has been facing in the ASEAN markets. Although BIMSTEC came into reality very recently, its creation can be traced back to mid-1960s, when together India and Sri Lanka were invited to join ASEAN but declined. In 1981, Sri Lanka made vain effort to join ASEAN, but it was mutually India and Pakistan which obtained Dialogue Partner status in 1993. The approach of South Asian nations to establish connection and enlarge economic cooperation shows their purpose to support economic associations with the ASEAN countries. BIMSTEC might be used as instrument for South Asian nations to set up and enlarge a good quality relationship with the ASEAN nations (Devi, 2007).

According to the Bangkok announcement on the organization of BIST-EC, the ultimate goals and orientations of BIMSTEC grouping are to form an sustainable environment for fast economic development, to enhance societal advancement in the sub-region, to encourage energetic association and joint aid on matter of general interest, to support all other in the appearance of training and research services, to assist more efficiently in mutual efforts that are encouraging of, and complementary to, nationalized development strategy of associate nations, to preserve close and advantageous assistance with presented international and regional organizations, to support in projects that can be deal with mainly prolifically on a sub-regional basis and which create most excellent utilization of existing synergies (BIMSTEC.org). Another objective of BIMSTEC was to create economic and social prosperity based on equality in order to enhance of mutual benefits in economics, social and technological aspects, it also involve intra-regional assistance in training, research and development as well as cooperation in industry, agriculture, expansion of trade and investment, improvement in communication and transport, improving living standard and cooperation with other international organization (Chakraborty, 2007).

BIMSTEC is the foremost recognized connection among South Asian and South East Asian countries bridging. BIMSTEC established momentum in introduction the procedure of deeper integration when its members signed the framework agreement to launch a FTA (Free Trade Area) in February 2004. Further, in the Bangkok meeting detained in July 2004, the BIMSTEC influential decided to look at the extension of collaboration into areas such as Protection of Bio-diversity, Environment, Biotechnology, Weather and Climate Research and Natural Disaster Management. It is thus evident that the BIMSTEC's plan for collaboration is fairly elaborate and wide-ranging (Khan and Haque, 2007).

BIMSTEC is playing vital role to attractive a significant trade bloc in Asia-Pacific. India played a chief role by integrates trade and investments as promote economic cooperation. The northeastern states of Mizoram, Nagaland, Assam, Arunachal Pradesh, Meghalaya, Sikkim, Tripura and Manipur are enclosed by Bangladesh, Myanmar and Bhutan, and are essential to the BIMSTEC proposal. BIMSTEC is exclusive proposal in the sense its association consists of nations from mutually South and Southeast Asian regions. The initial level of meeting in consolidation of liberalization profit is expected out of this initiative considerate that both SAARC (South Asian Association for Regional Cooperation) and ASEAN are at diverse levels of progress. BIMSTEC has a potential to enhance the trade between member countries by taking benefit of their geographical position in the region of the Bay of Bengal and the Eastern coast of the Indian Ocean. A number of initiatives towards intra-regional trade liberalization among individual associate nations of BIMSTEC under bilateral and regional trade agreements have been undertaken in the earlier period. Agreements between BIMSTEC nations:

Table 1.3 : Trade Agreements among BIMSTEC Nations

Country's	Agreements (Bilateral and Multilateral)
India-Sri Lanka	Free Trade Agreement (FTA)
Thailand- Myanmar	ASEAN FTA
India- Thailand	FTA

Contd. ...

Country's	Agreements (Bilateral and Multilateral)
SAARC nations	South Asia Preferential Trade Agreement (SAPTA)/ South Asian Free Trade Area (SAFTA)
India, Sri Lanka, China, Bangladesh	Bangkok Agreement
India, Nepal and Bhutan	FTA

Source: BIMSTEC.org

India's keen desire to promote regional cooperation in the South Asian region had been fulfilled after obtaining membership in regional grouping of the BIMSTEC. India's role is pivotal in the evolution and growth of BIMSTEC regional grouping. India and Thailand play a proactive role in forging a meaningful cooperation in the region. The Bay of Bengal space has emerged as an integral and inseparable part of India's evolving Look East policy. East of India bordering the Bay of Bengal has been traditional gateway to the hinterland of Southeast Asia and beyond. There are strong civilization, ethnic, cultures, linguistic, economic and political link with Southeast Asia, which has developed as imperative of interdependence through ages. The security, strategic and economic interest of Indian Ocean region, including the Andaman and Nicobar group of Island are also very closely linked to the Southeast Asian region surrounding it. India now growing and considerable commerce with East and Southeast Asia passes through sea lanes in this sub region. About two third of India's exclusive economic zone and economic space in this region is estimated to be excess of the combined size of BIMSTEC economies. The Bay of Bengal sub region accounts about 10 per cent of India's external economic relation. India has to anchor the peace and prosperity of sub region for common good and interdependent destiny. India as largest country has the responsibility to initiate more effective and proactive measures to hasten cooperation, including by developing enduring and mutually beneficial trade, infrastructure, investment and other linkage, which alone create and sustain a vested interest in sub regional cooperation. BIMSTEC nevertheless, is a modest experiment in pragmatic politics and realistic economics in a fiercely competitive globalized and rapidly changing environment, it is an experiment aimed at achieving incrementality without having to redefine or recorder

existing arrangements, it is an experiment to forge an arrangement to optimize step by step, opportunities through cooperation in select identified areas and make up for missed opportunities, it is an experiment in moving forward without waiting all political or economic challenges to be overcome, it is above all a modest experiment in promoting sub regional cooperation, optimizing synergies, complementarities and advantages of shared geography and history. India and Thailand, particularly among the rapidly growing economies of Bay of Bengal region and could together pilot the sub region towards greater prosperity through cooperation, interdependence and sub-regional common approach on crucial issues. Ultimately, the Bay of Bengal community has to be seen as a sub-regional building block of a larger Asian economic community and the emerging macro level integration process (Devi, 2007).

Being lead country in the grouping, India draws attention in the BIMSTEC framework and its functioning in the backdrop of the fast changing global economic environment. India is the fast emerging global power and dynamic economic player in the region responsible for peace and stability. India with its recent economic clout, capacity building measure and IT prowess, together with the gradual shift in the foreign policy outlook to suit to be rapid change in global geo-political issues deserve a special status in the BIMSTEC region. Together with Thailand India can change the economic profile of region and provide the edge of regional prospective over national sovereignties. India and Myanmar share together long border of 1640 Km. of the seven northeastern states, four have been really fortunate to share this tranquil border. Indian Insurgent Group (IIG) taking shelter in countries like Bangladesh, Bhutan and Nepal besides Myanmar have been constantly disturbing the peace and security. The growing cordiality between the two countries has been manifested in various transport corridors, jointly develop by India in Myanmar. According to Myanmar foreign minister U Win Aung.” It is symbol of close cooperation between two countries. The new road will help to promote economic development and cooperation based on our common desire to have good relations between our countries and to uplift the socio economic standard of the national races living along the border”. India and Myanmar have been cooperation in the areas including remote sensing, gas exploration and hydal power generation in Myanmar.

India and Nepal have good linguistic and cultural relations. Mutually beneficial bilateral relations and cooperation have been facilitated by the frequent exchange of high level visits between the two nations. Even though Nepal's economic geography is inextricably intertwined with that of India, Kathmandu has been seeking closer ties with Beijing much to the chagrin of New Delhi. India and Bhutan not only share border about 700 Km. but also the threat from maoist. Groups which has been hand in glove with Indian leftwing extremists and the IIGs. India is the principal donor for the economic development of Bhutan. India also offered the financial assistance for several hydroelectric projects in Bhutan and also agreed to buy the surplus power. After achieving the liberalization Bangladesh opened the economy. India had offered help to Bangladesh in various sectors such as IT, cyclonic tidal surge management etc. India volunteered undertaken the training of 250 school teachers by Indian IT experts, but far from these gestures, Bangladesh pursued policies and programs which wounded the Indian sentiments (Devi, 2007).

In July 2004, the first BIMSTEC summit took place in Bangkok. The subsequent eighth ministerial meeting in 2005 increased the number of sectors for cooperation. The second high level summit was held in New Delhi in 2008, four years after the Thailand summit. However, ministerial meetings have been constantly held over the years, bringing together foreign ministers and commerce/industry ministers to deliberate upon issues of mutual interest. The third BIMSTEC summit was held in Nay Pyi Taw, Myanmar in 2011. Goa was the fourth high level summit and the first-ever joint summit of the organization with another multilateral grouping. Through the BRICS-BIMSTEC outreach summit, the BIMSTEC countries sought greater exposure to financial investments for the region. Among the BIMSTEC countries themselves, there was renewed interest to fast track free-trade agreement negotiations to boost trade, pursue the possibilities for a blue economy, and improve connectivity and people-to-people contact. The BIMSTEC leaders identified various other areas of cooperation to move forward with concrete action such as agreement on transit, trans-shipment and movement of vehicular traffic, disaster management, setting up a BIMSTEC center for technology transfer, initiating talks on a BIMSTEC coastal shipping agreement, information intelligence sharing national security chiefs, and so on. It was also decided to form a BIMSTEC eminent persons

group to further explore and identify new avenues for collaboration (Madishetty, 2016).

1.2. RATIONALE AND RESEARCH GAP

The most of the literature reviews, focused on various issues of BIMSTEC such as political issues, issues related with economic cooperation and integration, issues related with agreements among member nations, regional problems of member nations etc. But there is no specific analytical study has been found on the trade benefits of India from BIMSTEC. Since this issue is a vital one, the study is conducted for intensive analysis on the topic “An Empirical Analysis of Trade Performance among BIMSTEC Nations With Reference To India” to overcome the research gap. This research identifies the India’s trade development with BIMSTEC member countries on the basis of trade performance and providing the policies formulation to gain from the integrations.

1.3. SCOPE AND OBJECTIVES

Economic integration within regional trading blocs adds the significant value to increase economic growth, trade, investment etc. The study aims to analyze the empirical analysis of trade performance among BIMSTEC nations with reference to India. India’s approach to the BIMSTEC is one of the reasons for its progress. Being a founder member and the largest member in terms of population as well as territory, India despite being preoccupied with the idea of getting its partnership with ASEAN enhanced made efforts to live up to the expectation of its colleagues in the BIMSTEC and to carry forward the BIMSTEC vision of mutually beneficial regional cooperation. Mutual cooperation in numbers of area in the BIMSTEC region are more or less covered by India bilateral economic relations with individual economy and this foster the rate of economic growth by tapping regional synergies. The present study has been focus on the analysis of BIMSTEC and India and performance of trading bloc named BIMSTEC, grouping of seven nations including India as regional bloc and impact of BIMSTEC on India’s trade. The scope of study has been limited to trade performance of BIMSTEC nations. The main objectives of study are-

- 1) To compare the trade performance of BIMSTEC nations before and after the formation of trading bloc BIMSTEC.
- 2) To find out the effect of macroeconomic indicators i.e. GDP and Exports on performance of BIMSTEC nations.
- 3) To find out intra industry trade of India with other BIMSTEC nations.
- 4) To assess the comparative advantages of India's trade with other BIMSTEC nations.
- 5) To find out bilateral trade flow between India and BIMSTEC and make the forecast for the trade of BIMSTEC nations.
- 6) To suggest measures and policies to improve the trade among BIMSTEC nations.

1.4. DATA SOURCES

The study has been based on secondary data. The data has been compiled from a wide variety of sources such as yearbooks publishing statistical data with respect to trade, viz World Bank, UNCTAD, UNCOMTRADE, IMF, Trade Map and WTO and through diverse online data sources, textbooks, magazines and websites etc. Major data sources are as follows:

- Data on macroeconomic indicators and structure of trade for BIMSTEC nations has been obtained from UNCTAD Handbook of Statistics, UN.
- Data on direction of trade of India as well as BIMSTEC countries to be obtained from Directory of Trade Statistics Year Book, IMF and Trade Map.
- Data on commodity composition of India with BIMSTEC nations has been collected from UNCOMTRADE and Trade Map.
- Data on different variables like Gross Domestic Product, Population, Inflation, and share of different sectors in GDP etc. have been collected from various issues of World Development Indicators, World Bank.
- Economic Surveys, Ministry of Finance, Government of India (GOI), New Delhi; Handbook of Statistics on Indian Economy.
- Reserve Bank of India (RBI), Statistical Abstract of India.
- Central Statistical Organization (CSO), New Delhi.

- International Monetary Fund (IMF), Washington D.C.; Direction of Trade Statistics, IMF, Washington D.C.
- UNCOMTRADE -WITS (World Integrated Trade System), United Nations Organization (UNO), New York.

1.5. RESEARCH METHODOLOGY

This study aims at, analyzing an empirical analysis of trade performance among BIMSTEC nations with reference to India. For this purpose secondary data since 1997 has been used from various authentic sources. These are UNCTAD, UNCOMTRADE, World Bank, Trade Map, World Trade Organization (WTO), and BIMSTEC.org etc.

Compound Annual Growth Rate, Percentage Share, Real Value of Exports etc. have been used to calculate the performance of BIMSTEC nations before and after formation of the bloc. To perform the empirical analysis various statistical and econometric methods/models such as Granger Causality, Gravity Model, ARIMA model, Revealed Comparative Index (RCA), Intra Industry Trade Index (IIT) has been used.

To compare rates of growth of exports and imports of broad classes of goods in one country with those for world trade or the trade of its competitors, including the major products in exports and imports. To compare the trade performance time series data from 1980 to 2015 have been used. The annual compound growth rate (G) over the period can be calculated as:

$$G_i = (X_{t2} / X_{t1})^{(1/n-1)} * 100$$

Where X_{t1} and X_{t2} are the trade values of product i in the beginning period and the end period, respectively, and n is number of years.

Real value of exports can be calculated as:

$$(Export/unit\ value\ index\ base\ year\ 2000-01)*100$$

T-Test of Significance: To calculate the trade performance of BIMSTEC region, the following null hypotheses has been framed. The objective behind this, to test the significance of growth for trade in pre and post formation of BIMSTEC bloc.

The test statistic is-

$$t = \frac{\bar{x}_d - \mu_o}{\frac{s_d}{\sqrt{n}}}$$

- H₁** : There is no significant difference in the export performance during pre and post formation of BIMSTEC bloc.
- H₂** : There is no significant difference in the import performance during pre and post formation of BIMSTEC bloc.
- H₃** : There is no significant difference in the CAGR during pre and post formation of BIMSTEC bloc.

To test the above null hypothesis, the t-statistics has been calculated for exports, imports and CAGR for three phases i.e. pre formation period from 1980 to 1997, second phase for post formation period i.e. from 1998 to 2015 and the third phase for overall growth from 1980 to 2015 at 95 per cent confidence level.

1.5.1. Granger Causality Model

To find out the effect of macroeconomic indicators (GDP and Exports) on performance of BIMSTEC nations the econometrics model granger causality has been used. And it is based on the following hypotheses for testing the causality and co-integration between GDP and export for BIMSTEC nations. (i) Whether there is bi-directional causality between GDP growth and export for BIMSTEC nations.(ii) Whether there is unidirectional causality between the two variables, (iii) whether there is no causality between GDP and export for BIMSTEC nations.(iv) whether there exists a long run relationship between GDP and EXPORT for BIMSTEC nations.

Model Specification

$$\text{GDP} = f(\text{Export}) \quad \dots (1)$$

Where, GDP = Gross Domestic Product of BIMSTEC nations

Export = Export of BIMSTEC nations

The relationship between GDP and EXPORT for BIMSTEC nations is expressed with the help of following model:

$$\mathbf{GDP}_t = \mathbf{a} + \mathbf{b}_t \mathbf{Export} + \boldsymbol{\varepsilon}_t \quad \dots (2)$$

The model is based on the assumption other variables then export remains constant.

GDP is Gross Domestic Product of the BIMSTEC nations, Export is the for BIMSTEC nations.at a particular time period t respectively. While ε_t is the error term; a and b represent the slope and coefficient of regression. The coefficient of regression, b specify how a unit change in the independent variable (export) affects the dependent variable (Gross Domestic Product). The error, ε_t , is incorporated in the equation to cater for other factors that may influence GDP. The validity or strength of the Ordinary Least Squares method depends on the accuracy of assumptions. In this study, the Gauss-Markov assumptions are used and they include; that the dependent and independent variables (GDP and Export) are linearly co-related, the estimators (a, b) are unbiased with an expected value of zero i.e., $E(\varepsilon_t) = 0$, which implies that on average the errors cancel out each other. The procedure involves specifying the dependent and independent variables; in this case, GDP is the dependent variable while Export the independent variable. In addition, whereas the Ordinary Least Squares (OLS) regression analysis can establish the dependence of either GDP on EXPORT or not.

Panel Tests

In order to examine the possibility of panel co-integration, it is first necessary to determine the existence of unit roots in the data series. For this study we have chosen the Im, Pesaran and Shin (IPS), which is based on the well-known Dickey-Fuller procedure. Im, Pesaran and Shin (IPS) proposed a test for the presence of unit roots in panels that combines information from the time series dimension with that from the cross section dimension. Since the IPS test has been found to have superior test power by researchers in economics to examine long-run relationships in panel data, to fulfil the purpose of study IPS employed procedure in present study. IPS begins by specifying a separate ADF regression for each cross-section with individual effects and no time trend-

$$\Delta y_{it} = \alpha_i + \rho_i y_{i,t-1} + \sum_{j=1}^{p_i} \beta_{ij} \Delta y_{i,t-j} + \varepsilon_{it} \quad \dots(3)$$

where $i = 1, \dots, N$ and $t = 1, \dots, T$

IPS use separate unit root tests for the N cross-section units. The test is based on ADF statistics averaged across groups. After estimating the separate ADF regressions, the average of the t -statistics for p_1 from the individual ADF regressions, $t_{iT_i}(p_i)$

$$\bar{t}_{NT} = \frac{1}{N} \sum_{i=1}^N t_{iT}(\mathbf{p}_i \beta_i) \quad \dots(4)$$

The \bar{t} is standardized to show that the standardized \bar{t} statistic converges to the standard normal distribution as N and $T \rightarrow \infty$. IPS (1997) showed that t -bar (\bar{t}) test has better performance when N and T are small. The study suggested a cross-sectionally degraded version of both test used for the errors in different regressions that comprise a common time-specific factor.

Panel Co-integration Tests

Panel co-integration test used to check for the existence of a long-run co-integration among variables using panel co-integration tests suggested by Pedroni (1999 and 2004) based on Engle-Granger co-integration tests. In present study seven panel co-integrations has been used developed by Pedroni in 1999, since test determines the appropriateness and applied to estimated residuals from a co-integration regression after normalizing the panel statistics with correction terms. The estimation of residual from the hypothesized long-run regression given as-

$$y_{i,t} = \alpha_i + \delta_i t + \beta_{1i} x_{1i,t} + \beta_{2i} x_{2i,t} + \dots + \beta_{Mi} x_{Mi,t} + e_{i,t} \quad \dots (5)$$

for $t = 1 \dots T, i = 1 \dots N, m = 1 \dots M$

where, T is the no. of observations over time, N no. of cross-sectional units in the panel, and M no. of regressors. In equation, α_i is intercept value or fixed effects parameter which varies across individual cross-sectional units. $\delta_i t$ is slope coefficients and member specific time effects. Pedroni (1999 and 2004) also

proposed the heterogeneous panel and heterogeneous group mean statistics to examine the panel co-integration. The statistics calculate the group mean of the individual time series statistics. The asymptotical distribution of all five statistics. It can be written by-

$$\frac{X_{N,T} - \mu\sqrt{N}}{\sqrt{v}} \Rightarrow N(0,1) \quad \dots (6)$$

where, $X_{N,T}$ is the test statistics and μ and v are the mean and variance of each test respectively. Under the Alternative Hypothesis (H1), panel v statistics deviates to positive infinity. Thus, it is a one sided test where large no. of positive values reject the null of no co-integration. The rest statistics deviate to negative infinity that means the large negative values reject the null.

Granger Causality test: Causality is a type of statistical reaction theory which is generally using in the construction of forecasting models. Previously, Granger (1969) and Sim (1972) were the ones who dignified the application of causality in economics. Granger Causality test is a procedure for decisive whether one time series is important in forecasting another (Granger. 1969). The standard Granger Causality test (Granger, 1988) seek to establish whether past values of a variable helps to forecast changes in another variable.

To investigate the causality among GDP and exports on the one hand and exports and GDP on the other, and simple Granger causality test by estimate the bivariate autoregressive processes for GDP and exports. The purpose of is to test the Export Lead Growth (ELG) hypothesis for BIMSTEC and an additional is export lead to increase GDP. (Mehrra and Firouzjaee, 2011). To assess causation direction between exports and GDP, Granger test involves estimation of following regressions equations:

If causality runs from EXPORT to GDP, the equation is:

$$GDP = \sum_{i=1}^n \alpha_i X_{it} - i + \sum_{j=1}^n \beta_j Exports_{t-j} + \epsilon_{1t} \quad \dots (7)$$

If causality runs from GDP to EXPORT, the equation is:

$$Exports = \sum_{i=1}^n \gamma_i X_{it} - i + \sum_{j=1}^n \delta_j GDP_{t-j} + \epsilon_{2t} \quad \dots (8)$$

Where,

GDP_t and $EXPORT_t$ represent Gross Domestic Product and export respectively, ε_{it} is uncorrelated stationary random process, and subscript t denotes the time period.

Stait (2005) studied that the Export-led growth pattern for Egypt by using historical data from 1977 to 2003. After making analysis paper concluded that there was unidirectional relationship between exports and GDP but no relationship between exports and investment. Clarke and Ralhan (2005) derived the direct and indirect causality between exports and economic output for Bangladesh and Sri Lanka. Dritsakis et.al (2006) developed the empirical causal relationship among exports, gross capital formation, foreign direct investments and economic growth using a multivariate autoregressive VAR model for Greece for the period 1960 to 2002 and indicated that there has been unidirectional causal relationship between exports and gross fixed capital formation and unidirectional causal relationship between foreign direct investments and economic growth. Jordaan and Eita (2009) explored the causal relationship between export and economic growth for Botswana and illustrated that there has been bi-directional causality between export and economic growth, also supported the export-led growth hypothesis as well as reverse causality. Ray (2011) accessed empirical the relationship between export and economic growth in India using annual data during the period from 1972-73 to 2010-11 and results depicted that the occurrence of bidirectional causality which runs from economic growth to export and vice-versa. Mukherji and Pandey (2014) provided extensive examination on relationship between growth of exports and GDP of India by using data from 1969 to 2012 and concluded that India backs the theory of Growth Led Exports. Kumari and Malhotra (2014) goes further to study the Export led growth in India with Cointegration and Causality analysis with annual time series data on India for the variables exports and GDP per capita stemming from 1980 to 2012 for analysis. Granger Causality test showed bi-directional causality running from exports to GDP per capita and GDP per capita to exports. Travkina (2015) opined the export and GDP growth in Lithuania with short-run or middle-run causality and observed that the test based on Granger causality in the Export–GDP system have been Export-led growth hypothesis found in Lithuania for short run.

1.5.2. Trade Indices

International trade and economic growth have been explained through “old” and “new” trade and growth theories that explicate why countries trade among each other. Neoclassical trade theories include comparative advantage and Heckscher-Ohlin Samuelson theories in order to explain the basis for trade. In the Ricardian model, as trade becomes more open, any country specializes in producing goods in which it has a comparative productivity advantage, which arises due to differences in technologies or natural resources and not in factor endowments, increasing its welfare gains and benefits from trade. On the other hand, the Heckscher-Ohlin Samuelson model analyzes the welfare gains in a two countries, two factors model that each country exports the good which uses its abundant factor (capital or labor) more intensively. As a result, both countries, with different comparative costs and different terms of trade, are better off under international trade rather than in an autarky situation.

The trade indices have been used to achieve the third and fourth objectives. Firstly, the Intra Industry Trade Index (IIT) has been used to find out Intra Industry Trade of BIMSTEC nations and Revealed Comparative Advantage (RCA) has been applied to assess the comparative advantages of India’s trade with other BIMSTEC nations.

1.5.2.1. Intra Industry Trade Index

International trade is one of the key factors of macroeconomic prosperity for any country. With the increasing force of globalization international trade has become very complex with multi-billion transactions taking place every year. Yet, some of the aspects of international trade are still not fully researched and even existing theories related to the international trade need to be submitted to critical analysis taking into account ever changing global economic environment. Intra Industry trade is a trade of products that belong to the same industry. As it has been noted, “Intra Industry Trade (IIT), that is trade of similar products, has been a key factor in trade growth in recent decades. These trends have mostly been attributed to the fragmentation of production (outsourcing and offshoring) as a result of globalization and new technologies (Handjiski et al, 2010). The Intra Industry Trade (IIT) was propounded by Grubel and Lloyd in 1975. Revolutionary work in Intra-Industry (IIT)

models is due to Krugman (1979), Lancaster (1980), Helpman (1981) and Eaton and Kierzkowski (1984). Intra Industry Trade (IIT) reflects the economies of scale. Menon and Dixon (1996) emphasized on initial research regarding Intra Industry Trade (IIT) and try to found how important is intra-industry trade in trade growth? He found that the Grubel-Lloyd (GL) index was widely used for this purpose. Khalifah (1996) provided the empirical analysis of intra-industry trade and supported that intra-industry trade has mainly for intermediate goods to satisfy finished goods producers' demand for diverse components to contain cost. The formula for IIT is-

$$IIT_i = \{[(X_i + M_i) - |X_i - M_i|] / (X_i + M_i)\}$$

Where,

X_i - Exports of Country

M_i - Imports of country

Trade overlap threshold of 10 per cent below which the bilateral trade is considered to be one-way trade, or Vertical Intra Industry Trade i.e. **VIIT**<1

While above this threshold trade flows are considered as (two-way) intra industry trade also known as Horizontal Intra Industry Trade i.e. **HIIT**>1

Horizontal IIT is defined as a two-way trade in products of homogeneous quality, cost and technology employed, but with different characteristics or certain attributes. The theoretical basis for this type of trade was developed by Dixit and Stiglitz (1977), Lancaster (1980), Krugman (1979 and 1981) and Helpman (1981 and 1987). It is associated with imperfect competition or consumer preferences, but also with market structure (Brander and Krugman, 1983). It leads to efficiency via economies of scale in production and welfare gains thanks to a greater variety for consumers, including producers' gains in a variety of intermediate goods. The standard theoretical models suggest that the share of horizontal IIT increases with a higher level of country similarity in terms of capital endowments.

Vertical IIT involves simultaneous imports and exports of goods of heterogeneous quality, technology and costs. The theoretical basis for this type of trade was

proposed by Falvey (1981), Shaked and Sutton (1984), Falvey and Kierzkowski (1987) and Flam and Helpman (1997). These models expect a positive relationship between the level of vertical IIT and differences in factor endowments, technology and in the pattern of income distribution. Countries specialise along the quality spectrum of a specific product, based on the assumption that development of human capital or physical capital intensity are associated with higher product qualities. The economic distance, i.e. the distance in the accumulation of physical or human capital, between the countries is thus a relevant determinant for VIIT and hence it is not exclusively associated with overall Inter Industry trade. Zhang et.al (2005) observed that Chinese bilateral Intra- Industry Trade, particularly Vertical Intra-Industry Trade (VIIT), increased significantly during this transition period. VIIT appears to be positively related to differences in consumer patterns and Horizontal Intra Industry Trade (HIIT) negatively related to these differences also found that FDI has played an important role in determining IIT, especially VIIT. Other significant IIT drivers are geographical distance, economic size, trade open-ness and trade composition.

1.5.2.2. Revealed Comparative Advantage

The revealed comparative advantage approach is most important methodology to measure a country's intensity of comparative advantage and disadvantage in a particular industry. Revealed comparative advantage is usually used to investigate shifts over time in comparative advantage of industries. This approach, however, is not meant to capture the potential future comparative advantage of a country, as RCA indices are based on actual trade data. However, RCA indices estimated across time can point to the general direction in which the pattern of comparative advantage is moving. The RCA index compares a country's world export share of a commodity, with the country's total export share in total world exports. If a country's share of world exports of a particular commodity is greater than its share of world exports of all commodities, the RCA will be greater than one. A country has a revealed comparative advantage only in those products for which its market share of world exports is above its average share of world exports. In other words, the country is a relatively heavy exporter of a product under consideration and possesses a revealed comparative advantage in that product line (Mahmood, 2005).

To calculating comparative advantages in trade, Revealed Comparative Advantage (RCA) Index has been used more frequently in research. Revealed Comparative Advantage firstly used by Bela Balassa in 1965. The conception of revealed comparative advantage (RCA) was originated on conventional trade theory. Balassa (1965) defined RCA as-

$$\text{RCA} = [(X_{ij} / X_{nj}) / (X_{it} / X_{nt})]$$

Where,

X_{ij} – Value of export of “i” product of “j” country,

X_{it} – Value of world export of “i” product,

X_{nj} – Value total export of “j” country of “i” product,

X_{nt} – Value of total world export.

RCA index measures a comparative advantage in “i” goods export of “j” country. If the value is higher than 1 (>1), then the analyzed country has Revealed Comparative Advantages in export of various goods. If the value is lower than 1 (<1), then there is an obvious comparative disadvantage in export of various goods. RCA index presents the status of a certain economy, together with the expansion of certain products which have market potential. Batra and Khan (2005) identified the pattern of Revealed Comparative Advantage using the Balassa (1965) index for export data and found that broad similarities in the structure of comparative advantage for India and China that help to enjoying comparative advantage for labour and resource intensive sectors in the global market for both the countries. Shohibul (2013) measured Revealed Comparative Advantage for ASEAN and China trade flows using Balassa index and found that the Chinese has more established patterns of trade, while ASEAN trade patterns were very dynamic.

It is important to note that RCA indices are quite robust and insensitive to changes in growth and business cycle differences across trading partners. These changes influence the numerator and denominator in the RCA formula. Similarly, the indices are not sensitive to the height of market access barriers, as long as these barriers are across the board, against all exporters of a particular product line. Yet, they are sensitive to discriminatory market access barriers against exports of a particular country. The RCA indices can also be used gain further insight to target those

industries that currently exhibit revealed comparative disadvantage, but have potential to achieve export competitiveness over time. This, can be achieved by categorizing a country's export structure, based upon HS 2-digit and HS 6-digit product lines, into six broader product groups based upon their relative RCA profile. In the order of their relative comparative advantage position, these groups are-

a) Competitively Positioned Product Lines

These product lines have RCA's greater than unity and show consistent improvement over time owing to favorable external and internal conditions. The decision criteria used to select products under this category is:

- RCA index of a product line, "i", is > 1 in RCA Average (2013, 2014, 2015) i.e., ; $(RCA_i 2013, 2014, 2015 > 1)$
- Difference between RCA index of product line "i" RCA Average (2013, 2014, 2015) and its last three years average RCA's is positive, i.e., $(RCA_i 2013, 2014, 2015) - (RCA_i)_{Average} (1997, 1998, 1999) > 0$

b) Threatened Products Lines

These product lines have RCA's greater than unity, but indices are declining over time, due to an adverse domestic environment and/or global competitive pressures. The decision principle to select products under this group is as follows:

- RCA index of a product line, "i", RCA Average is > 1 in 2013, 2014, 2015, i.e. $(RCA_i 2013, 2014, 2015 > 1)$
- Difference between RCA index of product line "i" in RCA_i Average 2013, 2014, 2015 and its last three years average RCA's is negative, i.e., $(RCA_i 2013, 2014, 2015) - (RCA_i)_{Average} (1997, 1998, 1999) < 0$

c) Emerging Products- Tier I & Tier II

These product lines exhibit RCA indices that are less than unity, (revealed comparative disadvantage) but their relative global position in the exports market is improving. These product lines signal promise for future export potential. To provide a meaningful analysis, the "Emerging Product Group" is sub-divided into

two groups in terms of their RCA position within this broader group. The selection criterion used to group these product lines is given as:

Tier I

- < 1 and equal to or > 0.5
- Difference between RCA of product line "i" in 2015 and its last three years average RCA is positive, i.e., $(RCA_i 2013, 2014, 2015) - (RCA_i) \text{ Average } (1997, 1998, 1999) > 0$

Tier II

- RCA of a product line, "i", is < 0.5 in 2015, i.e., $;(RCA_i 2013, 2014, 2015) < 0.5$
- Difference between RCA of product line "i" in 2013, 2014, 2015 and its last three years average RCA is positive, i.e., $(RCA_i 2013, 2014, 2015) - (RCA_i) \text{ Average } (1997, 1998, 1999) > 0$

d) Weakly Positioned Products-Tier 1 & Tier II

RCA indices of these product lines are less than unity and declining due to non-conducive global and domestic factors. The "Weakly Positioned Product Group" is subdivided into two groups based on their relative level of revealed comparative disadvantage. The selection criterion used to group these product is as follows:

Tier I

- RCA of a product line, "i", is < 1 but equal to or > 0.5 in 2013, 2014, 2015 i.e. $(RCA 2013, 2014, 2015 < 1$ and equal to or > 0.5
- Difference between RCA of product line "i" in 2013, 2014, 2015 and its last three years average RCA is negative, i.e., $(RCA_i 2013, 2014, 2015 - (RCA_i) \text{ Average } (1997, 1998, 1999) < 0$

Tier II

- RCA of a product line, "i", is < 0.5 in 2013, 2014, 2015, i.e. $(RCA_i 2013, 2014, 2015) < 0.5$

- Difference between RCA of product line "i" in 2013, 2014, 2015 and its last three years average RCA is negative, i.e. $(RCA_i 2013, 2014, 2015) - (RCA_i \text{ Average } (1997, 1998, 1999)) < 0$

The above framework has two advantages. First, it identifies the strengths and weaknesses of India's exports' profile. Second, it allows an evaluation of the degree of competitiveness of India's exports in the world markets.

1.5.3. Gravity Model

To analyze the bilateral trade flow between BIMSTEC and India Gravity Model has been used. The experimental base for the investigation of gravity models, which relate trade flows among nations to the size of their markets and the cost of moving goods among them. The gravity approach to modeling trade had extensive history, initially used in the 1960s by Tinbergen (1962) and Linnemann (1966). The technique acquire its name from the equivalent with the physical energy of gravity determined by the joint accumulation of two bodies and the (inverse square) of the distance among them. In economics, the gravity approach was primarily essentially a theoretical but proves awfully successful empirically in amplification a huge proportion of trade flows. The technique was also used to clarify other type of international flows, mainly notably migration. The gravity approach was located on a firmer theoretical base by Anderson (1979) and Bergstrand (1985). These derivations of the gravity model exhibit that it is not merely an ad hoc data process but is a reduced-form version of a theoretical demonstration of world trade. Ekanayake et.al (2010) used gravity model to measure the economic integration between the Asian developing nations. Gravity model estimate the trade creation and trade diversion effects of different RTAs (Regional Trade Agreements) on trade flows inside and across member groups of ASIAN. Bhattacharyya and Banerjee (2006) used gravity model to observe that does the Gravity Model Explain India's Direction of Trade? Using panel data approach. The observations conclude that the size had powerful influence on trade of India's than the level of development of the trading colleague and India's trade respond lesser than proportionally to size and more than proportionally to distance. Rahman (2006) used gravity model to evaluate the Bangladesh trade flow with its main trading partner nations. Results showed that

Bangladesh's trade is optimistically determined by the size of the economies, per capita GNP disparity of the nations concerned and openness of the trading nations. Tripathi and Tripathi (2013) described the India's trade flows using a gravity model for the period 1998-2012. Study revealed that political globalization and cultural closeness had optimistic influence in bilateral trade and economic size, common border proxies confirming a positive impact of bilateral trade. The gravity model can explain the pattern of bloc's trade.

$$\text{Trade}_{ij} = \alpha \frac{\text{GDP}_i \times \text{GDP}_j}{\text{Distance}_{ij}}$$

The equation for Gravity Model is-

$$\text{VTF}_{ij} = \alpha_0 + \alpha_1(\text{TGDP})_{ij} + \alpha_2(\text{REF})_{ij} + \alpha_3(\text{SIM})_{ij} + \alpha_4(\text{DIS})_{ij} + \alpha_5(\text{BOR})_{ij} + \alpha_6(\text{CMLG})_{ij} + \alpha_7(\text{BTA})_{ij} + \alpha_8(\text{BIM})_{ij} + \alpha_9(\text{PCGDP})_{ij} + \phi_i + \gamma_i + \lambda t + (\phi\gamma)_i + (\gamma\lambda)_j + \varepsilon_{ij} \quad \dots(1)$$

Where,

VTF_{ij} denote to Value of Trade Flow of i and j nations

TGDP= Sum of total Gross Demostic Product

REF= Relative Factor Endowment

SIM= Similarity Index

DIS= Distance between I and j nations

BOR= Border

CMLG= Common Language

BTA= Bilateral Trade Agreements

BIM= BIMSTEC Member

PCGDP= Per Capita Income

ε_{ij}= Error or Random Term

$$\text{RFE}_{ij} = | \ln \text{PGDP}_i - \ln \text{PGDP}_j | \quad \dots (2)$$

$$\text{SIM}_{ij} = 1 - \{ \ln (\text{GDP}_i / (\text{GDP}_i + \text{GDP}_j))^2 + \ln (\text{GDP}_j / (\text{GDP}_i + \text{GDP}_j))^2 \} \quad \dots(3)$$

RFE_{ij} takes a minimum of zero if both countries exhibit equal GDP or production. The range of SIM is given by, 0 < SIM_{ij} < 0.5; where 0.5 means 'equal' and zero implies 'absolute divergence' in country size. In Equation (1), the following binary or dummy variables are included:

BTA_{ij} = 1 if a country pair (ij) has a bilateral trade agreement at period t
= 0 if otherwise

BOR_{ij} = 1 if a country pair (ij) has a common border
= 0 if otherwise

$CMLG_{ij}$ = 1 if a country pair (ij) has a common language
= 0 if otherwise

BIM_{ij} = 1 if the exporter (ij) is a member of BIMSTEC
= 0 if otherwise

In Equation (1), ϕ , γ and λ are exporter, importer and time or business cycle effects, respectively. The interaction effects are exporter-by-importer ($\phi\gamma$), exporter-by-time ($\phi\lambda$) and importer-by-time ($\gamma\lambda$).

Hypothesis:

H₁ : The larger economic dimension increases trade.

H₂ : Trade increases when partners are geographically close.

According to observed literature Anderson, 2011, Leitao et al. 2012, Kabir, and Salim, 2010, Tripathi and Leiato, 2013 GDP helps to increase trade. The geographically distance between India and BIMSTEC member nations excepted to negative. Ghatak et al. (2009) and Martinez-Zarzoso and Lehman-Nowak (2003) found a negative relationship between distance and bilateral trade. In case of India, Tharakan et al. (2005), De (2013), Bhattacharyya and Banerjee (2006), and Batra (2004) had examined a negative relationship between distance and India's bilateral trade.

1.5.4. Auto Regressive Integrated Moving Average (Arima)

A projection of trade flow has been made with the help of Auto Regressive Integrated Moving Average (ARIMA). These projections has been made with the help of Box-Jenkins' ARIMA (Auto Regressive Integrated Moving Average) model. Keck and Raubold (2006) developed the set of time series models that provide the short-term forecasts i.e. from 6 to 18 months ahead for international trade both at the

global level and for selected regions. Khan (2011) identified the suitable forecasting model for forecasting total import of Bangladesh. An attempt has been made to develop a distinctive and appropriate forecasting model of total import of Bangladesh and help to find forecasts with minimum forecasting error. Mehmood (2012) examined a study to make an attempt to forecast the Pakistan's exports to SAARC for coming years by using Box and Jenkins (1976) methodology of univariate ARIMA model. The study found ARIMA (1,1,4) as most appropriate model among other ARIMA models to forecast. Kongcharoen and Kruangpradit (2013) supported the Autoregressive Integrated Moving Average with Explanatory Variable (ARIMAX) Model for Thailand Export with its major trade partners. A projection has been made on following assumptions.

- 1) Relative price structure remains the same.
- 2) The growth rate of income assumed to be constant.
- 3) The trade (X+M) prices remain either competitive or favorable to world export prices.

Box-Jenkins' ARIMA (Auto Regressive Integrated Moving Average) model given as-

ARIMA(1, 1, 1)

$$(1 - \phi B)(1 - B)X_t = (1 + \theta B)Z_t$$

$$(1 - \phi B - B + \phi B^2)X_t = (1 + \theta B)Z_t$$

$$(1 - B - \phi B + \phi B^2)X_t = (1 + \theta B)Z_t$$

$$X_t - X_{t-1} - \phi X_{t-1} + \phi X_{t-2} = Z_t + \theta Z_{t-1}$$

$$\Rightarrow X_t = X_{t-1} + \phi X_{t-1} - \phi X_{t-2} + Z_t + \theta Z_{t-1}$$

Time Series Modeling Using ARIMA Models

These are special type of regression model where dependent variable is considered to be stationary and independent variable is lags of dependent variable and lags of errors. An ARIMA process is a combination of an Auto Regressive and a Moving Average Process. Box and Jenkins (1976) first introduced ARIMA models. A time series can follow an ARIMA process only when it is stationary. A time series is said to be stationary only when it exhibits mean reversion around a constant long run

mean, has a finite variance and decreasing correlogram as lag length increases. Stationary is important because if the series is non-stationary then all the typical results of the classical regression analysis are not valid.

Autoregressive Model

An autoregressive model of order p is represented as :

$$Y_t = \phi_1 Y_{t-1} + \phi_2 Y_{t-2} + \dots + \phi_p Y_{t-p} + u_t \quad \dots (1)$$

Where, $|\phi| < 1$ and u_t is a gaussian (white noise) error term. For the AR (p) model to be stationary is that the summation of the p autoregressive coefficients should be less than 1:

$$\sum_{i=1}^p \phi_i < 1 \quad \dots (2)$$

If the observations are generated by an AR(p) process then the theoretical partial autocorrelations will be high and significant for up to p lags and zero for lags beyond p. This rule is generally utilized to define which process the series is following and is incorporated in the ARIMA model.

Moving Average Model

A moving average model of order q can be written as

$$Y_t = u_t + \theta_1 u_{t-1} + \theta_2 u_{t-2} + \dots + \theta_q u_{t-q} \quad \dots (3)$$

Moving Average MA (q) process is an average of q stationary white noise process, hence it is always stationary as long as q has a finite value. A time series is said to be invertible if it can be represented by a finite order MA or convergent autoregressive process. Invertibility is an important property for identifying the order of MA process using Autocorrelation and Partial Auto Correlation Function as in this case it is assumed that Y_t sequence is well approximated by auto regressive model. An MA(1) process can be inverted to an infinite order AR process with

geometrically declining weights if the necessary condition $|\theta| < 1$ is met. The mean of the MA process will be clearly equal to **zero** as it is the mean of white noise terms. For a MA(q) model correlogram (ACF) is expected to have q spikes for $k = 0$ and then go down immediately. Auto covariance of a MA process is equal to zero.

ARMA Models

These models are combinations to two processes and usually represented by ARMA(p,q). The general form of ARMA(p,q) models is represented by :

$$Y_t = \varphi_1 Y_{t-1} + \varphi_2 Y_{t-2} + \dots + \varphi_p Y_{t-p} + u_t + \theta_1 u_{t-1} + \theta_2 u_{t-2} + \dots + \theta_q u_{t-q} \quad \dots (4)$$

The equation can be rewritten as :

$$Y_t = \sum_{i=1}^p \varphi_i Y_{t-i} + u_t + \sum_{j=1}^q \theta_j u_{t-j} \quad \dots (5)$$

For stationarity of ARMA process only AR part of the model need to be stationary as MA part by default is stationary.

Integrated processes and the ARIMA models

ARMA models can only be applied on a stationary time series. If a series is not stationary then stationarity need to be induced into it by differencing it such that differenced time series ΔY_t is represented by:

$$\Delta Y_t = Y_t - Y_{t-1} \quad \dots (6)$$

Generally time series need to be difference atleast once to make them stationary. After differencing once the series hence obtained is said to integrated to order one and denoted by I(1). Hence a series which needs to be differenced d times to make it stationary and then follows ARMA(p,q) model then the series is said to be following ARIMA(p,d,q) process.

1.6. DESIGN OF STUDY

The study consists of Seven chapters.

The first chapter devoted to introduction, importance, objectives, data sources and research methodology chosen for topic.

Chapter 2 pertains to the review of literature on the study.

Chapter 3 deals with an overview and trade performance during the pre and post formation of BIMSTEC Bloc among member countries.

Chapter 4 presents the analysis of effect on macroeconomic indicators on economic performance between India and BIMSTEC using granger causality and Intra Industry Trade between India and BIMSTEC countries.

Chapter 5 pertains to export competitiveness between India and BIMSTEC by pertaining Revealed Comparative Advantages to identify items of trade between them.

Chapter 6 focus on bilateral flow and forecast of trade between India and BIMSTEC. Techniques pertaining to gravity model and auto regressive integrated moving average.

The chapter 7 relates to summary and conclusions of the study.

CHAPTER – 2

REVIEW OF LITERATURE

This chapter pertains to the discussion and analysis of various studies done on theoretical framework of trade relations among BIMSTEC countries and India. It reviews the views of different authors on the subject area. It introduces the framework for the research topic that comprises the main focus of the research described in this thesis.

Economic integration within regional trading blocs adds the significant value to increase economic growth, trade, investment etc. BIMSTEC has a potential to enhance the trade between member countries by taking benefit of their geographical position in the region of the Bay of Bengal and the Eastern coast of the Indian Ocean. Mutual cooperation in numbers of area in the BIMSTEC region are more or less covered by India bilateral economic relations with individual economy and this foster the rate of economic growth by tapping regional synergies. The political welfares based on the economic cooperation has far reaching effect that result into closer links of BIMSTEC than SAARC. Today, India emerged as fast developing economy in the world. BIMSTEC strategies has been made with such a way that encouraging the national and regional interests at a multilateral level. Through this platform, the BIMSTEC economies attract international support and cooperation for developmental projects and productive economic strategies. This chapter has been divided into four sections-

- 2.1. Role of Trade Agreements in BIMSTEC Region
- 2.2. Economic Cooperation among BIMSTEC Economies
- 2.3. Role of Trade and Investment in BIMSTEC Region
- 2.4. Political aspects of BIMSTEC Economies

2.1. ROLE OF TRADE AGREEMENTS IN BIMSTEC REGION

The objective of regional integration is to accelerate growth through mutual cooperation in different areas of common interests by utilizing regional resources and geographical advantages. Unlike many other regional groupings, BIMSTEC is a sector-driven cooperative organization. Starting with six sectors including trade,

technology, energy, transport, tourism and fisheries for sectoral cooperation in 1997. Later on adding other sectors also such as agriculture, public health, poverty alleviation, counter-terrorism, environment, culture, people to people contact and climate change for expansion in economic cooperation among BIMSTEC members.

Mehta (2002) explored some issue related with the establishment of free trade arrangement among BIMSTEC countries. Study exposed that Free trade agreement (FTA) between BIMSTEC nations lead to trade creation rather than trade diversion. Trade creation more assistance to member's countries than to non-members of FTA. In the case of demand and supply responsiveness trade creation was superior. Some countries were more open economy but few BIMSTEC nations still follow the QR (Quantitative Restrictions) regime. The trade under FTA of India, India exports from Sri Lanka accelerated after 1990. India's exports to Bangladesh had been moderately diversified but the share of some particular products was very large. Myanmar was single country among BIMSTEC group in which India had a trade deficit. India trade relation with Thailand had been diversified but India had been exporting more than its imports from Thailand. India had export competitiveness as compared to other BIMSTEC countries.

