

A Macro Analysis of India and Nepal Bilateral Trade: Retrospect and Prospects

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Abstract: *The economic openness is the reality of today's developed world. The asymmetrical distribution of resources and factor of production has required the economist and social scientists for mutual interaction and trade cooperation for the development of the global economy. The trade and economic cooperation between the two countries is more important these days because of the essential for formulating a feasible and beneficial strategy for the development of the both countries. India is impost prime trading partner of Nepal. Both countries proved to be path-breaking in mapping new horizons in the old age relations. In fact, the Indian life time is vital for the sustenance and growth of Nepal. It is by far the greatest source of imports to Nepal, as well as its primary country of exports. Exchange of high level visits has been the hallmark of Nepal-India relations during the past five decades. Open border has moulded a unique relationship between the countries. However, this has facilitated people to people linkages. Indian economic assistance has played a key role in Nepal's development in the past. There are tremendous possibilities of further developing bilateral relationship in various fields. Presently transfer of technology has been instrumental in accelerating the pace of economic development in Nepal in recent years. However, Nepal's growing economy is heavily dependent on India and deprived of the opportunity of maximizing benefits from the economy of gigantic neighbourhood like India, an emerging economic power in the International Markets. But the two sides felt the need to inject new dynamism for tactical changes with the realities of the time. This paper makes an attempt to measure importance, strength and nature of bilateral trade and future prospects for economic cooperation between India and Nepal which based on macro analysis. Trade reciprocity index is designed for measuring India's balance of trade with Nepal and future projection of trade has been estimated by using OLS method.*

Key words: *Bilateral Trade, Balance of Trade, Trade Reciprocity Index, economic cooperation, Asymmetrical Distribution*

I. Introduction

The friendship between India and Nepal live long,
And may Nepal rise higher than the Himalayas.

[Narendra Modi (Prime Minister of India, 2014)]

Nepal cannot prosper without good ties with India

[Prachanda (Former Prime Minister of Nepal), 2013]

Economic relationship between Nepal and India is unique for friendship and cooperation characterized by open borders. Their relations shaped by long standing economic, geographical, cultural, linguistic, ethnic, social and family links between people living in India and Nepal (Arora, 2010). Exchange of high level visits has been the hallmark of Nepal-India relations. Presently, there are six million Nepalese working in India. And there are 600,000 Indians who have made Nepal their home. Nepalese can work in India without a work permit, open bank accounts and own property (Chand, Jul y 25, 2014). Trade relations with India are rather crucial to Nepal particularly due to her landlocked geographic characteristics. Therefore, India-Nepal trade cooperation has its own importance for the significant economic development of both these countries. Institutions relating to government and the economic activities are also more or less similar. Trade relationship between these two countries often goes beyond the economic reason significantly influenced by the social-ethical norms and values. Research and studies reveal that both the countries have comparative cost advantages in trading amongst themselves for several reasons. Economical transport cost is seen as another important factor determining the volume of trade between these countries. The transport cost advantage to both these countries trading with each other is likely to increase in future. India always maintained that it is willing to examine all bilateral arrangements with a view to further strengthening our relations (Paul, 2009). Almost 2/3 of Nepal's foreign trade is with India, with bilateral trade estimated to be around US\$ 4.7 billion. India accounts for 47 per cent of foreign direct investment in Nepal. Nepal's exports to India have increased more than eleven times and bilateral trade more than seven times. Indian firms are the biggest investors in Nepal, accounting for about 40% of total approved foreign direct investments. Top Indian investors in Nepal, among others, include ITC, Dabur India, Tata Power; Hindustan Unilever, VSNL, TCIL, MTNL, State Bank of India, Punjab National

Bank, Life Insurance Corporation of India and Asian Paints (Chand, Jul y 25, 2014). India achieved independence in 1947. India-Nepal relations continued to be based on the treaty which had been signed with government of British India in 1925 (Trivedi, 2008). India-Nepal relations intertwined relationship with treaty of peace and friendship agreement signed in 1950 and agreement governing both bilateral trade and trade transiting Indian Soil. It was non reciprocal treaty which offers extremely beneficial terms to Nepal. After the induction of democracy in Nepal in 1951 India was a premier donor country that played an important role in mobilizing aid to Nepal under Colombo Plan (Dahal & Aryal,2013). Formal trade relations between the two countries established between two countries were established in 1951 with the signing of treaty of trade. Under the treaty of trade India provides, on a non-reciprocal basis, duty free access for primary products (agriculture and minerals) on both sides without quantitative restrictions and for industrial products India provided duty free access to virtually all the products (except alcohol, tobacco and perfumes) to the Indian markets for all Nepal's articles barring a short negative list. It was modified and renewed in 1961 and 1971. In December 1996, the treaty was renewed for a further period of five year with the provision for automatic renewal of the treaty every five years. Bilateral trade between India and Nepal has increased substantially since the signing of the Trade Treaty in 1996 (Paul,2009, pp 81-82). India-Nepal relations further improved during prime minister of Nepal Madhav Kumar visit to India on 17-22 August, 2009. To give a boost to the bilateral trade, a new trade treaty has been signed between the two countries with seventh year extension (Singh, 2010). This revised treaty of trade has provisions that allow Nepal greater access to the Indian market. And this support also tackled the problem of trade deflection and contributed to bilateral trade in recent year. Thus, the Indian lifeline is essential for the sustenance and growth of Nepal (Das, Edirisuriya & Swarup 2012). Rail Services Agreement (RSA) and a revised Air Services Agreement (ASA) has become important device to build up bridge to enhance further bilateral connectivity between the countries (India-Nepal Relation, 2014). After restoration of democracy in Nepal (2008), Nepali Prime Minister Parachanda described new pitch for Indian economic cooperation and the entire gamut of bilateral relationship came up for discussions (Arora, 2010). It was decided to reactivate all bilateral mechanisms with Nepal including those in water resources, trade, and transit and security issues (MEA Document , October 2008).