Banik (2006) stated that Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation economies (BIMSTEC) promise to form a FTA and analyzed some important indicators such as price, income, geographical characteristics and trade, economic structure. There were constructive indications for the BIMSTEC economies to thrive into a successful RTA. To form a FTA, it was expected to generate relative advantage for the member nations. Better economic cooperation between BIMSTEC member nations has vital implication in the form of bigger market economies of level of production, and better resource distribution.

Bhattacharya and Bhattacharya (2006) empirically analyzed the prospects of regional cooperation in trade, investment and finance in Asia for BIMSTEC countries and Japan. The study focused on BIMSTEC seven nations trade, investment, and finance trends and patterns with Japan and also analyzed the trends and patterns of bilateral and sub-regional economic cooperation in Asia as well as BIMSTEC and Japan trade. Japan is the second biggest trading partner for

BIMSTEC countries. Being a part of regional agreements trade and investment among the members of BIMSTEC together with Japan increased appreciably over the years. Study concluded that Japan being the part of FTA (Free Trade Agreements) with BIMSTEC, growth in exports to BIMSTEC countries was much superior to imports, which indicate Japan was more beneficiary being the part of free trade area with BIMSTEC. BIMSTEC and Japan cooperation encourage a suitable financial integration procedure that takes into account diverse states of growth of associated economies, predominantly banking and financial sectors, capital account systems, exchange rate systems, and bond markets.

Bhattacharya (2007) discussed the case for Free Trade Arrangement between BIMSTEC and Japan for promoting intra-regional trade and economic corporation. With the formation of Preferential Trade Agreement (PTA) and Free Trade Agreement (FTA) between BIMSTEC nations and Japan, the Intra Industry Trades grow much faster and hope to catch the level of ASEAN trading bloc. The Intra Industry Trade among BIMSTEC nations India, Thailand, Sri Lanka and Myanmar had been increased over the period of year but the intra industry trade of Nepal had decreased with the formation of FTA with Japan.

Leela (2007) conducted a study on evolution of BIMSTEC towards a Bay of Bengal economic community. Study pointed out that BIMSTEC free trade agreement was a comprehensive arrangement covered the trade in goods as well as in services, investment and provide a framework for trade liberalization and all sectors. FTA also exploits the potential of economic integration in the Bay of Bengal region. The study suggested that for the successful promotion of mutual cooperation in the BIMSTEC region required speedy development of transport and communication linkage, exchange of information, progress in science and technology and enhanced technical cooperation was essential for growth and development of member nations.

Rao and Rao (2007) studied a re-envisioning on India and Myanmar relations. Study stated that India made several efforts towards sub regional, cross regional and bilateral regional trading arrangements. Myanmar built the bridge to South-East Asia an India hopes to transform northeast from security into land of economic opportunity. Among the BIMSTEC nations India is fourth largest trading partner of

Myanmar and India is Myanmar largest export market, accounting for nearly one fourth of its exports. Myanmar is the only Southeast Asian nation which India shares both land and maritime boundaries. And India has emerged as largest market for Myanmar. Study also revealed that economic cooperation with Myanmar lead to economic development of India's northeastern states because Myanmar provides the shortest links to Southeast Asian markets by air, land and sea that promote the intra-regional trade among BIMSTEC nations.

Strutt (2008) described a dynamic analysis of probable impact on BIMSTEC with Japan FTA. The study revealed that the BIMSTEC economies were predictable to considerably raise their share of global GDP as well as global exports and imports. If BIMSTEC free trade area included the Japan as member then it will lead to momentous gains of output, welfare and exports for both BIMSTEC and Japan. Japan plays a vital role to increase the resource base and trade ability of BIMSTEC economies. ODA and FDI flows from Japan benefited the BIMSTEC nations for creation of trade.

2.2. ECONOMIC COOPERATION AMONG BIMSTEC ECONOMIES

Economic integration within regional trading blocs adds the significant value to increase economic growth, trade, investment etc.

Devi (2005) examined the trends and prospects of BIMSTEC economies and economic cooperation of Japan with BIMSTEC countries. The study explored that with the economic cooperation with Japan of BIMSTEC nations all BIMSTEC nations registered a significant improvement from the 1995 onwards and Thailand experienced a tremendous growth in trade from the period 1990 to 2002. India's export orientation was above unity in the former period, indicated a promise for future expansion of Indian exports. Study pointed out that economies of India and Japan are highly complementary in terms of factor endowment, capabilities and specializations. With the economic cooperation of Japan and India, BIMSTEC nations expand their trade with rest of the world and it benefits the economies of whole Asia in the coming years.

Asher and Sen (2006) stated that India is country as a member of BIMSTEC having a economic potential to provide Japan and other group members with sustained economic opportunities and risk diversification. Bilateral merchandise trade linkages between BIMSTEC and Japan had been largely fuelled by Thailand. Japan was Thailand's second largest trading partner and Thailand's biggest import source. The study also explored that the trade of service sector between BIMSTEC and Japan increased over the years and trade flow of Japan concerned with two major BIMSTEC nations i.e. Thailand and India. BIMSTEC and Japan economic cooperation provided significant mutual gains for both parties in trade and other sectors also.

Batra (2007) stated the strategies and options for South Asia's Free Trade Agreement (SAFTA). The study revealed that the implementation of the SAFTA in 2006 lead to regional economic integration pursued in South Asia. The economic corporation in South Asia and the predominant position of India in the region lead to easy connection between South Asia with East Asia to form an Asia wide Free Trade Arrangement. The existing agreements such as the Bangkok Agreement and BIMSTEC in terms of membership and sectoral coverage has been potent instruments in facilitating the South Asia and East Asia economic integration.

Chetty (2007) explained the India's role in BIMSTEC and its problems and prospects. The study stated that India had reached a milestone in its participation in the BIMSTEC process when BIMSTEC free trade agreements signed. The framework agreement BIMSTEC-FTA covered trade in goods, investments and services. Enhancement of interaction among the member nations and identification of six core areas of cooperation lead to economic growth within BIMSTEC.

Murthy (2007) explored the regional economic arrangements within BIMSTEC region and understanding the growth of BIMSTEC. The study has been described that regional economic arrangement integrates national economies into a large economic region. And it involves the removal of trade impediments and establishment of coordination among the countries concerning trading bloc. BIMSTEC was formed to focus the area of economic growth and upgrading the interaction among the member nations. The member nations have desire to

expanding their international trade, focusing on export oriented liberalization, attracting FDI, liberalizing their own economies, and looking at new technology, all led to economic development of member nations.

Murty et.al (2007) discussed the possibilities of cooperation in BIMSTEC countries. The study concluded that to achieve high level of economic integration within BIMSTEC nations, identify the potential areas of trade and economic cooperation for individual economy, reduce poverty and high mortality rate to promote the economic cooperation among nations. Study stated that among the BIMSTEC nations India and Thailand both lead in merchandise trade and Sri Lanka and Bangladesh emerged as the important exporters of manufacturing goods in the BIMSTEC region.

Reddy (2007) revealed that India's bilateral and multilateral agreements with BIMSTEC help to closer economic relation and expand the trade. BIMSTEC region had a rich potential for economic cooperation, arising from substantial complementarities existing between economic structures and factor endowments of the member nations. Through regional integration, BIMSTEC made a good beginning with establishing a Free Trade Area (FTA) and exploit the resources available within nations. It also promotes the trade and investment facility among BIMSTEC nations.

Upreti (2007) studied the nature, direction, challenges and issues for the overall development phase of BIMSTEC region. BIMSTEC region given more importance to intra-regional trade and accepted to taking the trade facilitation for the enhancement of regional trade. The study demonstrated that BIMSTEC nations offer vast scope for the cooperation in the field of trade, investment, hydropower generation, natural gas etc. and Free Trade Area agreements play vital role for the development of trade among the member nations.

Batra (2010) stated that the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Co-operation (BIMSTEC), as inter sub-regional organization, having ability to act as a bridge between South and Southeast Asia. The performance of the BIMSTEC has not been effective to take the regional economic integration among the member countries to a higher level. Trade indicators such as intra-regional trade

and investment shown no signs of enhancement since the formation of the regional organization. Access to a larger market through the trade bloc has done no significance to increasing trade or investment flows for the smaller member economies. BIMSTEC region has insufficient macroeconomic linkages and ill policy coordination.

Chowdhury and Neogi (2013) analyzed the economic overview of BIMSTEC countries over the period of 1997-2011. The study revealed that the economic performance of the BIMSTEC economies has been widely influenced by three major factors i.e. external impacts, policy responses, and structural factors. To evaluate the performance of BIMSTEC nations, macro-economic indicators such as GDP, Inflation, Agriculture, Industry, Service Sector, and Unemployment Rate was considered over the period 1997-2011 among BIMSTEC economies. According to the observation the cooperation among the BIMSTEC nations across the world may lead to take interest in respect of the South-East Asian region. The scope for investment by the corporate in this region also increased year by year and in future, South and South Asia region has an opportunity to increase the business among the BIMSTEC countries.

Hossain (2013) examined that a complete removal of import tariffs among the member countries generate significant welfare gains for its members and also implied that few BIMSTEC member countries experience some adverse impact in case of terms of trade, industry output, balance of trade etc. However, the most encouraging fact is the opportunities of employment generation after full implementation of BIMSTEC FTA. At last study explore the common phenomenon in majority of the BIMSTEC countries i.e. poverty, and suggested that employment in unskilled labour might reduce poverty within the bloc.

De et.al (2014) made the empirical assessment to study the Impact of BIMSTEC trade agreement on strengthening export performance of Indian firms. Regional trade and economic integration has affected the firm level decision making in assessing the destination for investment. The study assessed the probable impacts of the BIMSTEC on the export performance of Indian firms and explored that a lot of other factors also facilitate the exports. The study evaluated major macro parameters

firms consider crucial while improving the exports of chosen Indian firms. The study also provided successful marketing strategies for improvement in Indian export and expanding their markets in the BIMSTEC.

Rahman and Kim (2015) studied that BIMSTEC region is one of the least connected regions in the world and if BIMSTEC countries completely eliminate import tariffs with each other, Thailand, India and Bangladesh have expected to experience welfare gain whereas Sri Lanka and Nepal are expected to experience welfare loss from intra- regional trade and FDI. The Complete removal of tariff on trade cause to improve the allocative efficiency in all BIMSTEC countries. The study suggested that BIMSTEC countries should work on single window facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements.

Sharma and Roy (2015) analyzed that as a part of Look East Policy, India engaged in two important sub-regional economic grouping viz Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) in 1997 to promote technical and economic cooperation. Bangladesh-China-India-Myanmar regional economic forum (BCIM) in 1999 to promote sub-regional cooperation in infrastructural development and people to people contact between these four countries. The study concluded that both groupings has contributed to enhance the trade and commerce of India with its immediate neighbors in eastern side and to boost the primary goal of its look east policy viz. economic integration.

2.3. ROLE OF TRADE AND INVESTMENT IN BIMSTEC REGION

BIMSTEC strategies has been made with such a way that encouraging the national and regional interests at a multilateral level. Through this platform, the BIMSTEC economies attract international support and cooperation for developmental projects and productive economic strategies.

Chakraborty (2007) stated that India had taken holistic view about the emergence of BIMSTEC in context of new global order, particularly its Look East thrust. Thailand play important role to speed up the pace of trade liberalization and economic

cooperation within BIMSTEC. Being a member of BIMSTEC and India's outward orientation process lead to increase the India's trade with APEC (Asia-Pacific Economic Cooperation) economies.

Chakraborty (2007) analyzed the trade performance and integration experience of BIMSTEC. The study observed that the intra bloc trade in final products and trade in intermediate products increased within BIMSTEC nations which increased the possible production integration among the BIMSTEC nations. The study revealed that removal of tariff and non tariff barriers, and implementation of the trade facilitation significantly contributed to increase the trade among BIMSTEC economies.

Kumari (2007) stated that system for trade development and governance in BIMSTEC insist the centrality of the market forces above person, communities and government promote the rights of business sector overthrow the people, communities and states. And woman played a significant role in trade liberalization but trade policies trends for woman still debatable in these nations.

Devi (2007) examined the emerging trends and prospects of economic cooperation in BIMSTEC. The study revealed that there was significant change in the trade orientation of BIMSTEC nations from 1990s and most of them exhibited a higher outward orientation. The relevance of the regional bloc in enhancing the trading and investment patterns and analyzed the existing socio economic performance of individual member nation. With the formation of BIMSTEC trading bloc, majority of South Asian countries were able to improve their export competitiveness to some extent in international market and FTA under BIMSTEC umbrella help to expand the size of market in international market of member nations.

Mukherji and Paswan (2007) explored the trade and investment opportunities of India in BIMSTEC trading bloc. The study highlighted that for the growth of intra regional trade brought the trade potential at sectoral and product level under fast trade liberalization. Manufacturing units added the impetus to India's intra industry trade. For the growth of India trade in BIMSTEC manufacturing units plays vital role and expand the trade.

Nag and De (2007) stated that BIMSTEC made the bridge between South Asia and South East Asia. BIMSTEC had a potential to increase the trade among member countries by enchanting gain of their geological location in the state of the Bay of Bengal and the Eastern coast of the Indian Ocean. FDI come from Asian countries together with Japan may help in overcoming many problems in a bloc. For the encouragement of the trade key sectors were recognized by the bloc (BIMSTEC) and trade facilitation take serious concentration by the BIMSTEC nations. In field of transport and infrastructure BIMSTEC helps the Asian integration process giving important focus on cross border infrastructure growth and also make investment demand in key sectors preferred by BIMSTEC nations.

Ramachandru et.al (2007) revealed the Asian drama for the Formation and sustained the regional alliances of BIMSTEC, SAARC and ASEAN was well in tune with the fast changing global scenario. It had increased coordination and cooperation between the major Asian economies which is essential to manage the global challenges and enhance Asia's role in world trade and affairs. India's look east policy play vital role to build economic integration with rest of Asia.

Gilbert (2008) analyzed the trade cooperation between BIMSTEC and Japan along with poverty in Asia. The study concluded that Japan's trade with other BIMSTEC economies, away from Myanmar, was usually lesser than too expected given their size in world trade. Accomplishment of a free trade agreement between Japan and BIMSTEC begin with modest overall economic impact, by the primary recipient being Thailand. The trade trends point toward that the corresponding in the region by Japan had been expanded over the time. For the welfare distribution in BIMSTEC economies, there was need for BIMSTEC and Japan cooperation to encourage agreement in all of the target areas.

Wijayasiri and Mel (2008) examined the BIMSTEC and Japan economic cooperation in trade and investment from Sri Lankan perspective. Sri Lanka continues to look for increased diversification of export market which presently concentrated in Europe and the USA. Japan was a chief trading partner for mutually as a source of imports and destination of exports and Japan act as a channel that enhances rivalry in the BIMSTEC region and for promotion of quality and standards

of production and service supply in the county. The high transaction costs to trade in the state, the necessitate enhanced infrastructure, reduction of NTBs (Non-Tariff Barriers) and the coverage of the agreement were the main issue for the BIMSTEC and Japan corporation. But still Japan may well play a key role in boosting economic cooperation in BIMSTEC.

Kabir and Salim (2010) analyzed that the share of intra-BIMSTEC trade not enough in the world trade. The main import sources and export destinations of most of the BIMSTEC countries still from outside the bloc. And results of study revealed that the GDP and governance of both importers and exporters positively influence the bilateral trade, positive effect of BIMSTEC in members exports had been found, which indicates a strong evidence of positive trade response to the bloc even before the forming an FTA.

Kalirajan and Bhattacharya (2011) empirically measured the export potentials among BIMSTEC and Japan. The study pointed that BIMSTEC has expected to be more successful in enhancing intraregional trade because of its proximity of demand and strong historical, cultural, political, and economic ties with the member countries. As Japan is the second largest trading partner and given Japan's technological development status, it is beneficial for BIMSTEC member countries to have closer economic cooperation in terms of sustained trade and investment. It is also beneficial to Japan to cater for the dynamic emerging economies such as India in BIMSTEC.

Saxena and Bhadauriya (2012) have tried to identify the areas of improvement in Indo-BIMSTEC trade relations. The two BIMSTEC nations Sri Lanka and Thailand were the leader partners of India in context to both import and export. India's best trading partner was Sri Lanka among all the BIMSTEC nations because Thailand had adverse trade with India. For the growth of export India must identify the potential products which can drive Indian export to export market. In context to imports, India imports from Thailand were high. Stronger relation between India-BIMSTEC means more steady and affluent Asia.

Chowdhury and Bhattacharjee (2014) described that promoting quality health services to large population segments is a key ingredient to human and economic

development. healthcare policymaking involves complex trade-offs between promoting equitable and affordable access to a basic set of health services, creating incentives for efficiencies in the healthcare system and managing constraints in government budgets. Trade in health services can be enhanced through patients seeking treatments in other countries, investment in labs and hospitals and temporary movement of health professionals like doctors and specialists. To enhance regional health service trade, countries under BIMSTEC region should take positive steps such as, remove visa requirements, remove limitations on the movement of natural persons, establish common curricula in medical education, mutual recognition of diploma and other professional qualifications, ease requirements of obtaining necessary permits and authorizations etc.

Chowdhury and Neogi (2014) estimated the trade complementarity and similarity between India and BIMSTEC countries in the Context of the Regional Trade Agreement (RTA). The study revealed that BIMSTEC is an important element in India's "Look East" strategy and adds a new dimension to India's economic cooperation with South East Asian countries. India BIMSTEC free trade agreement promote trade and greater connectivity between India, Nepal, Bangladesh, Myanmar, Sri Lanka, Bhutan and Thailand. The trade structure between India and BIMSTEC exposed that there are complementary sectors and products available for enhancing trade cooperation between the trading partners. India, with trade cooperation with some BIMSTEC nations, in all product categories can be a vital player in the region. India's average tariff is higher than BIMSTEC countries and reduction of tariffs have a short term crash on India's exports but can unite in the medium term through productivity gains and efficiency. Also emerging economic structure warrants greater cooperation from India in the regionalization efforts in Asia.

Rahman and Kim (2016) analyzed the trade and investment potential under the ambit of regional cooperation comprising the seven contiguous countries of Bangladesh, India, Sri Lanka, Nepal, Bhutan, Thailand and Myanmar. The potential economic impact of the BIMSTEC economic cooperation as well as BIMSTEC FTA promote the growth for the region. One of the major findings of the study was that a large part of BIMSTEC's trade has remained unrealized and the trade transaction

cost is one of the major trading barriers prohibiting the growth of BIMSTEC intra-regional trade. The study reinforced that improvement in infrastructure and connectivity that leads to less trade transportation costs should be a necessary step in order to realize BIMSTEC's trade and investment potential and liberalization of non-policy barriers spur BIMSTEC's trade and economic cooperation.

2.4. POLITICAL ASPECTS OF BIMSTEC ECONOMIES

The political welfares based on the economic cooperation has far reaching effect that result into closer links of BIMSTEC than SAARC. Today, India emerged as fast developing economy in the world.

Shrivastava (2005) examined that BIMSTEC have well planned strategy for India and also the extension of Look East policy. After the globalization when India's economy liberalized itself, the BIMSTEC was formed for extension of trade relations. BIMSTEC have complement for SAARC to promote a free trade area in South Asia. BIMSTEC members recognized the importance to create air, sea and land linkage. Being the member of BIMSTEC, India was in a better position to deal with Chinese ambitions. And prevent India from emerging as a rival Asian power. Being the BIMSTEC members, India's also able to tackle the major problem of terrorism. India adopts a multi-pronged approach to tackle the problem of terrorism. BIMSTEC made India to become the energetic parts of international politics.

Chandrasekha and Rao (2007) explored the political and foreign policy perspectives of BIMSTEC. The study stated that to achieve the state of economic integration among the BIMSTEC nations focused on their energies of liberalization and economic reforms of member nation's economy rather than its political issues such as border problems etc. Most of BIMSTEC nations had adopted the outward policy after 1990s that had resulted the faster economic growth among the nations.

Vanajamani (2007) revealed that with the economic integration among the BIMSTEC nations, the South Asian nation's exports of services had been grown especially commercial services export show significant growth. In case of Sri Lanka, commercial service exports had made vibrant growth in total exports and Bangladesh made remarkable increase its share of export in transport sectors. But

from the observations or evident the trade performance of BIMSTEC countries at the global level had been miserable in relative sense and India play an significant role to be future cooperation in South Asia in general and BIMSTEC in particular.

Feroze (2015) analyzed the some important points for a successful BIMSTEC. The article stated that the special interest of regional diplomacy was attracting more countries toward the Bay of Bengal but for the strength of bilateral relations, effective regional cooperation has a precondition. Good bilateral relation with the neighboring country, to a larger extent, determines the success of a regional cooperation. The need for better and effective bilateral ties among BIMSTEC member countries as it is a basic requirement for successful regional cooperation.

2.5. SUMMARY

It is clear from the above analysis that the most of the literature reviews, focused on various issues of BIMSTEC such as political issues, issues related with economic cooperation and integration, issues related with agreements among member nations, regional problems of member nations etc. But there is no specific analytical study is found on the trade benefits of India from BIMSTEC. All member of BIMSTEC bloc has common history, culture and commercial ties with each other. The BIMSTEC nations contain both Developing Nations and Least Developing Countries (LDC's). The BIMSTEC comprises the nations from two regions i.e. South and Southeast Asia with intention of economic cooperation, exploiting the potentials resources in the member countries that provides a beneficial platform from political view point for emerging India. The important fact for development is economic prosperity for peace and tranquility in the bloc. The BIMSTEC member nations well understand that to assistance mutually in emerging globalization, there is need to maintain supportive and cooperative relationship with each other. Moreover, it is essential that all member nations should struggle not only for the economic cooperation, but also for the cultural and social associations so that more closure and valuable ties take place. BIMSTEC are also progressively changing as strategic groupings of much influence decided to boost cooperation in many areas, particularly through a Free Trade Agreement in a bid to increase intra-regional and inter-regional importance. The growth of cooperation has been appropriate with time as it

amplified from technical and economic aspects to contain aspects such as culture, climate and security. The prominence of BIMSTEC is naturally important for the smaller economies such as Nepal, Bhutan, Bangladesh and Myanmar, who positively necessity a path such as BIMSTEC to fulfil their economic development goals, but more significantly, in context of the emerging power struggle in Asia.

CHAPTER – 3

TRADE PERFORMANCE BETWEEN INDIA AND BIMSTEC COUNTRIES PRE AND POST FORMATION OF BLOC

This chapter assesses the trade performance of BIMSTEC nation before and after the formation of trading bloc. This chapter constitutes the overview of BIMSTEC countries in general and trade performance in specific. BIMSTEC was set up in 1997 as an expression of the convergence of economic interests coming out of India's Look East policy and Thailand's Look West policy.

3.1. BACKGROUND

The Bay of Bengal representing one fifth of the world's population, including nearly a third of its poorest members, the bloc's member states are demographically young, politically evolving and ethnically diverse. The inter-regional grouping BIMSTEC aimed to serve as a bridge between the five SAARC countries and two ASEAN countries. BIMSTEC's objectives stretch from creation of economic and social prosperity based on equality, to enhancement of mutual benefits in economic, social and technological aspects. They also involve intra-regional assistance in the form of training, research and development as well as beneficial cooperation in the areas of agriculture, industry, expansion of trade and investment, improvement in communication and transport, for the purpose of improving living standards and cooperation with other international organizations. The formation of BIMSTEC can be attributed to two things. One is the failure of SAARC to form a vibrant regional forum for trade and economic cooperation. Secondly, ongoing process of liberalization in South Asian economies is desperate to discover new markets in the ASEAN region as a substitute of SAARC, whose scope is limited due to non-economic factor that is unlikely to change in the near future. There is another factor, which may be cited for the formation of this bloc is the Thailand's desire to establish strong foothold on the Indian subcontinent because of increasing competition it has been facing in the ASEAN markets. Though BIMSTEC comes into existence very recently, its formation can be traced back till mid-1960s, when both India and Sri Lanka were invited to join ASEAN but was rejected by both the countries. In 1981,

Sri Lanka made an unsuccessful attempt to join ASEAN, and India and Pakistan obtained Dialogue Partner status in 1993. The approach of South Asian countries to establish link and enhance economic cooperation shows their intension to strengthen economic relations with the ASEAN countries (Kelegama,2000). BIMSTEC may be used as conduit for South Asian countries to establish and develop a good relationship with the ASEAN countries.

3.2. OVERVIEW OF BIMSTEC ECONOMIES

Economic performance will depend heavily on the domestic security and political scenario, and developments in the global economy. Domestic factors played a more important role, such as the security situation in Nepal, tensions between India and Pakistan and progress on peace talks in Sri Lanka. The main aim of BIMSTEC is to fully utilize the existing potential of member nations for promoting economic cooperation in the areas of investment, industry, technology, human resource development, agriculture and infrastructure. BIMSTEC provides an opportunity to optimize complementarities in trade, investment and production between South and South-East Asian countries. The similarities among the member states extend to a common historical past, their developing status and cultural bonds. BIMSTEC brings together 1.5 billion people, 21 per cent of the world population, and a combined GDP of over US\$ 2.5 trillion. The BIMSTEC nations contain both Developing Nations and Least Developing Countries (LDC's). Therefore, they are characterized by higher tariff barriers on their imports, viz-a-viz their developed counterparts. It was anticipated that the special treatment has been permit the nations to increase improved access in each other market the 'enabling clause' provision would give them the requisite safeguard to protect the responsive domestic sectors on the other. Furthermore apart from the tariff barriers, it was predictable that the trade facilitation procedures would considerably lower the level of transaction costs, which presently put a downward pressure on the intra-regional trade dimensions (Bhattacharya, 2007).

The integration of BIMSTEC is one of the most important regional integration process developed among developing countries. It consists of heterogeneous group of countries with wide socio-economic development. The description provided by

**Table 3.1: Demographic and Macroeconomic Indicators
of BIMSTEC economies**

Parameter/ Country	Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
Land area (000sq km)	2015	2973190	130170	38117	653080	143350	62710	510890
Population (Thousand)	1997	202853.85	123574.11	520.92	45895.99	22395.25	18323	60544.94
	2015	257563.82	160995.64	774.83	53897.15	28513.70	20966	67959.36
% Share of above 65 pop to total pop.	2015	6	5	5	5	6	9	10
% share of Population above 15-65 years	2015	66	66	68	67	62	66	72
GCI Index ranking	2015	55	107	105	131	100	68	32
Life Expectancy (Years)	2015	61	63	58	61	60	70	70
Adult Literacy (15-24)	2015	89.66	83.20	92.04	96.33	89.95	98.77	98.64
Compound Growth Rate of GDP in Current Prices (in %)	1997	4.0	4.5	5.4	5.7	5.0	6.4	-2.8
	2015	7.6	6.6	3.3	7.0	3.4	4.8	2.8
Per Capita in Current Prices (in US \$)	1997	47477.48	325.4765	418933.7	9332.566	5097.386	15457.5	145444.1
	2015	138103.7	1770.005	1856518	59441.95	18202.31	58258.3	370693.7
HDI rank	2015	130	142	132	148	145	73	93
HDI Values	2015	0.609	0.507	0.605	0.536	0.548	0.757	0.726
GDP (US \$ Billions)	2015	2,090.71	205.71	2.21	66.98	21.35	82.09	395.28
Gini Index	2015	33.9	32.1	38.1	N/A	32.8	36.4	39.4
Per Capita GDP (US \$)	1997	434.73	402.89	667.84	155.89	244.087	882.95	2475.10
	2015	1688.38	1265.71	2836.80	1268.68	751.12	3767.58	5426.30

Source: World development Report (2015), International Monetary Fund, World Economic Outlook (2015), UNESCO, UNDP

table no. 3.1 gives some statistics on GDP growth rates, per capita incomes and demography for the BIMSTEC countries for the periods of 1997 and 2015. Assessment of Table no. 3.1 clearly indicates that the in 2015 growth rate has been in double digits for all the countries along with a two to three times increase in the per capita incomes. However, among BIMSTEC countries, India is biggest nation in terms of land area, and Bhutan is the smallest one. India having 1st rank in population among the BIMSTEC countries, lowest population country is Bhutan in a region. As shown in the table, these countries have a fairly young population with only Thailand having 10 per cent of its population above the age of 65. Almost all the member nations of BIMSTEC have been performing fairly well to make their population literate. Literacy rate in countries like Thailand, Myanmar, Sri Lanka and Bhutan were more than 90 per cent.

Macroeconomic parameters are statistics that point in the direction of importance of the economy for the state of depending on a particular vicinity of the economy (industry, labour market, trade etc.). Macro Economics engrosses looking at a country's economy as a whole. The economic indicators of BIMSTEC economies revealed that rapid transformation of their economies from agriculture to services. Some structural variations among the economies have been appearing in the region. The shift from the share of agriculture in GDP of that service is viewed from the strength of the sector productivity and contribution to employment. In recent years, with the exception of Nepal, a heavy dependence on service was visible in the region. The share of service was declined in the favour of industry in Thailand as compare with other member nations of BIMSTEC. Key Macroeconomic indicators involve **GDP, inflation, agriculture, industry, services, and unemployment.**

The GDP growth rate appraises how fast the economy is upbringing. Technically it is the percentage swell or shrink of GDP compared to the previous quarter. The GDP growth rate is single-minded by retail expenditures, Government expenses, exports and inventory heights. The GDP growth rate is the most important indicator of economic escalation. Once the GDP growth rate slows down, the business reduces investing further in new purchases, in expansion of business and also in hiring new employees. It waits for the revival of the economy. This, in turn, has

further adverse impact on the economy. Table no. 3.2 has been depicted the annual growth of GDP for all the BIMSTEC nations. In 1997 the growth rate of GDP for India was 4.04 per cent. As shown in table the growth rate of GDP for Bhutan, Sri Lanka, Nepal and Myanmar was almost same whereas for Bangladesh it was 5.38 per cent and for Thailand it was -1.37 per cent. Thailand experienced a negative growth rate of GDP in 1997. In 1998 India's

Table 3.2: Annual growth rate of GDP for BIMSTEC Countries (In per cent)

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	4.04	5.38	5.37	5.65	5.04	6.40	-1.37
1998	6.18	5.22	5.91	5.86	3.01	4.69	-10.51
1999	8.46	4.86	7.98	10.94	4.41	4.30	4.44
2000	3.97	5.94	6.93	13.74	6.24	6.47	4.75
2001	4.94	5.27	8.20	11.34	4.82	-1.54	2.16
2002	3.90	4.41	10.72	12.02	0.11	3.96	5.31
2003	7.94	5.25	7.66	13.84	3.94	5.94	7.13
2004	7.84	6.27	5.89	13.64	4.68	5.44	6.34
2005	9.28	5.95	7.12	12.63	3.12	6.24	4.60
2006	9.26	6.62	6.84	14.34	3.71	7.66	5.09
2007	9.80	6.42	17.92	11.45	3.41	6.79	5.04
2008	3.89	6.19	4.66	10.63	6.10	5.95	2.48
2009	8.23	5.74	6.72	10.98	4.53	3.53	-2.32
2010	9.55	6.06	11.76	12.53	4.81	8.01	7.81
2011	6.85	6.70	5.57	13.87	3.88	8.25	0.07
2012	4.70	6.50	5.10	8.30	4.99	6.32	7.70
2013	5.00	6.00	2.00	7.30	3.81	7.30	1.81
2014	6.20	6.20	2.10	7.04	3.13	5.35	2.21
2015	7.60	6.60	3.33	7.00	3.40	4.80	2.88

Source: World Bank

GDP growth rate has increased from 4.04 per cent to 6.18 per cent. In 1998 Bangladesh, Bhutan and Myanmar's GDP growth rate has not increased much. The GDP growth rate of Nepal, Sri Lanka and Thailand has decreased in 1998. In 1999 India's GDP growth rate was 8.46 per cent. India's GDP growth rate has increased in 1999 from 1998. The GDP growth rate of Bangladesh has decreased from 5.22 per cent to 4.86 per cent in 1999. In 1999 the GDP growth rate of Bhutan, Myanmar, Nepal and Thailand has considerably increased from 1998. In 2000 the GDP growth rate of India and Bhutan has decreased whereas in other BIMSTEC countries it has increased. In 2001 the GDP growth rate of India was 4.94 per cent. The GDP growth rate of Bangladesh has decreased from 2000 to 2001. The GDP growth rate of Bhutan has increased from 6.93 per cent to 8.20 per cent in 2001. The GDP growth rate of other BIMSTEC countries has decreased in 2001. In 2003 only Bhutan's GDP growth rate has decreased whereas other BIMSTEC countries' GDP growth rate has considerably increased. In 2004 India, Myanmar and Sri Lanka have not achieved any increase in their GDP growth rate. In 2005 India's GDP growth rate has increased from 7.84 per cent to 9.28 per cent. Other BIMSTEC countries' GDP growth rate has not increased so much in 2005. The GDP growth rate of Bangladesh, Myanmar, and Sri Lanka has increased in 2006 while other BIMSTEC countries' GDP growth rate has decreased. In 2007 except India and Bhutan, all other nations experienced a negative GDP growth rate. In 2008 India's GDP growth rate has dramatically fallen to 3.89 per cent. The other BIMSTEC Countries' GDP growth rate has considerably decreased in 2008. In 2009 India's GDP growth rate has increased considerably. Thailand has experienced a negative GDP growth rate in 2009. Except Bhutan and Myanmar other BIMSTEC countries' GDP growth rate has decreased in 2009. In 2010 India's GDP growth rate was 9.55 per cent. Bangladesh Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's GDP growth rate was 6.06 per cent, 11.76 per cent, 12.53 per cent, 4.81 per cent 8.01 per cent and 7.81 per cent respectively in 2010. In 2011 India has seen a downswing in its GDP growth rate. Except Myanmar other BIMSTEC countries' GDP growth rate has decreased in 2011. In 2013 expect India and Sri Lanka, the GDP growth rate for other BIMSTEC nations was fallen. The major cause of negative growth of GDP in Thailand was firstly, the Asian economic crisis of 1997 caused the drop into

negative and second was the global crisis of 2008-2009 dip Thailand economy into negative growth. Despite all the political disturbances and severe floods which occurred during the 2011 monsoon were also the chief causes for the negative growth of Thailand economy. From 2005 to 2011 the GDP growth rate (annual per cent) of Myanmar was the highest among all the BIMSTEC countries. In spite of being the largest country in mainland Southeast Asia, Myanmar has one of the lowest population densities in the region. Fertile lands, significantly intact agricultural potential and a rich base of natural resources are the major wealth of the country. According to World Bank, the main share of Myanmar's GDP (43 per cent) is derived from agriculture, livestock, fisheries and forestry. This sector generates about 54 per cent of employment and provides livelihoods for more than 70 per cent of the population (Myanmar Overview, 2013). In 2015 GDP growth rate was 7.6 per cent for India and its highest among the BIMSTEC region. Thailand marked as lowest GDP growth per annum i.e. 2.88 per cent in 2015.

Inflation is an economic marker that gauges the collapse in purchasing power of a currency. This is calculated through assorted types of price indices including the Consumer Price Index and Producer Price Index, using data get hold of by the government. Inflation is in general the percentage increase in these numbers, although it is nearly not viable to assess literally due to changes in consumer penchants. Usually inflation is rooted by an increase in the money supply, which escorts to price increases.

Below table no. 3.3 shown the annual inflation rate of all the BIMSTEC nations. In 1997 the annual inflation rate was 6.47 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's annual inflation rate was 3.09 per cent, 12.48 per cent, 33.79 per cent, 7.27 per cent, 8.92 per cent, and 4.06 per cent respectively in 1997. In 1998 the annual inflation rate was 8.01 per cent in India. It has increased from 1997. In 1998 except Bhutan and Nepal other BIMSTEC countries' annual inflation rate has decreased. In 1999 only Nepal has seen an increase in their annual inflation rate from 1998. Other BIMSTEC countries' annual inflation rate has decreased in 1999. In 2000 the annual inflation rate of India was less than 5 per cent.

Table 3.3: Annual inflation rate of BIMSTEC member countries

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	6.47	3.09	12.48	33.79	7.27	8.92	4.06
1998	8.01	5.27	10.50	35.82	4.10	9.21	9.23
1999	2.87	4.65	7.43	22.64	8.88	4.16	-4.03
2000	3.65	1.85	2.28	2.46	4.47	7.27	1.34
2001	3.18	1.58	5.26	24.84	11.01	13.66	2.06
2002	3.71	3.19	4.88	41.50	3.93	11.81	0.81
2003	3.88	4.52	3.08	20.49	3.07	5.41	1.32
2004	5.93	4.24	3.79	3.53	4.16	8.80	3.12
2005	4.23	5.07	5.85	8.78	6.48	10.41	4.48
2006	6.42	5.17	5.41	12.85	6.99	11.27	5.24
2007	5.75	6.78	3.11	15.85	7.60	14.02	3.45
2008	8.66	8.78	5.69	17.84	5.61	16.32	3.98
2009	5.96	6.52	4.84	16.32	15.90	5.87	1.94
2010	8.48	6.47	5.91	18.36	15.23	7.29	3.66
2011	7.99	7.53	5.65	16.56	10.43	7.84	4.22
2012	7.20	8.20	9.20	13.87	6.69	8.90	0.21
2013	6.91	7.21	5.00	15.73	6.82	6.71	2.82
2014	5.55	6.11	4.18	12.39	6.78	3.11	1.20
2015	5.90	6.20	4.50	10.80	7.90	0.90	-0.92

Source: World Bank

Only Sri Lanka and Thailand have seen an increase in their annual inflation rate in 2000. In India, Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's annual inflation rate was 4.52 per cent, 3.08 per cent, 20.49 per cent, 3.07 per cent, 5.14 per cent, and 1.32 per cent respectively in 2003. In 2006 the annual inflation rate was 6.42 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka

and Thailand's annual inflation rate was 5.17 per cent, 5.41 per cent, 12.85 per cent, 6.99 per cent, 11.27 per cent and 5.24 per cent respectively in 2006. In 2010 the annual inflation rate was 8.48 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's annual inflation rate was 6.47 per cent, 5.91 per cent, 18.36 per cent, 15.23 per cent, 7.29 per cent and 3.66 per cent respectively in 2010. In 2011 the annual inflation rate was 7.99 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's annual inflation rate was 7.53 per cent, 5.65 per cent, 16.56 per cent, 10.43 per cent, 7.84 per cent and 4.22 per cent respectively in 2011. In 2013 annual inflation rate, except for Myanmar, Nepal and Thailand decrease for other BIMSTEC nations. The annual inflation rate was also very high in Myanmar from 1997-2015. The main cause of inflation in Myanmar is Budget deficit. The demand for resources by the state by far beats the state's capability to raise taxation revenue that is the consequence of which the state finances its expenses by the simple expedient of printing money is the verity of inflation in Myanmar. Another reason for high inflation rate in Myanmar has a double exchange rate system. Double exchange rate illustrates a depreciation tendency in a long term. Inflation has emotionally involved depreciation and monetization of fiscal deficit which root inflation and result in long-lasting depreciation. In 2015 inflation rate were high in Myanmar among BIMSTEC countries. Thailand having a negative growth of inflation i.e. -0.92 per cent.

The share of agriculture in GDP can be used as an indicator to overview the economic situation of BIMSTEC countries. Agriculture plays a critical role in the entire life of a given economy. Agriculture is the stamina of economic system of a given country. In addition to providing food and raw material, agriculture also provides employment opportunities to very large percentage of population. Agricultural products like sugar, tea, rice, spices, tobacco, coffee etc. constitute the major items of exports of countries that rely on agriculture. The growth of agricultural sector contributes to marketable surplus. Many people engage in manufacturing, mining as well as other nonagricultural sector as the nation develops. Construction of irrigation schemes, drainage system as well as other such activities in the agricultural sector is important as it provides larger employment opportunities.

**Table 3.4 : Share of Agriculture in GDP of member nations
of BIMSTEC (in per cent)**

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	25.88	25.78	31.20	58.93	41.43	21.87	9.45
1998	25.79	25.45	29.53	59.05	39.91	21.11	10.78
1999	24.65	26.18	27.27	59.91	41.29	20.67	9.39
2000	23.12	25.51	27.39	57.24	40.82	19.90	9.02
2001	23.00	24.10	26.13	57.07	37.20	20.05	9.13
2002	20.75	22.73	26.34	54.53	38.09	14.28	9.43
2003	20.77	21.75	25.19	50.62	37.07	13.23	10.41
2004	19.03	21.04	24.92	48.35	36.67	12.54	10.31
2005	18.81	20.14	23.18	47.29	35.86	11.82	10.27
2006	18.29	19.61	22.14	46.86	34.13	11.34	10.77
2007	18.26	19.24	19.23	46.81	33.07	11.68	10.68
2008	17.78	19.01	18.98	45.68	32.22	13.38	11.56
2009	17.72	18.73	18.75	44.78	33.16	12.69	11.46
2010	17.74	18.59	17.50	43.28	36.53	12.81	12.39
2011	17.22	18.29	15.94	42.94	31.75	12.09	12.36
2012	17.50	17.11	17.00	42.23	36.53	11.00	12.31
2013	18.21	16.30	17.10	43.72	36.10	10.81	12.02
2014	17.37	16.97	17.09	37.19	35.91	9.67	11.89
2015	17.40	16.11	17.72	33.70	34.32	8.61	10.55

Source: World Bank

Table no. 3.4 illustrated the share of agriculture in GDP of BIMSTEC nations. In 1997 the share of agriculture in GDP was 25.88 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, and Thailand's share of agriculture in GDP was 25.78 per cent, 31.20 per cent, 58.93 per cent, 41.43 per cent, 21.87 per cent and

9.45 per cent respectively in 1997. The share of agriculture in GDP has increased from 1997 to 1998 in India. In 1998 except Myanmar the share of agriculture in GDP in other BIMSTEC countries has decreased. In 1999 the share of agriculture in GDP was 24.65 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's share of agriculture in GDP was 26.18 per cent, 27.27 per cent, 59.91 per cent, 41.29 per cent, 20.67 per cent and 10.78 per cent respectively in 1999. The share of agriculture in GDP has decreased from 1999 to 2000 in India. In 2000 only Bhutan has seen an increase in the share of agriculture in GDP. In 2003 the share of agriculture in GDP was 20.77 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's share of agriculture in GDP was 21.75 per cent, 25.19 per cent, 50.62 per cent, 37.07 per cent, 13.23 per cent and 10.41 per cent respectively in 2003. In 2006 the share of agriculture in GDP was 18.29 per cent in India. In 2006, Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand's share of agriculture in GDP was 19.61 per cent, 22.14 per cent, 46.86 per cent, 34.13 per cent, 11.34 per cent and 10.77 per cent respectively. In 2009 the share of agriculture in GDP was 17.72 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, Thailand the share of agriculture in GDP was 18.73 per cent, 18.75 per cent, 44.78 per cent, 33.16 per cent, 12.69 per cent, and 11.46 per cent respectively in 2009. In 2011 the share of agriculture in GDP was 17.22 per cent in India. Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, Thailand the share of agriculture in GDP was 18.29 per cent, 15.94 per cent, 42.94 per cent, 31.75 per cent, 12.09 per cent and 12.36 per cent respectively in 2011. In 2013 minor fluctuations were seen in agriculture share in GDP of all nations. The agriculture increased from 17.50 per cent to 18.21 per cent for India in 2013. But in case of Bangladesh, Nepal and Thailand, the share of agriculture decreased. Whereas Bhutan, Myanmar and Sri Lanka noticed increment in share of agriculture share in GDP. During 2015, highest agricultural growth was noticed in Nepal followed by Myanmar i.e. 34.32 per cent and 33.70 per cent respectively, and lowest growth in Sri Lanka that was 8.61 per cent.

The progress of a country's is to great extent is measured by its industrial development. A growing industrial sector is crucial to greater economic development and takes in a number of areas as a country develops. In particular,

industries can make significant contribution to achieve social and economic objectives such as labour absorption, income distribution, rural development, poverty eradication and balanced economic growth.

Table 3.5 : Share of Industry in GDP of BIMSTEC countries (in per cent)

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	26.41	25.14	33.78	10.17	22.86	26.89	40.16
1998	25.74	25.81	32.90	9.85	22.49	27.54	39.63
1999	25.37	25.15	35.64	8.99	21.80	27.28	40.93
2000	26.11	25.28	35.99	9.69	22.13	27.28	41.99
2001	25.17	25.94	37.90	10.58	17.79	26.80	42.14
2002	26.23	26.41	38.60	13.00	18.09	28.01	42.43
2003	26.04	26.26	39.36	14.25	18.14	28.42	43.63
2004	27.92	26.60	37.74	16.20	17.85	28.61	43.39
2005	28.13	27.22	37.28	18.20	17.69	30.18	43.96
2006	28.84	27.90	38.98	17.35	17.19	30.64	44.34
2007	29.03	28.37	45.37	19.87	17.09	29.91	44.73
2008	28.28	28.51	44.47	19.34	17.33	29.37	44.05
2009	27.56	28.65	43.17	16.73	16.27	29.67	43.33
2010	27.11	28.45	44.55	18.86	15.63	29.42	44.65
2011	26.40	28.20	43.91	20.67	15.33	29.90	41.15
2012	26.20	26.71	44.30	19.56	15.51	31.50	43.61
2013	27.81	27.62	44.60	20.21	15.70	32.51	42.51
2014	28.31	26.54	42.11	21.34	15.54	31.21	40.54
2015	30.00	27.66	42.29	22.59	15.69	30.65	36.91

Source: World Bank

Table no. 3.5 examined the share of industry sector in the GDP of BIMSTEC nations. In 1997 the share of industry in GDP was 26.41 per cent in India.

Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand Share of industry in GDP was 25.14 per cent, 33.78 per cent, 10.17 per cent, 22.86 per cent, 26.89 per cent and 40.16 per cent respectively in 1997. In 1998 India's share of industry in GDP has decreased marginally. Except Sri Lanka other BIMSTEC countries share of Industry in GDP have decreased in 1998. In 2000 the share of industry in GDP was 26.11 per cent in India. The share of industry in GDP for other BIMSTEC countries was almost similar as compare to the 1999. In 2002, the share of industry in GDP have increased in India, Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, and Thailand from 2001. In 2003, except India and Bangladesh, other BIMSTEC countries share of industry in GDP has increased from 2002. In 2004 except Bhutan and Bangladesh other BIMSTEC countries share of industry in GDP has increased from 2003. In 2005 except Bangladesh other BIMSTEC countries share of industry in GDP has increased from 2004. In 2006 the share of industry in GDP in Myanmar, Nepal, Thailand has decreased from 2005. In 2007 the share of industry in GDP in Myanmar, Nepal, Thailand has decreased from 2006. In 2008 the share of industry in GDP in Bangladesh, Nepal, has increased from 2007 while in other BIMSTEC countries the share of industry in GDP has decreased from 2007. Bangladesh and Sri Lanka have also experienced a growth in the share of industry in GDP in 2009. The share of industry in GDP has decreased in 2009 for the remaining BIMSTEC countries. In 2011 the share of industry in GDP was 26.40 per cent in India. In Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand the Share of industry in GDP was 28.20 per cent, 43.91 per cent, 20.67 per cent, 15.33 per cent, 29.90 per cent and 41.15 per cent respectively in 2011. In 2013, the share of industry in GDP for all the BIMSTEC nations was increased as shown in the table. During 2015, share of industry in GDP was highest by Bhutan and lowest in Nepal i.e. 42.29 per cent and 15.69 per cent respectively. Thailand's increasingly diversified manufacturing sector is the largest contributor to growth. Industries registering rapid increases in production have included computers and electronics, furniture, wood products, canned food, toys, plastic products, gems, and jewelry. High technology products such as integrated circuits and parts, hard disc drives, electrical appliances, vehicles, and vehicle parts are now leading Thailand's growth in exports. The reason for low share of industry in GDP of Myanmar was lack of electricity. The

consumption of electricity in Myanmar is one of lowest in the world i.e. 20 times less than the world.

The service sector is becoming increasingly important in the economies of developed and developing countries. For the manufacturing sector, the service sector, especially knowledge-intensive and business services, is being increasingly recognized as important levers for growth and development of the economy.

Table 3.6 : Share of Service sector in GDP of BIMSTEC countries (in per cent)

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	47.70	49.07	35.01	30.90	35.70	51.23	50.39
1998	48.47	48.73	37.57	31.09	37.60	51.35	49.59
1999	49.98	48.67	37.08	31.09	36.90	52.05	49.68
2000	50.76	49.20	36.62	33.07	37.05	52.82	48.99
2001	51.83	42.96	35.96	32.35	45.01	53.14	48.72
2002	53.02	50.86	35.06	32.46	43.82	57.71	48.13
2003	53.18	51.98	35.45	35.12	44.78	58.34	45.96
2004	53.05	52.36	37.33	35.44	45.47	58.84	46.30
2005	53.06	52.63	39.53	35.88	46.44	57.99	45.77
2006	52.87	52.48	38.88	36.68	48.67	58.02	44.88
2007	52.71	52.38	35.39	36.86	49.83	58.40	44.59
2008	53.93	52.48	36.54	37.87	50.45	57.25	44.39
2009	54.72	52.61	38.08	37.56	50.57	57.64	45.20
2010	55.14	52.96	37.94	38.87	47.84	57.76	42.96
2011	56.37	53.51	40.15	39.95	52.92	58.00	46.48
2012	56.30	56.20	38.80	40.03	48.00	57.50	44.21
2013	57.00	56.12	38.30	40.83	49.20	56.80	45.50
2014	52.59	56.28	39.37	42.51	50.68	60.79	52.73
2015	51.38	56.34	40.86	42.11	51.55	60.61	52.90

Source: World Bank

Table no. 3.6 defined the share of service sector, value added percentage of GDP for all the members nation of BIMSTEC. In 1997 the share of service sector in GDP was 25.88 per cent in India. For Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, Thailand the share of service sector in GDP was 49.07 per cent, 35.01 per cent, 30.90 per cent, 35.70 per cent, 51.23 per cent, 50.39 per cent. In 1998 the share of service sector in GDP has increased from 1997 to 1998 for India. Except Bangladesh and Thailand other BIMSTEC countries the share of service sector in GDP has increased in 1998. In 2000 except Bhutan and Thailand other BIMSTEC countries the share of service sector in GDP has increased as shown in above table. The share of others countries except Bhutan, Nepal and Thailand has increased in 2002 from previous year. In 2004 only India has seen a decrease in the share of service sector in GDP i.e. 53.05 per cent from 53.18 per cent. In 2005, again share of service sector in GDP of India was increased i.e. 53.06 per cent. For Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, Thailand the share of service sector in GDP was 52.63 per cent, 39.53 per cent, 35.88 per cent 46.44 per cent, 57.99 per cent, 45.77 per cent respectively. In 2011 the share of service sector in GDP for India was 56.37 per cent. For other members nations of BIMSTEC such as Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand, the share of service sector was 53.51 per cent, 40.15 per cent, 39.95 per cent, 52.92 per cent, 58.00 per cent and 46.48 per cent respectively. In 2013 expect Sri Lanka, others member nation shown the increase in percentage share of service sector in GDP. The share of GDP was India (57.00 per cent), Bangladesh (56.12 per cent), Bhutan (38.30 per cent), Myanmar (40.83 per cent), Nepal (49.20 per cent), Sri Lanka (56.80 per cent) and Thailand (45.50 per cent). In 2015, highest share in service sector noticed in Sri Lanka (60.61 per cent) followed by Bangladesh, Thailand, Nepal and India.

The unemployment rate is another major indicator of economic development. The social stability of a nation also depends on the degree at which the economy can generate and provide jobs to those seeking work. The phenomenon of unemployment is also the root cause of wide spread poverty. Table no. 3.7 analyzed the unemployment rate of all member nations of BIMSTEC from 1997 to 2015. In 1997, the unemployment rate in India was 4.94 per cent. the unemployment rate of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand was 2.52 per cent,

1.67 per cent, 3.56 per cent, 3.72 per cent, 11.29 per cent and 1.54 per cent respectively in 1997. In 2000, the unemployment rate in India was 4.65 per cent. It has increased from 1999. In 2000, only Nepal has seen a high increase in their unemployment rate from 1999. In 2001, except

**Table 3.7 : Annual unemployment rate of member nations
of BIMSTEC (in per cent)**

Year	India	Bangladesh	Bhutan	Myanmar	Nepal	Sri Lanka	Thailand
1997	4.94	2.52	1.67	3.56	3.72	11.29	1.54
1998	4.57	2.57	1.34	3.78	3.87	10.52	1.56
1999	4.29	2.51	1.96	4.07	1.89	9.17	4.35
2000	4.65	3.38	1.89	4.05	6.54	8.85	4.19
2001	4.73	3.39	2.11	4.03	7.26	7.57	3.59
2002	5.86	3.32	3.67	4.01	6.26	7.92	3.34
2003	6.43	4.34	2.78	4.02	6.14	8.82	2.41
2004	5.59	4.39	2.52	4.27	5.97	8.47	2.17
2005	5.12	4.30	2.38	4.31	5.23	8.32	2.08
2006	4.65	2.51	3.27	4.76	4.99	7.72	1.85
2007	4.69	2.55	3.75	5.32	4.97	6.65	1.52
2008	5.82	2.53	4.56	5.34	4.21	6.34	1.38
2009	9.34	5.19	4.35	5.78	3.45	6.48	1.39
2010	9.44	5.16	4.21	5.89	3.87	5.92	1.56
2011	8.97	5.00	4.78	6.12	1.98	4.87	1.04
2012	7.23	3.51	2.11	3.33	2.75	4.00	0.72
2013	6.54	3.21	2.34	3.42	2.12	4.21	0.70
2014	3.60	4.36	2.81	3.33	2.79	4.68	0.90
2015	3.95	4.01	2.58	3.19	2.21	4.32	0.82

Source: World Bank

Myanmar, Sri Lanka and Thailand other BIMSTEC countries unemployment rate has increased. In 2002 the unemployment rate in India was 5.86 per cent. In 2002 the unemployment rate of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka, and Thailand was 3.32 per cent, 3.67 per cent, 4.01 per cent, 6.26 per cent, 7.92 per cent and 3.34 per cent. In 2005 the unemployment rate in India was 5.12 per cent. In 2005 the unemployment rate of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand was 4.30 per cent, 2.38 per cent, 4.31 per cent, 5.23 per cent, 8.32 per cent and 2.08 per cent. In 2008, the unemployment rate in India was 5.82 per cent. In 2008 the unemployment rate of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand was 2.53 per cent, 4.56 per cent, 5.34 per cent, 4.21 per cent, 6.34 per cent and 1.38 per cent. In 2011 the unemployment rate in India was 8.97 per cent. In 2011 the unemployment rate of Bangladesh, Bhutan, Myanmar, Nepal, Sri Lanka and Thailand was 5.00 per cent 4.78 per cent, 6.12 per cent, 1.98 per cent, 4.87 per cent, 1.04 per cent respectively. In 2013, unemployment rate decreased for BIMSTEC nations except for Bhutan, Myanmar, and Sri Lanka. The unemployment rate of India was very high from 1997 to 2011. This is due to increase in population growth rate. During 2014 and 2015, almost all the BIMSTEC countries having moderate rate of inflation.

3.3. TRADE PERFORMANCE OF BIMSTEC COUNTRIES BEFORE AND AFTER THE FORMATION OF BLOC

Growth dynamism of a country or a region can be judge from the size of its international trade, owing to its contribution to industrialization and foreign exchange earnings. It is widely accepted that open economies grow faster compared to closed ones. The globalization movement, which accelerated especially in the 1980s, enforced this situation to come into view more clearly. During most of the 20th century, import substitution strategies played a dominant role in most developing countries for development strategies. But, while developing countries in Latin America, following import substitution strategies achieved lower growth rates, East Asian countries that enacted export promotion policies, experienced a higher economic performance. This possibly explains the growing interest of many researchers to investigate the relationship between trade liberalization and economic performance since the late 1970s.

Table no. 3.8 illustrated the total exports of BIMSTEC to rest of the world in US\$ million from 1980 to 2015. Before the formation of BIMSTEC from 1980 to 1997 the average of Bangladesh's exports was US\$ 1835 million. And after the formation of bloc the average of Bangladesh exports increase to US\$ 15451 million. The creation of BIMSTEC has positive impact on all the member nations. The average of Bhutan's exports was US \$55 million and it increased by US \$ 399 million after the formation of bloc (from 1998 to 2015). India is the biggest states among the all member nations of BIMSTEC. But the average of exports after the formation of bloc noticed huge increment in Indian exports. From 1980 to 1997, the average of India's export was US\$ 16943 million and it increased to US\$ 147414 million. The average of Myanmar exports increased after the formation of bloc. From 1980 to 1997, the average of exports was US\$ 462 million. From 1998 to 2015, the average of exports from Myanmar was US\$ 5441 million. The huge amount of increment has been noticed in Myanmar exports after the formation of bloc. The average exports of Nepal also increased after becoming the part of BIMSTEC. The average of export increased to US\$ 953 million (1998 to 2015) from US\$ 225 million (1980 to 1997).

**Table 3.8 : Total exports of BIMSTEC countries (in US\$ millions)
during 1980-2015**

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1980	759	17	8586	472	80	1067	6505
1981	791	20	8295	462	140	1094	7031
1982	769	17	9358	391	88	1030	6945
1983	724	16	9148	378	94	1066	6368
1984	931	18	9916	301	128	1451	7413
1985	999	22	9140	303	160	1293	7121
1986	880	34	9399	288	142	1215	8872
1987	1067	55	11298	219	151	1368	11654
1988	1291	75	13325	147	190	1479	15953
1989	1305	70	15846	215	158	1545	20078
1990	1671	70	17969	325	204	1912	23068
1991	1689	63	17727	419	257	1987	28428

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1992	2098	66	19628	531	368.7	2455	32472
1993	2545	65	21572	586	384	2859	36969
1994	2934	66	25022	798	362	3208	45261
1995	3501	103	30630	860	345	3798	56439
1996	4249	100	33105	754	385	4095	55721
1997	4832	118	35008	874	406	4639	57374
1998	5121	108	33437	1077	474	4809	54456
1999	5497	116	35667	1136	602	4594	58440
2000	6389	103	42379	1646	804	5430	69057
2001	6080	106	43361	2381	737	4816	64968
2002	6149	112.7	49250	3046	568	4699	68108
2003	6990	132.88	58963	2483	662	5125	80324
2004	8305	183	76649	2380	772	5757	96248
2005	9297	258.2	99616	3813	863	6347	110936
2006	11802	414.33	121808	4589	838	6886	129722
2007	12453	674.52	150159	6338	868	7740	153867
2008	15370	521.42	194828	6937	939	8452	177778
2009	15083	495.85	164909	6662	823	7345	152422
2010	19194	641.31	226350	8661	856	8602	193306
2011	24439	674.64	302905	9238	919	10236	222576
2012	25113	610	294158	8900	911	9380	229519
2013	32743.09	669.132	464188	9069	2174	15079	284383
2014	33085	659	486 967	13 294	2 363	16 735	280 109
2015	35006	704	427 998	14146	2399	16 902	272 779
Average							
1980-1997	1835	55	16943	462	225	2087	24093
1998-2015	15451	399	147414	5441	953	7206	134132
1980-2015	8643.10	227.19	78341.11	2880.73	578.59	4495.83	75875.92

Source: United Nation Commodity Trade Statistics (COMTRADE)

The average exports of Sri Lanka increased to US\$ 7206 million from US\$ 2087 million. The average of Thailand also increased after formation. The average of export from 1980 to 1997 was US\$ 24093 million and from 1998 to 2015, the average was US \$ 7587.92 million. There were huge increment was noticed in Thailand exports after the formation of bloc. All the member nations of BIMSTEC has shown drastic change in the average of exports after the formation of bloc.

Table 3.9: Trade dependency of BIMSTEC region (share of trade in GDP) before and after formation of bloc (In per cent).

Year	Bangladesh	Bhutan	India	Myanmar	Sri Lanka	Nepal	Thailand
1980	23.38	51.35	15.12	22.04	87.02	30.27	54.48
1981	19.25	63.48	14.26	24.01	77.00	32.52	53.97
1982	20.61	61.39	13.88	22.76	73.61	30.40	47.55
1983	20.32	57.83	13.45	17.20	67.76	31.55	47.38
1984	16.81	58.06	13.77	15.25	63.55	30.10	48.07
1985	18.22	66.13	12.68	13.16	63.98	31.53	49.16
1986	17.02	70.05	12.01	10.77	59.05	31.97	49.17
1987	16.69	61.64	12.37	8.33	60.89	32.72	57.23
1988	17.68	77.19	13.26	7.96	62.91	33.83	67.41
1989	18.33	66.02	14.91	6.09	64.02	33.35	72.41
1990	18.97	57.48	15.24	5.58	68.24	32.19	75.78
1991	18.89	72.28	16.69	4.42	67.60	34.68	78.47
1992	19.93	87.89	18.12	3.59	72.80	41.70	77.95
1993	23.12	75.66	19.31	3.37	77.15	47.19	77.75
1994	22.87	68.95	19.73	2.91	79.43	50.43	81.25
1995	28.21	80.40	22.47	2.54	81.85	59.49	89.76
1996	26.08	81.16	21.55	2.18	78.83	58.46	84.27
1997	26.33	82.02	22.23	1.86	80.14	64.04	95.05
1998	27.88	82.52	23.29	1.47	78.85	56.71	100.24

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Sri Lanka	Nepal	Thailand
1999	28.39	81.82	24.39	1.06	78.91	52.57	100.71
2000	29.32	82.47	26.44	1.08	88.64	55.71	121.30
2001	32.10	75.83	25.55	0.98	80.90	55.84	120.27
2002	28.97	69.56	29.00	0.62	76.34	46.23	114.97
2003	27.66	70.36	30.07	0.36	75.34	44.25	116.69
2004	26.86	89.37	36.86	0.31	79.48	46.15	127.41
2005	34.40	101.82	41.31	2.47	73.60	44.06	137.85
2006	38.11	129.63	45.30	4.78	71.26	44.76	134.09
2007	39.94	83.26	44.88	3.72	68.61	44.58	129.87
2008	42.62	107.03	52.27	2.88	63.37	46.04	140.44
2009	40.09	106.91	45.48	3.88	49.15	47.08	118.88
2010	37.80	113.18	48.31	0.94	46.36	45.98	126.76
2011	47.42	111.69	55.63	1.79	54.98	41.83	138.86
2012	48.11	101.76	55.75	3.99	51.49	43.66	138.02
2013	46.30	102.74	53.63	3.87	49.26	48.15	132.92
2014	44.51	93.62	48.80	1.89	49.83	52.87	131.94
2015	42.09	116.00	50.87	4.92	48.48	53.23	132.11
Average							
1980-1997	20.7	68.83	16.17	9.67	71.43	39.24	67.06
1998-2015	36.81	95.53	40.99	2.28	65.82	48.32	125.74
1980-2015	28.76	82.18	28.58	5.97	68.63	43.78	96.4

Source: World Bank, IMF (International Financial Statistics Yearbook, 2015)

Trade dependency is the characteristic in which one trade depends on the previous trade. Table no. 3.9 shown the trade dependency as its percentage in GDP. As shown in table proportion of trade to GDP, which indicates an outward orientation of the economy has a moderate role in the BIMSTEC countries before the formation of bloc. After the formation better picture of trade proportion has been displayed. Thailand, Sri Lanka and Bhutan registered an impressive contribution of trade to the

GDP. Leaving aside Myanmar India's trade share increased in GDP after the formation of BIMSTEC but small increase of trade share in GDP as compare to Thailand, Sri Lanka and Bhutan, owing to the huge size of population that resultant high consumption. However, India registered a significant improvement from 1995 onwards. Thailand experienced tremendous growth in its growth share in GDP, followed by Sri Lanka and Bhutan. Even Nepal trade share inclined after the formation of bloc.

Table 3.10: Export percentage share of BIMSTEC countries before and after formation of Bloc (In per cent)

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1980	4.34	0.09	49.10	2.70	0.46	6.10	37.20
1981	4.44	0.11	46.52	2.59	0.79	6.14	39.43
1982	4.14	0.09	50.32	2.10	0.47	5.54	37.34
1983	4.07	0.09	51.41	2.12	0.53	5.99	35.79
1984	4.62	0.09	49.19	1.49	0.64	7.20	36.77
1985	5.25	0.12	48.01	1.59	0.84	6.79	37.40
1986	4.23	0.16	45.12	1.38	0.68	5.83	42.59
1987	4.13	0.21	43.77	0.85	0.59	5.30	45.15
1988	3.98	0.23	41.05	0.45	0.59	4.56	49.15
1989	3.33	0.18	40.41	0.55	0.40	3.94	51.20
1990	3.69	0.15	39.74	0.72	0.45	4.23	51.01
1991	3.34	0.12	35.05	0.83	0.51	3.93	56.22
1992	3.64	0.11	34.07	0.92	0.64	4.26	56.36
1993	3.92	0.10	33.20	0.90	0.59	4.40	56.89
1994	3.78	0.08	32.22	1.03	0.47	4.13	58.29
1995	3.66	0.11	32.01	0.90	0.36	3.97	58.99
1996	4.32	0.10	33.64	0.77	0.39	4.16	56.62

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1997	4.68	0.11	33.91	0.85	0.39	4.49	55.57
1998	5.15	0.11	33.61	1.08	0.48	4.83	54.74
1999	5.18	0.11	33.63	1.07	0.57	4.33	55.11
2000	5.08	0.08	33.69	1.31	0.64	4.32	54.89
2001	4.96	0.08	35.41	1.94	0.60	3.93	53.06
2002	4.66	0.08	37.33	2.31	0.43	3.56	51.62
2003	4.51	0.08	38.12	1.61	0.43	3.31	51.93
2004	4.36	0.09	40.28	1.25	0.41	3.03	50.58
2005	4.02	0.11	43.10	1.65	0.37	2.75	48.00
2006	4.27	0.15	44.12	1.66	0.30	2.49	46.99
2007	3.75	0.20	45.22	1.91	0.26	2.33	46.33
2008	3.79	0.13	48.13	1.71	0.23	2.09	43.92
2009	4.34	0.14	47.42	1.92	0.24	2.11	43.83
2010	4.19	0.14	49.46	1.89	0.19	1.88	42.24
2011	4.28	0.12	53.05	1.62	0.16	1.79	38.98
2012	4.42	0.10	51.74	1.57	0.16	1.65	40.37
2013	4.05	0.08	57.43	1.12	0.27	1.87	35.18
2014	4.99	0.09	60.53	1.85	0.292	1.97	38.48
2015	5.93	1.26	62.81	2.95	1.32	2.07	40.65
Average							
1980-1997	4.08	0.13	41.04	1.26	0.54	5.05	47.88
1998-2015	4.55	0.18	45.28	1.69	0.41	2.8	46.49
1980-2015	4.32	0.15	43.16	1.48	0.48	3.92	47.19

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.10 depicted that percentage share of exports of individual BIMSTEC nations in total exports of BIMSTEC. During the year 1980 to 1997 the percentage share of exports from Bangladesh increased from 4.08 per cent to 4.55 per cent in 1998 to 2015. Very minor fluctuations were noticed in average percentage of exports. During the year 1980 to 1997 the percentage share of exports from Bhutan increases from 0.13 per cent to 0.18 per cent after the formation of BIMSTEC. During the year 1980 to 1997 the percentage share of exports from India increases from 41.04 per cent to 45.28 per cent in 1998 to 2015. During the year 1980 to 1997 the percentage share of exports from Myanmar increases from 1.26 per cent to 1.69 per cent in 1998 to 2015. Before the formation of bloc from the year 1980 to 1997 the percentage share of exports from Nepal decreases from 0.54 per cent to 0.41 per cent in 1998 to 2015. During the year 1980 to 1998, the percentage share of exports from Sri Lanka decreases from 5.05 percent to 2.8 per cent in 1998 to 2015. During the year 1980 to 1997 the percentage share of exports from Thailand decreased from 47.88 per cent to 46.49 per cent in 1998 to 2015. Reason for the decrease in the percentage share of some member nations was that even after 19 rounds of FTA (Free Trade Agreements) negotiations stretching over 15 years, had not been able to reach a consensus over issues like market access or a dispute-settlement mechanism. Another reason for the underperformance of some nations was the elements of cooperation remaining incomplete. BIMSTEC restricted activities can cause to two critical problems lead actor inertia and structural constraints on member states in the form of limited technological, financial and even operational capabilities. During the period of 1980-2015, only India and Thailand experienced a high percentage share of exports in the region as compare to other member of BIMSTEC.

Table no. 3.11 represented the total imports of BIMSTEC nations to rest of the world in US\$ million from 1980 to 2015. Before the formation of BIMSTEC from 1980 to 1997 the average of Bangladesh's imports was US\$ 4119 million. Imports of Bangladesh was much higher than its exports. And after the formation of bloc the average of Bangladesh imports increase. From 1998 to 2015 the average of exports was US\$ 13323 million. The average of Bhutan's imports was US \$ 120 million and it increased by US \$ 594 million after the formation of bloc (from 1998 to 2015).

Table 3.11: Total Imports of BIMSTEC Nations (in US\$ millions)

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1980	2834.015	60	16927.95	869.735	415.65	2196.558	9995.87
1981	2898.256	75	17397.43	962.989	456.3162	2053.694	10749.64
1982	2660.815	100.6	17517.74	1029.276	491.4819	2184.898	9223.3
1983	2335.796	106.9	17572.63	811.105	556.2441	2132.843	11077.51
1984	2818.019	119.8	17857.8	641.444	502.4305	2082.235	11145.24
1985	2764.377	108.5	18984.13	594.637	559.743	2295.597	10205.73
1986	2803.724	129.1	19631.83	677.741	550.164	2263.968	10266.33
1987	2939.818	144.4	22290.08	499.524	643.607	2399.241	14425.36
1988	3347.527	134	25412.6	404.651	815.685	2564.665	21424.84
1989	4026.493	163.5	28127.95	348.577	715.841	2620.963	27254.6
1990	3959.811	122.9	29526.65	596.601	833.937	2964.712	35870.49
1991	3769.729	111.3	27031.88	355.879	940.82	3570.514	42261.25
1992	4142.566	110.4	29665.6	678.621	977.065	3839.635	46628.7
1993	4589.424	161.91	30604.96	1391.055	1110.393	4402.136	53163.4
1994	5375.55	130.42	37872.37	1595.657	1455.544	5345.62	63599.9
1995	7588.6	124.5	48225.1	2000.056	1624.107	5981.73	82246.7
1996	7450.64	122.3	54960	2171.021	1737.496	6099.3	83481.7
1997	7834.42	143.0198	58172.8	2549.953	1916.416	6580.88	72438.8
1998	7952.81	159.618	59367.9	2815.997	1435.268	6675.04	48513.2
1999	8932.24	180.4179	62827.5	2447.826	1706.62	6779.14	56344.6
2000	9673.13	212.7355	73075.2	2460.563	1790.056	8105	71653.4
2001	9654.92	210.7567	71311.2	2777.943	1700.452	7126.39	69149.2
2002	9185.86	242.5016	75741.5	2307.521	1662.171	7079.34	73728.6
2003	11203.46	293.4323	92959.1	2307.826	1932.119	7683.84	85077.5
2004	13088.53	338.8759	131179.9	2433.102	2293.008	9107.69	107270.6
2005	14708.26	542.587	181978.5	2239.282	2711.191	10065.57	132738.8
2006	16783.88	540.623	225268.1	2876.697	2933.861	11621.22	146846.7

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
2007	19553.96	583.749	279416.3	3660.034	3655.159	12768.55	162628
2008	25170.34	764.551	380088.5	4464.257	4371.086	15692.02	203746.3
2009	23072.74	682.1674	328257.5	4201.196	5107.63	11708.4	154694.8
2010	29470.77	935.243	439059	4997.055	5887.405	15218.56	206962.4
2011	37878.14	1304.565	553062	9009.676	6447.269	22253.82	254263.7
2012	37748.97	1209.321	579405.9	7003.365	6847.391	21728.61	272874.7
2013	42473.72	757.709	559767.4	8382.786	7480.118	21508.03	274268.8
2014	47289.67	793.26	578924.40	8753.643	7963.93	25821.96	312579.6
2015	50863.95	937.29	605497.59	89643.85	8448.05	27433.70	356732.9
Average							
1980-1997	4119	120	28766	1010	906	3421	34192
1998-2015	23039	594	293177	9043	4132	13799	166115
1980-2015	13323	351	157398	4918	2475	8470	98371

Source: United Nation Commodity Trade Statistics database (COMTRADE)

India is the biggest states among the all member nations of BIMSTEC. But the average of imports after the formation of bloc noticed huge increment in Indian imports also. From 1980 to 1997 the average of India's imports was US\$ 28766 million and it increased to US\$ 293177 million. The average of Myanmar imports increased after the formation of bloc. From 1980 to 1997, the average of imports was US\$ 1010 million. From 1998 to 2015 the average of exports from Myanmar was US\$ 9043 million. The huge increment were noticed in Myanmar imports after the formation of bloc. The average imports of Nepal also increased after becoming the part of BIMSTEC. The average of imports increased to US\$ 4132 million (1998 to 2015) from US\$ 906 million (1980 to 1997). The average imports of Sri Lanka increased to US\$ 13749 million from US\$ 3421 million. The average of Thailand also increased after formation. The average of imports from 1980 to 1997 was US\$ 34192 million and from 1998 to 2015, the average was US \$ 166115 million. There were huge increment was noticed in Thailand imports after the formation of bloc. Almost all the member nations of BIMSTEC have shown drastically increments in

the average of imports than exports after the formation of bloc. The imports of BIMSTEC nations were much higher than its exports. The reason behind higher imports than exports was all the member nations of BIMSTEC are developing nations and the cost of production is high if they manufacturing all the items in domestic territory.

Table no. 3.12 depicted that percentage share of imports of individual BIMSTEC nations in total exports of BIMSTEC. During the year 1980 to 1997 the percentage share of imports from Bangladesh decreased from 6.34 per cent to 4.95 per cent in 1998 to 2015. During the year 1980 to 1996 the percentage share of imports from Bhutan decreases from 0.21 per cent to 0.18 per cent after the formation of BIMSTEC. During the year 1980 to 1997 the percentage share of imports from India increases from 43.7 per cent to 54.81 per cent in 1998 to 2015. During the year 1980 to 1997 the percentage share of imports from Myanmar decreases from 1.56 per cent

Table 3.12 : Imports percentage share of BIMSTEC countries in total imports of region before and after formation (in per cent)

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1980	8.51	0.18	50.84	2.612	1.248	6.596	30.018
1981	8.38	0.22	50.29	2.784	1.319	5.937	31.074
1982	8.01	0.30	52.75	3.099	1.480	6.579	27.774
1983	6.75	0.31	50.79	2.345	1.608	6.166	32.022
1984	8.01	0.34	50.78	1.824	1.429	5.921	31.692
1985	7.78	0.31	53.46	1.674	1.576	6.464	28.738
1986	7.72	0.36	54.05	1.866	1.515	6.233	28.264
1987	6.78	0.33	51.43	1.153	1.485	5.536	33.283
1988	6.19	0.25	46.97	0.748	1.508	4.740	39.599
1989	6.36	0.26	44.465	0.551	1.132	4.143	43.085
1990	5.36	0.17	39.968	0.808	1.129	4.013	48.556
1991	4.83	0.14	34.638	0.456	1.206	4.575	54.152
1992	4.82	0.13	34.478	0.789	1.136	4.462	54.193

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1993	4.81	0.17	32.073	1.458	1.164	4.613	55.713
1994	4.66	0.11	32.825	1.383	1.262	4.633	55.124
1995	5.14	0.08	32.631	1.353	1.099	4.047	55.651
1996	4.77	0.08	35.226	1.391	1.114	3.909	53.506
1997	5.24	0.09	38.876	1.704	1.281	4.398	48.410
1998	6.27	0.13	46.776	2.219	1.131	5.259	38.223
1999	6.42	0.13	45.129	1.758	1.226	4.869	40.472
2000	5.79	0.13	43.765	1.474	1.072	4.854	42.914
2001	5.96	0.13	44.038	1.716	1.050	4.401	42.703
2002	5.41	0.14	44.568	1.358	0.978	4.166	43.383
2003	5.56	0.15	46.143	1.146	0.959	3.814	42.231
2004	4.93	0.13	49.369	0.916	0.863	3.428	40.371
2005	4.26	0.16	52.750	0.649	0.786	2.918	38.477
2006	4.12	0.13	55.366	0.707	0.721	2.856	36.092
2007	4.05	0.12	57.938	0.759	0.758	2.648	33.722
2008	3.97	0.12	59.923	0.704	0.689	2.474	32.122
2009	4.37	0.13	62.202	0.796	0.968	2.219	29.314
2010	4.19	0.13	62.497	0.711	0.838	2.166	29.460
2011	4.28	0.15	62.548	1.019	0.729	2.517	28.756
2012	4.07	0.13	62.516	0.756	0.739	2.344	29.442
2013	4.64	0.08	61.201	0.917	0.818	2.352	29.987
2014	4.98	0.17	64.87	0.929	0.943	2.680	30.43
2015	5.87	0.98	65.03	1.096	1.64	2.916	30.88
Average							
1980-1997	6.34	0.21	43.7	1.56	1.32	5.16	41.71
1998-2015	4.95	0.18	54.81	1.09	0.94	3.27	35.5
1980-2015	5.65	0.2	49.25	1.32	1.13	4.22	38.61

Source: United Nation Commodity Trade Statistics database (COMTRADE)

to 1.09 per cent in 1998 to 2015. Minor fluctuations in percentage share of imports have been witnessed. Before the formation of bloc from the year 1980 to 1997 the percentage share of imports from Nepal decreases from 1.32 per cent to 0.94 per cent in 1998 to 2015. During the year 1980 to 1997, the percentage share of imports from Sri Lanka decreases from 5.16 percent to 3.27 per cent in 1998 to 2015. During the year 1980 to 1997 the percentage share of imports from Thailand decreased from 41.71 per cent to 35.5 per cent in 1998 to 2015. Reason for the increase in the percentage share of India have huge population intensity, weakness in the rupee and Politics and policies are deterring investments. During 1980 to 2015 average percentage share of import moderate for almost all the BIMSTEC countries.

Table 3.13: Compound Annual Growth Rate (CAGR) of Exports of BIMSTEC Economies before and formation of bloc. (In per cent)

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	BIMSTEC
1980	-	-	-	-	-	-	-	-
1981	4.05	15.00	-3.51	-2.16	42.86	2.47	7.48	1.98
1982	-2.86	-17.65	11.36	-18.16	-59.09	-6.21	-1.24	4.29
1983	-6.22	-6.25	-2.30	-3.44	6.38	3.38	-9.06	-4.32
1984	22.23	11.11	7.75	-25.58	26.56	26.53	14.10	13.29
1985	6.81	18.18	-8.49	0.66	20.00	-12.22	-4.10	-5.56
1986	-13.52	35.29	2.76	-5.21	-12.68	-6.42	19.74	9.41
1987	17.53	38.18	16.81	-31.51	5.96	11.18	23.87	23.92
1988	17.35	26.67	15.21	-48.98	20.53	7.51	26.95	25.76
1989	1.07	-7.14	15.91	31.63	-20.25	4.27	20.54	20.82
1990	21.90	0.00	11.81	33.85	22.55	19.19	12.96	15.30
1991	1.07	-11.11	-1.37	22.43	20.62	3.77	18.85	11.83
1992	19.49	4.55	9.69	21.09	30.30	19.06	12.45	13.94
1993	17.56	-1.54	9.01	9.39	3.98	14.13	12.16	12.78
1994	13.26	1.52	13.79	26.57	-6.08	10.88	18.32	19.50
1995	16.20	35.92	18.31	7.19	-4.93	15.53	19.81	23.21
1996	17.60	-3.00	7.48	-14.10	10.39	7.25	-1.29	2.86

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	BIMSTEC
1997	12.07	15.25	5.44	13.82	5.17	11.73	2.88	4.92
1998	5.64	-9.26	-4.70	18.83	14.35	3.54	-5.36	-3.65
1999	6.84	6.90	6.25	5.15	21.26	-4.68	6.82	6.60
2000	13.96	-12.62	15.84	30.99	25.12	15.40	15.37	18.63
2001	-5.08	2.83	2.26	30.87	-9.09	-12.75	-6.29	-2.67
2002	1.12	5.95	11.96	21.83	-29.75	-2.49	4.61	7.75
2003	12.03	15.18	16.47	-22.67	14.20	8.31	15.21	17.24
2004	15.83	27.39	23.07	-4.33	14.23	10.97	16.55	23.02
2005	10.67	29.12	23.06	37.59	10.59	9.29	13.24	21.46
2006	21.23	37.68	18.22	16.90	-3.03	7.82	14.48	19.44
2007	5.23	38.57	18.88	27.60	3.52	11.04	15.69	20.30
2008	18.98	-29.36	22.93	8.64	7.50	8.42	13.45	21.90
2009	-1.90	-5.16	-18.14	-4.14	-14.12	-15.07	-16.63	-14.10
2010	21.42	22.68	27.14	23.09	3.88	14.61	21.15	31.60
2011	21.46	4.94	25.27	6.25	6.90	15.96	13.15	24.78
2012	2.68	-10.60	-2.97	-3.79	-0.94	-9.13	3.03	-0.42
2013	23.30	8.84	36.63	1.86	58.11	37.80	19.29	42.16
2014	20.21	9.24	30.93	2.78	56.32	39.46	32.74	37.32
2015	34.72	21.63	43.84	7.03	50.71	48.07	39.20	31.49
Average								
1980-1997	9.74	9.11	7.62	1.03	6.6	7.77	11.43	11.41
1998-2015	12.67	9.12	16.49	11.36	12.76	10.36	11.98	16.82
1980-2015	11.26	9.11	12.19	6.34	9.77	9.1	11.72	14.19

Source: Estimated from United Nation Commodity Trade Statistics database

(Compound Annual Growth Rate for Imports is calculated by (Import- Previous year Import)/ Previous year import)

Table no. 3.13 has shown the compound annual growth rate of exports of BIMSTEC nations. Before the formation of BIMSTEC from 1980 to 1997 the average of compound annual growth rate of BIMSTEC export was 11.41 per cent. In early year of establishment period of BIMSTEC, average of exports grew from 11.41 per cent to 16.82 per cent in 1998 to 2015. Compound Annual Growth Rate (CAGR) basically smooth out the advancement of exports over a period of time, provided the clearer depiction of yearly return. In case of individual nation of bloc the CAGR average of Bangladesh exports from 1980 to 1997 was 9.74 per cent and it increased by 12.67 per cent from 1998 to 2015. The average of Bhutan exports was almost same before and after formation of bloc i.e. 9.11 per cent. India also makes the progress in exports. The average of CAGR of India's exports increased from 7.62 per cent (1980 to 1997) to 16.49 per cent (1998 to 2015). In case of Nepal double progress of export had been seen. The averages of CAGR of exports grow from 6.6 per cent (1980 to 1997) to 12.76 per cent (1998 to 2015) only. The average of Myanmar's exports increased from 1.03 per cent (1980 to 1997) to 12.76 per cent (1998 to 2015). Sri Lanka and Thailand were countries among BIMSTEC nation with little change in their CAGR for exports. The average of CAGR of Thailand exports was 11.93 per cent (1998 to 2015) from 11.43 per cent (1980 to 1997). In case of Sri Lanka the CAGR before the formation of BIMSTEC was 7.77 per cent and after the formation of bloc it was 10.36 per cent. The reason behind low increase in average of compound annual growth was exports were enormously unstable, irregular inspite of various free trade agreements signed by Sri Lanka. Other reasons were political instability, lack of competitive advantage in production by producer, instable labor policies, energy crisis and lack of industrial and investment. The main causes for low in CAGR of Thailand were Asian economic crisis of 1997, global crisis of 2008-2009, political disturbances and flood of 2011.

The table no. 3.14 depicted the compound annual growth rate of imports of BIMSTEC nations. Before the formation of BIMSTEC from 1980 to 1997 the average of compound annual growth rate of BIMSTEC imports was 9.65 per cent. In early year of establishment period of BIMSTEC, average of imports grew from 14.03 per cent during 1998 to 2015. In case of individual nation of bloc the CAGR average of Bangladesh imports from 1980 to 1997 was 6.87 per cent and it increased

by 11.76 per cent from 1998 to 2015. Bhutan also makes the remarkable progress in imports. The imports of Bhutan increased from 6.85 per cent (1980 to 1997) to 15.33 per cent (1998 to 2015). India also makes the progress in imports. The average of CAGR of India's imports increased from 7.86 per cent (1980 to 1997) to 15.44 per cent (1998 to 2015). In case of Sri Lanka very little change had been seen. The averages of CAGR of imports

Table 3.14: Imports CAGR of BIMSTEC Economies before and after formation bloc.

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	BIMSTEC
1980	-	-	-	-	-	-	-	-
1981	2.27	25.00	2.77	10.72	9.78	-6.50	7.54	3.88
1982	-8.19	34.13	0.69	6.88	7.71	6.39	-14.20	-4.00
1983	-12.22	6.26	0.31	-21.20	13.18	-2.38	20.10	4.17
1984	20.64	12.07	1.62	-20.92	-9.67	-2.37	0.61	1.66
1985	-1.90	-9.43	6.31	-7.30	11.41	10.25	-8.43	0.98
1986	1.42	18.99	3.41	13.98	-1.71	-1.38	0.59	2.28
1987	4.85	11.85	13.54	-26.30	16.98	5.98	40.51	19.32
1988	13.87	-7.20	14.01	-18.99	26.74	6.89	48.52	24.83
1989	20.28	22.01	10.69	-13.86	-12.24	2.20	27.21	16.92
1990	-1.66	-24.83	4.97	71.15	16.50	13.12	31.61	16.78
1991	-4.80	-9.44	-8.45	-40.35	12.82	20.43	17.82	5.64
1992	9.89	-0.81	9.74	90.69	3.85	7.54	10.33	10.25
1993	10.79	46.66	3.17	104.98	13.65	14.65	14.01	10.90
1994	17.13	-19.45	23.75	14.71	31.08	21.43	19.63	20.91
1995	41.17	-4.54	27.34	25.34	11.58	11.90	29.32	28.10
1996	-1.82	-1.77	13.97	8.55	6.98	1.97	1.50	5.57
1997	5.15	16.94	5.85	17.45	10.30	7.90	-13.23	-4.09
1998	1.51	11.61	2.05	10.43	-25.11	1.43	-33.03	-15.18
1999	12.32	13.03	5.83	-13.07	18.91	1.56	16.14	9.69

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand	BIMSTEC
2000	8.29	17.91	16.31	0.52	4.89	19.56	27.17	19.93
2001	-0.19	-0.93	-2.41	12.90	-5.01	-12.07	-3.49	-3.02
2002	-4.86	15.06	6.21	-16.93	-2.25	-0.66	6.62	4.95
2003	21.96	21.00	22.73	0.01	16.24	8.54	15.39	18.54
2004	16.83	15.49	41.12	5.43	18.68	18.53	26.09	31.89
2005	12.38	60.11	38.72	-7.97	18.24	10.52	23.74	29.83
2006	14.11	-0.36	23.79	28.47	8.21	15.46	10.63	17.94
2007	16.50	7.98	24.04	27.23	24.59	9.87	10.75	18.53
2008	28.72	30.97	36.03	21.97	19.59	22.90	25.28	31.52
2009	-8.33	-10.78	-13.64	-5.89	16.85	-25.39	-24.07	-16.80
2010	27.73	37.10	33.75	18.94	15.27	29.98	33.79	33.12
2011	28.53	39.49	25.97	80.30	9.51	46.23	22.86	25.86
2012	-0.34	-7.30	4.76	-22.27	6.21	-2.36	7.32	4.82
2013	12.52	-37.34	-3.39	19.70	9.24	-1.02	0.51	-1.31
2014	10.28	30.65	7.43	17.92	7.57	-6.64	4.83	23.82
2015	13.74	32.33	8.53	11.63	10.74	3.72	9.62	18.34
Average								
1980-1997	6.87	6.85	7.86	12.68	9.94	6.94	13.73	9.65
1998-2015	11.76	15.33	15.44	10.52	9.58	7.79	10.01	14.03
1980-2015	9.39	11.21	11.76	11.57	9.75	7.38	11.82	11.9

Source: United Nation Commodity Trade Statistics database (COMTRADE)

(Compound Annual Growth Rate for Imports is calculated by $(\text{Import} - \text{Previous year Import}) / \text{Previous year import}$)

declined from 9.94 per cent (1980 to 1997) to 9.58 per cent (1998 to 2015) only. Thailand was only country among BIMSTEC nation, their CAGR for imports declining from 13.73 per cent to 10.01 per cent after the formation of BIMSTEC. The average of Nepal's imports increased from 6.94 per cent (1980 to 1997) to 7.79

per cent (1998 to 2015). The average of Myanmar's imports decreased from 12.68 per cent (1980 to 1997) to 10.52 per cent (1998 to 2015). Therefore, The Compound Annual Growth Rate of BIMSTEC nations as a whole depicts an average increase in imports except Myanmar, Sri Lanka and Thailand. The reason behind decrease in average of compound annual growth of the imports for rest of the BIMSTEC countries were political instability, lack of competitive advantage in production, instable labor policies, energy crisis and lack of industrial and investment, high cost of production etc are the main causes for high import than exports. There are a number of issues such as modalities of tariff reduction and elimination, size of the negative list, mechanism of dispute settlement, safeguard measures, customs operations and negotiations on the agreements on service and investment are yet not to be finalized after 20 years of agreement.

Table 3.15 compare the performance of BIMSTEC nations for three phases with t-values for exports, imports and compound annual growth rate (CAGR) for overall trade performance in BIMSTEC region. The t-value is greater than 0.05. Since $t = 1.88 > 0.05$ for first phase depicts that the mean difference sample is greater, so reject the null hypothesis and concluded that there is a significant difference in the export performance during pre and post formation of BIMSTEC bloc. The t-values for phase-II and phase-III are 1.78 and 1.80 respectively. Since the t-value is greater than 0.05 for both the phases, concluded that null hypothesis rejected and accept the alternative i.e. there is a significant difference in the export performance during pre and post formation of BIMSTEC bloc. In case of import performance, t-values are 1.93, 1.74 and 1.84 for phase-I, phase-II and phase-III respectively. Since t-values are greater than 0.05 for all the phases, depicts that the mean difference sample is greater, so reject the null hypothesis for all phases and concluded that there is a significant difference in the import performance during pre and post formation of BIMSTEC bloc. Finally, for CAGR t-values are 12.92, 14.79 and 18.34 for phase-I, phase-II and phase-III respectively. Since, the t-values are greater than 0.05 for all the phases, depicts that the mean difference sample is greater, so reject the null hypothesis for all phases and concluded that the significance difference for pre and post-performance of BIMSTEC.

Table 3.15 : T-statistics for pre and post performance of BIMSTEC trade

		One-Sample Test						One-Sample Statistics		
		Test Value = 0								
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference				
						Lower	Upper	Mean	Std. Deviation	Std. Error Mean
Exports	Phase-I (1980-1997)	1.81	6	.119	14.28	-4.94	33.51	14.28	20.78	7.86
	Phase-II (1998-2015)	1.78	6	.125	14.48	-5.40	34.37	14.48	21.50	8.13
	Phase-III (1980-2015)	1.80	6	.122	14.38	-5.15	33.92	14.38	21.12	7.98
Imports	Phase-I (1980-1997)	1.93	6	.101	14.28	-3.78	32.36	14.28	19.54	7.38
	Phase-II (1998-2015)	1.74	6	.131	14.39	-5.77	34.55	14.39	21.80	8.24
	Phase-III (1980-2015)	1.84	6	.114	14.34	-4.64	33.33	14.34	20.53	7.76
CAGR	Phase-I (1980-1997)	12.92	7	.000	17.40	14.21	20.58	17.40	3.81	1.34
	Phase-II (1998-2015)	14.79	7	.000	24.50	20.58	28.42	24.50	4.68	1.66
	Phase-III (1980-2015)	18.34	7	.000	21.05	18.34	23.77	21.06	3.25	1.15

For CAGR and concluded that there is a significant difference in CAGR during pre and post formation of BIMSTEC bloc. Since 1997, after the formation of bloc the trade among BIMSTEC nations has grown nearly 22 times. India as leading player contributing more as compare to other member nations of bloc in overall trade after the formation of bloc. From 1980 to 2015, India share in Bangladesh trade as member of BIMSTEC was 2.22 per cent, for Bhutan India contributing 0.14 per cent, for Myanmar, Nepal, Sri Lanka and Thailand it was 0.52 per cent, 1.61 per cent, 2.33 per cent and 2.43 per cent respectively. In BIMSTEC region, still resources are remain unsophisticated that become the hindrance for the growth of trade in the bloc.

Table 3.16: Trade Balance of individual BIMSTEC countries with rest of the world (In US \$)

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1980	-1840.45	-33.45	-6278.86	119.94	-261.93	-975.08	-2708.18
1981	-1908.45	-47.84	-7122.9	89.28	-228.46	-760.51	-2924.47
1982	-1694.43	-51.52	-5428.22	-17.66	-307.65	-800.52	-1603.82
1983	-1440.27	-56.37	-4912.96	111.61	-370.83	-756.57	-3918.98
1984	-1893.8	-54.46	-5820.95	62.36	-289.25	-399.44	-2984.77
1985	-1543.57	-62.22	-6788.44	20.45	-293.43	-510.05	-2121.44
1986	-1666.18	-61.89	-6022.14	-16.85	-318.12	-641.78	-302.49
1987	-1647.99	-31.57	-5377.4	-50.36	-419.84	-665.08	-1273.1
1988	-1750.44	-52.50	-5868.2	-79.04	-486.12	-786	-4332.5
1989	-2345.49	-20.48	-4677.9	19.39	-422.26	-642.99	-5692.1
1990	-1946.76	-11.59	-5610.5	54.91	-468	-772.85	-9976.9
1991	-1723.07	-19.89	-2721	-226.69	-480	-1067.44	-9140.5
1992	-1633.7	-58.78	-3951.1	-119.75	-407.3	-989.51	-8213.6
1993	-1716.22	-24.71	-1216.8	-227.93	-506	-1132.48	-9107.2
1994	-1941.73	-25.29	-1820.9	-87.32	-793	-1568	-9198.1
1995	-3193	-8.99	-4076.9	-483.38	-988	-1387.42	-14347

Contd. ...