Historically close and multifaceted relationship between India and Nepal was further cemented during former Prime minister of Nepal Dr. Baburam Bhattarai visit to India from October 20-23, 2011 at the invitation of Dr. Manmohan Singh, former prime Minister of India. The two sides reached a common understanding to further diversify following cooperations. First, the two Prime Ministers directed the Inter-Governmental Committee (IGC) of Commerce Secretaries to convene at the earliest with a view to identifying ways and means of further strengthening mutually beneficial trade and investment ties between the two countries. Second, the two side comprehensive review of the Rail Services Agreement at the earliest to enhance cooperation in the field of railways and explore movement of additional stream of wagons to/from Birgunj in Nepal. Both countries agreed to expeditiously complete procedural requirements for operationalisation of rail transit facility through Rohanpur-Singhabad and transit between Vishakhapatnam and Nepal. Third, the agreement on promotion and protection of investment, agreement for dollar credit line of US \$250 million between Nepal export-import banks of India. Fourth, both sides have considered and reached agreement on the text of Double Taxations Avoidance Agreement (DTAA). Fifth, the two prime minister also discusses about human suffering and loss of live and property caused by floods and inundation at the border areas during the monsoon and agreed to strengthen coordination and consultation to deal with the problem (MEA Document , October 2011). India's External Affairs Minister, Salman Khurshid's visit to Nepal on 9th July 2013 also paved the way for economic cooperation between the two countries. At that time both ministers reviewed the joint efforts against flood related disasters. And also fruitful discussion about finalisation of the Motor Vehicles Agreement, energy banking and power trading, currency conversion facilitation, new routes for increased air-connectivity, and strengthening Nepal's capacity for certification for food and agriculture products exports by establishing testing and lab facilities along the India-Nepal border (MEA Document, July 2013). Presently India's cooperation with Nepal especially in the field of bilateral trade, investment and transfer of technology has been instrumental in accelerating the pace of economic development in Nepal. However, Nepal's burgeoning economy is heavily dependent on India and deprived of the opportunity of maximizing benefits from the economy of big neighbourhood like India, an emerging economic power in the world (Shrestha, June 2003). India-Nepal mutual cooperation has proceeded smoothly with the new elected Indian government in 2014. India's efforts in developing Nepal's economy and efforts that go beyond trade agreements and provides various economic and political opportunities to strengthen its ties with Nepal. The Prime Minister expressed his commitment to Nepal's development and promised to take all necessary steps to take the relations into a new height. The Prime Minister announced that India will give Nepal 10,000 crore Nepali rupee concessional line of credit, for its development. Both countries endorsed new developmental projects, showed their willingness to improve the peace and security at border, promised to improve border infrastructure, and expressed concern

over the slow pace of implementation of many projects. It was anticipated that Power Trading Agreement (PTA) would be signed during the visit this visit (Kumar, August 14, 2014).

Objective

1. To evaluate the structural dimensions of India’s bilateral trade with Nepal.
2. To investigate the nature of India’s balance of trade with Nepal
3. identify the further scopes of India’s trade with Nepal

II. Research Methodology

The study namely A Macro Analysis of India and Nepal Bilateral Trade: Retrospect and Prospects is conducted by using the secondary data. Data has been collected from international trade centre (ITC). In order to formulate the study meaningful and empirical tables, graphics and models were used. The appropriate methodology employed is based on the objectives of the study. Trade reciprocity index is designed for measuring India’s balance of trade with Nepal and Future projection of trade has been estimated by using OLS method.

- **Trade Reciprocity Index:** This is a measure to study the reciprocity in the overall balance of trade of any two countries. The trade reciprocity index (θ) has been devised as follows (Azhar, 2004).

$$\theta = 1 - \frac{\sum_{j=1}^n \left[\frac{|a_{ij} - a_{ji}|}{(a_{ij} + a_{ji})} \sum_{i=1}^n a_{ij} \right]}{(n-1) \left[\sum_{i=1}^n \sum_{j=1}^n a_{ij} \right]}$$

Where, θ = Trade reciprocity index a_{ij} = India’s exports to Nepal

a_{ji} = Nepal exports to India n = Total number of countries involved in the context

of bilateral or regional grouping being considered.

The trade reciprocity index (θ) may take value between 0 and 1. Trade reciprocity index equal to 1 implies the state of perfectly balanced trade between the trading countries. Whereas, a zero trade reciprocity index implies completely unbalanced trade between the trading countries.