Year	Bangladesh	Bhutan	India	Myanmar	Nepal	Sri Lanka	Thailand
1996	-2783	-27.41	-4837.1	-611.75	-1013	-1320.94	-16611
1997	-2431	-19.38	-6423.8	-1171.02	-1287	-1199.91	-5508.9
1998	-2374	-25.71	-9542.9	-1600.58	-772	-1124.13	11506.5
1999	-2834	-66.12	-11312.5	-1175.53	-820	-1276.22	8123.1
2000	-2494	-72.2	-9143.6	-750.72	-769	-851.07	7039.1
2001	-2938	-85	-7031	-491.25	-736	-1157	3006
2002	-2443	-83.84	-7267	690.88	-851	-1405.74	3463
2003	-3444	-116.10	-13594.8	388.67	-1092	-1546.79	4499.3
2004	-3731	-228	-23126.8	181.55	-1165.77	-2215.98	1838.4
2005	-4592	-128.09	-43254	1868.32	-1420.02	-2486.88	-7241.16
2006	-4231.76	-5.29	-56602.3	2000.91	-1653.95	-3372.67	948.54
2007	-6142.8	148.62	-79211.3	3006.08	-2253.13	-3560.41	13901.76
2008	-8490.4	-21.86	-126203	2625.96	-2651.28	-5500.7	-1447.09
2009	-6750.18	-33.56	-92293.5	2313.92	-3561.82	-2704.2	18713.74
2010	-8626.8	-212.49	-123881	3901.42	-4277.66	-4909.4	10384.59
2011	-11774.7	-368.79	-161557	219.07	-4854.88	-10033	-6210.88
2012	-9046.03	-456.18	-192866	-324.49	-5154.64	-9810	-20009.4
2013	-7971.59	-365.54	-150549	-809.7	-5692.16	-7794.6	-21901.9
2014	-11862.4	-518.014	-140216	-5195.4	-6672.18	-8119.2	-224.87
2015	-7081.7	-554.222	-124829	-6399.04	-5850.56	-8429.6	11720.99
Average							
1980-1997	-1949.98	-37.13	-4942	-145.21	-518.9	-909.81	-6109.17
1998-2015	-5934.91	-177.36	-76249	25.00	-2791.56	-4238.76	2117.21
1980-2015	-3942.44	-107.24	-40595.5	-60.10	-1655.23	-2574.28	-1995.98

Source: United Nations Conference on Trade and Development (UNCTAD)

The table no. 3.16 analyzed the trade balance of BIMSTEC economies from 1980 to 2015. If comparison have been made for two decade i.e. before and after formation the BIMSTEC, almost all the BIMSTEC countries suffering from negative trade balance throughout the study period as shown in table given below. Only two nations Myanmar and Thailand have a favorable trade balance after the formation of BIMSTEC from the period 1997 to 2015. For correcting the negative trade balance BIMSTEC need to change the situation, so that BIMSTEC grouping will attracting greater interest from foreign investors outside of the region, including for smaller countries like Myanmar, Bhutan and Bangladesh.

Table 3.17: Trade complementarity index between India and BIMSTEC countries before and after formation (In percentage).

Countries	India exporting and other BIMSTEC countries Importing (1980-1997)	India Importing and other BIMSTEC countries Exporting (1998-2015)
Bangladesh	0.131	0.276
Bhutan	0.131	0.193
Myanmar	0.148	0.248
Nepal	0.101	0.311
Sri Lanka	0.219	0.293
Thailand	0.571	0.638

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.17 examined the India's trade complementarity with BIMSTEC as a supplier (Exporter) and BIMSTEC as a market (Importer) for India and vice versa for the before and after formation of BIMSTEC region. Table revealed that India had good export-import complementarity with Thailand and moderate with other BIMSTEC countries It is noticed that after formation of BIMSTEC India have better trade complementarity as compare with before formation study period with Bangladesh, Myanmar, Nepal, Sri Lanka and Thailand because generally products are offered at concessions by India to the member nations.

Table 3.18: Trade Similarity index between India and BIMSTEC countries before and after formation (In percentage).

Countries	India exporting and other BIMSTEC countries Importing		India Importing and other BIMSTEC countries Exporting	
	1980-1997	1998-2015	1980-1997	1998-2015
Bangladesh	0.18	0.19	0.47	0.54
Bhutan	0.30	0.33	0.62	0.59
Myanmar	0.21	0.29	0.52	0.53
Nepal	0.49	0.45	0.49	0.68
Sri Lanka	0.25	0.35	0.54	0.69
Thailand	0.57	0.70	0.68	0.79

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.18 depicted that similarity index between India and other BIMSTEC economies before and after the formation of BIMSTEC as regional trading bloc. The index of similarity signals whether the structure of exports or imports by product of a given country or group of countries differs from that of its counterpart country or group of countries. If we compare both decades India and Thailand having a good scope of trade and both the country gain from trade. But after the formation of BIMSTEC trade opportunity has been open for other economies such as Sri Lanka, Nepal and Myanmar also. All member nations gain from their mutual trade after the formation of bloc.

Diversification in exports and in domestic production has been conducive to faster economic growth in developing countries. Increased diversification is also associated with lower output volatility and greater macroeconomic stability. There has been both a growth payoff and a stability payoff to diversification, underscoring the case for paying close attention to policies that facilitate diversification and structural transformation.

Table 3.19: Diversification index between India and BIMSTEC countries before and after formation (In percentage).

Countries	India exporting and other BIMSTEC countries Importing		India Importing and other BIMSTEC countries Exporting	
	1980-1997	1998-2015	1980-1997	1998-2015
Bangladesh	0.81	0.90	0.53	0.63
Bhutan	0.69	0.81	0.38	0.60
Myanmar	0.79	0.97	0.48	0.58
Nepal	0.51	0.74	0.51	0.54
Sri Lanka	0.76	0.89	0.46	0.57
Thailand	0.43	0.81	0.32	0.31

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.19 revealed the trade diversification index between India and other BIMSTEC member countries. India's diversification of exports to other BIMSTEC countries has been increased almost all the countries during the period of 1998 to 2015 or after the formation of bloc. In case of imports there has been moderate rate of diversification has been noticed during the period of 1998 to 2015. India having a high scope of trade with BIMSTEC member nations. Trade diversification is a measure of the dispersion of trade value across an exporter's products. It is an indicator of the exporter's vulnerability to trade shocks. Measured over time, a fall in the index may be an indication of diversification in the exporter's trade profile. From above table it has been shown that diversification of trade in BIMSTEC region with India having a value near to zero for almost all the member nations that depicts, countries with a completely diversified portfolio have an index close to zero.

Table 3.20: Trade openness between India and BIMSTEC countries before and after formation (In percentage).

Countries	India Exporting		India Importing		1980-2015 (X+M)
	1980-1997	1998-2015	1980-1997	1998-2015	
Bangladesh	35	39	11	12	97
Bhutan	26	49	8	19	102
Myanmar	26	27	9	19	81
Nepal	41	15	30	17	103
Sri Lanka	24	28	9	17	78
Thailand	9	9	9	18	45

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.20 demonstrated the trade openness between India and BIMSTEC. The Openness to Trade indicator provides a normalized view of a country's total trade by summing the total value of exports and imports and dividing by GDP and gives an illustration of the concave relationship between GDP per capita and trade openness. Above table shaded light on the significance of trade volumes in enhancing economic growth for BIMSTEC countries. Nepal, Bhutan and Bangladesh have a more trade openness with India because all three are neighbor countries of India and sharing land border with India. Thailand have a lowest trade openness with India because of distance.

Table no. 3.21 depicted the real value of exports from BIMSTEC nations from the period 1980 to 2015 base year 2000. In early year of establishment period of BIMSTEC 1980 to 1997, average of exports grew from US \$ 41,753.62 million to US \$ 217285.36 million. The average real value of exports from 1980 to 2015 was US \$ 129519.49 million. The tremendous increment was noticed. The reason behind increased in real value of exports was BIMSTEC win win formula, it creates the integrated market of 1.5 billion people with combined economic strength of US\$ 2.5 trillion.

Table 3.21 : Real value of Exports of BIMSTEC countries (Base year-2000)

Year	Total exports of BIMSTEC	Unit Value index base year=2000	Real Value of Exports from BIMSTEC
1980	17,486.00	96	18214.58
1981	17,833.00	91	19596.70
1982	18,598.00	94	19785.11
1983	17,794.00	94	18929.79
1984	20,158.00	96	20997.92
1985	19,038.00	98	19426.53
1986	20,830.00	98	21255.10
1987	25,812.00	99	26072.73
1988	32,460.00	120	27050.00
1989	39,217.00	123	31883.74
1990	45,219.00	121	37371.07
1991	50,570.00	117	43222.22
1992	57,618.70	117	49246.75
1993	64,980.00	112	58017.86
1994	77,651.00	114	68114.91
1995	95,675.83	108	88588.73
1996	98,408.55	103	95542.28
1997	103,251.41	117	88249.07
1998	99,482.32	107	92974.13
1999	106,051.86	101	105001.84
2000	125,808.00	100	125808.00
2001	122,449.00	94.327	129813. 5

Contd. ...

Year	Total exports of BIMSTEC	Unit Value index base year=2000	Real Value of Exports from BIMSTEC
2002	131,932.76	91.860	143623.42
2003	154,679.53	103.89	148877.77
2004	190,293.46	116.34	163570.88
2005	231,131.11	130.33	177349.79
2006	276,058.22	137.19	201223.28
2007	332,100.12	157.93	210283.12
2008	404,824.99	175.42	230774.71
2009	347,738.74	159.28	218311.19
2010	457,610.20	191.85	238519.33
2011	570,988.25	224.85	253937.85
2012	568,590.58	223.27	254654.11
2013	808,305.19	224.06	360753.90
2014	893,321.48	278.73	397343.24
2015	932,845.32	301.25	458316.39
Average			
1980-1997	45,700.03		41,753.62
1998-2015	3,75,233.95		2,17,285.36
1980-2015	2,10,466.99		1,29,519.49

Source: United Nations Conference on Trade and Development (UNCTAD)

*Real export is calculated by (Export/unit value index base year 2000-01)*100.

Table no. 3.22 demonstrated the balance of trade for BIMSTEC region after the formation of bloc. Overall BIMSTEC balance of trade was favorable for all the member countries. The value of balance of trade was US \$4164. 94 billion.

**Table 3.22 : Balance of trade for BIMSTEC countries after formation of
BIMSTEC (In US \$ bn)**

Year	Exports	Imports	Trade volume	Balance of Trade
1997	1851.65	639.3	2490.95	1212.35
1998	1915.1	698.53	2613.63	1216.57
1999	1788.27	832.9	2621.17	955.37
2000	2079.24	923.05	3002.29	1156.19
2001	2536.91	1274.09	3811	1262.82
2002	2961.14	1157.93	4119.07	1803.21
2003	4346.45	1438.41	5784.86	2908.04
2004	4816.79	1954.08	6770.87	2862.71
2005	5767.75	2843.49	8611.24	2924.26
2006	6237.38	3416.69	9654.07	2820.69
2007	7802.02	4348.02	12150.04	3454
2008	10126.54	5241.32	15367.86	4885.22
2009	7256.85	5078.15	12335	2178.7
2010	10797.97	6630.38	17428.35	4167.59
2011	13860.33	8328.6	22188.93	5531.73
2012	15488.62	8554.84	24043.46	6933.78
2013	19032.49	8401.5	27433.99	10630.99
2014	21391.03	8888.07	30279.1	12502.96
2015	18566.41	8839.69	27406.1	9726.72
Average	8348.57	4183.63	12532.21	4164.94

Source: United Nation Commodity Trade Statistics database (COMTRADE)

**Table 3.23: Percentage share of BIMSTEC countries in total exports of
BIMSTEC trading bloc (After Formation)**

Year	BIMSTEC total exports (in US\$ Million)	India's Total exports (in US\$ Million)	India share of exports in BIMSTEC region	Total world exports (in US\$ million)	share in world exports of BIMSTEC region (per cent)
1997	3479.375	9709.371	35.84	518040	0.67
1998	3320.732	9236.492	35.95	515675	0.64
1999	3691.998	10045.1	36.75	534740	0.69
2000	4235.810	12271.7	34.52	612818	0.69
2001	4387.849	11891	36.90	591914	0.74
2002	5009.796	12834.6	39.03	622215	0.81
2003	5936.066	15160.8	39.15	727197	0.82
2004	7590.420	18588.6	40.83	882605	0.86
2005	10035.264	22621.3	44.36	996056	1.01
2006	12120.061	27065.2	44.78	1163260	1.04
2007	14589.805	32094.8	45.46	1327590	1.10
2008	18186.090	38197.4	47.61	1537620	1.18
2009	17676.504	35332.4	50.03	1196750	1.48
2010	22040.850	45216.8	48.74	1455890	1.51
2011	30148.325	56599.3	53.27	1738000	1.73
2012	28956.477	52988.2	54.65	1689320	1.71
2013	33661.139	57600.6	58.44	1614760	2.08
2014	37892.873	61382.3	61.67	1856230	2.59
2015	41432.672	63782.5	63.64	1985320	3.01

Source: United Nation Commodity Trade Statistics database (COMTRADE)

Table no. 3.23 portrayed that percentage share of exports of BIMSTEC nations in total world exports of and India's share in BIMSTEC exports from 1997 (formation year of BIMSTEC) to 2015. During 1997 the share of BIMSTEC exports in world exports was 0.67 per cent and it increased by 3.01 per cent in 2015. India's share in BIMSTEC exports was 35.84 per cent in 1997 and increased by 63.64 per cent in 2015. The reason of less share in total world exports was BIMSTEC restricted activities lead to some serious problems such as structural constraints on member states in the form of limited technological, lead-actor inertia, operational and financial capabilities.

3.4. SUMMARY

From the above analysis it can be stated that the economic situation of BIMSTEC countries is very promising. So the corporate across the world may take added interest in respect of the South-East Asian region. For an example, the share of agriculture in GDP for Myanmar is very high. So the corporate can initiate trade in agricultural goods with Myanmar. Similarly, the share of industry in GDP for Thailand is very high. So the trade with corporate based in Thailand in manufactured items will surely be beneficial. The rate of inflation is moderate in the BIMSTEC countries except that in Myanmar. Thus, a conducive economic environment will help in expansion of trade and business across the group. The GDP growth rate of India, Bangladesh, and Sri Lanka has shown a steady growth rate. Except Myanmar the other BIMSTEC countries have improved political situation. There is much scope for investment by the corporate in this region. Moreover the share of service sector in GDP has also increased for these nations. This indicates better opportunity for trade in services. The availability of huge labour force is also an added advantage for the corporate to expand business specially the manufacturing part in this region. Use of cheap labour will definitely reduce the cost of production. At the same time increased business activity in this region will generate adequate employment opportunity. This will lead to rapid growth of GDP of the countries. The overall economic environment will also be stable and more business opportunities will emerge. Thus there is possibility of this region of south and South East Asia to emerge as a strong business hub in near future.

The percentage share of BIMSTEC exports in the total world exports of and India's share in BIMSTEC exports from 1997 (formation year of BIMSTEC) to 2015. During 1997 the share of BIMSTEC exports in world exports was 0.67 per cent and it increased by 3.01 per cent in 2015. If comparison has been made with other regional blocs during study period such as EU, ASEAN etc. it was less and the reason of less share in total world exports, BIMSTEC restricted activities lead to some serious problems such as structural constraints on member states in the form of limited technological, lead-actor inertia, operational and financial capabilities. According to the observations during study period, almost all the member nations of BIMSTEC have shown drastically increments in the average of imports than exports after the formation of bloc. The imports of BIMSTEC nations were much higher than its exports. The reason behind higher imports than exports was, it include the Developing as well as LDC's countries and the cost of production is high if they manufacturing all the items in domestic territory. The CAGR of BIMSTEC nations as a whole depicts an average increase in imports except Myanmar, Sri Lanka and Thailand. The reason behind decrease in average of compound annual growth of the imports for rest of the BIMSTEC countries were political instability, lack of competitive advantage in production, instable labor policies, energy crisis and lack of industrial and investment, high cost of production etc are the main causes for high import than exports. There are a number of issues such as modalities of tariff reduction and elimination, size of the negative list, mechanism of dispute settlement, safeguard measures, customs operations and negotiations on the agreements on service and investment are yet not to be finalized after 20 years of agreement. The share of India's trade with BIMSTEC remains much below its potential for reasons such as poor connectivity and hurdles in trade facilitation leading to high trade costs and weak supply capabilities, especially in less developed nations like Myanmar, Nepal and Bangladesh. If comparison have been made for two decade i.e. before and after formation the BIMSTEC, almost all the BIMSTEC countries suffering from negative trade balance throughout the study period as shown in table given below. Only two nations Myanmar and Thailand have a favorable trade balance after the formation of BIMSTEC from the period 1997 to 2015. For correcting the negative trade balance BIMSTEC need to change the situation, so that BIMSTEC grouping will attracting greater interest from foreign investors outside of the region, including

for smaller countries like Myanmar, Bhutan and Bangladesh. It is noticed that after formation of BIMSTEC India have better trade complementarity as compare with before formation study period with Bangladesh, Myanmar, Nepal, Sri Lanka and Thailand because generally products are offered at concessions by India to the member nations. India having a high scope of trade with BIMSTEC member nations. From observations, it have been shown that diversification of trade in BIMSTEC region with India having a value near to zero for almost all the member nations that depicts, countries with a completely diversified portfolio in trade. Nepal, Bhutan and Bangladesh have a more trade openness with India because all three are neighbor countries of India and sharing land border with India. Thailand have a lowest trade openness with India because of distance.

CHAPTER-4

**INTRA INDUSTRY TRADE AND CAUSAL EFFECT OF
EXPORTS AMONG BIMSTEC COUNTRIES**

This chapter throw a light on Intra Industry Trade (IIT) analysis of India with BIMSTEC member countries and assess the empirical relationship between Export and GDP among BIMSTEC countries using panel data from the period 1997 to 2015. This chapter also describes and analyses different factors behind developments in IIT between India and BIMSTEC countries during the period of 1997 to 2015 at HS 2-digit level and at 6-digit level and highlights important differences between the forces driving vertical versus horizontal intra-industry trade.

Over the past year the Bay of Bengal community have witnessed a period of tremendous economic change, having transformed from relatively closed centrally planned economies into open markets that are increasingly connected to each other and to the rest of the world.

4.1. OVERVIEW OF BIMSTEC COUNTRIES EXPORTS AND GDP

BIMSTEC has a potential to enhance the trade between member countries by taking benefit of their geographical position in the region of the Bay of Bengal and the Eastern coast of the Indian Ocean. Economic integration within regional trading blocs adds the significant value to increase economic growth, trade, investment etc. India is the biggest economy in terms of its macroeconomic indicators while Bhutan is the smallest in the bloc among all the member nations. In between these two, only Thailand can be noticed as a dominant nation in the group. The member states collectively having a combined GDP of US\$ 1.7 trillion in nominal terms and US\$ 4.2 trillion in purchasing power parity (PPP) terms. And account for approximately 1/5 of the world's population, occupy 3.64 per cent of surface area. The BIMSTEC is characterized by momentous heterogeneity of income among the member countries as all nations are at diverse levels of development (Batra, 2010).

This chapter has been organized into two sections. Section 1 highlights the Granger Causality model and its results. Section 2 concentrate on IIT ranking product for exported as well as imported commodities at HS 2-digit level and HS 6-digit level by India to BIMSTEC countries.

4.2. SECTION-1: THE EMPIRICAL RELATIONSHIP BETWEEN EXPORT AND GDP AMONG BIMSTEC COUNTRIES

Granger Causality model is based on the following hypotheses for testing the causality and co-integration between GDP and export for BIMSTEC nations. (i) Whether there is bi-directional causality between GDP growth and export for BIMSTEC nations.(ii) Whether there is unidirectional causality between the two variables, (iii) whether there is no causality between GDP and export for BIMSTEC nations. (iv) whether there exists a long run relationship between GDP and EXPORT for BIMSTEC nations.

EMPIRICAL RESULTS

The model estimated with panel data for seven BIMSTEC countries. It includes Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. To explore the dynamics of the association among export and economic growth between BIMSTEC with data for the period, 1997 to 2015 and this include the 17 observations. The two main variables are real GDP and real Export. Both the variables economic growth rate (GDP) and exports measured in US \$ million. Study scrutinize the long time and causal dynamic associations among the level of export and GDP. The methodology used in study is the Unit Root Analysis, Co-integration and Granger Causality technique.

Table 4.1: Panel Unit Root Test – Im, Pesaran and Shin (IPS)

Variables	Level	First difference	Second difference
Log_GDP	-0.8060	-3.5297	-5.5063
Log_Exports	-1.5572	-2.1370	-7.5250
Im, Pesaran and Shin W-stat	0.36335	-1.96709	-7.05029
T-bar critical values ***			
1% level	-3.857386		
5% level	-3.040391		
10% level	-2.660551		

H₀ : Unit root (individual unit root process)

Table 4.1 depicts the results of the IPS panel unit root test at level with intercept indicating that all variables are in the constant level with intercept of the panel unit root regression. These results clearly revealed that the null hypothesis of a panel unit root in the level of the series cannot be rejected at various lag lengths. Generally it has been observed that the null hypothesis for panel unit root is rejected in all series at level form and various lag lengths. The test values concluded that most of the variables attains stationary at level with intercept by applying the IPS test. The results of the panel unit root tests confirm that the variables are non-stationary at level. Table also shows the results of the tests at first difference and second difference for IPS test with intercept. From the test values, series of the null hypothesis for unit root test is rejected at 95 percent critical value (1 percent level and 10 per cent). Hence, based on IPS test, there strong evidence that all the series are integrated of orders one. The results revealed that the panel unit root support the hypothesis for all variables from 1997 to 2015. At most of the 1 percent significance level, the results found that all tests statistics with intercept significantly confirm that all variables strongly reject the unit root null and concluded that series of Log_GDP and Log_Exports has stationarity.

Table 4.2: Co-integration test- Pedroni (Engle-Granger based)

Variables	tau-statistic	Prob.*	z-statistic	Prob.*
Log_GDP	-1.239225	0.8495	-5.811685	0.6136
Log_Exports	-0.963284	0.9096	-4.821390	0.7129

H₀ : Series are not co-integrated

Table 4.2 depicts the results for Pedroni co-integration based on Engle-Granger test for all the variables. The test investigate that whether long-run steady state or co-integration exist among the variables or not. Coiteux and Olivier (2000) examined that the panel co-integration tests have much higher testing power than conventional co-integration test. Null hypothesis is rejected at 5 per cent level of significance, which explains that there is long run relationship exist between GDP and Exports.

Table 4.3: Granger causality test between Log_Exports and Log_GDP

Null Hypothesis:	Obs	F-Statistic	Prob.
LOG_EXPORTS does not Granger Cause LOG_GDP	17	4.24555	0.0403
LOG_GDP does not Granger Cause LOG_EXPORTS	–	4.62955	0.0323

Table 4.3 explicated that there is Bi-directional causality between both the variables. Null hypothesis rejected in both the cases since the F-statistic values greater than 4 and having lag length of 1 to 4. So, the null hypothesis is rejected in both case and concluded that LOG_EXPORTS Granger Cause LOG_GDP. In second case, the null hypothesis is also reject and concluded that Log_GDP granger cause to Log_Exports. There is long run relationship exist between GDP and Exports. Both leads to economic developments of the region.

4.3. SECTION-2: INTRA INDUSTRY TRADE BETWEEN INDIA AND BIMSTEC

Trade is an important aspect of economic integration, as BIMSTEC countries move towards integration and built common market for member countries. One interesting way to assess and compare the extent to which trade integration has developed is by looking at the level of two-way or intra-industry trade (IIT) between India and BIMSTEC Countries, as IIT is tantamount of integrated trade structures and leads to more synchronized business cycles, a necessary condition for the economic development of BIMSTEC region. The pioneering theories on intra-industry trade were developed in relation to the signing of the first regional trade agreements, in particular between countries of the BMSTEC Community. Most of the early empirical studies found some evidence that regional trade agreements stimulate intra-industry trade (Grubel and Lloyd 1975, Balassa and Bauwens 1987).

Consisting in essence of the trade of similar products between countries, IIT has challenged traditional trade theories which were based on notions of comparative advantage and specialization and which did not account for diversification of the same product. Yet, such trade can increasingly be observed between BIMSTEC

countries, along with a steady relative decline in one-way trade or trade in different products. With the enlargement of the BIMSTEC, first towards the Asia and later towards rest of the world that lead to rise of vertical IIT, where countries trade similar products but of different quality levels, has been particularly notable. Horizontal IIT, i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace (see chapter 1).

The formation of BIMSTEC provides a matchless union of South Asia and Southeast Asia which given the geographical contiguity, differing levels of development and resource endowments. Its geographical contiguity could also facilitate the exploitation of potential in seeking restructuring of industry. Although the intra-regional trade turnover is small, it is growing faster than the overall trade member countries. Presently, the full potential of intra-regional trade remain unrealized because of tariff and non-tariff barriers, weak communication link and lack of information regarding the supply capabilities etc. One of important agenda of the BIMSTEC region has been regional cooperation through which its member countries might strengthen their external competitiveness.

4.3.1. India and Bangladesh

As neighbours, India and Bangladesh have established well-built bilateral relations in political, economic, social and cultural areas since the freedom of Bangladesh. The political relation had naturally undulations. As far as economic relation concern those are always remained strong and grow over time. In recent years, trade among India's and Bangladesh has witnessed rapid growth. Both economies are different, may be not so much in terms of the overall stage of development but more in terms of latest growth dynamics. The former has started off a slow but importunate acceleration of growth while the later has maintain one of the utmost growth rates of GDP in the world for more than a decade. In terms of composition of household outputs, there is no prominent difference among these economies. Both of them the nations are dominated by the tricks in the service sector which contributes to about 53 per cent and 50 per cent of entire output in India and Bangladesh respectively

(Dubey, 2013). The industry sector contributes approximately 29 per cent of GDP in both economies. Mutual trade flows among India and Bangladesh was approximately US\$ 5.07 billion in 2011, a notable amplify from US\$ 1.12 billion in 2001, registering an average yearly growth of 26 per cent. On the other hand, India's exports to Bangladesh dominated and the consequential trade gap increased over time to US\$ 2.78 billion in 2011 from US\$ 1.01 billion in 2001. Indo-Bangladesh bilateral trade flows show momentous fluctuations. The growth of Bangladesh's export to India accelerated during 2005 and started decelerates since then during 2009. During the year followed by the global economic and financial crises of 2008, Bangladesh's export to India declined in absolute terms. It recovered in year 2010 resuming its former growth trajectory. Growth of India's imports had accelerated until it dipped in 2004, but recovered rapidly. After an immense turn down in 2009, it again recovered. In spite of the peaks and troughs, the overall India Bangladesh trade has improved over time, especially Bangladesh's imports from India. Bangladesh's export receipts from the Indian market had improved from US\$ 0.005 billion in 1991 to US\$ 0.51 billion in 2011. The share of earnings from India in Bangladesh's overall exports decreased from 0.33 per cent in 1991 to 0.31 per cent in 2001, but after that it notably increased to 1.88 per cent in 2011 (Basher, 2013). India's relative importance as a bilateral trade partner is second only to China, which was the source for about 21.5 per cent of Bangladesh's total imports. Other important import sources for Bangladesh and there share are South Korea (5 per cent), Singapore (4.7 per cent), Japan (4.7 per cent), Malaysia (4.4 per cent), Indonesia (3.9 per cent), Brazil (3.8 per cent), Kuwait (2.9 per cent), and Thailand (2.7 per cent) in 2012. Despite being the second largest source for imports, India is the only Asian country to emerge as one of the top ten export destinations of Bangladesh. India's share in Bangladesh's overall exports was 2.7 per cent in 2012. Contrasting with overall export structure of the country, Bangladesh's exports to India is dominated by primary not manufactured commodities. The shares of manufactured goods in Bangladesh's export to global markets were about 92 and 91 per cent in 2001 and 2011 respectively (Basher, 2013).

Table 4.4 : Major Exporters and Importer of Bangladesh and percentage share of imports and exports.

Top ten exporters of Bangladesh	Percentage Share in Exports	Ranking of Partner countries in world exports	Top ten importers of Bangladesh	Percentage share in Imports	Ranking of Partner countries in world imports
United States of America	16.5	5	China	30.6	14
Germany	10.9	8	India	16.2	22
United Kingdom	9.4	9	Singapore	8.5	15
Netherlands	7.6	19	Indonesia	3.6	4
France	6.8	9	Hong Kong, China	3.6	13
Spain	6	19	Republic of Korea	3.2	-6
Italy	4.2	16	Malaysia	3.2	-2
Belgium	3.5	13	Japan	3	0
Canada	3.3	7	United States of America	2.8	8
Turkey	3.1	5	Taipei, Chinese	2.8	7

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.4 shown the major exports and imports market for Bangladesh. Bangladesh percentage share in respected markets and their rankings in world exports and imports. India at 22 position as imports market for Bangladesh with 16.2 per cent share and for exports market India is on 13 position with 1.6 per cent share in exports of Bangladesh economy.

Table 4.5: Commodities classification with IIT Index Value India and Bangladesh (1997-2015)

HS Code Classification	Product Description	VIIT	HIIT
01-05	Animal & Animals product	0.83	
06-15	Vegetables products	0.06	
16-24	Food Stuffs	0.04	
25-27	Mineral Products	0.15	
28-38	Chemical & Allied Industries	0.34	
39-40	Plastic/ Rubbers	0.06	
41-43	Raw Hides, Skins, leathers & Furs		1.35
44-49	Wood & wood products	0.05	
50-63	Textiles	0.28	
64-67	Footwear/ Headgear	0.44	
68-71	Stone/ Glass	0.31	
72-83	Metals	0.13	
84-85	Machinery/ Electrical	0.06	
86-89	Transportation	0.00	
90-97	Miscellaneous	0.05	
98-99	Service	0.22	

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.5 represented the intra industry trade among India and BIMSTEC at 2 digit level HS code classification. Variations has been seen in trade of exports as well imports of same industry. There are total sixteen commodities classification which have been calculated among India and other BIMSTEC nations. Vertical IIT refers to trade of same products but different quality. Countries engage in Vertical IIT according to their competitive advantages. On the other hand, Horizontal IIT is a trade of products that belong to the same industry having same qualities. India and

Bangladesh has HIIT only in Raw Hides, Skins, Leathers & Furs industry in during study period. Except Raw Hides, Skins, Leathers & Furs, India and Bangladesh enjoying VIIT for all commodities exported and imported by both the countries as a part of BIMSTEC.

**Table 4.6 : IIT between India and Bangladesh during 1997-2015
at HS 6-digit level**

HS Code Classification	Product Description	HIIT
960719	Slide fasteners (excluding fitted with chain scoops of base metal)	1.21
850710	Lead-acid accumulators of a kind used for starting piston engine "starter batteries" (excluding ...	1.25
850213	Generating sets with compression-ignition internal combustion piston engine "diesel or semi-diesel ...	1.16
691200	Tableware, kitchenware, other household articles and toilet articles, of ceramics other than ...	1.53
520949	Woven fabrics of cotton, containing $\geq 85\%$ cotton by weight and weighing $> 200 \text{ g/m}^2$, made of ...	1.51
520819	Woven fabrics of cotton, containing $\geq 85\%$ cotton by weight and weighing $\leq 200 \text{ g/m}^2$, unbleached ...	1.72
490199	Printed books, brochures and similar printed matter (excluding those in single sheets; dictionaries, ...	1.47
410310	Raw hides and skins of goats or kids, fresh or salted, dried, limed, pickled or otherwise preserved, ...	1.69
410229	Raw skins of sheep or lambs, without wool on, fresh or salted, dried, limed or otherwise preserved, ...	1.50
310420	Potassium chloride for use as fertiliser (excluding that in tablets or similar forms, or in ...	1.49

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.6 has shown the intra industry trade for 6-digit HS code commodity classification. Above mention commodities ranked as top commodities that has been imports as well exports by the India to Bangladesh. Basically all major commodities were resource based manufacturing commodities (see annex-1). India and Bangladesh traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace.

4.3.2. India and Bhutan

India and Bhutan Friendship Treaty of 2007 provides for strengthening of bilateral trade relations. India is Bhutan's largest trading partner. A free trade regime exists between India and Bhutan. The India and Bhutan Trade and Commerce Agreement was first signed in 1972 which was last renewed in 2006 for a period of 10 year. The Agreement provides for duty free transit of Bhutanese merchandise for trade with third countries. During 2013, bilateral trade reached ₹7287 Crore imports from India being ₹ 4389 crore while Bhutan's exports to India stood at ₹ 2898 crore including electricity. Total bilateral trade raised by about 4.7 per cent in 2013 (Sinha and Ghimire, 2014). Major items of exports from Bhutan to India are electricity, ferro-alloys, carbides, bar and rods, cement, copper wire, semi-finished products of iron and non-alloy steel, Dolomite, gypsum, agriculture products such as oranges, cardamom and potatoes. Major exports from India to Bhutan are high speed diesel, ferrous products, motor spirit including aviation spirit petrol, rice, ferrous waste and scraps, wood charcoal, hydraulic turbines, coal, briquette and similar solid fuel of coal, coke and semi coke of coal, bar and rods of iron and non-alloy steels, corrugated iron and non-alloy steel sheet, soybean oil, milk powder etc. During 2010, imports from India were of the order of ₹ 2930 crores and constituted 75 per cent of Bhutan's total imports. Bhutan's exports to India in 2010 amounted to ₹ 2600 crores and constituted 90 per cent of its total exports. Total trade in 2010 raised by about 26 per cent from 2009 (Embassy of India).

India is Bhutan's largest trading partner. A free trade regime exists between India and Bhutan. The India-Bhutan Trade and Commerce Agreement were first signed in 1972. It was last renewed 2006 for a period of 10 years; it comes up for review next in 2016. The Agreement also provides for duty free transit of Bhutanese

merchandise for trade with third countries. During 2013, bilateral trade reached ₹7287 cr. Imports from India were ₹ 4389 cr., accounting for 82.4 per cent of Bhutan's total imports. Bhutan's exports to India stood at ₹ 2898 cr. and constituted 91 per cent of its total exports. Total bilateral trade grew by about 4.7 per cent in 2013.

In case of Bhutan, India exports share was 93.7 per cent and imports share was 78.8 per cent. After India, Nepal imports from china. The imports share of china was 9.4 per cent. Share of exports of china in Nepal economy was 2.3 per cent. In case of Bhutan, after India Bangladesh was main exporter and Republic of Korea was main importer. The export share was 4.1 per cent and import share was 3.1 per cent respectively. The share of China in Bhutan's exports was 0.3 per cent and share of import was 2.5 per cent.

Table 4.7: Major Exporters and Importer of Bhutan and percentage share of imports and exports.

Top ten exporters of Bhutan	Percentage Share in Exports	Ranking of Partner countries in world exports	Top ten importers of Bhutan	Percentage share in Imports	Ranking of Partner countries in world imports
India	93.7	13	India	78.8	18
Bangladesh	4.1	4	Republic of Korea	3.1	4
Italy	0.4	11	China	2.5	1
Japan	0.4	7	Japan	2.4	14
Nepal	0.4	48	Austria	1.8	3
Hong Kong, China	0.3	5	Singapore	1.5	23
Netherlands	0.2	15	Thailand	1.4	2
Germany	0.1	16	Sweden	1.1	6
Singapore	0.1	28	Nepal	0.9	17
Bulgaria	0.1	52	Area Nes	0.8	13

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.8 presented IIT values between India and Bhutan at HS 2-digit level during 1997-2015. India and Bhutan enjoying a vertical intra industry trade i.e. trade similar products but of different quality levels during study period. Bhutan is one of India's best friends. Bhutan is the only country in the world which is fully organic. No chemical fertilizers/pesticides/plastics are used in the country. It also introduced the concept of Gross National Happiness instead of Gross Domestic Product, which other countries use to measure the quality of life of people of a country. This model has been highly praised by more than 60 countries as well as United Nations. India should learn a lot about sustainable development from its neighbour.

**Table 4.8: India and Bhutan: Commodities classification with IIT
Index during 1997-2015**

HS Code Classification	Product Description	VIIT
01-05	Animal & Animals product	0.06
06-15	Vegetables products	0.27
16-24	Food Stuffs	0.44
25-27	Mineral Products	0.31
28-38	Chemical & Allied Industries	0.31
39-40	Plastic/ Rubbers	0.60
41-43	Raw Hides, Skins, leathers & Furs	0.00
44-49	Wood & wood products	0.36
50-63	Textiles	0.18
64-67	Footwear/ Headgear	0.00
68-71	Stone/ Glass	0.22
72-83	Metals	0.46
84-85	Machinery/ Electrical	0.04
86-89	Transportation	0.00
90-97	Miscellaneous	0.15
98-99	Service	0.06

Source: United Nation Commodity Trade Statistics (COMTRADE)

**Table 4.9: IIT between India and Bhutan during 1997-2015
at HS 6-digit level**

HS Code Classification	Product Description	HIIT
960719	Slide fasteners (excluding fitted with chain scoops of base metal)	2.36
850710	Lead-acid accumulators of a kind used for starting piston engine "starter batteries" (excluding ...	1.38
850213	Generating sets with compression-ignition internal combustion piston engine "diesel or semi-diesel ...	1.27
691200	Tableware, kitchenware, other household articles and toilet articles, of ceramics other than ...	1.67
520949	Woven fabrics of cotton, containing $\geq 85\%$ cotton by weight and weighing $> 200 \text{ g/m}^2$, made of ...	3.35
520819	Woven fabrics of cotton, containing $\geq 85\%$ cotton by weight and weighing $\leq 200 \text{ g/m}^2$, unbleached ...	3.07
490199	Printed books, brochures and similar printed matter (excluding those in single sheets; dictionaries, ...	2.16
410310	Raw hides and skins of goats or kids, fresh or salted, dried, limed, pickled or otherwise preserved, ...	4.27
410229	Raw skins of sheep or lambs, without wool on, fresh or salted, dried, limed or otherwise preserved, ...	3.54
310420	Potassium chloride for use as fertiliser (excluding that in tablets or similar forms, or in ...	2.02

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.9 presented the intra industry trade for 6-digit HS code commodity classification. The mentioned commodities in table 4.9 ranked as top commodities that has been imports as well exports by the India to Bhutan. India and Bhutan

traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. Raw hides and skins of goats or kids, fresh or salted, dried, limed, pickled or otherwise preserved, ... with highest IIT index value i.e. 4.27 has basically fall under resource based manufacturing commodities during the period of 1997-2015 and Generating sets with compression-ignition internal combustion piston engine "diesel or semi-diesel ... has lowest IIT index value i.e. 1.27 is a highly technological intensive manufacturing commodities.

4.3.3. India and Myanmar

India-Myanmar relations are rooted in shared historical, ethnic, cultural and religious ties. As the land of Lord Buddha, India is a country of pilgrimage for the people of Myanmar. India and Myanmar relations have stood the test of time. The geographical proximity of the two countries has helped develop and sustain cordial relations and facilitated people-to people contact. India and Myanmar share a long land border of over 1600 km and a maritime boundary in the Bay of Bengal. A large population of Indian origin about 2.5 million lives in Myanmar. India and Myanmar signed a Treaty of Friendship in 1951. A number of agreements enhancing bilateral Cooperation have been signed between the two countries. Institutional mechanisms for facilitating regular dialogue on issues of bilateral interest have also been established. Bilateral trade has expanded significantly from US\$ 12.4 million in 1980-81 to US\$ 1070.88 million in 2010-11. India's imports from Myanmar are dominated by agricultural items such as beans, pulses and forest based products about 90 per cent of our imports. India's main exports to Myanmar are primary and semi-finished steel and pharmaceuticals (Central Statistical Organization, Myanmar). Major items bought by Myanmar traders from the Indian side are agricultural products i.e. cotton yarn, auto parts, soya bean meal and pharmaceuticals, betel nut, dried ginger, green beans, turmeric roots, resin and medicinal herbs are the main items sold from Myanmar to India. Economic cooperation pertains to a vast area covering trade, border trade, investment, energy, infrastructure and other joint projects. Trade grew from \$424 million in 2004-05 to \$1.067 billion in 2010-11. Trade balance in the ratio of about 4:1 is unfavourable to India. While Myanmar's exports to India were valued at \$871 million; India's exports amounted to \$195 million only. This indicates neglect of Myanmar market

by Indian businesses, a lacuna that needs effective and speedy correction. India Inc has also been lagging behind in investing in Myanmar. Sectors like pharmaceuticals, fertilizers, cement, manufacturing, agro-processing and small industry offer attractive potential for green field investments and joint ventures (MEA, Myanmar)

Table 4.10: Major Exporters and Importer of Myanmar and percentage share of imports and exports.

Top ten exporters of Myanmar	Percentage Share in Exports	Ranking of Partner countries in world exports	Top ten importers of Myanmar	Percentage share in Imports	Ranking of Partner countries in world imports
China	65.3	84	China	43	1
Thailand	16.4	9	Thailand	19.5	23
India	5.8	5	Singapore	11	14
Japan	3.7	21	Japan	5.5	4
Republic of Korea	2.4	36	India	4	18
Malaysia	0.7	-8	Malaysia	3.7	22
Singapore	0.7	23	Republic of Korea	3.7	6
Germany	0.5	9	Indonesia	2.6	28
United Kingdom	0.5	21	Taipei, Chinese	1	19
Indonesia	0.5	31	Germany	0.8	3

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.10 depicted the major exports and imports market for Myanmar. Myanmar percentage share in respected markets and their rankings in world exports and imports. India at 18 position as imports market for Myanmar with 4 per cent share and for exports market India is on 5 position with 5.8 per cent share in exports of Myanmar economy.

Table 4.11: Commodities classification with IIT Index Value India and Myanmar during 1997-2015

HS Code Classification	Product Description	VIIT	HIIT
01-05	Animal & Animals product	0.48	
06-15	Vegetables products	0.03	
16-24	Food Stuffs	0.20	
25-27	Mineral Products	0.20	
28-38	Chemical & Allied Industries		1.06
39-40	Plastic/ Rubbers	0.29	
41-43	Raw Hides, Skins, leathers & Furs	0.65	
44-49	Wood & wood products	0.01	
50-63	Textiles	0.15	
64-67	Footwear/ Headgear	0.08	
68-71	Stone/ Glass	0.30	
72-83	Metals	0.03	
84-85	Machinery/ Electrical	0.09	
86-89	Transportation	0.04	
90-97	Miscellaneous	0.19	
98-99	Service	0.32	

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.11 examined Vertical and Horizontal Intra Industry Trade between India and Myanmar. Chemical & allied industries industry have benefit in exports and imports between both the nations. The exploitation of the potential of intra-regional trade is constrained by a number of tariff and non-tariff barriers, poor communication and transportation links, lack of information and financing among region. Another major reasons is lack of supply capacities in smaller and lesser developed economies for the products demanded in larger economies, besides other factors and barriers, also do not allow the potential of intra-regional trade to be exploited fully.

**Table 4.12: IIT between India and Myanmar during 1997-2015
at HS 6-digit level**

HS Code Classification	Product Description	HIIT
300490	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, ...	2.27
071331	Dried, shelled beans of species "Vigna mungo [L.] Hepper or Vigna radiata [L.] Wilczek", whether ...	1.48
870190	Tractors (excluding those of heading 8709, pedestrian-controlled tractors, road tractors for ...	1.40
670300	Human hair, dressed, thinned, bleached or otherwise worked; wool, other animal hair or other ...	1.77
300420	Medicaments containing antibiotics, put up in measured doses "incl. those in the form of transdermal ...	2.17
610910	T-shirts, singlets and other vests of cotton, knitted or crocheted	1.41
853620	Automatic circuit breakers for a voltage <= 1.000 V	1.43
843221	Disc harrows for use in agriculture, horticulture or forestry	2.42
330290	Mixtures of odoriferous substances and mixtures, incl. alcoholic solutions, based on one or ...	1.47
721550	Bars and rods, of iron or non-alloy steel, not further worked than cold-formed or cold-finished ...	1.03

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.12 depicted the IIT for 6-digit HS code commodity classification. Above mention commodities ranked as top commodities that have been imports as well exports by the India to Myanmar. India and Myanmar traded at Horizontal IIT i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. Disc harrows for use in agriculture, horticulture or forestry with highest IIT index value i.e. 2.27 has basically fall under technology based manufacturing commodities during the period of 1997-2015 and bars and rods, of iron or non-alloy steel, not further worked than cold-formed or cold-finished ... has lowest IIT index value i.e. 1.03 is a medium technological manufacturing commodities. India has a technological manufacturing trade with Myanmar.

4.3.4. India and Nepal

India's sustained economic growth and development can be an energizing factor for the economy of other neighbouring countries like Nepal. Having been closely interconnected economic ties, the growing Indian economy can provide space for stimulus to Nepal's drive towards faster economic growth. The trade treaty revised in 1996 can be considered as a turning point in the trade relations between the two countries. Since 1995, Nepal's exports to India have grown more than eleven times and bilateral trade more than seven times. The bilateral trade that was 29.8 per cent of total external trade of Nepal in year 1996 has reached 66 per cent in 2013. The bilateral trade grew from ₹ 1755 cr. in 1995 to ₹ 26126.9 cr. in 2013. Exports from Nepal to India increased from ₹ 230 cr. to in 1995 ₹ 3187.4 in 2013 and India's exports to Nepal increased from ₹ 1525 cr. in 1995 to ₹ 22939.4 cr. in 2013. Main items of exports from India to Nepal are petroleum products, vehicles and spare parts, mild-steel billets, machinery and parts, medicines, hot and cold rolled sheets, wires, rods, coils, bars, electrical equipments, cement, threads and chemicals. Main items of exports from Nepal to India are polyester yarn, textiles, jute goods, threads, zinc sheet, juice, cardamom, wire, ms pipe, copper wire rod (Thapliyal, 2014)

Indian firms are the biggest investors in Nepal, accounting for about 40 per cent of total approved foreign direct investments. In 2013, the Government of Nepal has approved a total of 2652 foreign investment projects with proposed FDI of ₹ 6325.50 cr. Indian ventures lead the list with 566 projects and proposed FDI of ₹ 2539.2 cr. There are about 150 operating Indian ventures in Nepal. They are engaged in manufacturing, services such as banking, insurance, dry port, education and telecom, power sector and tourism industries. Some large Indian investors include ITC, Dabur India, Hindustan Unilever, VSNL, TCIL, MTNL, State Bank of India, Punjab National Bank, Life Insurance Corporation of India, Asian Paints, CONCOR, GMR India, IL&FS, Manipal Group, MIT Group Holdings, Nupur International, Transworld Group, Patel Engineering, Bhilwara Energy, Bhushan Group, Feedback Ventures, RJ Corp, KSK Energy, Berger Paints, Essel Infra Project Ltd. and Tata Power, India etc. (Embassy of India, 2016)

Approximately 6,00,000 Indians are living in Nepal that include businessmen and traders who have been living in Nepal for a long time, professionals such as doctors,

engineers, IT personnel and labourers including seasonal/migratory in the construction sector. Nepal and India have been living as close neighbours of South Asia since the existence of the two countries. The relationship between the two countries is bound by history, geography, economic cooperation, socio cultural ties and people to people relations. The bilateral relationship, which is marked by mutual trust, good will and cooperation, has been moving forward with the increased interactions and close cooperation between the two countries with the passage of time. A number of mechanisms exist between Nepal and India for bilateral cooperation covering various aspects of bilateral relations ranging from trade and economic cooperation to security and water resources (Sharma, 2014).

Table 4.13: Major Exporters and Importer of Nepal and percentage share of imports and exports.

Top ten exporters of Myanmar	Percentage Share in Exports	Ranking of Partner countries in world exports	Top ten importers of Myanmar	Percentage share in Imports	Ranking of Partner countries in world imports
India	61.6	13	India	57.5	20
USA	10.1	2	China	31.3	34
China	5.1	3	Hong Kong, China	2.8	58
Germany	3.9	4	Singapore	1.3	6
United Kingdom	2.7	6	Thailand	0.8	-5
France	2.2	7	Germany	0.5	12
Turkey	1.9	20	USA	0.5	3
Japan	1.8	5	Japan	0.5	-8
Italy	1.3	11	Malaysia	0.4	-8
Canada	1.3	12	Switzerland	0.4	15

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.13 indicated the major exporters and importers market for Nepal. Nepal percentage share in respected markets and their rankings in world exports and imports. India at 20th position as imports market for Nepal with 57.5 per cent share and for exports market, India at 13th position with 61.6 per cent share in exports.