- **Regression Analysis (OLS Method):** The regression analysis is used to estimate Future projection of Nepal’s trade share in Indian trade markets as under

$$y = \alpha + \beta x + u_t$$

y = the value of the dependent variable α = intercept coefficient β = co-efficient of independent variable or slope x = Independent Variable

u_t = the error of prediction or Random variable

India-Nepal Trade:

India’s foreign trade tendency has exhibited a structural shift during the current period. India and Nepal bilateral trade has evolved significantly in economic and commercial spheres. Trade and transit issues are only small parts of a multidimensional relationship between India and Nepal. India has continued as Nepal’s prime trading partner during the period of study. Presently India’s share in Nepal total trade amounts to more than 53 per cent of the country’s total trade. It is by far the greatest source of imports to Nepal, as well as its primary country of exports. Nepal has generally stable trading relations with India since the first decades of treaty of trade in 1950. Nepal has to obtain Indian cooperation and understanding to fulfil its commercial interest and desire to pursue an independent trade policy. Whereas, India is interested in maintaining a traditional relationship with Nepal. India-Nepal relations, on trade and other related matters, is controlled by the bilateral treaties of trade and transit and agreement for cooperation. India gave authorization for the duty free entry of goods of Nepal’s origin in order to provide a unique privilege to that country. This led to a large-scale duty free import into India of items using substantial inputs of third country origin with minimal value addition in Nepal, causing losses to the Indian industry. Treaty of trade was modified on March, 2002 (Mosoti & Gobena, 2007). This has embarked upon the problem of trade deflation and contribution to bilateral trade in recent years (Das , Edirisuriya & Swarup 2012). Thereafter, both countries agree to diversify their trade cooperation. In this regard India and Nepal have been making robust effort to renovate the economic as well as trade relations. The data concerning India-Nepal bilateral trade has been provided in Table1. It demonstrates that India-Nepal trade has grown tremendously during the period of study. The size of India-Nepal trade continuously increased to \$ 23, 28,500 thousand in 2008-09 from the past years. This volume of trade slightly declined to \$ 17, 43,701 thousand in 2009-10. After that size of trade increased to \$ 30, 68,124 thousand in 2011-12 and further declined to 13421.11 thousand in 2010-11. Finally volume of India-Nepal Trade reaches to \$ 14945.53 thousand in 2012-13. Thus between 2002-03 and 2013-14, India-Nepal trade improved from \$5,31,907 thousand to touch on \$ 35,52,923 thousand. This implies that India-Nepal trade tremendously improved with more than six times during the above period. Whereas India’s total trade improved from \$ 1075, 51,427 thousand in 2002-03 to \$

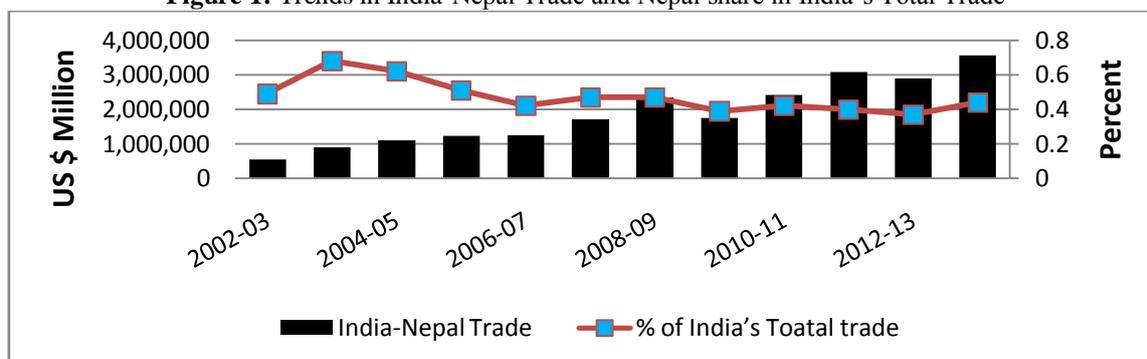
8026, 56,956 thousand in 2013-14. This implies that India's total trade during the above period increased with more than seven times. Thus, it can be concluded that India's total trade grew much faster than the growth in India-Nepal trade during the period under discussion.

Table 1: Trends in India-Nepal Trade (US \$ Thousand)

Year	India-Nepal Trade	India's Total Trade	% of India's Total Trade
2002-03	5,31,907	1075,51,427	0.49
2003-04	8,96,584	1317,91,183	0.68
2004-05	10,86,949	1748,85,329	0.62
2005-06	12,22,488	2412,14,304	0.51
2006-07	12,43,571	2994,13,046	0.42
2007-08	17,06,888	3645,43,347	0.47
2008-09	23,28,500	4975,73,004	0.47
2009-10	17,43,701	4431,66,589	0.39
2010-11	24,10,609	5704,37,883	0.42
2011-12	30,68,124	7638,86,041	0.40
2012-13	28,94,451	7785,41,147	0.37
2013-14	35,52,923	8026,56,956	0.44

Source: ITC calculations based on UN COMTRADE statistics or Retrieved August 25, 2014, from http://www.trademap.org/countrymap/Bilateral_TS.aspx

Figure 1: Trends in India-Nepal Trade and Nepal share in India's Total Trade



Source: Table 1

Looking at the per cent share of India- Nepal trade in India's total trade, it is found that share of India-Nepal trade constituted 0.49 per cent of India's total trade in 2002-03. This share increased remarkably to 0.68 per cent in 2003-04. Subsequently, this share continuously declined to 0.37 per cent in 2012-13 except 2011 at 0.42 per cent and finally touched to 0.44 per cent.