**Table 4.14: Commodities classification with IIT Index Value
India and Nepal during 1997-2015**

HS Code Classification	Product Description	VIIT	HIIT
01-05	Animal & Animals product	0.62	
06-15	Vegetables products		1.05
16-24	Food Stuffs		1.84
25-27	Mineral Products	0.03	
28-38	Chemical & Allied Industries	0.74	
39-40	Plastic/ Rubbers		1.99
41-43	Raw Hides, Skins, leathers & Furs		1.74
44-49	Wood & wood products	0.47	
50-63	Textiles		1.23
64-67	Footwear/ Headgear		1.47
68-71	Stone/ Glass	0.09	
72-83	Metals		1.84
84-85	Machinery/ Electrical	0.13	
86-89	Transportation	0.01	
90-97	Miscellaneous	0.25	
98-99	Service	0.12	

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.14 depicted Vertical and Horizontal IIT values for India and Nepal. Nepal and India has increased the proportion of intra industry trade in Vegetables products, Food Stuffs, Plastic/ Rubbers, Raw Hides, Skins, Leathers & Furs,

Textiles, Footwear/ Headgear and Metals during study period. Remaining product categories enjoying the Vertical IIT i.e. Animal & Animals product, Mineral Products, Chemical & Allied Industries, Stone/ Glass, Machinery/ Electrical, Transportation, Miscellaneous and Service between India and Nepal, so that revealed India and Nepal having a trade of similar commodities but that commodities having different qualities.

Table 4.15: IIT between India and Nepal during 1997-2015 at HS 6-digit level

HS Code Classification	Product Description	HIIT
721230	Flat-rolled products of iron or non-alloy steel, of a width of < 600 mm, hot-rolled or cold-rolled ...	1.40
300490	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, ...	1.31
330610	Dentifrices, incl. those used by dental practitioners	1.37
071340	Dried, shelled lentils, whether or not skinned or split	3.76
300390	Medicaments consisting of two or more constituents mixed together for therapeutic or prophylactic ...	4.64
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s (excluding ...	5.92
721790	Wire of iron or non-alloy steel, in coils, plated or coated (excluding plated or coated with ...	1.47
330590	Preparations for use on the hair (excluding shampoos, preparations for permanent waving or ...	4.37
600210	Fabrics, knitted or crocheted, of a width of <= 30 cm, containing >= 5% by weight elastomeric ...	1.58
391721	Rigid tubes, pipes and hoses, of polymers of ethylene	3.36

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.15 illustrated the intra industry trade for 6-digit HS code commodity classification. The mentioned commodities in table 4.15 ranked as top commodities that have been imports as well exports by the India to Nepal. India and Nepal traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. Commodities like medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes,... with lowest IIT index value i.e. 1.31 whereas articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s excluding ... have highest IIT index value i.e. 5.92 during 1997-2015.

4.3.5. India and Sri Lanka

The relationship between India and Sri Lanka is more than 2,500 years old. Both countries have a legacy of intellectual, cultural, religious and linguistic interaction. In recent years, the relationship has been marked by close contacts at all levels. Trade and investment have grown and there is cooperation in the fields of development, education, culture and defence. Both countries share a broad understanding on major issues of international interest. Political relations between the two countries have been marked by high-level exchanges of visits at regular intervals. Sri Lanka has long been a priority destination for direct investment from India. Sri Lanka is India's second largest trading partner in SAARC. India in turn is Sri Lanka's largest trade partner globally. Trade between the two countries grew particularly rapidly after the entry into force of the India-Sri Lanka Free Trade Agreement in March 2000. According to Sri Lankan Customs, bilateral trade in 2014 amounted to US \$ 4.6 billion, achieving a growth of 23.37 per cent compared to 2013. Exports from India to Sri Lanka in 2014 were US\$ 3977 million, while exports from Sri Lanka to India were US \$ 625 million.

India is among the top four investors in Sri Lanka with cumulative investments of over US\$ 1 billion since 2003. The investments are in diverse areas including petroleum retail, IT, financial services, real estate, telecommunication, hospitality & tourism, banking and food processing such as tea & fruit juices, metal industries, tires, cement, glass manufacturing, and infrastructure development such as railway, power, water supply (Ministry of External Affairs, Sri Lanka, 2016).

Table 4.16: Major Exporters and Importers of Sri Lanka and percentage share of imports and exports

Top ten exporters of Sri Lanka	Percentage Share	Ranking of Partner countries in world exports	Top ten importers of Sri Lanka	Percentage share in Imports	Ranking of Partner countries in world imports
US	24.1	2	India	20.7	18
United Kingdom	9.9	6	China	17.7	1
India	6.5	13	UAE	9.1	26
Italy	5.4	11	Singapore	6.6	14
Germany	4.5	4	Japan	4.9	4
Belgium	2.8	14	Malaysia	3.7	22
UAE	2.6	21	Indonesia	3.1	28
France	2.5	7	US	2.6	2
Russian Federation	2.4	18	Thailand	2.4	23
Turkey	2.3	20	Taipei, Chinese	2.3	19

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.16 illustrated the major exports and imports market for Sri Lanka. Sri Lanka percentage share in respected markets and their rankings in world exports and imports. India is at 18th position as imports market for Sri Lanka with 20.7 per cent share and for exports market India is at 13th position with 6.5 per cent share in exports.

Table 4.17: Commodities classification with IIT Index Value India and Sri Lanka during 1997-2015

HS Code Classification	Product Description	VIIT	HIIT
01-05	Animal & Animals product	0.21	
06-15	Vegetables products	0.61	
16-24	Food Stuffs	0.24	
25-27	Mineral Products	0.06	
28-38	Chemical & Allied Industries	0.09	
39-40	Plastic/ Rubbers	0.47	
41-43	Raw Hides, Skins, leathers & Furs	0.49	
44-49	Wood & wood products	0.50	
50-63	Textiles	0.11	
64-67	Footwear/ Headgear	0.18	
68-71	Stone/ Glass		1.69
72-83	Metals	0.39	
84-85	Machinery/ Electrical	0.40	
86-89	Transportation	0.09	
90-97	Miscellaneous	0.48	
98-99	Service	0.08	

Source: United Nation Commodity Trade Statistics (COMTRADE)

The table no. 4.17 has depicted that India and Sri Lanka has horizontal IIT only in Stone/Glass industry. HIIT value is 1.69 during the 1997-2015. Remaining commodities classification has been covered by the vertical IIT index value. Analysis revealed that India and Sri Lanka have a more one way flow of commodity between them. And India has more trade advantage with VIIT with Sri Lanka.

Table no. 4.18 demonstrated the intra industry trade for 6-digit HS code commodity classification. The mentioned commodities in table ranked as top commodities that has been imports as well exports by the India to Sri Lanka. India and

**Table 4.18: IIT between India and Sri Lanka during 1997-2015
at HS 6-digit level**

HS Code Classification	Product Description	HIIT
740311	Copper, refined, in the form of cathodes and sections of cathodes	1.85
740811	Wire of refined copper, with a maximum cross-sectional dimension of > 6 mm	1.45
847330	Parts and accessories of automatic data-processing machines or for other machines of heading ...	5.51
392690	Articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s (excluding ...	5.36
710239	Diamonds, worked, but not mounted or set (excluding industrial diamonds)	4.28
401120	New pneumatic tyres, of rubber, of a kind used for buses and lorries (excluding tyres with ...	1.68
852812	Television receivers, colour, whether or not incorporating radio-broadcast receivers or sound ...	4.34
090240	Black fermented tea and partly fermented tea, whether or not flavoured, in immediate packings ...	1.95
740710	Bars, rods and profiles, of refined copper, n.e.s.	5.20
110630	Flour, meal and powder of produce of chapter 8 "Edible fruit and nuts; peel of citrus fruits ...	3.96

Source: United Nation Commodity Trade Statistics (COMTRADE)

Sri Lanka traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. Parts and accessories of automatic data-processing machines or for other machines of heading ... with highest IIT index value i.e. 5.51 and Wire of refined copper, with a maximum cross-

sectional dimension of > 6 mm has lowest IIT index value i.e. 1.45 during 1997-2015. Both commodities fall under medium intensive technological classification.

4.3.6. India and Thailand

Over the past two decades India's 'Look East' policy has been complemented by Thailand's 'Look West' policy in bringing the two countries closer. India and Thailand, located in each other's extended neighborhood, share unique civilizational links going back several millennia. India and Thailand play a proactive role in forging a meaningful cooperation in the region. The Bay of Bengal space has emerged as an integral and inseparable part of India's evolving Look East policy. Over the past two decades India's 'Look East' policy has been complemented by Thailand's 'Look West' policy in bringing the two countries closer. India and Thailand, located in each other's extended neighbourhood, share unique civilizational links going back several millennia. India and Thailand would celebrate 65 years of their diplomatic relations in 2012. In recent years, political contacts have intensified as reflected in a series of high level visits by leaders of the two countries. Trade and economic linkages and tourist traffic continue to grow steadily. Both countries are important regional partners linking South and Southeast Asia. They cooperate closely in the ASEAN, East Asia Summit (EAS) and BIMSTEC groupings as also Mekong Ganga Cooperation (MGC) and Asia Cooperation Dialogue (ACD). The implementation of the India-AESAN Agreement on Trade in Goods from January 2010 is an important latest milestone of this partnership. (Ministry of External Affairs, Thailand, 2016)

Economic & commercial linkages form an important aspect of India's partnership with Thailand. The past few years have seen a rapid growth in this area. Bilateral Trade has multiplied six times since 2000 to cross US\$ 6.6 billion in 2010. Global financial and economic crisis impacted the bilateral trade during 2009. The trade figure for 2009 was US\$ 4.9 billion declining by 17 per cent (Indian exports were US\$ 1.7 billion, down by 34 percent, while Thai exports were US\$ 3.2 billion declining by 3.6 per cent). Bilateral Trade for the annual year 2011 is about USD 8.19 billion. Investment by Indian and Thai companies into each other countries is growing. Indian FDI into Thailand is estimated to be around US\$ 2.00 billion since

1970s. Indian investment is now around US \$ 56 million. Thailand has invested US\$ 90.55 million in India according to Department of Investment Policy Promotion of Government of India. (Ministry of External Affairs MEA, Thailand).

Table no. 4.19 depicted the major exports and imports market for Thailand. Thailand percentage share in respected markets and their rankings in world exports and imports. India at 11th position as imports market for Thailand with 2.5 per cent share and world ranking in Thailand imports was 13th and for exports, Thailand at 17th position with 1.3 per cent share and at 18th ranking for world export market.

Table 4.19 : Major Exporters and Importer of Thailand and percentage share of imports and exports.

Top ten exporters of Thailand	Percentage Share	Ranking of Partner countries in world exports	Top ten importers of Thailand	Percentage share	Ranking of Partner countries in world imports
China	16.9	1	China	11	3
Japan	15.7	4	US	10.5	2
US	6.4	2	Japan	9.6	5
Malaysia	5.6	22	Malaysia	5.6	26
UAE	5.6	26	Hong Kong (China)	5.5	8
Republic of Korea	3.7	6	Singapore	4.6	16
Singapore	3.5	14	Indonesia	4.2	29
Saudi Arabia	3.4	16	Australia	4.1	24
Taipei, Chinese	3.3	19	Viet Nam	3.5	30
Indonesia	3.2	28	Philippines	2.6	46

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table 4.20: Commodities classification with IIT Index Value India and Thailand during 1997-2015

HS Code Classification	Product Description	VIIT	HIIT
01-05	Animal & Animals product	0.05	
06-15	Vegetables products		1.89
16-24	Food Stuffs	0.42	
25-27	Mineral Products		1.02
28-38	Chemical & Allied Industries	0.78	
39-40	Plastic/ Rubbers		1.83
41-43	Raw Hides, Skins, leathers & Furs	0.56	
44-49	Wood & wood products		1.68
50-63	Textiles		1.10
64-67	Footwear/ Headgear		1.43
68-71	Stone/ Glass	0.38	
72-83	Metals	0.81	
84-85	Machinery/ Electrical		1.61
86-89	Transportation		1.08
90-97	Miscellaneous		1.39
98-99	Service	0.75	

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.20 demonstrated the intra industry trade between the two nations i.e. India and Thailand after the formation of BIMSTEC at 2 digit level HS code classification. There are fluctuations were noted in trade of exports as well imports of same industry. There are total 16 commodities classification which have been calculated for both nations at 2-digit HS code. The value of IIT index greater than 1 indicate horizontal IIT is more important and much IIT value less than 1 indicate that vertical IIT occurred between the countries. India and Thailand enjoys horizontal Intra Industry Trade (HIIT) in nine categories during study period. In case of both India and Thailand the commodities having IIT greater than 1 prove as an important source of generating revenue. From these commodities classification at

HS code Vegetables products, Plastic/Rubbers, Mineral Products, Wood & wood products, Textiles, Footwear/ Headgear, Transportation and Miscellaneous having IIT values greater than one from 1997 to 2015 indicated that these products trade was more beneficial than others having values less than one. In the remaining product categories vertical Intra Industry trade was more beneficial than intra industry trade during the study period. The analysis also observed that India and Thailand having the scope of future trade among these classification because India dominate in agricultural and Thailand as the best performer in manufacturing commodities.

**Table 4.21: IIT between India and Thailand during 1997-2015
at HS 6-digit level**

HS Code Classification	Product Description	HIIT
847330	Parts and accessories of automatic data-processing machines or for other machines of heading ...	6.19
870899	Parts and accessories, for tractors, motor vehicles for the transport of ten or more persons, ...	5.06
294200	Separate chemically defined organic compounds, n.e.s.	2.61
710399	Precious and semi-precious stones, worked, whether or not graded, but not strung, mounted or ...	1.60
290243	P-Xylene	5.86
840991	Parts suitable for use solely or principally with spark-ignition internal combustion piston ...	2.47
540242	Filament yarn of polyester, incl. monofilament of < 67 decitex, single, untwisted or with a ...	3.31
294190	Antibiotics (excluding penicillins and their derivatives with a penicillanic acid structure, ...	6.38
710391	Rubies, sapphires and emeralds, worked, whether or not graded, but not strung, mounted or set, ...	4.67
710310	Precious stones and semi-precious stones, unworked or simply sawn or roughly shaped, whether ...	2.80

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 4.21 demonstrated the IIT for 6-digit HS code commodity classification. Above mention commodities ranked as top commodities that has been imports as well exports by the India to Thailand. India and Thailand traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. Antibiotics excluding penicillins and their derivatives with a penicillanic acid structure,... with highest IIT index value i.e. 6.38 whereas Precious and semi-precious stones, worked, whether or not graded, but not strung, mounted or ... has lowest IIT index value i.e. 1.60 during 1997-2015.

4.4. SUMMARY

BIMSTEC nations are prosperous in resources, but they remain underdeveloped and disengaged from Asia's development story. Although the member nations of BIMSTEC are linked by regional cooperative process, and remained on the margins of Asian market integration. The high potential of mutual trade with rest of the world has remained unexploited for various hurdles such as lack of shipping and road connectivity. For making BIMSTEC a "vibrant regional entity", there are needs to revitalize coastal shipping preparations and inter-modal transport, practices that had flourished in the past, for easy flow of goods and services. Now requirement of time is that member nations to stress on encouraging investment for operating actions for economic development and to build capability in the sectors of comparative advantage such as tourism, hydropower, agriculture and others to attain the greater goals and objectives.

The econometrics technique was used to test the causality among Log_GDP and Log_Exports. To test for unit roots of the variables, Panel Unit Root Test had been utilized. The null hypothesis of a panel unit root in the level of the series cannot be rejected at various lag lengths. Generally it has been observed that the null hypothesis for panel unit root is rejected in all series at level form and various lag lengths. From the test values, series of the null hypothesis for unit root test is rejected at 95 percent critical value (1 percent level and 10 per cent). Hence, based on IPS test, there strong evidence that all the series are integrated of orders one. The results revealed that the panel unit root support the hypothesis for all variables from 1997 to 2015. At most of the 1 percent significance level, the results found that all

tests statistics with intercept significantly confirm that all variables strongly reject the unit root null and concluded that series of Log_GDP and Log_Exports has stationarity.

The test investigate that whether long-run steady state or co-integration exist among the variables or not. Coiteux and Olivier (2000) examined that the panel co-integration tests have much higher testing power than conventional co-integration test. Null hypothesis is rejected at 5 per cent level of significance, which explains that there is long run relationship exist between GDP and Exports over the period 1997 to 2015. Granger causality was applied to test the causal association among Export and Economic Growth. The results explained the facts of bi-directional causality between GDP and export among BIMSTEC bloc. In nutshell, this study provided support for growth-led export and growth led exports for BIMSTEC region. The main challenges faced by BIMSTEC now a day India is leading performer in BIMSTEC, on behalf of more than two-thirds of its constituency. Conversation about BIMSTEC in the Indian strategic society has also been limited, brief and fairly periodic in nature. As a consequence, the cluster has stayed on marginal to integrative conversation in South and Southeast Asia. Another is structural constraints, in the form of limited state capabilities of the bulk of its member nations, have also foiled the development of the cluster. Major of the BIMSTEC nations is technology lacking and deficiency in the resources to invest in growth and infrastructure projects, with Bangladesh, Bhutan, Myanmar and Nepal along with the world's least developed nations (LDC's).

It was notable that all BIMSTEC countries having horizontal intra industry trade with India. In bilateral trade with each of BIMSTEC countries member from 1997 to 2015, India enjoyed a trade surplus at HS 6-digit level commodities. On the other hand, India had consistent trade deficit reflecting over exports in overall trade. Trade between India and Bangladesh, all major commodities were resource based manufacturing commodities. India and Bangladesh traded at Horizontal Intra Industry Trade i.e. two-way trade of goods of similar quality, has increased as well, but at a slower pace. India and Bhutan traded at HIIT for Raw hides and skins of goats or kids, fresh or salted, dried, limed, pickled or otherwise preserved, ... with highest IIT index value i.e. 4.27 has basically fall under resource based

manufacturing commodities during the period of 1997-2015 and Generating sets with compression-ignition internal combustion piston engine "diesel or semi-diesel ... has lowest IIT index value i.e. 1.27 is a highly technological intensive manufacturing commodities. India and Nepal also traded at Horizontal IIT for medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes,... with lowest IIT index value i.e. 1.31 whereas articles of plastics and articles of other materials of heading 3901 to 3914, n.e.s excluding ... have highest IIT index value i.e. 5.92 during 1997-2015. The traded commodities between India and Myanmar were disc harrows for use in agriculture, horticulture or forestry with highest IIT index value i.e. 2.27 has basically fall under technology based manufacturing commodities during the period of 1997-2015 and bars and rods, of iron or non-alloy steel, not further worked than cold-formed or cold-finished ... has lowest IIT index value i.e. 1.03 is a medium technological manufacturing commodities. India has a technological manufacturing trade with Myanmar. The exploitation of the potential of intra-regional trade is constrained by a number of tariff and non-tariff barriers, poor communication and transportation links, lack of information and financing among region. Another major reasons is lack of supply capacities in smaller and lesser developed economies for the products demanded in larger economies, besides other factors and barriers, also do not allow the potential of intra-regional trade to be exploited fully. From analysis it is also clear that India and Sri Lanka have a more one way flow of commodity between them. And India has more trade advantage with VIIT with Sri Lanka. The analysis also observed that India and Thailand having the scope of future trade because India dominate in agricultural and Thailand as the best performer in manufacturing commodities.

To concluding, economic regionalism expanded the importance in international trade as well as regional diplomacy. The BIMSTEC group demonstrate that there is momentous progress to expand the intra-bloc trade and another opportunities such as investment with preferential liberalization within the regional arrangement. The country's poor infrastructure is one of the main hindrances to international trade. The primary route of trade is across the Thai border, which is also used to export many illegal drugs through the Ayeyarwady River. Burma has a wealth of precious stones and gems. However, due to the infamous working conditions in the mines,

international companies refuse to import these stones. India require to play a proactive role and also showing the direction where the meeting point should be for a win-win situation for all member countries. Region has a vast potential for development, given its abundant natural and human resources, access to sea, and a sizeable internal market. There is need to combine with the entrepreneurial skills of dynamic private sector of BIMSTEC, these endowments can transform the region into a powerful pole of growth. A number of steps required to take for fostering regional cooperation. To conclude the empirical analysis, the determinants of vertical and horizontal intra-industry trade. The determinants of vertical intra-industry trade because of the direct effect the higher quality goods can have on the current account balances. In case of BIMSTEC region, the free trade agreement between the members effecting the trade for homogenous quality goods and lead to enhance the industries capability of producing high quality goods and that have the economies of scale, managerial capabilities to exploit the opening of the borders, and that have impact on the weaker low quality produce.

CHAPTER – 5

**INDIA’S EXPORT COMPETITIVENESS WITH
BIMSTEC COUNTRIES**

In this chapter, the analysis of the India’s export competitiveness with BIMSTEC countries at HS 2-digit level and HS 6-digit level has been conducted. Chapter identifies India’s export competitiveness with BIMSTEC countries for different product lines at HS 6-digit level code, in which India is losing, gaining or maintaining its export competitiveness. It is generally recognized that trade is essential for growth and that growth is useful for economic development. The composition and volume of global trade has witnessed significant changes during the last two decades. Trade liberalization, rising income and technological advancements, have been the main determinants. Against the backdrop of a rapidly changing global export pattern, and the success of Southeast Asian economies, there is strong case for India to pursue an export-led growth strategy that leads ultimately to improve economic conditions of country. However, given India’s past macroeconomic performance and its current export structure, such a turnaround would require major structural transformation of the economy and changes in its export specialisation patterns.

Openness in trade and patterns of specialization are, however, interconnected variables (Mahmood, 2005). In the context of on-going multilateral trade negotiations, the chapter analyses the comparative advantage/disadvantage of India's exports with BIMSTEC countries, by using the revealed comparative advantage (RCA) approach at HS 6-digit. This is to provide a unique understanding of challenges and opportunities that India’s export sector faces, as it becomes rapidly integrated into global markets.

It is important to note that supply and demand side conditions play a crucial role in changing the comparative advantage profile of a country. The objective of this exercise is to identify those export categories, in which India is losing, gaining or maintaining its comparative advantage with following the "stages of comparative advantages" given by Balassa and the technological classification of products given

by S. Lall. The effort also taken to examine the extent to which India's leading exports product lines have witnessed a shift in their comparative advantage away from traditional labour-intensive production to export of technology based production activities. This insight is important to envisaged if past specialization patterns have witnessed any change, or if they are being reinforced over time, due to internal and external forces. Specifically, the chapter investigates whether India's has succeeded in moving from low value-added to technology-intensive high value manufacturing with BIMSTEC countries. While identifying the dominance of certain sectors and a lack of shift in the revealed comparative advantage pattern of an export structure provides a broad picture of country's export competitive, it falls short of identifying industries that, though exhibit revealed comparative advantage, are under threat.

This chapter highlights the RCA ranking of product lines based upon their technological classification at examines the extent to which India's export specialization in export sector has shifted away from labour and natural resource intensive products to high value-added knowledge and technology intensive products during 1997-2015. And throw light on RCA ranking product lines for exported commodities at HS 6-digit level by India to BIMSTEC countries.

5.1. SHIFTING COMPARATIVE ADVANTAGE OF INDIA'S EXPORT PRODUCTS TO BIMSTEC COUNTRIES: AGGREGATE ANALYSIS FOR LEADING PRODUCTS

The lists of top exported with RCA ranking product lines in their technological orientation and relative factor intensities such as: (a) Resource-Intensive; (b) Scale intensive/Technological Intensive- Low, medium and high; (c) Labour-Intensive; and (d) Differentiation-based (Lall, 2000). According to H-O model, an FTA creates a large free trade area with common factor prices. It increases the economic power of the area and promotes its culture, also increases factor mobility.

Table no. 5.1 shown the analysis of product categories at 2-digit HS code that leads to interesting observations. The list is dominated by technological (including low, medium and high) and resource intensive production activities, operating at the lower end of the technology spectrum and requiring relatively low technical skills.

**Table 5.1: Technological classifications and RCA of India's with
BIMSTEC at HS-2 digit level (2015)**

HS Code	Product Categories	Technological Classification	Bangladesh	Bhutan	Nepal	Myanmar	Sri Lanka	Thailand
01-05	Animal & Animals product	Resource-Intensive	2.11	3.14	10.44	8.01	8.81	19.34
06-15	Vegetables products	Resource-Intensive	9.36	1.44	70.40	2.29	62.18	43.63
16-24	Food Stuffs	Resource-Intensive	12.50	17.14	83.15	43.51	89.64	37.04
25-27	Mineral Products	Resource-Intensive	0.58	2.16	18.85	0.15	21.72	1.63
28-38	Chemical & Allied Industries	Medium Technological Intensive	1.87	0.56	9.23	6.57	12.29	17.06
39-40	Plastic/ Rubbers	Resource-Intensive	0.37	1.40	50.95	6.45	41.46	30.24
41-43	Raw Hides, Skins, leathers & Furs	Low Technological Intensive	14.09	20.17	2.36	7.43	21.55	65.06
44-49	Wood & wood products	Labour-Intensive	4.96	5.12	17.61	7.80	23.89	58.04
50-63	Textiles	Low Technological Intensive	0.43	0.05	5.33	4.64	32.84	9.10
64-67	Footwear/ Headgear	Low Technological Intensive	12.06	4.33	17.68	5.70	27.36	11.18
68-71	Stone/ Glass	Resource-Intensive	1.75	1.06	2.84	0.16	3.24	32.20
72-83	Metals	Low Technological Intensive	3.81	5.57	32.31	3.79	13.89	21.57
84-85	Machinery/ Electrical	High Technological Intensive	9.92	0.37	5.40	2.11	5.54	5.90
86-89	Transportation	Medium Technological Intensive	3.28	1.71	14.77	2.10	89.73	9.19
90-97	Miscellaneous	High Technological Intensive	4.16	1.00	12.45	4.68	17.07	19.65
98-99	Service	Not specified	3.95	2.59	4.73	1.33	5.60	25.26

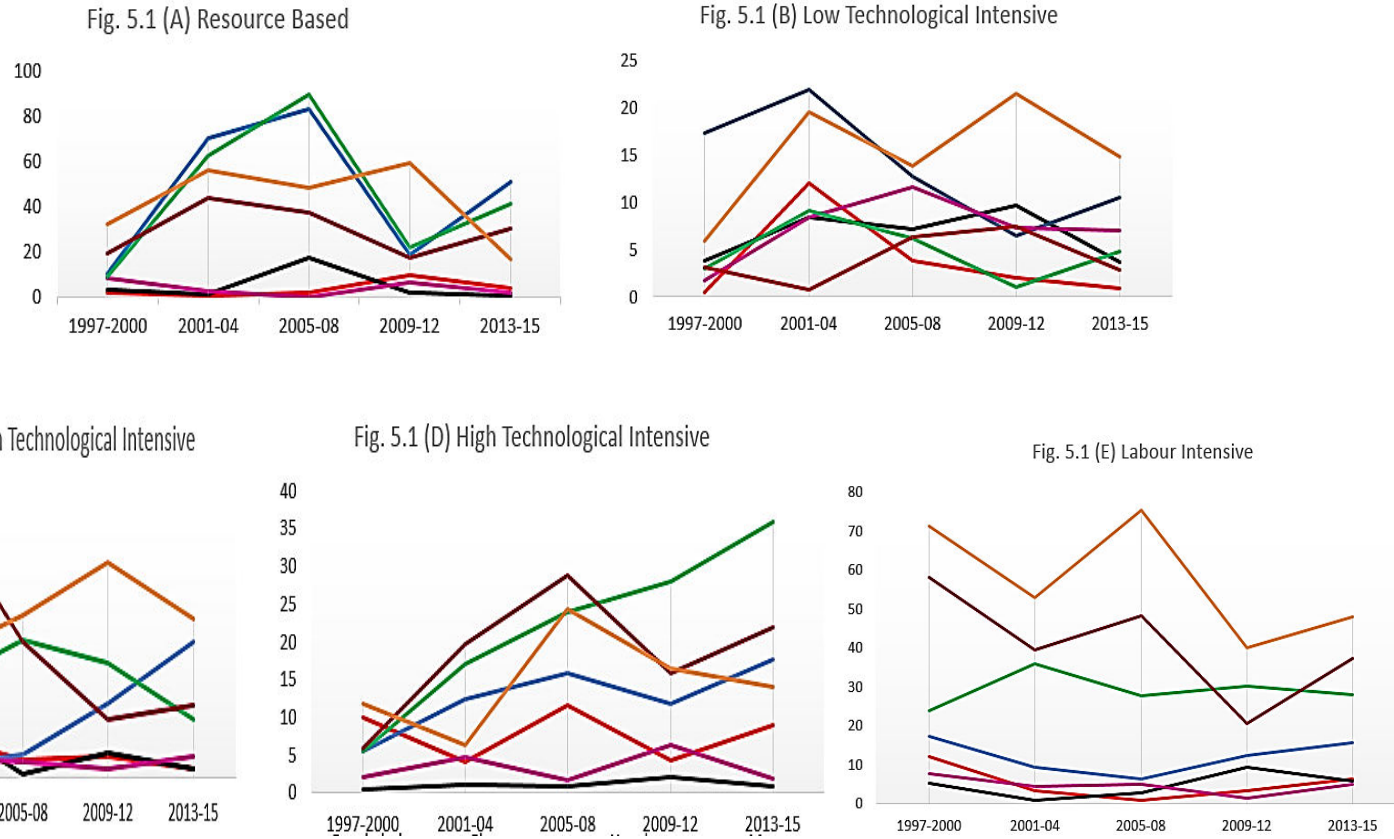
Source: United Nation Commodity Trade Statistics (COMTRADE) and S. Lall, 2000 (Technological classification)

Table 5.1 also illustrates that 6 product categories out of the 15 industries, RCA ranking exports in 2015 were resource intensive and 8 product categories out of the 15, RCA ranking exports in 2015 were technological intensive. One industry (98-99 HS classification) was not specified.

Resource based (RB) products tend to be simple and labour-intensive e.g. simple food or leather processing, but there are segments using capital, scale and skill-intensive technologies e.g. petroleum refining or modern processed foods. Since competitive advantages in these products arises generally but not always from the local availability of natural resources, they do not raise important issues for competitiveness (see Lall, 2000 classification). The effective and efficient application of all useful resources that the economy can muster helps determine its competitive advantage. From the observation, it has been clear that Bangladesh manufacturing moving from resource based and labour intensive to technological based manufacturing of products (see fig. 5.1 B and D). In case of Bhutan, she now moved for low intensive and medium intensive technology manufacturing of products (see fig. 5.1 B). Low technology (LT) products tend to have stable, well-diffused technologies. The technologies are primarily embodied in the capital equipment, the low end of the range has relatively simple skill requirements. Medium technology (MT) products, comprising the bulk of skill and scale-intensive technologies in capital goods and intermediate products, are the heartland of industrial activity in mature economies. They tend to have complex technologies, with moderately high levels of R&D, advanced skill needs and lengthy learning periods. Those in the engineering and automotive sub-groups are very linkage-intensive, and need considerable interaction between firms to reach 'best practice' technical efficiency (Lall, 2000).

The third LDC economy in the BIMSTEC region is Nepal and Nepal using resource based, technological based and labour intensive technique for manufacturing the products. In case of Myanmar more focusing on technological intensive manufacturing as compare to resource based or labour intensive. Sri Lanka using labour intensive techniques but side by side switching toward the technological intensive products manufacturing (see fig. 5.1). In case of Thailand and India, manufacturing almost all the classification of products but more toward high technology now a days (see fig. 5.1). High technology (HT) products have advanced and fast-changing technologies, with high R&D investments and prime emphasis on product design. The most advanced technologies require sophisticated technology infrastructures, high levels of specialised technical skills and close interactions between firms, and between firms and universities or research institutions.

Fig 5.1: Technological Classification of BIMSTEC (1997-2015)
(Using RCA Approach)



Source: United Nation Commodity Trade Statistics (COMTRADE)

— Bangladesh — Bhutan — Nepal — Myanmar — Sri Lanka — Thailand — India

Table 5.2: RCA Profile and Product Grouping: India and Bangladesh during (1997-2015)

HS Code	Product Categories	CP	TP	EP (TI)	EP (TII)	WP (TI)	WP (TII)	Grand Total
01-05	Animal & Animals product	97	32	79	21	57	53	339
		(28.6)	(9.43)	(23.3)	(6.19)	(16.81)	(15.63)	(100)
06-15	Vegetables products	113	70	157	42	23	15	420
		(26.90)	(16.67)	(37.38)	(10.00)	(5.48)	(3.57)	(100)
16-24	Food Stuffs	64	43	27	12	59	16	221
		(28.96)	(19.46)	(12.22)	(5.43)	(26.70)	(7.24)	(100)
25-27	Mineral Products	28	65	27	13	07	25	165
		(16.97)	(39.39)	(16.36)	(7.88)	(4.24)	(15.15)	(100)
28-38	Chemical & Allied Industries	205	464	73	52	88	24	906
		(22.63)	(51.21)	(8.06)	(5.74)	(9.71)	(2.65)	(100)
39-40	Plastic/ Rubbers	48	117	-	29	19	13	226
		(21.24)	(51.77)	-	(12.83)	(8.41)	(5.75)	(100)
41-43	Raw Hides, Skins, leathers & Furs	-	21	55	17	08	02	103
		-	(20.39)	(53.40)	(16.50)	(7.77)	(1.94)	(100)
44-49	Wood & wood products	118	29	14	46	71	26	304
		(38.82)	(9.54)	(4.61)	(15.13)	(23.36)	(8.55)	(100)
50-63	Textiles	233	82	64	59	398	66	902
		(25.83)	(9.09)	(7.10)	(6.54)	(44.12)	(7.32)	(100)
64-67	Footwear/ Headgear	17	2	21	8	2	5	55
		(30.91)	(3.64)	(38.18)	(14.55)	(3.64)	(9.09)	(100)
68-71	Stone/ Glass	21	78	46	35	19	22	221
		(9.50)	(35.29)	(20.81)	(15.84)	(8.60)	(9.95)	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (TI)	EP (TII)	WP (TI)	WP (TII)	Grand Total
72-83	Metals	253	107	42	85	62	69	618
		(40.94)	(17.31)	(6.80)	(13.75)	(10.03)	(11.17)	(100)
84-85	Machinery/ Electrical	314	28	89	115	209	126	881
		(35.64)	(3.18)	(10.10)	(13.05)	(23.72)	(14.30)	(100)
86-89	Transportation	56	9	17	31	7	19	139
		(40.29)	(6.47)	(12.23)	(22.30)	(5.04)	(13.67)	(100)
90-97	Miscellaneous	35	157	113	37	14	68	424
		(8.25)	(37.03)	(26.65)	(8.73)	(3.30)	(16.04)	(100)
98-99	Service	-	1	-	-	-	-	1
		-	(100)	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

Above table no. 5.2 illustrated the RCA Profile and Product Grouping between India and Bangladesh. Out of the 339 HS 6-digit level product lines, 97 of them (28.6 per cent) have RCA's greater than unity and increasing. This places them in the category of "Competitively Positioned Product Group" in first category i.e. Animal & Animals product. In case of Food stuffs 64 commodities has been "Competitively Positioned Product Group" from total 420 commodities. Another industries fall in "Competitively Positioned Product Group" were Wood & wood products, from 304 products 118 (38.82) products has been competitively positioned in product group followed by Machinery/ Electrical, Metal and Transportation having 35.64 per cent, 40.94 per cent and 40.29 per cent share in exports respectively. The profile of "Competitively Positioned Products" highlights the lack of inroads made by some unskilled and skilled labour intensive and resource intensive industries, which draw their competitive strength from low wages and the availability of raw material. This

included industries such as Animal & Animals product, Food Stuffs, Machinery/ Electrical, Metals, Transportation, Wood & wood products. Lack of headway made by the transportation equipment industry has been reflection of its narrow production base and cost disadvantage, due to a higher share of imported inputs, absence of forward and backward linkages and lack of economies of scale and scope.

In the case of the "Threatened Product" group, there were 6 industries products fall under category. These products exhibit revealed comparative advantage, but have experienced a declining share in trade during 1997-2015 between India and Bangladesh. It was important to note that 51.21 per cent of the "Threatened Products" from the Chemical & Allied Industries total 464 out of 906 products, Mineral Products 39.39 per cent, Plastic/ Rubbers 51.77, Stone/ Glass 35.29, Miscellaneous 37.03 per cent and services 100 per cent products line fall under "Threatened Product" group, which has been the driving force of India's export structure. In view of their significance to India's revealed comparative advantage profile, there has been need for determined efforts to ensure that India should sustains and enhances its export competitiveness by reversing the above trends. As a part of BIMSTEC it is not difficult to formulate product-specific policy responses, there is a strong economic rationale for targeting those "Threatened Products" that have significant comparative advantage, but losing their competitiveness.

The "Emerging Product Group" is sub-divided into two groups to draw a distinction between two types of product lines: (a) the product lines that are showing underlying trends to join the "Competitive Group", but exhibit a comparative disadvantage at present; and (b) Tier II products. There were three industry lines under Tier 1. In case of India and Bangladesh Raw Hides, Skins, leathers & Furs industry with highest i.e. 53.40 per cent products lines covered under "Emerging Product Group" followed by Footwear/ Headgear 38.18 per cent and Vegetables products 37.50 per cent relatively labour intensive sectors. This result highlights the comparative advantage dynamics of India's manufacturing sector, where momentum is developing to move towards relatively high value-added technology intensive production activities.

"Weakly Positioned" products are categorized into Tier I and Tier II sub-groupings. The RCA's of Tier I product lines are less than unity but greater than 0.5 and thus have experienced negative growth. In case of India and Bangladesh trade, only one industry falls under weakly positioned tier 1 category i.e. Textile Industry. 44.12 per cent of this industry products were weakly positioned under RCA classification i.e. 398 out of 902.

Table no. 5.3 demonstrated the RCA Profile and Product Grouping between India and Bhutan. The profile of "Competitively Positioned Products" between India and Bhutan covered five industries, included the Animal & Animals product, Food Stuffs, Metals, Raw Hides, Skins, leathers & Furs and Service. The highest contribution has been noticed in Raw Hides, Skins, leathers & Furs product lines i.e. 62.50 per cent followed by Animal & Animals product 33.33 per cent, Food Stuffs 42.19 per cent, Metals 30.89 per cent and Service 100 percent. Most of industries line in competitively positioned has been resource and technological base.

"Threatened Product" group between India and Bhutan, there has been only 2 industries i.e. Vegetables products contributing 50 per cent i.e. total 32 products out of 72 products exported by India and Wood & wood products contributing 59.57 per cent. These industries exhibit revealed comparative advantage, but have experienced a declining share in trade between both the countries during 1997-2015. The most significant decline in the revealed comparative advantage occurred in Vegetables products industry including Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage, Edible vegetables and certain roots and tubers, Edible fruit and nuts; peel of citrus fruits or melons, Coffee, tea, mate and spices, Cereals, Products of the milling industry; malt; starches; inulin; wheat gluten, Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder, Lac; gums, resins and other vegetable saps and extracts, Vegetable plaiting materials; vegetable products not elsewhere specified or included and Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxe. In view of their significance to India's revealed comparative advantage profile with Bhutan, need to determined efforts that lead to grow the healthy trade relations between India and Bhutan as a part of BIMSTEC region.

Table 5.3: RCA Profile and Product Grouping: India and Bhutan (1997-2015)

HS Code	Product Categories	CP	TP	EP (T1)	EP (T II)	WP (I)	WP (II)	Grand Total
01-05	Animal & Animals product	14	4	5	8	8	3	42
		(33.33)	(9.52)	(11.90)	(19.05)	(19.05)	(7.17)	(100)
06-15	Vegetables products	13	36	5	3	11	4	72
		(18.06)	(50.00)	(6.94)	(4.17)	(15.28)	(5.56)	(100)
16-24	Food Stuffs	27	7	18	5	2	5	64
		(42.19)	(10.94)	(28.13)	(7.81)	(3.13)	(7.81)	(100)
25-27	Mineral Products	13	9	26	6	4	5	63
		(20.63)	(14.29)	(41.27)	(9.52)	(6.35)	(7.94)	(100)
28-38	Chemical & Allied Industries	12	45	2	9	26	68	162
		(7.41)	(27.78)	(1.23)	(5.56)	(16.05)	(41.98)	(100)
39-40	Plastic/ Rubbers	3	12	51	16	5	9	96
		(3.13)	(12.50)	(53.13)	(16.67)	(5.21)	(9.38)	(100)
41-43	Raw Hides, Skins, leathers & Furs	05	-	-	-	-	03	08
		(62.50)	-	-	-	-	(37.50)	(100)
44-49	Wood & wood products	1	56	-	6	31	-	94
		(1.06)	(59.57)	-	(6.38)	(32.98)	-	(100)
50-63	Textiles	68	90	32	59	201	109	559
		(12.16)	(16.10)	(5.72)	(10.55)	(35.96)	(19.50)	(100)
64-67	Footwear/ Headgear	-	7	19	5	14	8	53
		-	(13.21)	(35.85)	(9.43)	(26.42)	(15.09)	(100)
68-71	Stone/ Glass	-	-	-	-	21	-	21
		-	-	-	-	(100)	-	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (T1)	EP (T II)	WP (I)	WP (II)	Grand Total
72-83	Metals	117	67	21	56	75	43	379
		(30.89)	(17.68)	(5.54)	(14.78)	(19.79)	(11.35)	(100)
84-85	Machinery/ Electrical	-	69	85	-	48	205	407
		-	(16.95)	(20.88)	-	(11.79)	(50.37)	(100)
86-89	Transportation	-	-	-	-	64	11	75
		-	-	-	-	(85.33)	(14.67)	(100)
90-97	Miscellaneous	15	9	27	33	146	2.95	237
		(6.33)	(3.80)	(11.39)	(13.92)	(61.60)	(2.95)	(100)
98-99	Service	1	-	-	-	-	-	01
		(100)	-	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

In case of India and Bhutan three industries namely Footwear/ Headgear, Plastic/ Rubbers and Mineral Products has been emerging products (Tier 1) having positive RCA value throughout the study period and contribution has been noticed as 35.85 per cent for Footwear/ Headgear industry, 53.13 per cent for Plastic/ Rubbers industry and 41.27 per cent for Mineral Products industry respectively.

India and Bhutan faced weak position under tier 1 for 4 industries i.e. Textiles (35.96 per cent), Stone/ Glass (100 per cent), Transportation (85.33 per cent) and Miscellaneous (61.60 per cent). The RCA's of Tier I product lines are less than unity but greater than 0.5 and thus have experienced negative growth. As far as tier II is concern between India and Bhutan trade, only two industries falls under category i.e. Chemical & Allied Industries and Machinery/ Electrical. 41.98 per cent of Chemical & Allied Industries products and Machinery/ Electrical (50.37 per cent) has been weakly positioned under RCA classification.

Table 5.4: RCA Profile and Product Grouping: India and Nepal (1997-2015)

HS Code	Product Categories	CP	TP	EP (T1)	EP (T II)	WP (I)	WP (II)	Grand Total
01-05	Animal & Animals product	119	89	-	32	52	4	296
		(40.20)	(30.07)	-	(10.81)	(17.57)	(1.35)	(100)
06-15	Vegetables products	146	84	26	12	32	67	367
		(39.78)	(22.89)	(7.08)	(3.27)	(8.72)	(18.26)	(100)
16-24	Food Stuffs	84	06	55	21	11	10	187
		(44.92)	(3.21)	(29.41)	(11.23)	(5.88)	(5.35)	(100)
25-27	Mineral Products	76	3	15	-	10	-	103
		(73.79)	(2.91)	(14.56)	-	(9.71)	-	(100)
28-38	Chemical & Allied Industries	329	89	32	105	60	127	742
		(44.34)	(11.99)	(4.31)	(14.15)	(8.09)	(17.12)	(100)
39-40	Plastic/ Rubbers	18	-	7	13	-	-	38
		(47.37)	-	(18.32)	(34.21)	-	-	(100)
41-43	Raw Hides, Skins, leathers & Furs	15	48	6	10	6	9	94
		(15.96)	(51.06)	(6.38)	(10.64)	(6.38)	(9.57)	(100)
44-49	Wood & wood products	204	22	7	9	11	4	257
		(79.38)	(8.56)	(2.72)	(3.50)	(4.28)	(1.56)	(100)
50-63	Textiles	390	89	93	79	69	143	863
		(45.19)	(10.31)	(10.78)	(9.15)	(8.00)	(16.57)	(100)
64-67	Footwear/ Headgear	16	-	1	4	-	-	21
		(76.19)	-	(4.76)	(19.05)	-	-	(100)
68-71	Stone/ Glass	32	5	11	11	21	18	98
		(32.65)	(5.10)	(11.22)	(11.22)	(21.43)	(18.37)	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (T1)	EP (T II)	WP (I)	WP (II)	Grand Total
72-83	Metals	148	38	89	57	40	116	538
		(36.80)	(7.06)	(16.34)	(10.59)	(7.43)	(21.56)	(100)
84-85	Machinery/ Electrical	207	79	84	95	142	128	715
		(28.95)	(11.05)	(8.95)	(13.29)	(19.86)	(17.90)	(100)
86-89	Transportation	15	8	10	9	2	8	52
		(28.85)	(15.58)	(19.23)	(17.31)	(3.85)	(15.38)	(100)
90-97	Miscellaneous	120	39	56	71	-	75	361
		(33.24)	(10.80)	(15.51)	(19.67)	-	(20.78)	(100)
98-99	Service	1	-	-	-	-	-	01
		(100)	-	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

Table no. 5.4 shown the RCA Profile and Product Grouping between India and Nepal. The profile of "Competitively Positioned Products" between India and Nepal, India enjoying the trade competitiveness with Nepal in 15 industries except one industry i.e. Raw Hides, Skins, leathers & Furs. Only Raw Hides, Skins, leathers & Furs industry comes under the "Threatened Product" category with 51.06 per cent contribution. Overall trade relation with Nepal, India having revealed comparative advantages over Nepal. Under "Competitively Positioned Products, the highest contributing industries was Wood & wood products with 79.38 per cent followed by Footwear/ Headgear with 76.19 per cent and Mineral Products industry i.e. 73.79 per cent.

**Table 5.5 : RCA Profile and Product Grouping: India and
Myanmar (1997-2015)**

HS Code	Product Categories	CP	TP	EP (T1)	EP (TII)	WP (I)	WP (II)	Grand Total
01-05	Animal & Animals product	68	45	35	21	17	20	206
		(33.01)	(21.84)	(16.99)	(10.19)	(8.25)	(9.71)	(100)
06-15	Vegetables products	122	78	54	29	11	33	327
		(37.31)	(23.85)	(16.51)	(8.87)	(3.36)	(10.09)	(100)
16-24	Food Stuffs	30	14	4	-	2	17	67
		(44.78)	(20.90)	(5.97)	-	(2.99)	(25.37)	(100)
25-27	Mineral Products	6	29	0	-	13	45	93
		(6.45)	(31.18)	-	-	(13.98)	(48.39)	(100)
28-38	Chemical & Allied Industries	210	78	36	64	149	85	622
		(33.76)	(12.54)	(5.79)	(10.29)	(23.95)	(13.67)	(100)
39-40	Plastic/ Rubbers	39	6	1	8	3	21	78
		(50.00)	(7.69)	(1.28)	(10.26)	(3.85)	(26.92)	(100)
41-43	Raw Hides, Skins, leathers & Furs	45	5	12	16	8	13	99
		(45.45)	(5.05)	(12.12)	(16.16)	(8.08)	(13.13)	(100)
44-49	Wood & wood products	64	89	12	10	31	25	231
		(27.71)	(38.53)	(5.19)	(4.33)	(13.42)	(10.82)	(100)
50-63	Textiles	167	98	354	69	63	51	802
		(20.82)	(12.22)	(44.14)	(8.60)	(7.86)	(6.360)	(100)
64-67	Footwear/ Headgear	64	8	12	21	10	6	121
		(52.89)	(6.61)	(9.92)	(17.36)	(8.26)	(4.96)	(100)
68-71	Stone/ Glass	7	4	14	56	10	23	114
		(6.14)	(3.51)	(12.28)	(49.12)	(8.77)	(20.18)	(100)
72-83	Metals	73	187	62	19	58	116	515
		(14.17)	(36.31)	(12.04)	(3.69)	(11.260)	(22.52)	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (T1)	EP (TII)	WP (I)	WP (II)	Grand Total
84-85	Machinery/ Electrical	153	78	61	45	23	89	449
		(34.08)	(17.37)	(13.59)	(10.02)	(5.12)	(19.82)	(100)
86-89	Transportation	5	2	14	10	-	1	32
		(15.63)	(6.25)	(43.75)	(31.25)	-	(3.13)	(100)
90-97	Miscellaneous	146	72	15	69	83	34	419
		(34.84)	(17.18)	(3.58)	(16.47)	(19.81)	(8.11)	(100)
98-99	Service	-	1	-	-	-	-	01
		-	(100)	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

Table no. 5.5 explained the RCA Profile and Product Grouping between India and Myanmar. "Competitive Products" from India's perspective cover a broad spectrum of production activities with Myanmar. This involves a range of product lines with varying degrees of manufacturing sophistication, indicating the presence of backward and forward linkages within this industrial cluster. These industries were Animal & Animals product (33.01 per cent), Vegetables products (37.31 per cent), Food Stuffs (44.78 per cent), Chemical & Allied Industries (33.76 per cent), Plastic/ Rubbers (50 per cent), Raw Hides, Skins, leathers & Furs (45.45 per cent), Footwear/ Headgear (52.89 per cent), Machinery/ Electrical (34.08 per cent) and Miscellaneous (34.84 per cent) that including Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof, Clocks and watches and parts thereof, Musical instruments; parts and accessories of such articles, Arms and ammunition; parts and accessories thereof, Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated name-plates and the like;

prefabricated buildings, Toys, games and sports requisites; parts and accessories thereof, Miscellaneous manufactured articles, Works of art, collectors' pieces and antiques.

In the case of "Threatened Products Group", the product lines that are losing their competitive position at an increasing rate are tin related items. Between India and Myanmar trade, there has been three industries namely Metals, Service and Wood & wood products. For Metals out of 515 products 187 has been under Threatened Products Group" followed by Wood & wood products with 38.53 per cent and service one product. There is a need to undertake industry-specific steps to highlight the issues concerning these product lines.

The presence of "Emerging Product Group" for both the tiers between India and Myanmar points to a need to look at the impact of the current tariff regime on the cost competitiveness of exports for Textiles. This industry covered the 44.14 per cent of India's exports with Myanmar under "Emerging Product Group I" and on the other hand Transportation industry with 43.75 per cent also fall under "Emerging Product Group I". Stone/Glass industry with 49.12 per cent come under "Emerging Product Group II".

There has been 48.39 per cent of the product lines from Mineral industry that was "Weakly Positioned", including Salt; sulphur; earths and stone; plastering materials, lime and cement, Ores, slag and ash, Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes. This industry require time-bound assistance or protection to those segments that are technological-based and have positioning to achieve export competitiveness.

The table no. 5.6 has been given the RCA Profile and Product Grouping of India and Sri Lanka. India has a 44 per cent of competitively positioned exported products with Sri Lanka. These products from seven industries- Vegetables products industry (28.45 per cent), Footwear/ Headgear (70.59 per cent), Raw Hides, Skins, leathers & Furs (39.77 per cent), Textiles (36.88 per cent), Miscellaneous (43.44 per cent), Transportation (82.76 per cent) and Service. All these industries were resource and technological based. The vegetable products are the most competitively positioned segment. It includes Live trees and other plants; bulbs, roots and the like; cut flowers

Table 5.6: RCA Profile and Product Grouping: India and Sri Lanka (1997-2015)

HS Code	Product Categories	CP	TP	EP (T1)	EP (TII)	WP (I)	WP (TII)	Grand Total
01-05	Animal & Animals product	48	117	53	30	61	28	337
		(14.24)	(34.72)	(15.73)	(8.90)	(18.10)	(8.31)	(100)
06-15	Vegetables products	113	53	51	48	61	71	397
		(28.46)	(13.35)	(12.85)	(12.09)	(15.37)	(17.88)	(100)
16-24	Food Stuffs	20	31	7	5	1	11	75
		(26.67)	(41.33)	(9.33)	(6.67)	(1.33)	(14.67)	(100)
25-27	Mineral Products	8	49	15	10	-	9	91
		(8.79)	(53.85)	(16.48)	(10.99)	-	(9.89)	(100)
28-38	Chemical & Allied Industries	95	359	73	60	119	156	862
		(11.02)	(41.65)	(8.47)	(6.96)	(13.81)	(18.10)	(100)
39-40	Plastic/ Rubbers	18	64	9	5	21	8	125
		(14.40)	(51.20)	(7.20)	(4.00)	(16.80)	(6.40)	(100)
41-43	Raw Hides, Skins, leathers & Furs	35	12	4	7	10	15	88
		(39.77)	(19.32)	(4.55)	(7.95)	(11.36)	(17.05)	(100)
44-49	Wood & wood products	7	214	-	47	-	-	268
		(2.61)	(79.85)	-	(17.54)	-	-	(100)
50-63	Textiles	274	111	82	51	83	142	743
		(36.88)	(14.94)	(11.04)	(6.86)	(11.17)	(19.11)	(100)
64-67	Footwear/ Headgear	12	-	5	-	-	-	17
		70.59	-	29.41	-	-	-	(100)
68-71	Stone/ Glass	12	24	82	17	12	26	173
		(6.94)	(13.87)	(47.40)	(9.83)	(6.94)	(15.03)	(100)
72-83	Metals	51	196	69	73	18	87	494
		(10.32)	(39.68)	(13.97)	(14.78)	(3.64)	(17.61)	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (T1)	EP (TII)	WP (I)	WP (TII)	Grand Total
84-85	Machinery/ Electrical	67	185	371	59	52	18	752
		(8.91)	(24.60)	(49.34)	(7.85)	(6.91)	(2.39)	(100)
86-89	Transportation	48	-	-	6	-	4	58
		(82.76)	-	-	(10.34)	-	(6.90)	(100)
90-97	Miscellaneous	139	72	40	26	33	10	320
		(43.44)	(22.50)	(12.50)	(8.13)	(10.31)	(3.13)	(100)
98-99	Service	1	-	-	-	-	-	01
		(100)	-	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

and ornamental foliage, Edible vegetables and certain roots and tubers, Edible fruit and nuts; peel of citrus fruits or melons, Coffee, tea, mate and spices, Cereals, Products of the milling industry; malt; starches; inulin; wheat gluten, Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder, Lac; gums, resins and other vegetable saps and extracts, Vegetable plaiting materials; vegetable products not elsewhere specified or included and Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxe.

In the case of the "Threatened Product" group, there were seven industries lines. From the Chemical & Allied Industries total products 359 out of 862 considered as "Threatened Product" followed by Food Stuffs, Animal & Animals product, Wood & wood products, Metals, Plastic/ Rubbers industry and Mineral Products. According to the observation India's revealed comparative advantage profile with Sri Lanka need more efforts to ensure that India's economic growth enhances export competitiveness.

The presence of "Emerging Product Group" for tier 1 between India and Sri Lanka was 47.40 per cent for Stone/ Glass and 49.34 per cent for Machinery/ Electrical industry. These industries are relatively resource and technological intensive.

Table no. 5.7 illustrated the RCA Profile and Product Grouping between India and Thailand. The total product exported by India to Thailand, India enjoy the competitively position in 11 industries from total exports as a member of BIMSTEC.

Table 5.7: RCA Profile and Product Grouping: India and Thailand (1997-2015)

HS Code	Product Categories	CP	TP	EP (T1)	EP (TII)	WP (I)	WP (TII)	Grand Total
01-05	Animal & Animals product	48	77	43	7	61	5	241
		(19.92)	(31.95)	(17.84)	(2.90)	(25.31)	(2.07)	(100)
06-15	Vegetables products	127	31	18	21	53	88	338
		(37.57)	(9.17)	(5.33)	(6.21)	(15.68)	(26.04)	(100)
16-24	Food Stuffs	84	25	31	8	25	11	184
		(45.65)	(13.59)	(16.85)	(4.35)	(13.59)	(5.98)	(100)
25-27	Mineral Products	3	37	76	13	7	9	145
		(2.07)	(25.52)	(52.41)	(8.97)	(4.83)	(6.21)	(100)
28-38	Chemical & Allied Industries	278	349	-	12	24	145	808
		(34.41)	(43.19)	-	(1.49)	(2.97)	(17.95)	(100)
39-40	Plastic/ Rubbers	86	30	02	17	-	13	148
		(58.11)	(20.27)	(1.35)	(11.49)	-	(8.78)	(100)
41-43	Raw Hides, Skins, leathers & Furs	58	-	-	25	-	-	83
		(69.88)	-	-	(30.12)	-	-	(100)
44-49	Wood & wood products	156	19	1	53	18	13	260
		(60.00)	(7.31)	(0.38)	(20.38)	(6.92)	(5.00)	(100)
50-63	Textiles	308	69	26	82	172	62	719
		(42.84)	(9.60)	(3.62)	(11.40)	(23.92)	(8.62)	(100)

Contd. ...

HS Code	Product Categories	CP	TP	EP (TI)	EP (TII)	WP (I)	WP (TII)	Grand Total
64-67	Footwear/ Headgear	20	11	-	-	-	-	31
		(64.52)	(35.48)	-	-	-	-	(100)
68-71	Stone/ Glass	23	117	-	41	15	11	207
		(11.11)	(56.52)	-	(19.81)	(7.25)	(5.31)	(100)
72-83	Metals	69	228	49	31	120	32	529
		(13.04)	(43.10)	(4.26)	(5.86)	(22.68)	(6.05)	(100)
84-85	Machinery/ Electrical	447	40	-	-	113	172	772
		(57.90)	(5.18)	-	-	(14.64)	(22.28)	(100)
86-89	Transportation	67	21	9	5	11	3	116
		(57.76)	(18.10)	(7.76)	(4.31)	(9.48)	(2.59)	(100)
90-97	Miscellaneous	146	68	31	26	45	10	326
		(44.79)	(20.86)	(9.51)	(7.98)	(13.80)	(3.07)	(100)
98-99	Service	1	-	-	-	-	-	01
		(100)	-	-	-	-	-	(100)

Source: United Nation Commodity Trade Statistics (COMTRADE)

CP=Competitive Positioned Product; TP= Threatened Product; EM (TI) = Emerging Product Tier I; EM (TII) = Emerging Product Tier II; WP (TI) = Weakly Positioned Product (TI); WP (TII) = Weakly Positioned Product (TII)

After Nepal India have good export competitiveness with Thailand in some industries that includes industries such as Food Stuffs (45.65 per cent), Machinery/ Electrical (57.90 per cent), Plastic/ Rubbers (58.11 per cent), Raw Hides, Skins, leathers & Furs (69.88 per cent), Vegetables products (37.57 per cent), Textiles (42.84 per cent), Wood & wood products (60 per cent), Footwear/ Headgear (64.52 per cent), Miscellaneous (44.79 per cent), Transportation (57.76 per cent) and Service (100 per cent).

In the case of the "Threatened Product" group, there were 4 industries lines (25 per cent of the total). These products exhibit revealed comparative advantage, but have

experienced a declining share in trade during 1997-2015 between India and Thailand. These industries were Metals with 43.10 per cent, Stone/Glass with 56.52 per cent, Chemical & Allied Industries 33.19 per cent and Animal & Animals product with 31.95 per cent respectively.

In case of India and Thailand out of 16 industries, one Mineral Products industry relatively resource intensive has been emerging product under tier 1 with 52.41 per cent product lines during 1997- 2015. In the presence of existing infrastructure bottlenecks, is responsible of an impressive performance of this industry.

Table 5.8 : Common products > RCA value between India and BIMSTEC

HS Code	Product Description	RCA>1
01-05	Animal & Animals product	16.59
06-15	Vegetables products	21.80
16-24	Food Stuffs	33.20
25-27	Mineral Products	5.63
28-38	Chemical & Allied Industries	8.34
39-40	Plastic/ Rubbers	17.43
41-43	Raw Hides, Skins, leathers & Furs	19.88
44-49	Wood & wood products	26.58
50-63	Textiles	6.94
64-67	Footwear/ Headgear	10.67
68-71	Stone/ Glass	10.60
72-83	Metals	13.96
84-85	Machinery/ Electrical	3.32
86-89	Transportation	14.70
90-97	Miscellaneous	8.46
98-99	Service	16.07

Source: United Nation Commodity Trade Statistics (COMTRADE)

Table no. 5.8 showed the common products exported that India has a revealed comparative advantages with BIMSTEC nation at HS 2-digit and 6- Digit level.

5.2. SUMMARY

Trade liberalization and market access is a necessary, but not a sufficient condition, to achieve competitive advantage at the enterprise and industry level. Achieving export competitiveness in the rapidly globalise markets would require efforts at micro and macro levels. The composition and volume of India's trade has witnessed significant changes during the 1997-2015 within the region. From the export competitiveness analysis of India with other BIMSTEC countries, it has been clear that India losing their

Competitiveness in some products (see tables) and shifting to the category of threatened and weakly positioned categories of products. Firstly, India exports competitiveness with Bangladesh, out of the 339 HS 6-digit level product lines, 97 of them (28.6 per cent) have RCA's greater than unity and increasing. There were 6 industries products fall under category of "Threatened Product". These products exhibit RCA, but have experienced a declining share in trade during 1997-2015 between India and Bangladesh.

"Weakly Positioned" products are categorized into Tier I and Tier II sub-groupings. The RCA's of Tier I product lines are less than unity but greater than 0.5 and thus have experienced negative growth. Between India and Bangladesh, only one industry falls under weakly positioned tier 1 category i.e. Textile Industry and 44.12 per cent of this industry products were weakly positioned. Exports competitiveness between India and Bhutan, results shown that both countries covered five industries, included the Animal & Animals product, Food Stuffs, Metals, Raw Hides, Skins, leathers & Furs and Service under "Competitively Positioned Products". The highest contribution has been noticed in Raw Hides, Skins, leathers & Furs product lines i.e. 62.50 per cent followed by Animal & Animals product 33.33 per cent, Food Stuffs 42.19 per cent, Metals 30.89 per cent and Service 100 percent. Most of industries line in competitively positioned has been resource and technological base. "Threatened Product" group between India and Bhutan, there has been only 2 industries i.e. Vegetables products contributing 50 per cent i.e. total 32 products out

of 72 products exported by India and Wood & wood products contributing 59.57 per cent. These industries exhibit revealed comparative advantage, but have experienced a declining share in trade between both the countries during 1997-2015. The profile of "Competitively Positioned Products" between India and Nepal, India enjoying the trade competitiveness with Nepal in 15 industries except one industry i.e. Raw Hides, Skins, leathers & Furs. Only Raw Hides, Skins, leathers & Furs industry comes under the "Threatened Product" category with 51.06 per cent contribution. Overall trade relation with Nepal, India having revealed comparative advantages over Nepal. Under "Competitively Positioned Products, the highest contributing industries was Wood & wood products with 79.38 per cent followed by Footwear/Headgear with 76.19 per cent and Mineral Products industry i.e. 73.79 per cent. "Competitive Products" from India's perspective cover a broad spectrum of production activities with Myanmar. This involves a range of product lines with varying degrees of manufacturing sophistication, indicating the presence of backward and forward linkages within this industrial cluster. Between India and Myanmar trade, there has been three industries namely Metals, Service and Wood & wood products. For Metals out of 515 products 187 has been under Threatened Products Group" followed by Wood & wood products with 38.53 per cent and service one product. There is a need to undertake industry-specific steps to highlight the issues concerning these product lines. The presence of "Emerging Product Group" for both the tiers between India and Myanmar points to a need to look at the impact of the current tariff regime on the cost competitiveness of exports for Textiles. This industry covered the 44.14 per cent of India's exports with Myanmar under "Emerging Product Group I" and on the other hand Transportation industry with 43.75 per cent also fall under "Emerging Product Group I". Stone/Glass industry with 49.12 per cent come under "Emerging Product Group II".

There has been 48.39 per cent of the product lines from Mineral industry that was "Weakly Positioned". This industry require time-bound assistance or protection to those segments that are technological-based and have positioning to achieve export competitiveness. India has a 44 per cent of competitively positioned exported products with Sri Lanka. From the observation, India's RCA profile with Sri Lanka need more efforts to ensure that India's economic growth enhances export

competitiveness. The presence of "Emerging Product Group" for tier 1 between India and Sri Lanka was 47.40 per cent for Stone/ Glass and 49.34 per cent for Machinery/ Electrical industry. These industries are relatively resource and technological intensive. The total product exported by India to Thailand, India enjoy the competitively position in 11 industries from total exports as a member of BIMSTEC. After Nepal India has good export competitiveness with Thailand in some industries. In the case of the "Threatened Product" group, there were 4 industries lines with 25 per cent of the total product lines. These products exhibit revealed comparative advantage, but have experienced a declining share in trade during 1997-2015 between India and Thailand. India and Thailand out of 16 industries, one Mineral Products industry relatively resource intensive has been emerging product under tier 1 with 52.41 per cent product lines during 1997- 2015. In the presence of existing infrastructure bottlenecks, is responsible of an impressive performance of this industry.

In nutshell, the result highlighted the comparative advantage dynamics of India's manufacturing sector, where momentum is developing to move towards relatively high value-added technology intensive production activities. In view of their significance to India's revealed comparative advantage profile, there has been need for determined efforts to ensure that India should sustains and enhances its export competitiveness by reversing the above trends. As a part of BIMSTEC, it is not difficult to formulate product-specific policy responses for India, there is a strong economic rationale for targeting those "Threatened Products" that have significant comparative advantage, but losing their competitiveness. However, India's narrow low value-added export base has failed to create a solid foundation for an export-led growth. The present climate of trade liberalization, India's export sector come under increasing competitive pressure from lower cost producers such as China. India's economic well-being depends on the extent to how India enhance export competitiveness within BIMSTEC region and investment in potential sectors that contributes more in trade. Given the present profile of India's revealed comparative advantage in BIMSTEC region, these outcomes in turn depend on (a) an industrial restructuring of India's that enabling it to contest high growth sectors of BIMSTEC as well as world trade and (b) the ability of the manufacturing sector to create,

sustain and enhance its export competitiveness. While India's export sectors witnessed competitive positioning of some of its product, these trends have not been uniform across all Industries. Rapid export growth of some sector does not imply that the sector is displaying high demand growth in BIMSTEC markets. In an ideal situation, there would be the emergence of an export structure that has a heavy concentration in those industries that exhibit high growth in BIMSTEC market.

CHAPTER – 6

INDIA-BIMSTEC BILATERAL TRADE TIES

This chapter sheds light on bilateral trade flow between India and BIMSTEC countries. Also make the forecast for the trade of BIMSTEC nations by employing the famous gravity model of trade and Auto Regressive Integrated Moving Average Model (ARIMA). The most significant feature in the economic development activities of BIMSTEC is the proposed Free Trade Area (FTA) amongst the member countries which expected to expand it later to involve other countries as well as other Regional Trading Blocs. It was the BIMSTEC Economic Ministerial Meeting held in August, 1988 which concluded with certain decisions that BIMSTEC should aim to develop a Free Trade Agreement. At the BIMSTEC trade, Commerce and Economic Ministerial meeting held on 8 February, 2004 in Phuket Thailand, the member countries jointly signed a Framework Agreement to establish a FTA by 2013 to create a conducive environment for trade for member countries without any barriers. Initially Bangladesh did not sign the agreement due to prevailing domestic issues, but later Bangladesh joined for the Framework Agreement. The objective of the Agreement is to strengthen and enhance economic, trade and investment cooperation among the members, progressively liberalize and promote trade goods and services and explore new areas. The Trade Negotiating Committee (TNC) was set up in 2004 to continue all negotiations on the implementation of FTA. Trade negotiations mainly cover all trade in goods, outline the reduction and elimination of tariffs with more flexibility granted to the LDCs. The Committee is required to start deliberations on general rules, etc., focusing the preparation of on positive and negative list.

6.1. GRAVITY ANALYSIS

In the last fifty years, the gravity equation of trade has been widely used to predict trade flows. After the controversies concerning its theoretical foundation in the eighties and about its specification in the nineties, the estimation of gravity models went through an intense debate about estimations techniques in last years. Traditionally the multiplicative gravity model was linearized and estimated using

OLS techniques, assuming that the variance of the error is constant across observations (homoscedasticity) or using panel techniques, assuming that the error is constant across countries or country-pairs. As pointed by Silva and Tenreyro (2006) in presence of heteroscedasticity, the Pseudo Poisson Maximum Likelihood (PPML) estimator performs better since OLS is not efficient. Another challenge of this literature concerns the zero values. Helpman et al. (2008) renewed this debate by proposing a theoretical foundation of these zero values based on a model with heterogeneity of firms la Melitz and an adapted Heckman procedure to predict trade taking into account these features. Recently, the works of Burger et al. (2009), Martin and Pham (2008), Martinez-Zarzoso et al. (2007), Siliverstov and Schumacher (2007), Westerlund and Wilhelmsson (2007) have obtained some divergent results when comparing alternative estimators to deal with the heteroscedasticity and zero values problems. Gravity models were first applied to international trade by Tinbergen (1962) and Poyhonen (1963). Tinbergen developed the model to determine the normal or standard pattern of international trade that prevailed among 42 countries in the absence of trade barriers. Besides the standard Gravity Model (GM), Tinbergen also estimated other models including dummy variables for trade agreements and the presence of a common border among trading countries. Later, Leamer and Stern (1970) derived these relationships from a probability model of transactions, but none relied on standard trade theories. Several authors in search for a theoretical basis came up with models that are based on increasing returns. In particular, Anderson (1979) used Armington preferences in a model of homogenous goods to derive a role for transport costs.

The variables that are commonly used in gravity models are dummy variables to control for cultural similarity among trade partners, such as language or historical relationships such as colonialism. Growing empirical literature finds that historical linkages are important determinants of international trade flows (Frankel, Stein and Wei, 1995 Frankel, 1997 and Eichengreen and Irwin, 1998).

The gravity equation of trade is highly effective at explaining bilateral flows as proven at a very early date by the works of Linnemann (1966) and Leamer and Stern (1971). However, this model threw several controversies. Theoretical framework was putted into doubt and afterwards justified by Bergstrand, (1989) for the factorial

model, Deardorff, (1998) for the Hecksher-Ohlin model, Anderson, (1979) for goods differentiated according to their origin, and Helpman, Melitz and Rubinstein, (2008) in the context of heterogeneity of firms.

GDP is included to capture the factors associated with the level of economic development. It also captures the productive capacity of the exporting country and the purchasing power of the importing country. The coefficients of the real GDP variables are expected to be positive.

The coefficient of the distance variable ($Dist_{ij}$) is expected to be negative. This is a proxy for transportation costs and time, access to market information, access to markets, and other factors that make it difficult for nations to engage in trade. The anticipated sign on all ten dummy variables is positive, reflecting the idea that proximity, common language, historical links, and regional trading agreements are trade creating networks. However, the expected sign of the dummy variable RTA (O) can either be positive or negative.

The relative factor endowment variable (RFE_{ij}) is defined as the absolute value of the difference between natural logarithm of per capita GDPs between country i and country j . The choice of this variable as an explanatory variable is based on the standard comparative advantage explanation of trade. This variable aims to capture technology differences between countries in explaining trade patterns. Though this variable is generally measured as the absolute value of the difference between natural logarithm of capital-labour ratio, due to the unavailability of data per capita GDP is used in place of capital-labour ratio. The expected sign of this variable is positive.

The expected sign of the similarity index variable is positive. This is due to the fact that similarity with respect to GDP per capita implies increased similarity in size of country-specific product diversity in the differentiated goods sector and that leads to an increased trade volume (see chapter 1) (Ekanayake, et.al, 2010).

6.1.1. Empirical Results

The model estimated with panel data for seven BIMSTEC countries for the period 1997 to 2015, including Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka,

and Thailand and analyse the trade flows among these seven countries. Model estimated four sets of regression to measure the effects of regional trade agreements in BIMSTEC during the periods from 1997 to 2015. The model was estimated using ordinary least squares (OLS) with country dummies to capture country-specific fixed effects.

The conventional variables behave very much the same way as the model predicts, and the estimated coefficients are statistically significant. The adjusted R^2 values lies between from a 0.544 to 0.604. These values are acceptable for a cross-sectional study and are comparable to those obtained in other studies employing the gravity model to examine intra-regional trade flows. The coefficients of the real GDP variables for BIMSTEC countries are positive in all models estimated. Results are also statistically significant at the 1 per cent level of significance. The distance variable has the expected negative sign and is highly significant in all models estimated. The results for the distance variable provide strong support for the hypothesis that transportation and other distance related costs are an important determinant of trade flows.

The Border variable has the expected positive sign in all models. However, this variable is not statistically significant in any of the four models. The common language dummy is statistically significant, with the expected positive sign in all cases. The coefficient on relative factor endowment variable is statistically significant in three of the four cases and has the expected sign in three time periods. Its positive sign suggests that bilateral trade flows are related positively to inter-country differences in the level of technological advancement. The coefficient on similarity index variable is statistically significant in three of the four cases and has the expected sign in three time periods. The estimated coefficient of the dummy variable, RTA (I), has the expected positive sign and statistically significant in all four cases. This variable is expected to measure the degree of trade creation effects of the regional trade agreement between members. The coefficient of the bilateral trade agreements dummy is statistically insignificant in all four cases. It also has the unexpected negative sign in three of the four cases. All coefficients of regional dummy variables are mostly positive and significant, indicating that multilateral trade agreements tend to enhance more trade than bilateral trade agreements.

Table 6.1: Gravity model estimation for BIMSTEC countries

Group variable:	Year	Number of groups	19
R-sq: Within	0.9849	Obs. per group: min	6
Between	0.9567	Avg	6.0
Overall	0.9327	Max.	6
F(5,90)		1174.26	
Corr (u _i , Xb)	0.0862	Prob > F	0.0000

The given table no. 6.1 has shown gravity model estimation for BIMSTEC countries. The conventional variables behave very much the same way as the model predicts, and the estimated coefficients are statistically significant. The adjusted R^2 values range from a low of 0.544 to a high of 0.604. These values are acceptable for a cross-sectional study and are comparable to those obtained in other studies employing the gravity model to examine intra-regional trade flows. R^2 has a high value as shown in table implies that coefficients are highly significant. The values of R^2 is 0.9849 within model, 0.9567 between model and overall value of R^2 is 0.9327.

Table 6.2: Gravity model estimation for India and BIMSTEC countries

	Lngdp	Coef.	Std. Err.	t	P> t 	[95% Conf. Interval]
Distance	-.0003967	.0000851	-4.66	0.000	-.0005659	-.0002276
Sim	65.13144	2.133432	30.53	0.000	60.89301	69.36988
Rfe	1.76752	.2603625	-6.79	0.000	2.284775	-1.250264
Border	-2.172587	.1160684	-18.72	0.000	-2.403177	-1.941997
land_locked	-.7784701	.11455	-6.80	0.000	-1.006044	-.5508966
Constant	-18.15614	1.121904	-16.18	0.000	-20.385	-15.92729
sigma_u	.43911723					
sigma_e	.24117654					
Rho	.76825328 (fraction of variance due to u _i)					
F test that all u _i	0					
F(18, 90)	18.72					
Prob > F	0.0000					

The results of estimation for each nations of BIMSTEC has been shown in table no. 6.2. The result for ordinary gravity trade model (Equation 1) for Trade flow is significant. The model was estimated using ordinary least squares (OLS) with country dummies to capture country-specific fixed effects. Market size variables: GDP per capita of India's bilateral trade partners (*GDP*) and India's GDP per capita (*GDP_i*), both have the positive and significant (at 1 percent level) effect on India's bilateral trade. The coefficient of joint GDP is significant and positive, and from results its proven that the larger economic dimension increase trade. GDP per capita of India's trade partners (or India's GDP per capita) is associated with 7.6 per cent increase in India's bilateral trade and supports the positive effect of market size on India's bilateral trade. This indicates that market size promotes India's bilateral trade.

Geographical proximity variables: Geographical distance between India and partner country (Distance) and border dummy (Border), both have the positive and statistically significant effect on India's bilateral trade in both the models. Coefficient of distance is negative and significant, supporting the basic idea of gravity model. This proved the hypothesis is accepted that the trade increase when partners are geographically close. Though, the sign of the coefficient of border dummy supports the expected hypothesis, and the sign of the coefficient of distance variable support the predicted hypothesis and indicate that geographical proximity matter for India's bilateral trade. The results for the distance variable provide strong support for the hypothesis that transportation and other distance related costs are an important determinant of trade flows.

Furthermore, the significant of SIM (Similarity) is also significant and positive. Similarity with respect to GDP per capita implies increased similarity in size of country-specific product diversity in the differentiated goods sector and leads to an increased trade volume.

The coefficient on relative factor endowment variable is statistically significant in four of the six cases and has the expected sign in three time periods. Its positive sign suggests that bilateral trade flows are related positively to inter-country differences in the level of technological advancement.

The coefficient of the land_locked dummy is statistically insignificant in three cases. It has the unexpected negative sign in three of the six cases. In sum, all coefficients of regional dummy variables are mostly positive and significant, indicating agreements tend to enhance more trade than bilateral trade agreements.

6.2. AUTO REGRESSIVE INTEGRATED MOVING AVERAGE MODEL (ARIMA)-ANALYSIS

Forecasting future values of economic variables are some of the most critical tasks of a country. Especially the values related to foreign trade are to be forecasted efficiently as the need for planning is great in this sector (see chapter 1).

Table 6.3 : AUTO-ARIMA (Autoregressive Integrated Moving Average)

Models	Adjusted R-Squared	Akaike Information Criterion (AIC)	Schwarz Criterion (SC)	Durbin-Watson Statistic (DW)	Number of Iterations	Model Rank
P=1, D=0, Q=0	0.9590	12.3914	12.7247	2.6578	0	1
P=2, D=0, Q=0	0.9584	13.0892	13.6090	2.3275	0	2
P=0, D=0, Q=2	0.8090	14.6500	15.1318	0.4975	27	3
P=0, D=0, Q=1	0.5707	15.5244	15.8456	0.4873	17	4
P=2, D=2, Q=0	0.5079	13.3587	13.9242	2.3651	0	5
P=0, D=1, Q=0	0.0000	12.5719	12.7385	1.9892	0	6
P=0, D=2, Q=0	0.0000	14.1023	14.2756	3.0483	0	7
P=0, D=1, Q=1	-0.0660	12.5713	12.9046	1.9381	5	8
P=1, D=1, Q=0	-0.0708	13.3784	13.7249	2.0212	0	9
P=2, D=1, Q=0	-0.1603	12.4921	13.0337	2.0209	0	10

Table no. 6.3 analyzed the Autoregressive Integrated Moving Average or ARIMA (p,d,q) models are the extension of the AR model that use three components for modelling the serial correlation in the time-series data. The first component is the Auto Regressive (AR) term. The AR (p) model uses the p lags of the time series in

the equation. An AR(p) model has the form: $y(t)=a(1)*y(t-1)+...+a(p)*y(t-p)+e(t)$. The second component is the integration (d) order term. Each integration order corresponds to differencing the time series. I (1) means differencing the data once. I (d) means differencing the data d times. The third component is the moving average (MA) term. The MA (q) model uses the q lags of the forecast errors to improve the forecast. An MA(q) model has the form: $y(t)=e(t)+b(1)*e(t-1)+...+b(q)*e(t-q)$. Finally, an ARMA (p,q) model has the combined form: $y(t)=a(1)*y(t-1)+...+a(p)*y(t-p)+e(t)+b(1)*e(t-1)+...+b(q)*e(t-q)$.

Table 6.4: Regression Statistics

R-Squared (Coefficient of Determination)	0.961	Akaike Information Criterion (AIC)	42.731
Adjusted R-Squared	0.959	Schwarz Criterion (SC)	11.274
Multiple R (Multiple Correlation Coefficient)	0.980	Log Likelihood	-36.54
Standard Error of the Estimates (SEy)	919.28	Durbin-Watson (DW) Statistic	2.657
Number of Observations	17	Number of Iterations	0

Table no. 6.4 shown the regression statistics. The R-Squared (R^2), or Coefficient of Determination, indicates the percent variation in the dependent variable that can be explained and accounted for by the independent variables in this regression analysis. However, in a multiple regression, the Adjusted R-Squared (R^2) takes into account the existence of additional independent variables or regressors and adjusts this R-Squared value to a more accurate view the regression's explanatory power. However, under some ARIMA modelling circumstances (e.g., with non-convergence models), the R^2 tends to be unreliable. The Multiple Correlation Coefficient (Multiple R) measures the correlation between the actual dependent variable (Y) and the estimated or fitted (Y) based on the regression equation. This correlation is also the square root of the Coefficient of Determination (R^2). The Standard Error of the Estimates (SEy) describes the dispersion of data points above and below the regression line or plane. This value is used as part of the calculation to obtain the confidence interval of the estimates later. The AIC and SC are often

used in model selection. SC imposes a greater penalty for additional coefficients. Generally, the user should select a model with the lowest value of the AIC and SC. The Durbin-Watson statistic measures the serial correlation in the residuals. Generally, DW less than 2 (<2) implies positive serial correlation.

Table 6.5 : Regression Results

	Intercept	AR(1)
Coefficients	568648791.20	1.1012
Standard Error	749759420.46	0.0569
t-Statistic	0.7584	19.3701
p-Value	0.4599	0.0000
Lower 5 per cent	1883014787.94	1.2009
Upper 95 per cent	-745717205.54	1.0016

Table no. 6.5 demonstrated the regression results. The Coefficients provide the estimated regression intercept and slopes. For instance, the coefficients are estimates of the true population b values in the following regression equation $Y = b_0 + b_1X_1 + b_2X_2 + \dots + b_nX_n$. The Standard Error measures how accurate the predicted Coefficients are, and the t-Statistics are the ratios of each predicted Coefficient to its Standard Error. The Coefficients with their p-Values highlighted in blue indicate that they are statistically significant at the 90 per cent confidence or 0.10 alpha level, while those highlighted in red indicate that they are not statistically significant at any other alpha levels.

Table no. 6.6 revealed the analysis of variance. The Analysis of Variance (ANOVA) provides an F-test of the regression model's overall statistical significance. Instead of looking at individual regressors as in the t-test, the F-test looks at all the estimated Coefficients' statistical properties. The F-Statistic is calculated as the ratio of the Regression's Mean of Squares to the Residual's Mean of Squares. The numerator measures how much of the regression is explained, while the denominator measures how much is unexplained. Hence, the larger the F-Statistic, the more significant the model. The corresponding p-Value is calculated to test the null hypothesis (H0)

Table 6.6: Analysis of Variance

	Sums of Squares	Mean of Squares	F-Statistic	p-Value	Hypothesis Test	
Regression	1.300	1.300	375.2	0.0000	Critical F-statistic (99% confidence with df of 1 and 15)	8.6831
Residual	5.197	3.465			Critical F-statistic (95% confidence with df of 1 and 15)	4.5431
Total	1.352				Critical F-statistic (90% confidence with df of 1 and 15)	3.0732

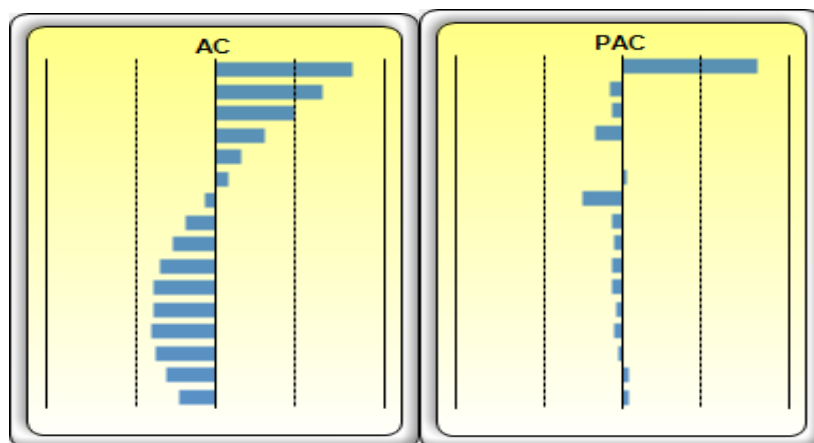
where all the Coefficients are simultaneously equal to zero, versus the alternate hypothesis (H_a) that they are all simultaneously different from zero, indicating a significant overall regression model. If the p-Value is smaller than the 0.01, 0.05, or 0.10 alpha significance, then the regression is significant. The same approach can be applied to the F-Statistic by comparing the calculated F-Statistic with the critical F values at various significance levels.

Table no. 6.7 depicted the autocorrelation. If autocorrelation AC (1) is nonzero, it means that the series is first order serially correlated. If AC (k) dies off more or less geometrically with increasing lag, it implies that the series follows a low-order autoregressive process. If AC (k) drops to zero after a small number of lags, it implies that the series follows a low-order moving-average process. Partial correlation PAC (k) measures the correlation of values that are k periods apart after removing the correlation from the intervening lags. If the pattern of autocorrelation can be captured by an auto regression of order less than k, then the partial autocorrelation at lag k will be close to zero. Ljung-Box Q-statistics and their p-values at lag k has the null hypothesis that there is no autocorrelation up to order k. The dotted lines in the plots of the autocorrelations are the approximate two standard error bounds. If the autocorrelation is within these bounds, it is not significantly different from zero at (approximately) the 5 per cent significance level.

Table 6.7 : Autocorrelation

Time Lag	AC	PAC	Lower Bound	Upper Bound	Q-Stat	Prob
1	0.8126	0.8126	(0.4714)	0.4714	13.3316	0.0003
2	0.6340	(0.0778)	(0.4714)	0.4714	21.9857	0.0000
3	0.4724	(0.0581)	(0.4714)	0.4714	27.1349	0.0000
4	0.2933	(0.1609)	(0.4714)	0.4714	29.2717	0.0000
5	0.1579	(0.0044)	(0.4714)	0.4714	29.9428	0.0000
6	0.0709	0.0255	(0.4714)	0.4714	30.0902	0.0000
7	(0.0684)	(0.2406)	(0.4714)	0.4714	30.2414	0.0001
8	(0.1797)	(0.0680)	(0.4714)	0.4714	31.4005	0.0001
9	(0.2589)	(0.0540)	(0.4714)	0.4714	34.1074	0.0001
10	(0.3289)	(0.0602)	(0.4714)	0.4714	39.0991	0.0000
11	(0.3702)	(0.0639)	(0.4714)	0.4714	46.4761	0.0000
12	(0.3733)	(0.0359)	(0.4714)	0.4714	55.4792	0.0000
13	(0.3767)	(0.0561)	(0.4714)	0.4714	66.9391	0.0000
14	(0.3554)	(0.0216)	(0.4714)	0.4714	80.5346	0.0000
15	(0.2942)	0.0374	(0.4714)	0.4714	94.5178	0.0000
16	(0.2169)	0.0339	(0.4714)	0.4714	109.7202	0.0000

Figure 6.1 : Autocorrelation and Partial Autocorrelation



**Table 6.8 : Projections of Intraregional trade among India and
BIMSTEC till 2025 (US\$ Mn)**

Period	Actual Values	Forecast values
1997	249.09	259.70
1998	261.36	263.39
1999	262.12	256.78
2000	298.75	263.49
2001	379.38	290.41
2002	343.43	360.67
2003	506.24	388.84
2004	677.09	496.60
2005	861.12	676.14
2006	965.41	908.08
2007	1215.00	1110.88
2008	1536.79	1358.75
2009	1233.50	1681.52
2010	1742.84	1661.06
2011	2218.89	1849.36
2012	2404.35	2240.37
2013	2743.40	2604.15
2014	3027.91	2997.49
2015	3113.56	3135.03
Forecast 2016		3360.93
2017		3713.67
2018		4066.40
2019		4419.14
2020		4771.88
2021		5124.62
2022		5477.36
2023		5830.10
2024		6182.83
2025		6535.57

Table no. 6.8 explained the prospects of intraregional trade among India and BIMSTEC in coming years. Projections has been made for the intraregional trade on the basis of their actual performance from 1997 to 2015. India can trade to BIMSTEC US\$ 6535.57 million in 2025. Thus, based on India's trade with BIMSTEC region, there exists a scope for intraregional trade in future. Therefore, efforts at the international level are required to be made to increase intraregional trade to earn a fair name for BIMSTEC in the world trade.

Figure 6.2: Actual vs. Forecast of trade between India and BIMSTEC

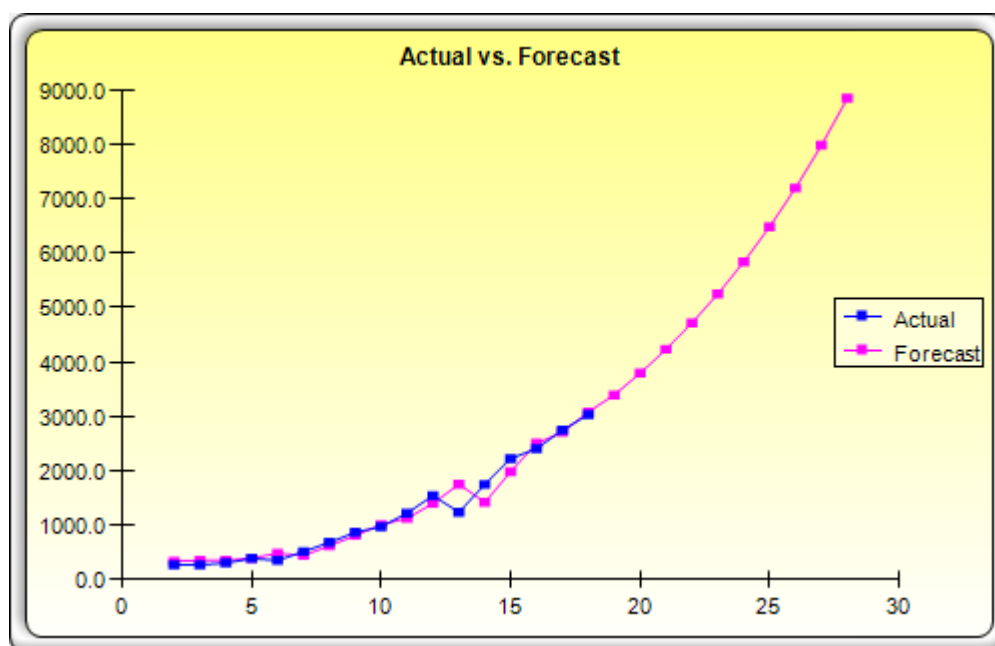


Figure no. 6.2 illustrated the actual vs. forecast of intraregional trade among India and BIMSTEC nations in coming year.

6.3. SUMMARY

The conventional variables behave very much the same way as the model predicts, and the estimated coefficients are statistically significant. The adjusted R2 values range from a low of 0.544 to a high of 0.604. These values are acceptable for a cross-sectional study and are comparable to those obtained in other studies employing the gravity model to examine intra-regional trade flows. R-square has a high value as shown in table implies that coefficients are highly significant. The results of estimation for each nations of BIMSTEC has been shown in tables. The result for ordinary gravity trade model for Trade flow is significant. The model was

estimated using ordinary least squares (OLS) with country dummies to capture country-specific fixed effects.

The prospects of intraregional trade among India and BIMSTEC for coming years, projections had been made for the intraregional trade on the basis of their actual performance from 1997 to 2015. India can trade to BIMSTEC US\$ 6535.57 million in 2025. Thus, based on India's trade with BIMSTEC region, there exists a scope for intraregional in future. Therefore, efforts at the international level are required to be made to increase intraregional trade to earn a fair name for BIMSTEC in the world trade. Given the geostrategic location of India's North Eastern region (NER) in BIMSTEC, multiple expositions about its economic potential have been made in terms of trade and investment. Yet, the purported economic remedies to the North Eastern region through greater infrastructural connectivity remain low.

CHAPTER – 7

SUMMARY, CONCLUSION AND POLICY SUGGESTIONS

Economic relations between India and BIMSTEC countries have been analysed and discussed in the present study. The chapter constitutes of the some measures and policies to improve the trade among BIMSTEC countries. This chapter consist of first of all issues and challenges faced by BIMSTEC regions and India's being part of BIMSTEC. Secondly, this chapter focused on the policies, suggestions, and conclusion.

The rationale behind the formation of any regional grouping is the existence of strong complementarities, which is mostly viable in BIMSTEC region. This provide a strong base for economic cooperation in trade and another selected areas for mutual development. BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) was set up in 1997 as an expression of the convergence of economic interests coming out of India's Look East Policy and Thailand's Look West Policy. Its objective was to integrate the regions on both sides of the Bay of Bengal. Representing one fifth of the world's population, including nearly a third of its poorest members, the bloc's member states are demographically young, politically evolving and ethnically diverse. The development of BIMSTEC countries is indispensable for the forward march of Asia as a whole. The three key issues in BIMSTEC region are development, connectivity and economic integration. Though the BIMSTEC nations are rich in resources, they remain underdeveloped and disconnected from Asia's growth story, and even though the member states are connected via regional cooperative processes, they have remained on the margins of Asian market integration. A study by RIS (2004), found that each individual members of the region exhibits different capabilities. For example- Sri Lanka's success in social sector development, Thailand's strong industrial base in selected industries and its high economic growth, India's achievement in building up a highly competent scientific manpower and broad industrial base, Bangladesh's model of population management and its untapped resources like natural gas and Myanmar's huge development potential in agriculture as well as in industry which could be inspiration to other countries. There are significant changes in the trade orientation

of BIMSTEC countries from 1990s and most of them exhibited a higher outward orientation.

India's trade relations with BIMSTEC have been strengthened since 1997, as a part of her "Look East Policy". Her complementary economic structure with ASEAN involves significant mutual gains. BIMSTEC-India bilateral trade has been growing steadily in recent time. Economic situation of BIMSTEC countries is very promising. Corporation across the world may take added interest in respect of the South-East Asian region. India has to take the lead in BIMSTEC and reorient by delivering on promises made in timely manner. BIMSTEC is also an intergovernmental organisation of some south Asian and South eastern Asian countries whose main priorities are tourism, economic development etc.

7.1. ISSUES AND CHALLENGES FOR BIMSTEC REGION

It is clear from the observations made in study that the BIMSTEC group continues to be an underperformer, with vital elements of cooperation remaining incomplete. BIMSTEC's limited accomplishments can be attributed to two critical problems-lead-actor inertia and structural constraints on member countries in the form of limited technological, financial and even operational capabilities.

- India is the lead actor in BIMSTEC, representing more than two-thirds of its constituency, and thus assumes greater responsibilities. India's using their capital as a platform for the development of its landlocked and troubled northeastern states and their integration with Southeast Asia, for the building of stronger ties with Bangladesh and Myanmar, and for the extraction of the vast energy resources available within the sub-region. But these projects remain incomplete and India's intellectual contribution to the growth of BIMSTEC has been sub-optimal. BIMSTEC has not emerged as a priority forum for India, and has been overwhelmed by the debates in the South Asian Association of Regional Cooperation (SAARC) and ASEAN. Discussion about BIMSTEC in the Indian strategic community has also been limited, cursory and somewhat episodic in nature. As a result, the group has remained marginal to the integrative discourse in South and Southeast Asia.