Table 2: Annual growth rate and CAGR for India-Nepal trade, India's total trade

Year	India-Nepal Trade	Annual Growth of India-Nepal Trade	India's Total Trade	Annual Growth of India's Total Trade
2002-03	5,31,907	-	1075,51,427	-
2003-04	8,96,584	68.56	1317,91,183	18.49
2004-05	10,86,949	21.23	1748,85,329	27.87
2005-06	12,22,488	12.47	2412,14,304	32.21
2006-07	12,43,571	1.72	2994,13,046	20.77
2007-08	17,06,888	37.26	3645,43,347	20.38
2008-09	23,28,500	36.42	4975,73,004	24.65
2009-10	17,43,701	-25.11	4431,66,589	-2.80
2010-11	24,10,609	38.25	5704,37,883	24.69
2011-12	30,68,124	27.28	7638,86,041	36.78
2012-13	28,94,451	-5.66	7785,41,147	-3.95
2013-14	35,52,923	22.75	8026,56,956	16.25
CAGR	16.40 %		20.87 %	

Source: Derived from Table 1

Table 2 depicted the actual performance of India-Nepal after trade treaty of trade modified in 2002. The compound annual growth of India-Nepal trade, India's total trade has been found at 16.40 per cent, and

20.87 per cent, respectively over the period. This implies that India-Nepal trade given worse performance as compared to India's total trade. The next section deals with the trends in India's exports to Nepal.

India's Exports To Nepal:

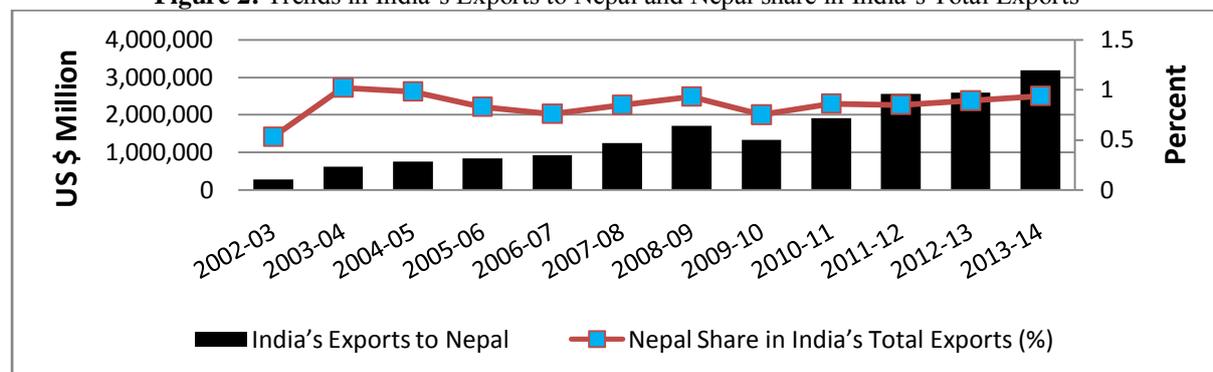
Nepal is one of the most important markets for Indian exports. Presently, India's exports contribute more than 53 per cent of the total Nepal imports. Where, Nepal contributes to only 0.94 per cent of the Indian's total exports. Table 3 depicted information regarding the size of Indian exports to Nepal. Where it's found that the Volume of India's exports to Nepal continuously increased to \$ 16,96,405 thousand in 2008-09, but this size of exports slightly declined to \$13,27,363 thousand in 2009-10, as a result of global recession. Accordingly India's exports to Nepal increased continuously to \$ 31,76,217 thousand in 2013-14. Thus between 2002-03 and 2013-14, India's exports to Nepal significantly improved from \$ 2,65,495 thousand to \$ 31,76,217 thousand. This implies that India's exports tremendously improved with more than eleven times during the corresponding period. Whereas India's total exports trade improved from \$ 500, 97,958 thousand in 2002-03 to \$ 3366, 11,389 thousand in 2013-14. This implies that India's total trade further improved to more than six times during the above period. Thus it can be concluded that India's exports trade to Nepal grew more rapidly than the growth in India's total exports during above period.