- On the other hand side, structural constraints in the form of limited state capabilities of the majority of its member countries, have also hindered the growth of the group. The majority of the BIMSTEC countries are technology deficient and lack the resources to invest in development and infrastructure projects, with Bangladesh, Bhutan, Myanmar and Nepal among the world's least developed countries. Nepal and Thailand have also experienced sustained political instability during the last five years. Nepal has yet to finalize its constitution, and Thailand not only changed its constitution but has also endured another bout of political instability.
- The group may also consider incorporating more efficient countries of Northeast Asia such as China, Japan, and South Korea, as observers. Both China and Japan have shown interest in joining hands with India and contributed significantly to developing ASEAN connectivity, especially in Myanmar.
- From the geo-politics perspective China and Russia leaning closer to each other and their joint military exercises in South China Sea however put pressure on India. Now, India is in dilemma regarding the connectivity theme in BIMSTEC which also benefit china initiative ONE BELT ONE ROAD.
- India is lacking in leadership and not been very active being important in region. India has usually been on margins and not been able to shape it's economic and security architecture. Taking up issue of connectivity keeping in mind India's poor implementation record with BIMSTEC nations.
- Several pending issues where collective action can help to solve them such as terrorism, climate change, maritime cooperation, security, trade and economic cooperation, etc.

7.2. THE SUGGESTIONS AND POLICIES FOR IMPROVEMENT OF TRADE AMONG BIMSTEC

In light of the discussions, number of suggestions have been made for improve the trade or come to the forefront that will be helpful as the future guidelines for the trade and economic relations between India and BIMSTEC. It is time that

BIMSTEC begins to address its limitations, which are impeding critical initiatives. An important step in this direction would be to expand the group by incorporating technologically advanced countries from the east either as new members or as observers. BIMSTEC can start this by incorporating both Malaysia and Singapore, situated on the eastern rim of the Bay of Bengal. Both countries help to bring new momentum to the group by considerably expanding its capabilities to undertake substantial developmental, connectivity and energy projects. In order to achieve high level of economic cooperation among the BIMSTEC countries, it is very important to understand and appreciate the structures of individual economies as well as identify the potential areas of trade and economic cooperation.

- A major thrust of BIMSTEC is connecting South Asia with Southeast Asia via Myanmar. The participation of ASEAN countries in BIMSTEC connectivity projects would speed that process up while also promoting intra-BIMSTEC and ASEAN connectivity.
- The geographical composition of BIMSTEC has remained overwhelmingly South Asian. The presence of Malaysia would give more legitimacy to the idea of a community that covers the entire arch of the Bay of Bengal.
- The need to identify the areas of cooperation and competition in intra-state trade base on production complementarities and on the other hand, here is requirement of rule simplification with a motive to increase trade liberalisation between member states.
- A serious effort to provide infrastructure support is essential especially in terms of connectivity, cheaper transport system specifically maritime transport, simple banking system and better border trade management
- Direct involvement of stakeholders is of prime importance and thus business communities, technocrats, and representatives of the knowledge community must interact to identify new avenues of BIMSTEC cooperation
- A need to create BIMSTEC's own identity bereft of its image as a restricted trade liberalisation arrangement or as an interface between SAARC and

ASEAN and in order to do so it must consider a minimal level of political engagement

- Security considerations of this region ought to be taken into account and an extended arm of BIMSTEC could address emerging security issues taken into account the greater geopolitical relevance of the region, particularly the maritime dimension and the emerging non-traditional security threats
- Active Research programmes must be initiated at various academic institutions including academic exchanges to increase awareness about BIMSTEC as an emerging regional entity; feedbacks from academic programmes could benefit BIMSTEC's prospects in the future.
- The greatest strength of the BIMSTEC nations lies in the fact that they are connected by sea through the Bay of Bengal. While land bridges can be built over a period of time, extant ports in the coastal states of BIMSTEC and the ports can be effectively utilised to offset land connectivity challenges like road blocks, poor infrastructure, inter-tribal rivalry, internal political situations.
- It is of mutual interest for all countries in the BIMSTEC Region to come together and work towards enhancing the quality of life and prosperity prospects in the region. Consequently, to address the economic and human challenges in the region, the BIMSTEC Region states need to rise issues and share perceptions and policy perspectives to arrive at a common meeting ground. Cooperative solutions could reconcile complex and diverse national interests and joint efforts could resolve conflict areas, defuse anxiety and chart a course to mutual progress.
- The opening of new markets in BIMSTEC region will induce specialisation based on revealed comparative advantages and one-way trade. It follows that the overall impact can either be positive or negative, depending in particular on the quality of goods the two countries able to supply to the intra-industry exchange.

- Finally, India needs to state its stand on Terrorism and the States that continue it, and possibly garner support for a resolution that it help to enhance the economic corporation among BIMSTEC countries.
- The existing high tariff barrier among the BIMSTEC countries worked against their basic development objectives. The BIMSTEC accord aimed to form a FTZ (Free Trade Zone) where tariffs bring down to zero. The least developed countries that are Bangladesh and Myanmar of the bloc has given additional time to drop their tariff rates to zero level by 2017. There will be need to softening and liberalizing of complex and extensive trade formalities to move towards the millennium goals.
- The BIMSTEC was the initiative of creating free trade area amongst the member nations and expanding it to other nations and regional trade blocs also. The member nations together signed a Framework Agreement to set up a FTZ (Free Trade Zone) to create a favorable atmosphere for trade for the member nations with no any barriers. The agreement Free Trade Agreement was signed between Bangladesh, India, Myanmar, Sri Lanka and Thailand but its implementation had been delayed and also ignore the two least developed countries Bhutan and Nepal. There is needed to take the necessary steps to implementation of Free Trade Zone for trade promotion. The necessity of hour is interdependence between member nations to compete the fast globalized economy of the world.
- Another thing is to improve the technology for the promotion of trade. The need of hour is to adopt the cheap technology and better technology so that the BIMSTEC increases their share in world exports. Research and development will be necessary from the promotion of exports in these nations.
- There is need to improve research and development in BIMSTEC regions. Because major reason for the decrease in the percentage share of some member nations in world exports was that following the 19 rounds of Free Trade Agreements (FTA) negotiations, till agreement not able to sort out issues such as dispute-settlement mechanism or a. Another reason for the underperformance of some nations was the basic fundamentals of collaboration

remaining unfinished. BIMSTEC restricted activities lead to some serious problems such as structural constraints on member states in the form of limited technological, lead-actor inertia, operational and financial capabilities. More provision of export incentives cannot expand exports. There is need to be coordination between production planning and trade policies with a specific orientation towards the market demand.

- The comparative study of trade regimes and exports expansion and the growth among the BIMSTEC nations reveals that there seems to be a correlation between the intensity of market forces and rate of growth of GDP. The greater the scope of market forces, the larger seems to have been the growth in general. The study also support for growth-led export in case of BIMSTEC. So, the need of hour is to create the custom union for the development of these countries. A trade creating Custom Union helps to promote the welfare of member nations. Trade creation encourages the full utilization of the resources and further leads to greater specialization based on the comparative advantages. It also increases the welfare of member nations because of increase in real income.
- The successful promotion of the mutually beneficial cooperation in the Bay of Bengal requires the speedy development of transport and communication linkages, exchange of information, relating the supply capabilities, progress in science and technology and enhanced technical cooperation, simplification and coordination of customs procedure and formalities and above all the establishment of institutional support for hastening the utilization of enhanced opportunities for multilateral regional cooperation.

Besides all, India's special attention required on their neighbor because of some untapped issues which influence the economic activities of BIMSTEC regions such as-

- Bhutan and Nepal are big buffers between India and China. Leaving Bhutan to Chinese sphere of influence is considered a big risk for India's security. The perpetual insecurity among India's policy makers is a big driver of Indo-

Bhutanese relationships. Now, India must take some actions to build the trust worthy relationship with Nepal and Bhutan.

- There are various militant groups fighting for independence in India's North East. India needs Bhutan's help to flush the terrorists out from their side. There is need of hour to maintain the healthy relationship with these nations to overcome the problem of terrorism.
- India make invest the capital in Nepal and Bhutan for the development of their economy. Indian Government launches the some schemes to investment in Nepal and Bhutan i.e. energy co-operation plan to meet the demands in Bhutan as well as India and increase the trade of energy between both the countries
- The most important thing which India learn from its small neighbor Bhutan is the only country in the world which is fully organic. No chemical fertilizers/pesticides/plastics are used in the country. It also introduced the concept of Gross National Happiness (GNH) instead of Gross Domestic Product, which other countries use to measure the quality of life of people of a country. This model has been highly praised by more than 60 countries as well as United Nations.
- India needs to put more political capital into sorting out its bilateral issues with other BIMSTEC countries, particularly with Bangladesh and Sri Lanka. This is an imperative for converting India's "Look East" policy to "Act East." It is important to note that Bangladesh also has a "Look East" policy, while Thailand has a "Look West" policy. Myanmar is increasingly realizing its potential as a bridge between South and South East Asia, and Sri Lanka is keen to play a more proactive role in and around the Bay of Bengal. Bhutan and Nepal, two land locked countries in this group, are looking forward to bettering their connectivity to diversify their trade and investment base.
- India should be more proactive in concluding negotiations on goods in the BIMSTEC Free Trade Area and should quickly start negotiations for a comprehensive economic cooperation agreement on goods, services, trade

facilitation, investment, competition, public procurement, and other areas of trade corporation.

- Considering possible cooperation among India and other BIMSTEC countries should strive to improve physical connectivity through trade facilitation infrastructure and measures as well as institutional connectivity through the convergence of rules, regulations, policies, and procedures for cross-border trade and investment.
- Another problem of region is intra-region FDI remains rather small and its potential remains to be exploited. Again it is the big challenges faced by the region, and it is essentials to overcome from it.
- In nutshell, there is a strong political and commercial case for India to put more weight behind BIMSTEC. It is imperative for India to adopt a more accommodating, pragmatic approach by given the geo-strategic importance of the BIMSTEC member states. To begin with, the Indian establishment should create a dedicated BIMSTEC division in the Ministry of External Affairs and the Department of Commerce to face the future challenges.

The Northeastern region of India faces considerable handicaps because of the high cost of transport. The BIMSTEC initiative opens up the possibilities of making more effectively arrangement for transportation of goods and services to other countries of Southeast Asia through the land route, making use of roads, railways and ports that would certainly help to promote the development of the northeastern region. India has still not arrived on the world map of advanced technology. The structure of India's exports and thereby its economy even after a decade and a half of liberalization is still a long distance away from innovation and technological advancement. Thus, cheap, semi and unskilled labour and simple technologies essentially characterize India's competitive advantage. Hence, greater accumulation of physical and human capital is mandatory, if India has to shift to a higher trajectory of cutting edge technology and more importantly, offer a comparative advantage in such goods, in relation to the rest of the world.

The free trade agreement being negotiated by the seven-nation BIMSTEC-Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal will help in elimination of non-tariff measures and give a big push to trade in the region, a recent study by an industry body has highlighted. BIMSTEC FTA may help activate production links among member countries and help in rationalizing various non-tariff measures which would give a big push to regional trade and generate regional value chains. India should work closely with all members for its conclusion,” a study by ASSOCHAM on the opportunities and challenges of economic integration of BIMSTEC said. Other recommendations to boost economic engagement include elimination of non-tariff barriers within a mutually agreed timeframe, reduction in negative list (prohibited imports) to unlock trade potential, introduction of transit facilities to promote effective intra-BIMSTEC trade, improvement in regional connectivity and introduction of a BIMSTEC visa to facilitate movement of people particularly for investors and businessmen. Bangladesh needs to take several infrastructural and institutional measures in advancing its trade with the BIMSTEC region. Proper tariff liberalization, flexible Rules of Origin and removal of NTBs are needed. The whole region including Bangladesh needs to continue and increase the efforts to modernize and improve the customs procedure and administration, especially land customs. Improved road, rail, ocean and aviation connections are needed among the BIMSTEC countries and Bangladesh to foster trade and investment. Better trade facilitation, customs harmonization, speedy crossing of goods across borders and better infrastructure facilities at border points are important to advance this trade. Regional Transit Transport Framework Agreement might be needed to improve the infrastructures and facilitate trade. Setting up new visa offices, introducing air, bus and especially, maritime service, initiation multiple visa entry for businessman would augment the trade between Bangladesh and BIMSTEC countries. Therefore, we conclude that Bangladesh has enormous trade potential with the BIMSTEC region, and several internal and external measures should be put in place in a timely manner to lessen the obstacles and increase the opportunities in advancing trade. The BIMSTEC is an up and coming regional bloc that has vastly untapped potential for India is the most advanced economy in that sub regional architecture, India should therefore propose a PTA that would liberalize trade and therefore boost slowing economic growth. It seems impossible that

BIMSTEC can address its key developmental and integration challenges without receiving substantial resources or technological assistance from the East. Their inclusion will bring forth much-needed advanced technology and business skills, introduce ASEAN dynamism and efficiency into the otherwise inactive BIMSTEC, and balance the overwhelming South Asian representation. The idea of incorporating new members from East Asia is a win-win formula. It offers an expanded market for the East Asian economies, and a much-needed push towards greater integration for South and Southeast Asia. At this juncture, it seems impossible for BIMSTEC to address its key developmental and integration challenges without receiving substantial resources and technological assistance from the east. The inclusion of East Asian nations will also bring much-needed business skill and efficiency into BIMSTEC. Above all, such a partnership would give the advanced economies of Asia an opportunity to mobilize their resources to address the needs of the continent's poorest citizens.

The third summit taken three important decisions that help to boost the economic growth of region i.e. the member states agreed to set up a permanent secretariat in Dhaka, Bangladesh, with Sumit Nakandala, a veteran diplomat from Sri Lanka, as its first secretary general. Until now, BIMSTEC has been run largely through the foreign-affairs offices of its member countries. The secretariat will provide a platform for more effective debate on the priorities of the bloc. Another, decision was for BIMSTEC states to expedite negotiations on a free-trade agreement (FTA) in goods by the end of 2014. A BIMSTEC FTA would create an integrated market of 1.5 billion people with a combined economic strength of US\$2.5 trillion. But member states, even after 19 rounds of FTA negotiations stretching over 10 years, have not been able to reach a consensus over issues like market access or a dispute-settlement mechanism. This is in contrast to the FTA between the Association of Southeast Asian Nations (ASEAN) and India, which was proposed in 2003 and came into effect in 2010. Lastly, the BIMSTEC states established a network of policy think tanks, a welcome step that was suggested by the Indian government during the second summit in 2008 in New Delhi. At last but not least, BIMSTEC nations are prosperous in resources, but they remain underdeveloped and disengaged from Asia's development story. Although the member nations of BIMSTEC are

linked by regional cooperative process, and remained on the margins of Asian market integration. The high potential of mutual trade with rest of the world has remained unexploited for various hurdles such as lack of shipping and road connectivity. For making BIMSTEC a "vibrant regional entity", there are needs to revitalize coastal shipping preparations and inter-modal transport, practices that had flourished in the past, for easy flow of goods and services.

DIRECTION FOR FUTURE RESEARCH

- 1) Study is limited to India's trade performance with BIMSTEC countries only. There will be another perspective from other member countries still uncover.
- 2) The study is based on secondary data only.
- 3) Another macro-economic factors such as investment, foreign exchange, stock exchange will have scope for further study in BIMSTEC region.

APPENDIX – 1

TECHNOLOGICAL CATEGORIES AND SUB-CATEGORIES

The lists the top exported with RCA ranking product lines in their technological orientation and relative factor intensities such as: (a) Resource-Intensive; (b) Scale intensive/Technological Intensive- Low, medium and high; (c) Labour-Intensive; and (d) Differentiation-based (Lall, 2000).

Primary products (and special transactions, excluded completely below) do not need much analysis in terms of the technological basis of comparative advantage. Within manufactured exports, the technological categories and sub-categories are as follows:

Resource based (RB) products tend to be simple and labour-intensive (e.g. simple food or leather processing), but there are segments using capital, scale and skill-intensive technologies (e.g. petroleum refining or modern processed foods). Since competitive advantages in these products arises generally — but not always — from the local availability of natural resources, they do not raise important issues for competitiveness. However, the segments with skill and technology intensive technologies do raise important competitiveness issues. We draw a distinction between *RB1, agriculture-based* products and *RB2, others*.

Low technology (LT) products tend to have stable, well-diffused technologies. The technologies are primarily embodied in the capital equipment; the low end of the range has relatively simple skill requirements. Many traded products are undifferentiated and compete on price: thus, labour costs tend to be a major element of cost in competitiveness. Scale economies and barriers to entry are generally low. The final market grows slowly, with income elasticities below unity. However, there are exceptions to these features. There are particular low technology products in high quality segments where brand names, skills, design and technological sophistication are very important, even if technology intensity does not reach the levels of other categories. We should note that products of major interest to developing countries tend to be in the lower quality segments, and are really based on simple technologies and price rather than quality competition. We distinguish

between *LT1, textile, garment, footwear* ('fashion') cluster and the *LT2, other low technology* products. The former group has undergone massive relocation from rich to poor countries, with assembly operations shifting to low wage sites and complex design and manufacturing functions retained in advanced countries. This relocation has been the engine of export growth in this industry, though the precise location of export sites in textiles and clothing has been influenced strongly by trade quotas (under the Multi-Fibre Agreement as well as offshore assembly provisions and regional trade agreements like NAFTA). Other exports that have benefited from active relocation in this group are toys, sports and travel goods and footwear. Simple metal products have not shared in this particular process, perhaps because they are not equally prone to undifferentiated mass-assembly operations, or because skill needs are somewhat higher.

Medium technology (MT) products, comprising the bulk of skill and scale-intensive technologies in capital goods and intermediate products, are the heartland of industrial activity in mature economies. They tend to have complex technologies, with moderately high levels of R&D, advanced skill needs and lengthy learning periods. Those in the engineering and automotive sub-groups are very linkage-intensive, and need considerable interaction between firms to reach 'best practice' technical efficiency. We divide them into three subgroups. *MT1, automotive products*, are of particular export interest to newly industrialising countries, particularly in East Asia and Latin America. *MT2, process industries*, mainly chemicals and basic metals, are different in their technological features from *MT3, engineering products*. Process industries have stable and undifferentiated products, often with large-scale facilities and considerable technological effort in improving equipment and optimising complex processes. Engineering industries emphasise product design and development. Many have mass assembly or production plants and extensive supplier networks (SMEs are often important here). Barriers to entry tend to be high. The relocation of labour-intensive processes to low wage areas occurs but is not widespread: products are heavy and need advanced capabilities to reach world standards.

High technology (HT) products have advanced and fast-changing technologies, with high R&D investments and prime emphasis on product design. The most advanced

technologies require sophisticated technology infrastructures, high levels of specialised technical skills and close interactions between firms, and between firms and universities or research institutions. However, some products like electronics have labour-intensive final assembly, and their high value-to-weight ratios make it economical to place this stage in low wage areas. These products lead in new international integrated production systems where different processes are separated and located by MNCs according to fine differences in production costs. We separate *HT1, electronic and electrical products* from *HT2, other high-tech products*. Apart from electronics, other high-technology products (generating equipment, aircraft, precision instruments and pharmaceuticals) remain rooted in economies with high levels of skills, technology and supplier networks. Their comparative advantage continues to be ruled by the usual technological factors. At some risk of simplification, we place RB and LT products together as having '*easy*' technologies, with the main drivers of competitiveness being natural resource endowments in the former case and low wages in the latter. MT and HT products have '*difficult*' technologies, with high skill, complex learning and demanding technological activity. The obvious exceptions, as noted, are heavy low-technology products in the LT groups that are not readily amenable to relocation to low wage areas, and at the high end, electronic products that are.

Note that this classification, based on the complexity of technology within each activity, is not meant to suggest that some categories of exports remain competitive without technological effort. All industrial activities, regardless of the level of technology, need to constantly upgrade technologies to retain international competitiveness (this also applies to many primary products). The nature of capabilities and the kinds of technological effort needed differ, of course, but there is no activity that is immune to technical change. The same applies to technology upgrading via FDI. Multinationals transfer technology to developing countries in each category, but their role differs. It is higher where cost-driven relocation is particularly important, especially in highly complex and differentiated products (where there are integrated production systems), and where local capabilities are weak.

Technological categories (Lall (2000))

Code	Label
Primary products (Lall classification)	
001	Live animals other than animals of division 03
011	Meat of bovine animals, fresh, chilled or frozen
012	Other meat and edible meat offal
022	Milk, cream and milk products (excluding butter, cheese)
025	Birds' eggs, and eggs' yolks; egg albumin
034	Fish, fresh (live or dead), chilled or frozen
036	Crustaceans, mollusks and aquatic invertebrates
041	Wheat (including spelt) and meslin, unmilled
042	Rice
043	Barley, unmilled
044	Maize (not including sweet corn), unmilled
045	Cereals, unmilled (excluding wheat, rice, barley, maize)
054	Vegetables
057	Fruits and nuts (excluding oil nuts), fresh or dried
071	Coffee and coffee substitutes
072	Cocoa
074	Tea and mate
075	Spices
081	Feeding stuff for animals (no unmilled cereals)
091	Margarine and shortening
121	Tobacco, unmanufactured; tobacco refuse
211	Hides and skins (except furskins), raw
212	Furskins, raw, other than hides & skins of group 211

- 222 Oil seeds and oleaginous fruits (excluding flour)
- 223 Oil seeds & oleaginous fruits (incl. flour, n.e.s.)
- 231 Natural rubber & similar gums, in primary forms
- 244 Cork, natural, raw & waste (incl. blocks, sheets)
- 245 Fuel wood (excluding wood waste) and wood charcoal
- 246 Wood in chips or particles and wood waste
- 261 Silk
- 263 Cotton
- 268 Wool and other animal hair (incl. wool tops)
- 272 Crude fertilizers (excluding those of division 56)
- 273 Stone, sand and gravel
- 274 Sulphur and unroasted iron pyrites
- 277 Natural abrasives, n.e.s. (incl. industri. diamonds)
- 278 Other crude minerals
- 291 Crude animal materials, n.e.s.
- 292 Crude vegetable materials, n.e.s.
- 321 Coal, whether or not pulverized, not agglomerated
- 333 Petroleum oils, oils from bitumin. materials, crude
- 342 Liquefied propane and butane
- 343 Natural gas, whether or not liquefied
- 344 Petroleum gases, other gaseous hydrocarbons, n.e.s.
- 345 Coal gas, water gas & similar gases (excluding hydrocar.)
- 681 Silver, platinum, other metals of the platinum group
- 682 Copper
- 683 Nickel
- 684 Aluminium
- 685 Lead

686 Zinc

687 Tin

Resource-based manufactures: agro-based (Lall classification)

016 Meat, edible meat offal, salted, dried; flours, meals

017 Meat, edible meat offal, prepared, preserved, n.e.s.

023 Butter and other fats and oils derived from milk

024 Cheese and curd

035 Fish, dried, salted or in brine; smoked fish

037 Fish, aqua. invertebrates, prepared, preserved, n.e.s.

046 Meal and flour of wheat and flour of meslin

047 Other cereal meals and flour

048 Cereal preparations, flour of fruits or vegetables

056 Vegetables, roots, tubers, prepared, preserved, n.e.s.

058 Fruit, preserved, and fruit preparations (no juice)

059 Fruit and vegetable juices, unfermented, no spirit

061 Sugar, molasses and honey

062 Sugar confectionery

073 Chocolate, food preparations with cocoa, n.e.s.

098 Edible products and preparations, n.e.s.

111 Non-alcoholic beverages, n.e.s.

112 Alcoholic beverages

122 Tobacco, manufactured

232 Synthetic rubber

247 Wood in the rough or roughly squared

248 Wood simply worked, and railway sleepers of wood

- 251 Pulp and waste paper
- 264 Jute, other textile bast fibre, n.e.s., not spun; tow
- 265 Vegetable textile fibres, not spun; waste of them
- 269 Worn clothing and other worn textile articles
- 421 Fixed vegetable fats & oils, crude, refined, fractio.
- 422 Fixed vegetable fats & oils, crude, refined, fract.
- 431 Animal or veg. oils & fats, processed, n.e.s.; mixt.
- 621 Materials of rubber (pastes, plates, sheets, etc.)
- 625 Rubber tyres, tyre treads or flaps & inner tubes
- 629 Articles of rubber, n.e.s.
- 633 Cork manufactures
- 634 Veneers, plywood, and other wood, worked, n.e.s.
- 635 Wood manufacture, n.e.s.
- 641 Paper and paperboard

Resource-based manufactures: other (Lall classification)

- 281 Iron ore and concentrates
- 282 Ferrous waste, scrape; remelting ingots, iron, steel
- 283 Copper ores and concentrates; copper mattes, cemen
- 284 Nickel ores & concentrates; nickel mattes, etc.
- 285 Aluminium ores and concentrates (incl. alumina)
- 286 Ores and concentrates of uranium or thorium
- 287 Ores and concentrates of base metals, n.e.s.
- 288 Non-ferrous base metal waste and scrap, n.e.s.
- 289 Ores & concentrates of precious metals; waste, scrap
- 322 Briquettes, lignites and peat

- 325 Coke & semi-cokes of coal, lign., peat; retort carbon
- 334 Petroleum oils or bituminous minerals > 70 % oil
- 335 Residual petroleum products, n.e.s., related mater.
- 411 Animals oils and fats
- 511 Hydrocarbons, n.e.s., & halogenated, nitr. derivative
- 514 Nitrogen-function compounds
- 515 Organo-inorganic, heterocycl. compounds, nucl. acids
- 516 Other organic chemicals
- 522 Inorganic chemical elements, oxides & halogen salts
- 523 Metallic salts & peroxysalts, of inorganic acids
- 524 Other inorganic chemicals
- 531 Synth. organic colouring matter & colouring lakes
- 532 Dyeing & tanning extracts, synth. tanning materials
- 551 Essential oils, perfume & flavour materials
- 592 Starche, wheat gluten; albuminoidal substances; glues
- 661 Lime, cement, fabrica. constr. mat. (excluding glass, clay)
- 662 Clay construction, refracto. construction materials
- 663 Mineral manufactures, n.e.s.
- 664 Glass
- 667 Pearls, precious & semi-precious stones
- 689 Miscellaneous no-ferrous base metals for metallur.

Low technology manufactures: textile, garment and footwear (Lall classification)

- 611 Leather
- 612 Manufactures of leather, n.e.s.; saddlery & harness

- 613 Furskins, tanned or dressed, excluding those of 8483
- 651 Textile yarn
- 652 Cotton fabrics, woven
- 654 Other textile fabrics, woven
- 655 Knitted or crocheted fabrics, n.e.s.
- 656 Tulles, trimmings, lace, ribbons & other small wares
- 657 Special yarn, special textile fabrics & related
- 658 Made-up articles, of textile materials, n.e.s.
- 659 Floor coverings, etc.
- 831 Travel goods, handbags & similar containers
- 841 Men's clothing of textile fabrics, not knitted
- 842 Women's clothing, of textile fabrics
- 843 Men's or boy's clothing, of textile, knitted, croche.
- 844 Women's clothing, of textile, knitted or crocheted
- 845 Articles of apparel, of textile fabrics, n.e.s.
- 846 Clothing accessories, of textile fabrics
- 848 Articles of apparel, clothing access., excluding textile
- 851 Footwear

Low technology manufactures: other products (Lall classification)

- 642 Paper & paperboard, cut to shape or size, articles
- 665 Glassware
- 666 Pottery
- 673 Flat-rolled prod., iron, non-alloy steel, not coated
- 674 Flat-rolled prod., iron, non-alloy steel, coated, clad
- 675 Flat-rolled products of alloy steel

- 676 Iron & steel bars, rods, angles, shapes & sections
- 677 Rails & railway track construction mat., iron, steel
- 678 Wire of iron or steel
- 691 Structures & parts, n.e.s., of iron, steel, aluminium
- 692 Metal containers for storage or transport
- 693 Wire products (excluding electrical) and fencing grills
- 694 Nails, screws, nuts, bolts, rivets & the like, of metal
- 695 Tools for use in the hand or in machine
- 696 Cutlery
- 697 Household equipment of base metal, n.e.s.
- 699 Manufactures of base metal, n.e.s.
- 821 Furniture & parts
- 893 Articles, n.e.s., of plastics
- 894 Baby carriages, toys, games & sporting goods
- 895 Office & stationery supplies, n.e.s.
- 897 Jewellery & articles of precious materia., n.e.s.
- 898 Musical instruments, parts; records, tapes & similar
- 899 Miscellaneous manufactured articles, n.e.s.

Medium technology manufactures: automotive (Lall classification)

- 781 Motor vehicles for the transport of persons
- 782 Motor vehic. for transport of goods, special purpo.
- 783 Road motor vehicles, n.e.s.
- 784 Parts & accessories of vehicles of 722, 781, 782, 783
- 785 Motorcycles & cycles

Medium technology manufactures: process (Lall classification)

- 266 Synthetic fibres suitable for spinning
- 267 Other man-made fibres suitable for spinning
- 512 Alcohols, phenols, halogenat., sulfonat., nitrat. der.
- 513 Carboxylic acids, anhydrides, halides, per.; derivati.
- 533 Pigments, paints, varnishes and related materials
- 553 Perfumery, cosmetics or toilet prepar. (excluding soaps)
- 554 Soaps, cleansing and polishing preparations
- 562 Fertilizers (other than those of group 272)
- 571 Polymers of ethylene, in primary forms
- 572 Polymers of styrene, in primary forms
- 573 Polymers of vinyl chloride or halogenated olefins
- 574 Polyethers, epoxide resins; polycarbonat., polyesters
- 575 Other plastics, in primary forms
- 579 Waste, parings and scrap, of plastics
- 581 Tubes, pipes and hoses of plastics
- 582 Plates, sheets, films, foil & strip, of plastics
- 583 Monofilaments, of plastics, cross-section > 1mm
- 591 Insectides & similar products, for retail sale
- 593 Explosives and pyrotechnic products
- 597 Prepared addit. for miner. oils; lubricat., de-icing
- 598 Miscellaneous chemical products, n.e.s.
- 653 Fabrics, woven, of man-made fabrics
- 671 Pig iron & spiegeleisen, sponge iron, powder & granu
- 672 Ingots, primary forms, of iron or steel; semi-finis.
- 679 Tubes, pipes & hollow profiles, fittings, iron, steel

- 786 Trailers & semi-trailers
- 791 Railway vehicles & associated equipment
- 882 Cinematographic & photographic supplies

Medium technology manufactures: engineering (Lall classification)

- 711 Vapour generating boilers, auxiliary plant; parts
- 713 Internal combustion piston engines, parts, n.e.s.
- 714 Engines & motors, non-electric; parts, n.e.s.
- 721 Agricultural machinery (excluding tractors) & parts
- 722 Tractors (excluding those of 71414 & 74415)
- 723 Civil engineering & contractors' plant & equipment
- 724 Textile & leather machinery, & parts thereof, n.e.s.
- 725 Paper mill, pulp mill machinery; paper articles man.
- 726 Printing & bookbinding machinery, & parts thereof
- 727 Food-processing machines (excluding domestic)
- 728 Other machinery for particular industries, n.e.s.
- 731 Machine-tools working by removing material
- 733 Mach.-tools for working metal, excluding removing mate.
- 735 Parts, n.e.s., & accessories for machines of 731, 733
- 737 Metalworking machinery (excluding machine-tools) & parts
- 741 Heating & cooling equipment & parts thereof, n.e.s.
- 742 Pumps for liquids
- 743 Pumps (excluding liquid), gas compressors & fans; centr.
- 744 Mechanical handling equipment, & parts, n.e.s.
- 745 Other non-electr. machinery, tools & mechan. appar.
- 746 Ball or roller bearings

- 747 Appliances for pipes, boiler shells, tanks, vats, etc.
- 748 Transmis. shafts
- 749 Non-electric parts & accessor. of machinery, n.e.s.
- 762 Radio-broadcast receivers, whether or not combined
- 763 Sound recorders or reproducers
- 772 Apparatus for electrical circuits; board, panels
- 773 Equipment for distributing electricity, n.e.s.
- 775 Household type equipment, electrical or not, n.e.s.
- 793 Ships, boats & floating structures
- 811 Prefabricated buildings
- 812 Sanitary, plumbing, heating fixtures, fittings, n.e.s.
- 813 Lighting fixtures & fittings, n.e.s.
- 872 Instruments & appliances, n.e.s., for medical, etc.
- 873 Meters & counters, n.e.s.
- 884 Optical goods, n.e.s.
- 885 Watches & clocks
- 891 Arms & ammunition

High technology manufactures: electronic and electrical (Lall classification)

- 716 Rotating electric plant & parts thereof, n.e.s.
- 718 Other power generating machinery & parts, n.e.s.
- 751 Office machines
- 752 Automatic data processing machines, n.e.s.
- 759 Parts, accessories for machines of groups 751, 752
- 761 Television receivers, whether or not combined
- 764 Telecommunication equipment, n.e.s.; & parts, n.e.s.

- 771 Electric power machinery, and parts thereof
- 774 Electro-diagnostic appa. for medical sciences, etc.
- 776 Cathode valves & tubes
- 778 Electrical machinery & apparatus, n.e.s.

High technology manufactures: other (Lall classification)

- 525 Radio-actives and associated materials
- 541 Medicinal and pharmaceutical products, excluding 542
- 542 Medicaments (incl. veterinary medicaments)
- 712 Steam turbines & other vapour turbin., parts, n.e.s.
- 792 Aircraft & associated equipment; spacecraft, etc.
- 871 Optical instruments & apparatus, n.e.s.
- 874 Measuring, analysing & controlling apparatus, n.e.s.
- 881 Photographic apparatus & equipment, n.e.s.

Unclassified products (Lall classification)

- 351 Electric current
- 883 Cinematograph films, exposed & developed
- 892 Printed matter
- 896 Works of art, collectors' pieces & antiques
- 961 Coin (other than gold coin), not being legal tender
- 971 Gold, non-monetary (excluding gold ores and concentrates)

APPENDIX – 2

BIMSTEC TRADE: CURRENT STATUS

The BIMSTEC Trade Negotiating Committee (BIMSTEC TNC) and the working groups on related matters held several meetings during September 2004 and March 2008.

1. Tariff Liberalization

- Members are currently deliberating on the number of items to be placed in the Negative List under the BIMSTEC FTA. - For goods under Fast Track, member countries have exchanged their lists of items to be liberalized under the Fast Track schedule, comprising 10% of tariff lines using the 6 digit HS level.

- For goods under Normal Track, tariff reduction/elimination under Normal Track will be divided into 2 categories : Normal Track Elimination (NTE) and Normal Track Reduction (NTR). Member countries are now negotiating the number of products to be included in these groups.

2. Rules of Origin

Members are currently deliberating on the general rules as well as Product Specific Rule (PSR) to determine criteria for country of origins of goods to be applied under FTA.

3. Trade in Services and Investment

Negotiations for agreements on trade in services and on investment are currently in progress.

It is anticipated that negotiations can be concluded expeditiously if members can agree on the number of goods to be placed under the Negative List, Normal Track, and Rules of Origins of Products under the BIMSTEC FTA.

APPENDIX –3

1st Summit : Bangkok in July, 2004

Brief on BIMSTEC

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) comprising Bangladesh, Bhutan, **India**, Myanmar, Nepal, Sri Lanka, Thailand brings together 1.5 billion people – 21 per cent of the world population, and a combined GDP of over US\$ 2.5 trillion.

Evolution of BIMSTEC

2. **BIST-EC** (Bangladesh, India, Sri Lanka, Thailand - Economic Cooperation) was formed at a meeting in Jun 1997 in Bangkok. Myanmar was admitted in Dec 1997 and the organization was renamed as **BIMST-EC**. The grouping expanded when Nepal and Bhutan were admitted in Feb 2004. The grouping's name was changed to **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) at 1st Summit Meeting held in Bangkok in Jul 2004.

Functioning of BIMSTEC

3. BIMSTEC organizes inter-governmental interactions through Summits, Ministerial Meetings, Senior Officials Meetings and Expert Group Meetings and through BIMSTEC Working Group (BWG) based in Bangkok. There have been two BIMSTEC Summit meetings (Bangkok Jul 2004, New Delhi Nov 2008), and 13 Foreign Ministerial meetings (13th MM held in Nay Pyi Taw in Jan 2011) and 15 SOMs so far. Myanmar is hosting the 3rd BIMSTEC Summit, 14th Ministerial Meeting, 16th SOM and 2nd Preparatory meetings from 1-4 March, 2014 in Nay Pyi Taw. BIMSTEC **Chairmanship** rotates among member countries (*alphabetically*). Myanmar is Chair of the Group since Dec 2009 and took over from previous chair India (Aug 2006-Dec 2009). Nepal has agreed to Chair after 3rd Summit.

BIMSTEC Permanent Secretariat

4. The BIMSTEC Permanent Secretariat is to be established in Dhaka with first SG to be nominated by Sri Lanka. India would be contributing 32% of the cost of Secretariat reflecting its strong commitment to BIMSTEC process.

Areas of cooperation

5. BIMSTEC has identified 14 priority areas where a member country takes lead. India is lead country for Transport & Communication, Tourism, Environment & Disaster Management and Counter Terrorism & Transnational Crime.

Transport and Communications (India)

6. *BIMSTEC Transport Infrastructure and Logistics Study (BTILS)* conducted by ADB in 2007 was endorsed in 12th Ministerial Meeting (Dec 2009). The Report was finalised in Dec 2013. ADB organised Inception Workshop on BTILS updating and 1st meeting of Expert Group on Road Development in Yangon in Jun 2013.

Tourism (India)

7. A BIMSTEC Information Centre has been established in Jul 2007 in New Delhi. Ministry of Tourism organized a meeting on BIMSTEC Information Centre and contribution to Tourism Fund (1st JWG on Tourism) in Sep 2013 in New Delhi. 1st Round Table and Workshop of Tourism Ministers was held in Kolkata in Feb 2005; Nepal held 2nd Meeting in Kathmandu in Aug 2006; Bangladesh will host next meeting.

Counter-Terrorism and Transnational Crime (CTTC)

8. BIMSTEC cooperation under CTTC has been divided into 4 sub-groups with lead shepherds - Intelligence Sharing (Sri Lanka); Combating Financing of Terrorism (Thailand), Legal and Law Enforcement Issues (India) and Prevention of Illicit Trafficking in Narcotics Drugs, Psychotropic Substances and Precursors (Myanmar).

9. L&T Division of MEA hosted 5th Sub-group on Legal & Law enforcement issues in Jan 2013 in New Delhi where draft Convention on Mutual Legal Assistance in

Criminal Matters was finalised. Members signed ‘BIMSTEC Convention on Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking’ in Dec 2009; India has ratified it.

Environment and Disaster Management

10. Ministry of Earth Sciences in association with MEA conducted a Workshop on “Seasonal Prediction and Application to Society” in June 2011. India is establishing BIMSTEC Weather and Climate Centre at National Weather Forecasting Centre at NOIDA. The MOA for establishment of the Centre was finalized at 10th Ministerial meeting in New Delhi in Aug 2008 and is expected to be signed during 3rd Summit.

Trade & Investment (Bangladesh)

11. A Framework Agreement for **BIMSTEC Free Trade Area** was signed in Phuket, Thailand in Feb 2004. The Framework Agreement commits the parties to negotiate FTAs in goods, services and investments. An agreement on Trade in Goods and other provisions relating to Rules of Origin, Operational Certification Procedures and agreement on Customs Cooperation was finalised in Jun 2009 at 18th Trade Negotiating Committee (TNC) meeting in Phuket. **19th TNC** was held in Bangkok in Feb 2011. India has exchanged its tariff preference schedules with member countries.

12. The 6th meeting of BIMSTEC Business and Economic Forum were held in Feb 2011 in Bangkok. India hosted a Business Summit meeting in Nov 2008 in association with CII, FICCI, and ASSOCHAM. India hosts an annual Integrating BIMSTEC Seminar held in the North East (Shillong 2013, Imphal 2014). To facilitate business travel among BIMSTEC member countries, three meetings of the Expert Group have been held on BIMSTEC Visa Scheme.

Cultural Cooperation (Bhutan)

13. Members are expected to sign MoU on establishment of BIMSTEC Cultural Industries Commission (BCIC) and BIMSTEC Cultural Industries Observatory (BCIO), Bhutan during 3rd Summit. India hosted the 1st Expert Group Meeting

BCIC&O in 2006 in New Delhi. The first BIMSTEC Ministerial meeting on Culture was held in Paro, Bhutan in May 2006.

Energy (Myanmar)

14. Thailand hosted BIMSTEC Regional Workshop and Study Visit on Bio-Fuels Production and Utilization in Jun 2012 in Bangkok. Ministry of Power hosted 4th meeting of Task Force on Power Exchange in Jan 2013 in New Delhi which discussed the draft text of MOU on Grid Inter-connection. Meeting of Energy Ministers took place in Oct 2005 in New Delhi and in March 4-5, 2010 in Bangkok, Thailand.

15. India also hosted Task Force Meeting in Feb 2011 in Bengaluru and SOM in Feb 2011 in New Delhi on operationalisation of BIMSTEC Energy Centre (MOA signed during 13th MM). A land for the Centre has been allocated in premises of Central Power Research Institute, Bengaluru.

Agriculture (Myanmar)

16. Sri Lanka hosted the 3rd meeting on Agriculture in Kandy in Nov 2010. Earlier, at the 2nd Expert Group Meeting held in New Delhi in Apr 2008, nine priority areas (*along with lead countries*), were finalised; India will lead in Prevention and control of transboundary animal diseases (**India**); Affiliation of Universities/Research Institutions (**India**); Development of agricultural biotechnology including bio-safety (**India**); Development of Seeds (**India**).

Poverty Alleviation (Nepal)

17. Nepal hosted the 2nd Ministerial Meeting in Jan 2012 in Kathmandu where Plan of Poverty Alleviation was adopted.

Technology (Sri Lanka)

18. Sri Lanka hosted the 3rd meeting on May 9-10, 2011 in Colombo on establishment of BIMSTEC Technology Transfer Exchange Facility. The meeting discussed the draft Concept Paper.

Fisheries (Thailand)

19. Thailand organized a training programme on Advance Aquatic Plants Tissue Culture in Aug 2013 in Bangkok.

Public Health (Thailand)

20. Deptt. Of AYUSH in association with MEA hosted two Workshops on IPR issues and Regulatory issues in Traditional Medicines in October 2011 in New Delhi. Since 2005, India has granted 30 slots of AYUSH scholarships to study in India in the fields of traditional medicine in undergraduate, post-graduate and doctorate programs.

21. Thailand hosted 2nd meeting of Network of National centres of Coordination in Traditional Medicine in Aug 2010 in Nonthaburi; Institute of PG Teaching and Research in Ayurveda (IPGTRA), Jamnagar is the Indian nominee.

People-to-People Contact (Thailand)

23. At India offers 1440 (Civilian), 274 (Defence) and 18 slots in NDC & DSSC under ITEC programme to BIMSTEC countries and the utilisation is almost 1200. India has set up BIMSTEC Network of Think Tanks with RIS as nodal agency. RIS hosted a two-day meeting of think tanks on 12-13 Feb, 2010.

Climate Change (Bangladesh)

24. Bangladesh will be circulating a concept paper on cooperation in this area soon.

APPENDIX – 4

REPORT OF THE FIFTH MEETING OF THE BIMSTEC SUB-GROUP

1. The Fifth Meeting of the BIMSTEC Sub-Group on Combating the Financing of Terrorism (SG-CFT) under the BIMSTEC Joint Working Group on Counter-Terrorism and Transnational Crime (JWG-CTTC) was held on 06-08 March, 2013 in Dhaka, Bangladesh.
2. Delegates from Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand attended the Meeting.

Exchange of views on current activities

1. Co-Chair inquired about AML/CFT situation in the BIMSTEC countries. He stressed on signing MOUs among the BIMSTEC countries on priority basis. The proposal was also adopted in the last meeting.
2. Bangladesh stated its recent initiatives and current status of CFT of the country. Bangladesh informed the Meeting that BFIU has given highest priority to the signing of MOUs with BIMSTEC member countries. It was also informed that BFIU has already signed MOUs with Thailand, Sri Lanka, Nepal and Myanmar.
3. Thailand reported on what it has done in the areas of information sharing, exchange of study visits and sponsorship for BIMSTEC countries' membership in the Egmont Group. Thailand has signed MOUs with Bangladesh, Nepal and Myanmar and has been negotiating with India and Sri Lanka.
4. India informed that FIU Bhutan is being assisted in setting up IT infrastructure in order to enhance their functional capacities. The Meeting was also informed that India has already signed MOUs with Nepal and Sri Lanka and negotiation with Thailand is in advanced stage. The existing CFT regime of India was also shared.

5. Myanmar informed the meeting that it has signed MOUs with Bangladesh and Thailand.
6. Sri Lanka informed the meeting that it has signed MOUs with Bangladesh, India and Nepal. Sri Lanka made a power point presentation on recent activities and their ICRG progress.
7. Bhutan informed the meeting that it is going to sign MOU with Bangladesh very soon. Bhutan also informed about assistance to be provided by FIU, India on IT infrastructure and capacity building. Risk assessment being undertaken by Bhutan was also shared in the Meeting.

New Initiatives: proposed program of cooperation among Member Countries

1. The Chair invited the delegations to propose new ideas for consideration.
2. Myanmar proposed to create a web page for sharing legal provisions regarding the TF among the BIMSTEC member countries. The chair mentioned that the web site of each FIU may be an ideal one to access and enhance knowledge. Bangladesh informed the meeting that all Laws, Regulations, Guidelines and Circulars related to ML/TF are available in English in website of Bangladesh Bank.
3. Thailand mentioned the e-learning module which can be found in many FIUs website e.g. AUSTRAC.
4. India proposed to use the platform of BIMSTEC to share intelligence, information and other relevant reports, typologies etc. relating to counterfeit currency notes to counter the menace effectively and efficiently.

Other Issues

1. The Chair asked the member countries to discuss the APG paper. APG has shown their interest to work with BIMSTEC SG-CFT and circulated a paper containing the detail of compliance level regarding FATF Standards related with wire transfer of BIMSTEC countries. APG has also offered BIMSTEC countries for possible area of technical assistance. APG has also notified that

as per terms of reference of APG BIMSTEC SG-CFT may apply for APG Observer status.

2. India proposed that requirements of technical assistance be based on internal assessment of technical deficiencies and priorities of the member countries. Each member country was asked to send their priorities to BIMSTEC SG-CFT Secretariat and then the Secretariat will consolidate the priorities and forward it to the APG. The Chair advised the delegates to complete this task and send their priorities to the Secretariat within next two months.
3. Bangladesh proposed the need to organize training sessions for the FIUs and Law Enforcement Agencies of BIMSTEC member countries for their capacity building under the umbrella of BIMSTEC SG-CFT. SG-CFT Secretariat mentioned that they will write to the APG on funding issues.
4. India offered to organize training program for BIMSTEC FIUs and other related agencies on request basis.

Bangladesh made five proposals as follows:

1. SG-CFT Secretariat should follow up the progress of signing MOUs among the BIMSTEC member countries.
2. Exchange of case studies, red flag and typologies.
3. All BIMSTEC members should facilitate others (who are non-Egmont members) in the process of Egmont membership application.
4. SG-CFT Secretariat should follow up the implementation status of BIMSTEC meetings' decisions on half yearly basis. Start a Self-Evaluation process regarding terrorist financing in consultation with the member countries, if required.
5. The chair opined that SG-CFT Secretariat should follow up the MOU signing progress and implementation status on a half yearly basis. He also emphasized the importance of exchanging of case studies and typologies. He further urged the member countries to facilitate to become a member of Egmont Group.