Table 3: Trends in India's Exports to Nepal (US \$ Thousand)

Year	India's Exports to Nepal	India's Total Exports	Nepal Share in India's Total Exports (%)
2002-03	2,65,495	500,97,958	0.53
2003-04	6,05,088	593,60,659	1.02
2004-05	7,46,915	759,04,200	0.98
2005-06	8,37,027	1003,52,637	0.83
2006-07	9,25,675	1212,00,606	0.76
2007-08	12,37,100	1458,98,053	0.85
2008-09	16,96,405	1818,60,898	0.93
2009-10	13,27,363	1767,65,036	0.75
2010-11	19,04,912	2204,08,496	0.86
2011-12	25,59,910	3014,83,250	0.85
2012-13	25,87,086	2895,64,769	0.89
2013-14	31,76,217	3366,11,389	0.94

Source: ITC calculations based on UN COMTRADE statistics or Retrieved August 25, 2014, from http://www.trademap.org/countrymap/Bilateral_TS.aspx

Figure 2: Trends in India's Exports to Nepal and Nepal share in India's Total Exports



Source: Table 3

Table 3 also specifies that percentage share of Nepal in India's total exports. It is found that percentage share of Nepal constituted 0.53 per cent of India's total trade in 2000-01. This share remarkably increased to 1.02 per cent in 2003-04. But this share continuously declined to 0.76 per cent in 2006-07 but improved to 0.93 per cent in 2008-09. Subsequently, Nepal's share in Indian exports market persistently improved to 0.94 per cent in 2013-14 except 0.75 per cent in 2009-10. Thus, Indian exports have been on the rise in the market of Nepal. However, an in depth study of Indian exports requires a comprehensive analysis of the commodity composition of India's exports to the Nepal's market.

Table 4: Commodity Composition of India’s exports to Nepal (US\$ Thousand)

Commodity	2011-12	2012-13	2013-14
Petroleum oils, not crude	7,56,857	7,59,328	5,97,142
Petroleum gases	1,92,241	2,20,154	2,10,548
Semi-finished products of iron or non-alloy steel	1,05,179	1,66,771	1,42,712
Rice	22,721	73,917	1,23,564
Medicament mixtures	68,145	71,399	82,702
Motorcycles, side-cars	36,838	30,163	81,242
Flat-rolled products of iron	7,698	48,171	63,412
Maize (corn)	17,021	20,135	52,450
Cars (incl. station wagon)	17,633	15,925	50,710
Cements, Portland, aluminous, slag, supersulfate	1,15,420	37,705	46,571
Soya-bean oil-cake and other solid residues	23,647	32,925	46,164
Polymers of propylene or of other olefins	25,300	26,505	45,467
Others	11,71,210	10,83,988	16,33,533
Total	25,59,910	25,87,086	31,76,217

Source: ITC calculations based on UN COMTRADE statistics or Retrieved August 25, 2014, from http://www.trademap.org/countrymap/Bilateral_TS.aspx

The information about the commodity composition of India’s exports to the Nepal’s market has been given in Table 4 . It is found that there has been just marginal increase in Indian exports to Nepal between 2011-12 and 2013-14. However, the weight and composition of commodities constituting Indian exports have undergone substantial changes. Some commodities in Indian exports basket grown very fast and some commodities have dwindled down fastly. Table 4 highlighted that Petroleum oils, not crude most important items in India’s exports baskets to Nepal. Export of Petroleum oils, not crude from India to Nepal improved from \$ 7,56,857 thousand in 2011-12 to \$ 7,59,328 thousand in 2012-13. Thus the size of Indian export of Petroleum oils, not crude with a little growing by only 0.33 per cent. In 2013-14 the export of Indian Petroleum oils, not crude to Nepal declined to \$ 5,97,142 thousand but maintained its position as the largest product of India’s exports basket to Nepal during that year. Petroleum gases are second most important item of India’s export to the Nepal’s market. Indian Petroleum gases export to Nepal constituted \$ 1,92,224 thousand in 2011-12. This volume of export increased remarkably to \$ 2,20,154 thousand in 2012-13. Thus from 2011-12 to 2012-13 growing by 14.52 per cent. In 2013-14 the export of Indian Petroleum gases to Nepal declined to \$ 2,10,548 thousand but maintained a second position. Semi-finished products of iron or non-alloy steel have been the third next important item in the Indian exports basket to the Nepal’s market. India’s export of Semi-finished products of iron or non-alloy steel products to Nepal was \$1,05,179 thousand in 2011-12. The size of export increased remarkably to \$ 1,66,771 thousand in 2012-13. In 2013-14 the export of Semi-finished products of iron or non-alloy steel products fell to US\$ 1,42,712 thousand and sustained the third position in the basket of India’s exports to Nepal. Indian Rice export has been significant at fourth position in the Indian exports basket to the Nepal’s market. Indian Rice export to Nepal continued increasing to \$ 1,23,564 thousand in 2013-14 from \$ 22,721 thousand in 2011-12. This implies that Indian rice export to Nepal growing by more than 443 per cent between 2011-12 and 2013-14. Thus it can be concluded that Nepal’s imports markets had more Concentration on Indian rice export compared to other Indian products. Medicament mixtures has been fifth major items in India’s exports baskets to Nepal. This volume of export continued to increase from \$ 68145 thousand in 2011-12 to \$ 82,702 thousand in 2013-14. Thus Indian Medicament mixtures export to Nepal registering significant growth more than 21 per cent during 2011-14. Indian exports of Motorcycles, side-cars; Flat-rolled products of iron; Maize (corn); Cements, Portland, aluminous, slag, supersulfate; Soya-bean oil-cake and other solid residues; Polymers of propylene or of other olefins are remarkable items for Nepal’s imports markets. Whereas India’s exports of Motorcycles, side-cars; Flat-rolled products of iron; Cars (incl. station wagon); Cements, Portland, aluminous, slag, supersulfate to Nepal’s markets represent asymmetrical fluctuating during 2011-14. At the same time India’s exports of Maize (corn); Soya-bean oil-cake and other solid residues; Polymers of propylene or of other olefins products to Nepal registered continuous improvement.

India’s Imports From Nepal:

India is one of the most essential markets for Nepali exports. Nepal continued to experience solid growth in exports to India. Presently, India’s imports contribute more than 53 per cent of the total Nepal’s exports markets. But Nepal’s share in Indian imports market registered continuous decline due to imposition of some non-tariff barriers (NTBs) by India; global economic slowdown and illegal Chinese product flooding to India via Nepal supports to weaken India’s imports from Nepal. Table 5 depicted information regarding the size of Indian imports from Nepal. Where it’s found that the Volume of India’s imports from Nepal continuously increased from \$ 2,66,412 thousand in 2002-03 to \$ 6,32,095 thousand in 2008-09, due to global economic recession this size of imports turns down to \$ 4,16,338 thousand in 2009-10. India’s imports from Nepal

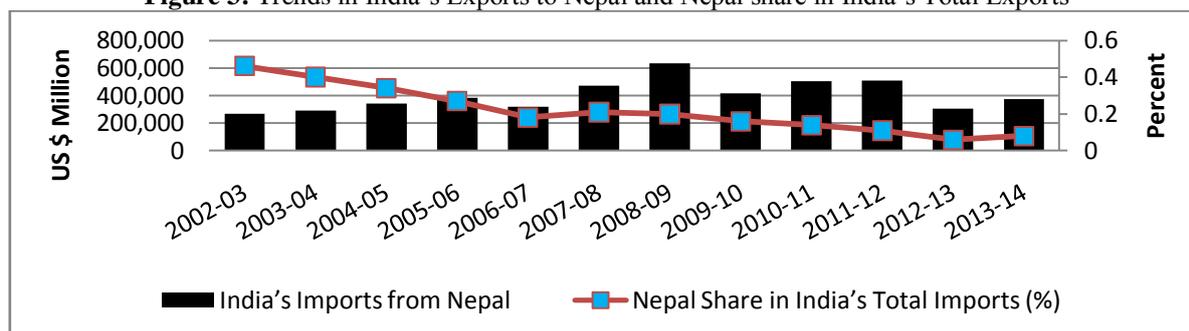
remained continuously increasing to \$ 5, 08,214 thousand in 2011-12. After that this volume of exports grew to \$ 3, 07,365 thousand in 2012-13 and finally reached to \$ 3, 76,706 thousand in 2013-14. Thus in the short period of time during 2002-14, India’s imports from Nepal improved from \$ 2,66,412 thousand to touch on \$ 3,76,706 thousand. This implies that India’s imports from Nepal registered little improvement with more than 1/3 times during the above period. Whereas India’s global imports improved from \$ 574,53,469 thousand to \$ 4660,45,567 thousand during corresponding period. This implies that India’s global imports which further improved more than 8 times during the above period. Thus it can be concluded that India’s imports to Nepal grew much lesser than the growth in India’s global imports.

Table 5: Trends in India’s Imports from Nepal (US \$ Thousand)

Year	India’s Imports from Nepal	India’s Total Imports	Nepal Share in India’s Total Imports (%)
2002-03	2,66,412	574,53,469	0.46
2003-04	2,91,496	724,30,524	0.40
2004-05	3,40,034	989,81,129	0.34
2005-06	3,85,461	1408,61,667	0.27
2006-07	3,17,896	1782,12,440	0.18
2007-08	4,69,788	2186,45,294	0.21
2008-09	6,32,095	3157,12,106	0.20
2009-10	4,16,338	2664,01,553	0.16
2010-11	5,05,697	3500,29,387	0.14
2011-12	5,08,214	4624,02,791	0.11
2012-13	3,07,365	4889,76,378	0.06
2013-14	3,76,706	4660,45,567	0.08

Source: ITC calculations based on UN COMTRADE statistics or Retrieved August 25, 2014, from http://www.trademap.org/countrymap/Bilateral_TS.aspx

Figure 3: Trends in India’s Exports to Nepal and Nepal share in India’s Total Exports



Source: Table 5

Table 5 also specifies the percentage share of Nepal in India’s total imports. It is found that percentage share of Nepal constituted 0.46 per cent of India’s global imports in 2000-01. This share declined tremendously to 0.18 per cent in 2006-07 but slightly increased to 0.21 per cent in 2007-08. After that Nepal’s share in Indian imports markets remained continuously declining to 0.06 per cent in 2012-13 and finally reached to 0.08 per cent in 2013-14.