Consideration and Adoption of the Report of the 5th SG-CFT Meeting

1. The Meeting adopted the report of the 5th Meeting of the BIMSTEC SG-CFT and the attached documents.
2. The Chair thanked the delegates for their active cooperation which resulted in a fruitful outcome of the Meeting.
3. The delegations from Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand expressed their sincere appreciation to the Chair for conducting the Meeting in a highly efficient manner. The delegates also expressed their gratitude to the Bangladesh, in particular, the Bangladesh Financial Intelligence Unit, for its generous hospitality and excellent arrangements.

APPENDIX – 5

3rd BIMSTEC Summit

We, the Prime Minister of the People’s Republic of Bangladesh, the Prime Minister of the Kingdom of Bhutan, the Prime Minister of the Republic of India, the President of the Republic of the Union of Myanmar, the Prime Minister of Nepal, the President of the Democratic Socialist Republic of Sri Lanka and the Special Envoy of the Prime Minister of the Kingdom of Thailand met in Nay Pyi Taw, Myanmar on 4 March 2014 for the Third BIMSTEC Summit Meeting;

Reaffirming the aims and purposes of BIMSTEC as contained in the 1997 Bangkok Declaration,

Recalling the First BIMSTEC Summit Declaration (Bangkok, 31 July 2004) and the Second Summit Declaration (New Delhi, 13 November 2008),

Recognizing the close relationship and deepening engagements among the BIMSTEC Member States given the geographical proximity as well as the rich historical linkages and cultural heritage,

Convinced that the BIMSTEC Member States, endowed with abundant natural and human resources, have considerable potential for economic and social development through mutually beneficial cooperation in identified priority areas,

Recognizing that globalization and regional cooperation continue to generate increased linkages and inter-dependence within the economies and societies in the BIMSTEC Member States and provide greater opportunity to further leverage regional cooperation and respond to new and emerging challenges,

Recognizing the threats posed by climate change on the lives and livelihoods of peoples across the Member States,

Reiterating firm commitment to alleviate poverty in the BIMSTEC region to ensure dignity, improve the quality of life and well-being of the peoples,

Recognizing the threat that terrorism poses to peace, stability and economic progress in the region, and emphasizing the need for closer cooperation in combating all forms of terrorism and transnational crimes,

Further recognizing the special challenges faced by the Least-Developed Member States in the region and the need to support them within their development process,

Convinced also that harmony, prosperity and well-being among the BIMSTEC Member States can be enhanced through deeper economic and social cooperation, enhanced connectivity, sustainable development and harnessing of common natural resource base and cultural and people-to-people linkages,

Reiterating commitment to BIMSTEC as a regional cooperation group,

Do hereby:

Resolve to commit increased efforts in accomplishing the founding aims and purposes of BIMSTEC.

Decide to move forward towards finalization of the draft Agreement on Trade in Goods with agreed General Rules of Origin and Product Specific Rules, and also to signing of the Agreement on Dispute Settlement Procedures, and the Agreement on Cooperation and Mutual Assistance in Customs Matters under the Framework Agreement on the BIMSTEC Free Trade Area.

Direct the BIMSTEC Trade Negotiating Committee (TNC) to expedite its work for the conclusion of the Agreement on Trade in Goods by the end of 2014, and to continue its efforts for early finalization of the Agreement on Services and Investments.

Agree to enhance cooperation in expanding skill and technology base of Member States through collaborations and partnerships targeted towards micro, small and medium scale enterprises and decide to accelerate efforts for the early finalization of the Memorandum of Association on the Establishment of BIMSTEC Technology Transfer Facility.

Underline the need for enhancing regional cooperation in the energy sector, welcome the holding of the Third BIMSTEC Energy Ministerial Meeting in Nepal

in 2014 and also the Fourth BIMSTEC Energy Ministerial Meeting in Bhutan in 2015, and recognize the role of the BIMSTEC Energy Centre in Bengaluru, India in this context.

Express satisfaction at the continuing work on developing physical connectivity in BIMSTEC region and the progress made in updating the BTILS supported by the Asian Development Bank for enhancement of intraregional connectivity, transport infrastructure and logistics, and welcome efforts to identify concrete projects for implementation.

Express satisfaction at the progress made in implementing tourism cooperation programmes and in following up the Plan of Action on Tourism; and encourage the Member States realize the enormous tourism potential of the region by enhancing cooperation in this field, particularly through facilitating engagements among the private sector in the Member States.

Resolve to continue cooperation in the area of fisheries, including inland fisheries, and conservation and management and sustainable use of marine resources in the Bay of Bengal region.

Reiterate our commitment to continue and enhance cooperation in the field of agriculture, including crops, livestock and horticulture; and decide to intensify cooperative efforts by materializing short and long term joint research programmes towards increased productivity and yields of agricultural produce in the region.

Resolve to enhance cooperation in environmental protection and sustainable development and promote capacity building in the area of disaster management.

Recognize that deepening of cultural cooperation among the Member States can also contribute towards the promotion of socio-economic development of the region driven by cultural industries.

Agree to enhance cooperation in the health sector, including on traditional medicine, and to intensify our efforts to promote activities of the BIMSTEC Network of National Centres of Coordination in traditional medicine.

Reiterate our commitment to expand efforts to further promote people-to-people exchanges and linkages, at various levels among the BIMSTEC Member States, including facilitating travels through the BIMSTEC Business Visa Scheme and the BIMSTEC Visa Exemption Scheme.

Welcome the setting up of the BIMSTEC Network of Policy Think Tanks and agree to cooperate and coordinate for organizing short-term activities such as workshops, seminars, and exchange programmes, including audio visual programmes, on building public awareness on BIMSTEC.

Agree to implement the BIMSTEC Poverty Plan of Action adopted at the second BIMSTEC Ministerial Meeting on Poverty Alleviation held in January 2012 in Nepal, and welcome the offer by Sri Lanka to host the Third Ministerial Meeting on Poverty Alleviation during the first half of 2014.

Express satisfaction at the close cooperation between law enforcement agencies of Member States in combating terrorism and transnational crimes, call for expediting the ratification for entry into force of the BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking and also for the early signing of the BIMSTEC Convention on Mutual Assistance in Criminal Matters.

Agree to explore collaborative initiatives amongst the Member States towards addressing the adverse impacts of climate change in the BIMSTEC region.

Agree to intensify efforts to deepen cooperation in all areas of activities within the framework of BIMSTEC, including strengthening institutional mechanisms.

Welcome the signing of the following BIMSTEC Instruments:

- a) Memorandum of Association on the Establishment of the BIMSTEC Permanent Secretariat.
- b) Memorandum of Understanding on the Establishment of the BIMSTEC Cultural Industries Commission (BCIC) and BIMSTEC Cultural Industries Observatory (BCIO).

- c) Memorandum of Association Among BIMSTEC Member Countries Concerning Establishment of a BIMSTEC Centre for Weather and Climate.

Convey appreciation to the Government of the People's Republic of Bangladesh for providing the premises for the BIMSTEC Secretariat in Dhaka and also express satisfaction at the progress made towards the operationalization of the Secretariat.

Welcome the appointment of Mr. Sumith Nakandala of Sri Lanka as the first Secretary General of BIMSTEC.

Convey deep appreciation to Myanmar for the able stewardship of BIMSTEC from 2009, and welcome Nepal as the new Chair of BIMSTEC.

We, the leaders from Bangladesh, Bhutan, India, Nepal, Sri Lanka, and the special envoy of the Prime Minister of Thailand, express our sincere appreciation to the Government of the Republic of the Union of Myanmar for the warm hospitality and for the excellent arrangements made for the Summit.

4 March 2014

Nay Pyi Taw.

APPENDIX – 1

TECHNOLOGICAL CATEGORIES AND SUB-CATEGORIES

The lists the top exported with RCA ranking product lines in their technological orientation and relative factor intensities such as: (a) Resource-Intensive; (b) Scale intensive/Technological Intensive- Low, medium and high; (c) Labour-Intensive; and (d) Differentiation-based (Lall, 2000).

Primary products (and special transactions, excluded completely below) do not need much analysis in terms of the technological basis of comparative advantage. Within manufactured exports, the technological categories and sub-categories are as follows:

Resource based (RB) products tend to be simple and labour-intensive (e.g. simple food or leather processing), but there are segments using capital, scale and skill-intensive technologies (e.g. petroleum refining or modern processed foods). Since competitive advantages in these products arises generally — but not always — from the local availability of natural resources, they do not raise important issues for competitiveness. However, the segments with skill and technology intensive technologies do raise important competitiveness issues. We draw a distinction between *RB1, agriculture-based* products and *RB2, others*.

Low technology (LT) products tend to have stable, well-diffused technologies. The technologies are primarily embodied in the capital equipment; the low end of the range has relatively simple skill requirements. Many traded products are undifferentiated and compete on price: thus, labour costs tend to be a major element of cost in competitiveness. Scale economies and barriers to entry are generally low. The final market grows slowly, with income elasticities below unity. However, there are exceptions to these features. There are particular low technology products in high quality segments where brand names, skills, design and technological sophistication are very important, even if technology intensity does not reach the levels of other categories. We should note that products of major interest to developing countries tend to be in the lower quality segments, and are really based on simple technologies and price rather than quality competition. We distinguish

between *LT1, textile, garment, footwear* ('fashion') cluster and the *LT2, other low technology* products. The former group has undergone massive relocation from rich to poor countries, with assembly operations shifting to low wage sites and complex design and manufacturing functions retained in advanced countries. This relocation has been the engine of export growth in this industry, though the precise location of export sites in textiles and clothing has been influenced strongly by trade quotas (under the Multi-Fibre Agreement as well as offshore assembly provisions and regional trade agreements like NAFTA). Other exports that have benefited from active relocation in this group are toys, sports and travel goods and footwear. Simple metal products have not shared in this particular process, perhaps because they are not equally prone to undifferentiated mass-assembly operations, or because skill needs are somewhat higher.

Medium technology (MT) products, comprising the bulk of skill and scale-intensive technologies in capital goods and intermediate products, are the heartland of industrial activity in mature economies. They tend to have complex technologies, with moderately high levels of R&D, advanced skill needs and lengthy learning periods. Those in the engineering and automotive sub-groups are very linkage-intensive, and need considerable interaction between firms to reach 'best practice' technical efficiency. We divide them into three subgroups. *MT1, automotive products*, are of particular export interest to newly industrialising countries, particularly in East Asia and Latin America. *MT2, process industries*, mainly chemicals and basic metals, are different in their technological features from *MT3, engineering products*. Process industries have stable and undifferentiated products, often with large-scale facilities and considerable technological effort in improving equipment and optimising complex processes. Engineering industries emphasise product design and development. Many have mass assembly or production plants and extensive supplier networks (SMEs are often important here). Barriers to entry tend to be high. The relocation of labour-intensive processes to low wage areas occurs but is not widespread: products are heavy and need advanced capabilities to reach world standards.

High technology (HT) products have advanced and fast-changing technologies, with high R&D investments and prime emphasis on product design. The most advanced

technologies require sophisticated technology infrastructures, high levels of specialised technical skills and close interactions between firms, and between firms and universities or research institutions. However, some products like electronics have labour-intensive final assembly, and their high value-to-weight ratios make it economical to place this stage in low wage areas. These products lead in new international integrated production systems where different processes are separated and located by MNCs according to fine differences in production costs. We separate *HT1, electronic and electrical products* from *HT2, other high-tech products*. Apart from electronics, other high-technology products (generating equipment, aircraft, precision instruments and pharmaceuticals) remain rooted in economies with high levels of skills, technology and supplier networks. Their comparative advantage continues to be ruled by the usual technological factors. At some risk of simplification, we place RB and LT products together as having '*easy*' technologies, with the main drivers of competitiveness being natural resource endowments in the former case and low wages in the latter. MT and HT products have '*difficult*' technologies, with high skill, complex learning and demanding technological activity. The obvious exceptions, as noted, are heavy low-technology products in the LT groups that are not readily amenable to relocation to low wage areas, and at the high end, electronic products that are.

Note that this classification, based on the complexity of technology within each activity, is not meant to suggest that some categories of exports remain competitive without technological effort. All industrial activities, regardless of the level of technology, need to constantly upgrade technologies to retain international competitiveness (this also applies to many primary products). The nature of capabilities and the kinds of technological effort needed differ, of course, but there is no activity that is immune to technical change. The same applies to technology upgrading via FDI. Multinationals transfer technology to developing countries in each category, but their role differs. It is higher where cost-driven relocation is particularly important, especially in highly complex and differentiated products (where there are integrated production systems), and where local capabilities are weak.

Technological categories (Lall (2000))

Code	Label
Primary products (Lall classification)	
001	Live animals other than animals of division 03
011	Meat of bovine animals, fresh, chilled or frozen
012	Other meat and edible meat offal
022	Milk, cream and milk products (excluding butter, cheese)
025	Birds' eggs, and eggs' yolks; egg albumin
034	Fish, fresh (live or dead), chilled or frozen
036	Crustaceans, mollusks and aquatic invertebrates
041	Wheat (including spelt) and meslin, unmilled
042	Rice
043	Barley, unmilled
044	Maize (not including sweet corn), unmilled
045	Cereals, unmilled (excluding wheat, rice, barley, maize)
054	Vegetables
057	Fruits and nuts (excluding oil nuts), fresh or dried
071	Coffee and coffee substitutes
072	Cocoa
074	Tea and mate
075	Spices
081	Feeding stuff for animals (no unmilled cereals)
091	Margarine and shortening
121	Tobacco, unmanufactured; tobacco refuse
211	Hides and skins (except furskins), raw
212	Furskins, raw, other than hides & skins of group 211

- 222 Oil seeds and oleaginous fruits (excluding flour)
- 223 Oil seeds & oleaginous fruits (incl. flour, n.e.s.)
- 231 Natural rubber & similar gums, in primary forms
- 244 Cork, natural, raw & waste (incl. blocks, sheets)
- 245 Fuel wood (excluding wood waste) and wood charcoal
- 246 Wood in chips or particles and wood waste
- 261 Silk
- 263 Cotton
- 268 Wool and other animal hair (incl. wool tops)
- 272 Crude fertilizers (excluding those of division 56)
- 273 Stone, sand and gravel
- 274 Sulphur and unroasted iron pyrites
- 277 Natural abrasives, n.e.s. (incl. industri. diamonds)
- 278 Other crude minerals
- 291 Crude animal materials, n.e.s.
- 292 Crude vegetable materials, n.e.s.
- 321 Coal, whether or not pulverized, not agglomerated
- 333 Petroleum oils, oils from bitumin. materials, crude
- 342 Liquefied propane and butane
- 343 Natural gas, whether or not liquefied
- 344 Petroleum gases, other gaseous hydrocarbons, n.e.s.
- 345 Coal gas, water gas & similar gases (excluding hydrocar.)
- 681 Silver, platinum, other metals of the platinum group
- 682 Copper
- 683 Nickel
- 684 Aluminium
- 685 Lead

686 Zinc

687 Tin

Resource-based manufactures: agro-based (Lall classification)

016 Meat, edible meat offal, salted, dried; flours, meals

017 Meat, edible meat offal, prepared, preserved, n.e.s.

023 Butter and other fats and oils derived from milk

024 Cheese and curd

035 Fish, dried, salted or in brine; smoked fish

037 Fish, aqua. invertebrates, prepared, preserved, n.e.s.

046 Meal and flour of wheat and flour of meslin

047 Other cereal meals and flour

048 Cereal preparations, flour of fruits or vegetables

056 Vegetables, roots, tubers, prepared, preserved, n.e.s.

058 Fruit, preserved, and fruit preparations (no juice)

059 Fruit and vegetable juices, unfermented, no spirit

061 Sugar, molasses and honey

062 Sugar confectionery

073 Chocolate, food preparations with cocoa, n.e.s.

098 Edible products and preparations, n.e.s.

111 Non-alcoholic beverages, n.e.s.

112 Alcoholic beverages

122 Tobacco, manufactured

232 Synthetic rubber

247 Wood in the rough or roughly squared

248 Wood simply worked, and railway sleepers of wood

- 251 Pulp and waste paper
- 264 Jute, other textile bast fibre, n.e.s., not spun; tow
- 265 Vegetable textile fibres, not spun; waste of them
- 269 Worn clothing and other worn textile articles
- 421 Fixed vegetable fats & oils, crude, refined, fractio.
- 422 Fixed vegetable fats & oils, crude, refined, fract.
- 431 Animal or veg. oils & fats, processed, n.e.s.; mixt.
- 621 Materials of rubber (pastes, plates, sheets, etc.)
- 625 Rubber tyres, tyre treads or flaps & inner tubes
- 629 Articles of rubber, n.e.s.
- 633 Cork manufactures
- 634 Veneers, plywood, and other wood, worked, n.e.s.
- 635 Wood manufacture, n.e.s.
- 641 Paper and paperboard

Resource-based manufactures: other (Lall classification)

- 281 Iron ore and concentrates
- 282 Ferrous waste, scrape; remelting ingots, iron, steel
- 283 Copper ores and concentrates; copper mattes, cemen
- 284 Nickel ores & concentrates; nickel mattes, etc.
- 285 Aluminium ores and concentrates (incl. alumina)
- 286 Ores and concentrates of uranium or thorium
- 287 Ores and concentrates of base metals, n.e.s.
- 288 Non-ferrous base metal waste and scrap, n.e.s.
- 289 Ores & concentrates of precious metals; waste, scrap
- 322 Briquettes, lignites and peat

- 325 Coke & semi-cokes of coal, lign., peat; retort carbon
- 334 Petroleum oils or bituminous minerals > 70 % oil
- 335 Residual petroleum products, n.e.s., related mater.
- 411 Animals oils and fats
- 511 Hydrocarbons, n.e.s., & halogenated, nitr. derivative
- 514 Nitrogen-function compounds
- 515 Organo-inorganic, heterocycl. compounds, nucl. acids
- 516 Other organic chemicals
- 522 Inorganic chemical elements, oxides & halogen salts
- 523 Metallic salts & peroxysalts, of inorganic acids
- 524 Other inorganic chemicals
- 531 Synth. organic colouring matter & colouring lakes
- 532 Dyeing & tanning extracts, synth. tanning materials
- 551 Essential oils, perfume & flavour materials
- 592 Starche, wheat gluten; albuminoidal substances; glues
- 661 Lime, cement, fabrica. constr. mat. (excluding glass, clay)
- 662 Clay construction, refracto. construction materials
- 663 Mineral manufactures, n.e.s.
- 664 Glass
- 667 Pearls, precious & semi-precious stones
- 689 Miscellaneous no-ferrous base metals for metallur.

Low technology manufactures: textile, garment and footwear (Lall classification)

- 611 Leather
- 612 Manufactures of leather, n.e.s.; saddlery & harness

- 613 Furskins, tanned or dressed, excluding those of 8483
- 651 Textile yarn
- 652 Cotton fabrics, woven
- 654 Other textile fabrics, woven
- 655 Knitted or crocheted fabrics, n.e.s.
- 656 Tulles, trimmings, lace, ribbons & other small wares
- 657 Special yarn, special textile fabrics & related
- 658 Made-up articles, of textile materials, n.e.s.
- 659 Floor coverings, etc.
- 831 Travel goods, handbags & similar containers
- 841 Men's clothing of textile fabrics, not knitted
- 842 Women's clothing, of textile fabrics
- 843 Men's or boy's clothing, of textile, knitted, croche.
- 844 Women's clothing, of textile, knitted or crocheted
- 845 Articles of apparel, of textile fabrics, n.e.s.
- 846 Clothing accessories, of textile fabrics
- 848 Articles of apparel, clothing access., excluding textile
- 851 Footwear

Low technology manufactures: other products (Lall classification)

- 642 Paper & paperboard, cut to shape or size, articles
- 665 Glassware
- 666 Pottery
- 673 Flat-rolled prod., iron, non-alloy steel, not coated
- 674 Flat-rolled prod., iron, non-alloy steel, coated, clad
- 675 Flat-rolled products of alloy steel

- 676 Iron & steel bars, rods, angles, shapes & sections
- 677 Rails & railway track construction mat., iron, steel
- 678 Wire of iron or steel
- 691 Structures & parts, n.e.s., of iron, steel, aluminium
- 692 Metal containers for storage or transport
- 693 Wire products (excluding electrical) and fencing grills
- 694 Nails, screws, nuts, bolts, rivets & the like, of metal
- 695 Tools for use in the hand or in machine
- 696 Cutlery
- 697 Household equipment of base metal, n.e.s.
- 699 Manufactures of base metal, n.e.s.
- 821 Furniture & parts
- 893 Articles, n.e.s., of plastics
- 894 Baby carriages, toys, games & sporting goods
- 895 Office & stationery supplies, n.e.s.
- 897 Jewellery & articles of precious materia., n.e.s.
- 898 Musical instruments, parts; records, tapes & similar
- 899 Miscellaneous manufactured articles, n.e.s.

Medium technology manufactures: automotive (Lall classification)

- 781 Motor vehicles for the transport of persons
- 782 Motor vehic. for transport of goods, special purpo.
- 783 Road motor vehicles, n.e.s.
- 784 Parts & accessories of vehicles of 722, 781, 782, 783
- 785 Motorcycles & cycles

Medium technology manufactures: process (Lall classification)

- 266 Synthetic fibres suitable for spinning
- 267 Other man-made fibres suitable for spinning
- 512 Alcohols, phenols, halogenat., sulfonat., nitrat. der.
- 513 Carboxylic acids, anhydrides, halides, per.; derivati.
- 533 Pigments, paints, varnishes and related materials
- 553 Perfumery, cosmetics or toilet prepar. (excluding soaps)
- 554 Soaps, cleansing and polishing preparations
- 562 Fertilizers (other than those of group 272)
- 571 Polymers of ethylene, in primary forms
- 572 Polymers of styrene, in primary forms
- 573 Polymers of vinyl chloride or halogenated olefins
- 574 Polyethers, epoxide resins; polycarbonat., polyesters
- 575 Other plastics, in primary forms
- 579 Waste, parings and scrap, of plastics
- 581 Tubes, pipes and hoses of plastics
- 582 Plates, sheets, films, foil & strip, of plastics
- 583 Monofilaments, of plastics, cross-section > 1mm
- 591 Insectides & similar products, for retail sale
- 593 Explosives and pyrotechnic products
- 597 Prepared addit. for miner. oils; lubricat., de-icing
- 598 Miscellaneous chemical products, n.e.s.
- 653 Fabrics, woven, of man-made fabrics
- 671 Pig iron & spiegeleisen, sponge iron, powder & granu
- 672 Ingots, primary forms, of iron or steel; semi-finis.
- 679 Tubes, pipes & hollow profiles, fittings, iron, steel

- 786 Trailers & semi-trailers
- 791 Railway vehicles & associated equipment
- 882 Cinematographic & photographic supplies

Medium technology manufactures: engineering (Lall classification)

- 711 Vapour generating boilers, auxiliary plant; parts
- 713 Internal combustion piston engines, parts, n.e.s.
- 714 Engines & motors, non-electric; parts, n.e.s.
- 721 Agricultural machinery (excluding tractors) & parts
- 722 Tractors (excluding those of 71414 & 74415)
- 723 Civil engineering & contractors' plant & equipment
- 724 Textile & leather machinery, & parts thereof, n.e.s.
- 725 Paper mill, pulp mill machinery; paper articles man.
- 726 Printing & bookbinding machinery, & parts thereof
- 727 Food-processing machines (excluding domestic)
- 728 Other machinery for particular industries, n.e.s.
- 731 Machine-tools working by removing material
- 733 Mach.-tools for working metal, excluding removing mate.
- 735 Parts, n.e.s., & accessories for machines of 731, 733
- 737 Metalworking machinery (excluding machine-tools) & parts
- 741 Heating & cooling equipment & parts thereof, n.e.s.
- 742 Pumps for liquids
- 743 Pumps (excluding liquid), gas compressors & fans; centr.
- 744 Mechanical handling equipment, & parts, n.e.s.
- 745 Other non-electr. machinery, tools & mechan. appar.
- 746 Ball or roller bearings

- 747 Appliances for pipes, boiler shells, tanks, vats, etc.
- 748 Transmis. shafts
- 749 Non-electric parts & accessor. of machinery, n.e.s.
- 762 Radio-broadcast receivers, whether or not combined
- 763 Sound recorders or reproducers
- 772 Apparatus for electrical circuits; board, panels
- 773 Equipment for distributing electricity, n.e.s.
- 775 Household type equipment, electrical or not, n.e.s.
- 793 Ships, boats & floating structures
- 811 Prefabricated buildings
- 812 Sanitary, plumbing, heating fixtures, fittings, n.e.s.
- 813 Lighting fixtures & fittings, n.e.s.
- 872 Instruments & appliances, n.e.s., for medical, etc.
- 873 Meters & counters, n.e.s.
- 884 Optical goods, n.e.s.
- 885 Watches & clocks
- 891 Arms & ammunition

High technology manufactures: electronic and electrical (Lall classification)

- 716 Rotating electric plant & parts thereof, n.e.s.
- 718 Other power generating machinery & parts, n.e.s.
- 751 Office machines
- 752 Automatic data processing machines, n.e.s.
- 759 Parts, accessories for machines of groups 751, 752
- 761 Television receivers, whether or not combined
- 764 Telecommunication equipment, n.e.s.; & parts, n.e.s.

- 771 Electric power machinery, and parts thereof
- 774 Electro-diagnostic appa. for medical sciences, etc.
- 776 Cathode valves & tubes
- 778 Electrical machinery & apparatus, n.e.s.

High technology manufactures: other (Lall classification)

- 525 Radio-actives and associated materials
- 541 Medicinal and pharmaceutical products, excluding 542
- 542 Medicaments (incl. veterinary medicaments)
- 712 Steam turbines & other vapour turbin., parts, n.e.s.
- 792 Aircraft & associated equipment; spacecraft, etc.
- 871 Optical instruments & apparatus, n.e.s.
- 874 Measuring, analysing & controlling apparatus, n.e.s.
- 881 Photographic apparatus & equipment, n.e.s.

Unclassified products (Lall classification)

- 351 Electric current
- 883 Cinematograph films, exposed & developed
- 892 Printed matter
- 896 Works of art, collectors' pieces & antiques
- 961 Coin (other than gold coin), not being legal tender
- 971 Gold, non-monetary (excluding gold ores and concentrates)

APPENDIX – 2

BIMSTEC TRADE: CURRENT STATUS

The BIMSTEC Trade Negotiating Committee (BIMSTEC TNC) and the working groups on related matters held several meetings during September 2004 and March 2008.

1. Tariff Liberalization

- Members are currently deliberating on the number of items to be placed in the Negative List under the BIMSTEC FTA. - For goods under Fast Track, member countries have exchanged their lists of items to be liberalized under the Fast Track schedule, comprising 10% of tariff lines using the 6 digit HS level.

- For goods under Normal Track, tariff reduction/elimination under Normal Track will be divided into 2 categories : Normal Track Elimination (NTE) and Normal Track Reduction (NTR). Member countries are now negotiating the number of products to be included in these groups.

2. Rules of Origin

Members are currently deliberating on the general rules as well as Product Specific Rule (PSR) to determine criteria for country of origins of goods to be applied under FTA.

3. Trade in Services and Investment

Negotiations for agreements on trade in services and on investment are currently in progress.

It is anticipated that negotiations can be concluded expeditiously if members can agree on the number of goods to be placed under the Negative List, Normal Track, and Rules of Origins of Products under the BIMSTEC FTA.

APPENDIX –3

1st Summit : Bangkok in July, 2004

Brief on BIMSTEC

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) comprising Bangladesh, Bhutan, **India**, Myanmar, Nepal, Sri Lanka, Thailand brings together 1.5 billion people – 21 per cent of the world population, and a combined GDP of over US\$ 2.5 trillion.

Evolution of BIMSTEC

2. **BIST-EC** (Bangladesh, India, Sri Lanka, Thailand - Economic Cooperation) was formed at a meeting in Jun 1997 in Bangkok. Myanmar was admitted in Dec 1997 and the organization was renamed as **BIMST-EC**. The grouping expanded when Nepal and Bhutan were admitted in Feb 2004. The grouping's name was changed to **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) at 1st Summit Meeting held in Bangkok in Jul 2004.

Functioning of BIMSTEC

3. BIMSTEC organizes inter-governmental interactions through Summits, Ministerial Meetings, Senior Officials Meetings and Expert Group Meetings and through BIMSTEC Working Group (BWG) based in Bangkok. There have been two BIMSTEC Summit meetings (Bangkok Jul 2004, New Delhi Nov 2008), and 13 Foreign Ministerial meetings (13th MM held in Nay Pyi Taw in Jan 2011) and 15 SOMs so far. Myanmar is hosting the 3rd BIMSTEC Summit, 14th Ministerial Meeting, 16th SOM and 2nd Preparatory meetings from 1-4 March, 2014 in Nay Pyi Taw. BIMSTEC **Chairmanship** rotates among member countries (*alphabetically*). Myanmar is Chair of the Group since Dec 2009 and took over from previous chair India (Aug 2006-Dec 2009). Nepal has agreed to Chair after 3rd Summit.

BIMSTEC Permanent Secretariat

4. The BIMSTEC Permanent Secretariat is to be established in Dhaka with first SG to be nominated by Sri Lanka. India would be contributing 32% of the cost of Secretariat reflecting its strong commitment to BIMSTEC process.

Areas of cooperation

5. BIMSTEC has identified 14 priority areas where a member country takes lead. India is lead country for Transport & Communication, Tourism, Environment & Disaster Management and Counter Terrorism & Transnational Crime.

Transport and Communications (India)

6. *BIMSTEC Transport Infrastructure and Logistics Study (BTILS)* conducted by ADB in 2007 was endorsed in 12th Ministerial Meeting (Dec 2009). The Report was finalised in Dec 2013. ADB organised Inception Workshop on BTILS updating and 1st meeting of Expert Group on Road Development in Yangon in Jun 2013.

Tourism (India)

7. A BIMSTEC Information Centre has been established in Jul 2007 in New Delhi. Ministry of Tourism organized a meeting on BIMSTEC Information Centre and contribution to Tourism Fund (1st JWG on Tourism) in Sep 2013 in New Delhi. 1st Round Table and Workshop of Tourism Ministers was held in Kolkata in Feb 2005; Nepal held 2nd Meeting in Kathmandu in Aug 2006; Bangladesh will host next meeting.

Counter-Terrorism and Transnational Crime (CTTC)

8. BIMSTEC cooperation under CTTC has been divided into 4 sub-groups with lead shepherds - Intelligence Sharing (Sri Lanka); Combating Financing of Terrorism (Thailand), Legal and Law Enforcement Issues (India) and Prevention of Illicit Trafficking in Narcotics Drugs, Psychotropic Substances and Precursors (Myanmar).

9. L&T Division of MEA hosted 5th Sub-group on Legal & Law enforcement issues in Jan 2013 in New Delhi where draft Convention on Mutual Legal Assistance in

Criminal Matters was finalised. Members signed ‘BIMSTEC Convention on Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking’ in Dec 2009; India has ratified it.

Environment and Disaster Management

10. Ministry of Earth Sciences in association with MEA conducted a Workshop on “Seasonal Prediction and Application to Society” in June 2011. India is establishing BIMSTEC Weather and Climate Centre at National Weather Forecasting Centre at NOIDA. The MOA for establishment of the Centre was finalized at 10th Ministerial meeting in New Delhi in Aug 2008 and is expected to be signed during 3rd Summit.

Trade & Investment (Bangladesh)

11. A Framework Agreement for **BIMSTEC Free Trade Area** was signed in Phuket, Thailand in Feb 2004. The Framework Agreement commits the parties to negotiate FTAs in goods, services and investments. An agreement on Trade in Goods and other provisions relating to Rules of Origin, Operational Certification Procedures and agreement on Customs Cooperation was finalised in Jun 2009 at 18th Trade Negotiating Committee (TNC) meeting in Phuket. **19th TNC** was held in Bangkok in Feb 2011. India has exchanged its tariff preference schedules with member countries.

12. The 6th meeting of BIMSTEC Business and Economic Forum were held in Feb 2011 in Bangkok. India hosted a Business Summit meeting in Nov 2008 in association with CII, FICCI, and ASSOCHAM. India hosts an annual Integrating BIMSTEC Seminar held in the North East (Shillong 2013, Imphal 2014). To facilitate business travel among BIMSTEC member countries, three meetings of the Expert Group have been held on BIMSTEC Visa Scheme.

Cultural Cooperation (Bhutan)

13. Members are expected to sign MoU on establishment of BIMSTEC Cultural Industries Commission (BCIC) and BIMSTEC Cultural Industries Observatory (BCIO), Bhutan during 3rd Summit. India hosted the 1st Expert Group Meeting

BCIC&O in 2006 in New Delhi. The first BIMSTEC Ministerial meeting on Culture was held in Paro, Bhutan in May 2006.

Energy (Myanmar)

14. Thailand hosted BIMSTEC Regional Workshop and Study Visit on Bio-Fuels Production and Utilization in Jun 2012 in Bangkok. Ministry of Power hosted 4th meeting of Task Force on Power Exchange in Jan 2013 in New Delhi which discussed the draft text of MOU on Grid Inter-connection. Meeting of Energy Ministers took place in Oct 2005 in New Delhi and in March 4-5, 2010 in Bangkok, Thailand.

15. India also hosted Task Force Meeting in Feb 2011 in Bengaluru and SOM in Feb 2011 in New Delhi on operationalisation of BIMSTEC Energy Centre (MOA signed during 13th MM). A land for the Centre has been allocated in premises of Central Power Research Institute, Bengaluru.

Agriculture (Myanmar)

16. Sri Lanka hosted the 3rd meeting on Agriculture in Kandy in Nov 2010. Earlier, at the 2nd Expert Group Meeting held in New Delhi in Apr 2008, nine priority areas (*along with lead countries*), were finalised; India will lead in Prevention and control of transboundary animal diseases (**India**); Affiliation of Universities/Research Institutions (**India**); Development of agricultural biotechnology including bio-safety (**India**); Development of Seeds (**India**).

Poverty Alleviation (Nepal)

17. Nepal hosted the 2nd Ministerial Meeting in Jan 2012 in Kathmandu where Plan of Poverty Alleviation was adopted.

Technology (Sri Lanka)

18. Sri Lanka hosted the 3rd meeting on May 9-10, 2011 in Colombo on establishment of BIMSTEC Technology Transfer Exchange Facility. The meeting discussed the draft Concept Paper.

Fisheries (Thailand)

19. Thailand organized a training programme on Advance Aquatic Plants Tissue Culture in Aug 2013 in Bangkok.

Public Health (Thailand)

20. Deptt. Of AYUSH in association with MEA hosted two Workshops on IPR issues and Regulatory issues in Traditional Medicines in October 2011 in New Delhi. Since 2005, India has granted 30 slots of AYUSH scholarships to study in India in the fields of traditional medicine in undergraduate, post-graduate and doctorate programs.

21. Thailand hosted 2nd meeting of Network of National centres of Coordination in Traditional Medicine in Aug 2010 in Nonthaburi; Institute of PG Teaching and Research in Ayurveda (IPGTRA), Jamnagar is the Indian nominee.

People-to-People Contact (Thailand)

23. At India offers 1440 (Civilian), 274 (Defence) and 18 slots in NDC & DSSC under ITEC programme to BIMSTEC countries and the utilisation is almost 1200. India has set up BIMSTEC Network of Think Tanks with RIS as nodal agency. RIS hosted a two-day meeting of think tanks on 12-13 Feb, 2010.

Climate Change (Bangladesh)

24. Bangladesh will be circulating a concept paper on cooperation in this area soon.

APPENDIX – 4

REPORT OF THE FIFTH MEETING OF THE BIMSTEC SUB-GROUP

1. The Fifth Meeting of the BIMSTEC Sub-Group on Combating the Financing of Terrorism (SG-CFT) under the BIMSTEC Joint Working Group on Counter-Terrorism and Transnational Crime (JWG-CTTC) was held on 06-08 March, 2013 in Dhaka, Bangladesh.
2. Delegates from Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand attended the Meeting.

Exchange of views on current activities

1. Co-Chair inquired about AML/CFT situation in the BIMSTEC countries. He stressed on signing MOUs among the BIMSTEC countries on priority basis. The proposal was also adopted in the last meeting.
2. Bangladesh stated its recent initiatives and current status of CFT of the country. Bangladesh informed the Meeting that BFIU has given highest priority to the signing of MOUs with BIMSTEC member countries. It was also informed that BFIU has already signed MOUs with Thailand, Sri Lanka, Nepal and Myanmar.
3. Thailand reported on what it has done in the areas of information sharing, exchange of study visits and sponsorship for BIMSTEC countries' membership in the Egmont Group. Thailand has signed MOUs with Bangladesh, Nepal and Myanmar and has been negotiating with India and Sri Lanka.
4. India informed that FIU Bhutan is being assisted in setting up IT infrastructure in order to enhance their functional capacities. The Meeting was also informed that India has already signed MOUs with Nepal and Sri Lanka and negotiation with Thailand is in advanced stage. The existing CFT regime of India was also shared.

5. Myanmar informed the meeting that it has signed MOUs with Bangladesh and Thailand.
6. Sri Lanka informed the meeting that it has signed MOUs with Bangladesh, India and Nepal. Sri Lanka made a power point presentation on recent activities and their ICRG progress.
7. Bhutan informed the meeting that it is going to sign MOU with Bangladesh very soon. Bhutan also informed about assistance to be provided by FIU, India on IT infrastructure and capacity building. Risk assessment being undertaken by Bhutan was also shared in the Meeting.

New Initiatives: proposed program of cooperation among Member Countries

1. The Chair invited the delegations to propose new ideas for consideration.
2. Myanmar proposed to create a web page for sharing legal provisions regarding the TF among the BIMSTEC member countries. The chair mentioned that the web site of each FIU may be an ideal one to access and enhance knowledge. Bangladesh informed the meeting that all Laws, Regulations, Guidelines and Circulars related to ML/TF are available in English in website of Bangladesh Bank.
3. Thailand mentioned the e-learning module which can be found in many FIUs website e.g. AUSTRAC.
4. India proposed to use the platform of BIMSTEC to share intelligence, information and other relevant reports, typologies etc. relating to counterfeit currency notes to counter the menace effectively and efficiently.

Other Issues

1. The Chair asked the member countries to discuss the APG paper. APG has shown their interest to work with BIMSTEC SG-CFT and circulated a paper containing the detail of compliance level regarding FATF Standards related with wire transfer of BIMSTEC countries. APG has also offered BIMSTEC countries for possible area of technical assistance. APG has also notified that

as per terms of reference of APG BIMSTEC SG-CFT may apply for APG Observer status.

2. India proposed that requirements of technical assistance be based on internal assessment of technical deficiencies and priorities of the member countries. Each member country was asked to send their priorities to BIMSTEC SG-CFT Secretariat and then the Secretariat will consolidate the priorities and forward it to the APG. The Chair advised the delegates to complete this task and send their priorities to the Secretariat within next two months.
3. Bangladesh proposed the need to organize training sessions for the FIUs and Law Enforcement Agencies of BIMSTEC member countries for their capacity building under the umbrella of BIMSTEC SG-CFT. SG-CFT Secretariat mentioned that they will write to the APG on funding issues.
4. India offered to organize training program for BIMSTEC FIUs and other related agencies on request basis.

Bangladesh made five proposals as follows:

1. SG-CFT Secretariat should follow up the progress of signing MOUs among the BIMSTEC member countries.
2. Exchange of case studies, red flag and typologies.
3. All BIMSTEC members should facilitate others (who are non-Egmont members) in the process of Egmont membership application.
4. SG-CFT Secretariat should follow up the implementation status of BIMSTEC meetings' decisions on half yearly basis. Start a Self-Evaluation process regarding terrorist financing in consultation with the member countries, if required.
5. The chair opined that SG-CFT Secretariat should follow up the MOU signing progress and implementation status on a half yearly basis. He also emphasized the importance of exchanging of case studies and typologies. He further urged the member countries to facilitate to become a member of Egmont Group.

Consideration and Adoption of the Report of the 5th SG-CFT Meeting

1. The Meeting adopted the report of the 5th Meeting of the BIMSTEC SG-CFT and the attached documents.
2. The Chair thanked the delegates for their active cooperation which resulted in a fruitful outcome of the Meeting.
3. The delegations from Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand expressed their sincere appreciation to the Chair for conducting the Meeting in a highly efficient manner. The delegates also expressed their gratitude to the Bangladesh, in particular, the Bangladesh Financial Intelligence Unit, for its generous hospitality and excellent arrangements.

APPENDIX – 5

3rd BIMSTEC Summit

We, the Prime Minister of the People’s Republic of Bangladesh, the Prime Minister of the Kingdom of Bhutan, the Prime Minister of the Republic of India, the President of the Republic of the Union of Myanmar, the Prime Minister of Nepal, the President of the Democratic Socialist Republic of Sri Lanka and the Special Envoy of the Prime Minister of the Kingdom of Thailand met in Nay Pyi Taw, Myanmar on 4 March 2014 for the Third BIMSTEC Summit Meeting;

Reaffirming the aims and purposes of BIMSTEC as contained in the 1997 Bangkok Declaration,

Recalling the First BIMSTEC Summit Declaration (Bangkok, 31 July 2004) and the Second Summit Declaration (New Delhi, 13 November 2008),

Recognizing the close relationship and deepening engagements among the BIMSTEC Member States given the geographical proximity as well as the rich historical linkages and cultural heritage,

Convinced that the BIMSTEC Member States, endowed with abundant natural and human resources, have considerable potential for economic and social development through mutually beneficial cooperation in identified priority areas,

Recognizing that globalization and regional cooperation continue to generate increased linkages and inter-dependence within the economies and societies in the BIMSTEC Member States and provide greater opportunity to further leverage regional cooperation and respond to new and emerging challenges,

Recognizing the threats posed by climate change on the lives and livelihoods of peoples across the Member States,

Reiterating firm commitment to alleviate poverty in the BIMSTEC region to ensure dignity, improve the quality of life and well-being of the peoples,

Recognizing the threat that terrorism poses to peace, stability and economic progress in the region, and emphasizing the need for closer cooperation in combating all forms of terrorism and transnational crimes,

Further recognizing the special challenges faced by the Least-Developed Member States in the region and the need to support them within their development process,

Convinced also that harmony, prosperity and well-being among the BIMSTEC Member States can be enhanced through deeper economic and social cooperation, enhanced connectivity, sustainable development and harnessing of common natural resource base and cultural and people-to-people linkages,

Reiterating commitment to BIMSTEC as a regional cooperation group,

Do hereby:

Resolve to commit increased efforts in accomplishing the founding aims and purposes of BIMSTEC.

Decide to move forward towards finalization of the draft Agreement on Trade in Goods with agreed General Rules of Origin and Product Specific Rules, and also to signing of the Agreement on Dispute Settlement Procedures, and the Agreement on Cooperation and Mutual Assistance in Customs Matters under the Framework Agreement on the BIMSTEC Free Trade Area.

Direct the BIMSTEC Trade Negotiating Committee (TNC) to expedite its work for the conclusion of the Agreement on Trade in Goods by the end of 2014, and to continue its efforts for early finalization of the Agreement on Services and Investments.

Agree to enhance cooperation in expanding skill and technology base of Member States through collaborations and partnerships targeted towards micro, small and medium scale enterprises and decide to accelerate efforts for the early finalization of the Memorandum of Association on the Establishment of BIMSTEC Technology Transfer Facility.

Underline the need for enhancing regional cooperation in the energy sector, welcome the holding of the Third BIMSTEC Energy Ministerial Meeting in Nepal

in 2014 and also the Fourth BIMSTEC Energy Ministerial Meeting in Bhutan in 2015, and recognize the role of the BIMSTEC Energy Centre in Bengaluru, India in this context.

Express satisfaction at the continuing work on developing physical connectivity in BIMSTEC region and the progress made in updating the BTILS supported by the Asian Development Bank for enhancement of intraregional connectivity, transport infrastructure and logistics, and welcome efforts to identify concrete projects for implementation.

Express satisfaction at the progress made in implementing tourism cooperation programmes and in following up the Plan of Action on Tourism; and encourage the Member States realize the enormous tourism potential of the region by enhancing cooperation in this field, particularly through facilitating engagements among the private sector in the Member States.

Resolve to continue cooperation in the area of fisheries, including inland fisheries, and conservation and management and sustainable use of marine resources in the Bay of Bengal region.

Reiterate our commitment to continue and enhance cooperation in the field of agriculture, including crops, livestock and horticulture; and decide to intensify cooperative efforts by materializing short and long term joint research programmes towards increased productivity and yields of agricultural produce in the region.

Resolve to enhance cooperation in environmental protection and sustainable development and promote capacity building in the area of disaster management.

Recognize that deepening of cultural cooperation among the Member States can also contribute towards the promotion of socio-economic development of the region driven by cultural industries.

Agree to enhance cooperation in the health sector, including on traditional medicine, and to intensify our efforts to promote activities of the BIMSTEC Network of National Centres of Coordination in traditional medicine.

Reiterate our commitment to expand efforts to further promote people-to-people exchanges and linkages, at various levels among the BIMSTEC Member States, including facilitating travels through the BIMSTEC Business Visa Scheme and the BIMSTEC Visa Exemption Scheme.

Welcome the setting up of the BIMSTEC Network of Policy Think Tanks and agree to cooperate and coordinate for organizing short-term activities such as workshops, seminars, and exchange programmes, including audio visual programmes, on building public awareness on BIMSTEC.

Agree to implement the BIMSTEC Poverty Plan of Action adopted at the second BIMSTEC Ministerial Meeting on Poverty Alleviation held in January 2012 in Nepal, and welcome the offer by Sri Lanka to host the Third Ministerial Meeting on Poverty Alleviation during the first half of 2014.

Express satisfaction at the close cooperation between law enforcement agencies of Member States in combating terrorism and transnational crimes, call for expediting the ratification for entry into force of the BIMSTEC Convention on Cooperation in Combating International Terrorism, Transnational Organized Crime and Illicit Drug Trafficking and also for the early signing of the BIMSTEC Convention on Mutual Assistance in Criminal Matters.

Agree to explore collaborative initiatives amongst the Member States towards addressing the adverse impacts of climate change in the BIMSTEC region.

Agree to intensify efforts to deepen cooperation in all areas of activities within the framework of BIMSTEC, including strengthening institutional mechanisms.

Welcome the signing of the following BIMSTEC Instruments:

- a) Memorandum of Association on the Establishment of the BIMSTEC Permanent Secretariat.
- b) Memorandum of Understanding on the Establishment of the BIMSTEC Cultural Industries Commission (BCIC) and BIMSTEC Cultural Industries Observatory (BCIO).

- c) Memorandum of Association Among BIMSTEC Member Countries Concerning Establishment of a BIMSTEC Centre for Weather and Climate.

Convey appreciation to the Government of the People's Republic of Bangladesh for providing the premises for the BIMSTEC Secretariat in Dhaka and also express satisfaction at the progress made towards the operationalization of the Secretariat.

Welcome the appointment of Mr. Sumith Nakandala of Sri Lanka as the first Secretary General of BIMSTEC.

Convey deep appreciation to Myanmar for the able stewardship of BIMSTEC from 2009, and welcome Nepal as the new Chair of BIMSTEC.

We, the leaders from Bangladesh, Bhutan, India, Nepal, Sri Lanka, and the special envoy of the Prime Minister of Thailand, express our sincere appreciation to the Government of the Republic of the Union of Myanmar for the warm hospitality and for the excellent arrangements made for the Summit.

4 March 2014

Nay Pyi Taw.