Table 6: Commodity Composition of India’s imports from Nepal (US\$ Thousand)

Commodity	2011-12	2012-13	2013-14
Non-alcoholic beverages	28616	42470	65837
Article of plastic nes.	39816	35718	37252
Tubes, pipes and hollow profiles of iron or steel, nes	20186	31390	29061
Flat-rolled prod of iron, clad, plated or coated	65270	19930	28110
Yarn of synth staple fibre, not put for retail sale	51117	21023	25908
Footwear, upper of textile mat	11847	15258	22965
Tea	15139	18448	14860
Oral & dental hygiene preparations	12324	11642	13194
Nuts nes	9588	20	11692
Nutmeg, mace and cardamoms	21508	3948	9539

Medicament mixtures not in dosage	8587	8644	8449
Rosin & resin acids, and derivatives; spirit & oils	7269	7768	7511
Others	216947	91106	102328
Total	5,08,214	3,07,365	3,76,706

Source: ITC calculations based on UN COMTRADE statistics or Retrieved August 25, 2014, from http://www.trademap.org/countrymap/Bilateral_TS.aspx

The information about the commodity composition of India's imports from Nepal's market has been given in Table 6. It is found that Indian imports from Nepal declined from 5, 08,214 to 3, 76,706 during 2011-14. However, compositions of commodities constituting Indian imports have undergone insignificant change in Nepal's export markets. Some commodities of Nepal's exports grew very fast in Indian export basket, and some commodities have dwindled down slowly. Table 6 highlighted that Non-alcoholic beverages most important item in India's imports baskets from Nepal. Import of Non-alcoholic beverages from Nepal to India continues to improve significantly from \$ 28,616 thousand to \$ 65,837 thousand with always maintaining its first position during the above period. Thus, size of import of Indian Non-alcoholic beverages to Nepal grew more than 130 per cent during the period under discussion. Article of plastic nes is second next most important item of India's import to the Nepal's export market. Indian Article of plastic nes exports from Nepal constituted \$ 39,816 thousand in 2011-12. This volume of import decreased to \$ 35,718 thousand in 2012-13. But, maintained at the second position. In 2013-14 the import of Indian Article of plastic nes from Nepal increased to \$ 37,252 thousand with more than 4 per cent improvement. Tubes, pipes and hollow profiles of iron or steel, nes are the third largest products of Indian imports baskets from Nepal. India's Tubes, pipes and hollow profiles of iron or steel, nes imports from Nepal constituted \$ 20186 thousand in 2011-12. This volume of import increased to \$ 31,390 thousand in 2012-13. Finally in 2013-14 the import of Indian Tubes, pipes and hollow profiles of iron or steel, nes from Nepal slightly declined to \$ 29,061 thousand. Thus India's import of Tubes, pipes and hollow profiles of iron or steel, nes product improved more than 43 per cent to maintain its previous position. Nepali Flat-rolled prod of iron, clad, plated or coated; Yarn of synth staple fibre, not put for retail sale; Footwear, upper of textile mat; Tea; Oral & dental hygiene preparations; Nuts nes; Nutmeg, mace and cardamoms; Medicament mixtures not in dosage; Rosin & resin acids, and derivatives; spirit & oils and some other product are remarkable items for Indian imports markets. Whereas India's imports of Yarn of synth staple fibre, not put for retail sale; Tea; Oral & dental hygiene preparations; Nuts nes; Rosin & resin acids, and derivatives; spirit & oils from Nepal represent asymmetrical fluctuating during 2011-14. At the same time Nepal's Footwear, upper of textile mat product registered continuous growth and Flat-rolled prod of iron, clad, plated or coated; Nutmeg, mace and cardamoms and Medicament mixtures not in dosage product registered weaken continuously.

III. Balance Of Trade:

A balance of trade surplus is most favourable to domestic producers responsible for the exports. However, this is also likely to be unfavourable to domestic consumers of the exports who pay higher prices. Alternatively, a balance of trade deficit is most unfavourable to domestic producers in competition with the imports, but it can also be favourable to domestic consumers of the exports who pay lower prices. Table 7 provides data regarding India-Nepal balance of trade. India's balance of trade proceeds unfavourably in 2002-03, when India suffered from a deficit of \$ 917 thousand. But after that India's balance of trade with Nepal have always been favourable during the above period. To study further India's balance of trade position with Nepal, it would be useful to estimate trade reciprocity index.

Table 7: India- Nepal Trade Balance (US \$ Thousand)

Year	India's Exports to Nepal	India's Imports from Nepal	Balance of Trade
2002-03	2,65,495	2,66,412	-917
2003-04	6,05,088	2,91,496	3,13,592
2004-05	7,46,915	3,40,034	4,06,881
2005-06	8,37,027	3,85,461	4,51,566
2006-07	9,25,675	3,17,896	6,07,779
2007-08	12,37,100	4,69,788	7,67,312
2008-09	16,96,405	6,32,095	10,64,310
2009-10	13,27,363	4,16,338	9,11,025
2010-11	19,04,912	5,05,697	13,99,215
2011-12	25,59,910	5,08,214	20,51,696
2012-13	25,87,086	3,07,365	22,79,721
2013-14	31,76,217	3,76,706	27,99,511

Source: Balance of Trade by author's own calculation

Table 8 presented the index of Nepal trade reciprocity with India. Trade reciprocity index constituted at 1.00 highest level in 2002-03. Thus, this implies that Indian balance of trade was perfectly balanced with Nepal in the year 2002-03. This index continuously declined to 0.51 in 2006-07 from past years. But this index improved to 0.55 in 2007-08. This value of index continuously declined to 0.21 in 2012-13 and finally maintained its previous position in 2013-14. A trade reciprocity index closer to zero would imply a position moving towards completely unbalanced trade.

Table 8: Index of Nepal Reciprocity with India

Year	Nepal's Exports to India	Nepal's Imports from India	Reciprocity Index
2002-03	2,65,495	2,66,412	1.00
2003-04	6,05,088	2,91,496	0.65
2004-05	7,46,915	3,40,034	0.63
2005-06	8,37,027	3,85,461	0.63
2006-07	9,25,675	3,17,896	0.51
2007-08	12,37,100	4,69,788	0.55
2008-09	16,96,405	6,32,095	0.54
2009-10	13,27,363	4,16,338	0.48
2010-11	19,04,912	5,05,697	0.42
2011-12	25,59,910	5,08,214	0.33
2012-13	25,87,086	3,07,365	0.21
2013-14	31,76,217	3,76,706	0.21

Source: Reciprocity Index by author's own calculation

India's trade with Nepal – Prospects for 2020 Projections

To estimate the trend values, we use the following equations

$$y = \alpha + \beta\chi + u_t \quad \dots\dots\dots (1)$$

Where, y = Nepal's Share in India's Total trade used as dependent variable.

χ = Year used as an independent variable. α = Used as an intercept coefficient

β = Variable intercept or slope u_t = Random variable

To find constants α and β , we use the following equations

$$\Sigma y = n\alpha + \Sigma\chi^2 \quad \dots\dots\dots (2)$$

$$\Sigma\chi y = \alpha\Sigma\chi + \beta\Sigma\chi^2 \quad \dots\dots\dots (3)$$

Solving equations (2) and (3), we get $\alpha = 0.60$ and $\beta = -0.02$

Estimated trend equation is $\hat{y} = 0.60 + (-0.02)\chi$

Estimated Projection of India's trade with Nepal for the year 2020 is

$$\hat{y}_{2020} = 0.60 + (-0.02) 19 \quad \text{OR} \quad \hat{y}_{2020} = 0.24 \text{ Per cent}$$

The estimated Nepal Trade share at 0.24 per cent in India's total trade indicates little potentials for India's Trade with Nepal by the year 2020.

IV. Conclusion:

Trade is always at the heart of the growing connections between India and Nepal. As observed in preceding sections. The trade cooperation between two countries is more important these days because of the urgency to formulate a feasible and beneficial strategy for the development of the both countries. Exchange of high level visits has been the hallmark of Nepal-India relations during the past five decades. Open border has moulded a unique relationship between the countries. However, both countries proved to be path-breaking in mapping new horizons in the old age relations. The study has revealed some significant findings relating to India's trade relationship with Nepal during 2002-13. Based on these findings some useful conclusions have been derived. The bilateral trade is prospective for both the countries, given the size and economic dynamism of the two economies over the decade. India enjoys favourable balance of trade with Nepal during the above period except the year 2002-03. But the study found that compound annual growth rate of India-Nepal trade, India's total trade has been 16.40 % per cent, and 20.87 % per cent, respectively over the period. This implies that India-Nepal trade grew substantially which further improved to 16 per cent and India's total global trade grew with 20.87 per cent improvement. Presently India-Nepal Trade Cooperation has grown very energetically.

India's share in Nepal Exports markets was 44.66 per cent in 2003-04. This improved to 53.89 per cent in 2013-14. Similarly India's share in Nepal imports markets was 33.59 per cent in 2003-04. This improved to 53.75 per cent in 2013-14. Thus this implies that India's share in Nepal's trade improved more than 14 per cent during the above period. Whereas, Nepal's share in Indian Exports market was 0.53 per cent in 2003-04, this share improved dramatically to 0.94 per cent in 2013-14. But Nepal's share in Indian imports market registered continuous decline from 0.46 per cent in 2002-03 to 0.08 per cent only in 2013-14 due to imposition of some non-tariff barriers (NTBs) by India; global economic slowdown and illegal Chinese product flooding to

India via Nepal supports to weaken India's registered imports from Nepal. However, the border and trade policies between the two are also playing the decisive role in enhancing the trade relations. This study forecasts Nepal's share in India's total trade will be only 0.24 per cent in 2020. While, presently Nepal has a share of 0.44 per cent in India's total trade indicates little potentials for India's trade with Nepal by the year 2020. Recently, Prime Minister Narendra Modi opened the door for Nepal trade which may support for enhancement of trade in the future. If the mentioned problems get solved, bilateral trade can touch new heights with prospects for greater economic and commercial relations in the future but India-Nepal trade grew in an unbalanced way. This has to be brought to balance.

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Appendix: Results of estimated Regression Analysis

Nepal's share in India's total Trade - Prospects for 2020 Projections

	Coefficients	Standard Error	t Stat	P-value
Intercept	0.60	0.04	14.56	0.00000005
Year	-0.02	0.01	-3.40	0.00672004
R Square	0.54			
Adjusted R Square	0.49			