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A connectivity-driven development strategy for Nepal: From a landlocked to a land-linked state

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ADB Working Paper Series

A Connectivity-Driven Development Strategy for Nepal: From a Landlocked to a Land-Linked State

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Abstract

Nepal's lackluster economic performance during the post-conflict period (that is, after November 2006) has been driven by remittances from the export of labor services and the improved performance of the agricultural sector, which is still very much weather dependent. The authors make the case for a connectivity-driven development strategy for the country. They argue that improved connectivity within Nepal and cross-border connectivity with its neighbors in South Asia, the Association of Southeast Asian Nations (ASEAN), and the People's Republic of China (PRC) that are converting Nepal from a landlocked into a land-linked state, could be important "engines of growth" for the country. It is argued that such a development strategy is not a new one for Nepal as in the past the country was strategically located on the Southwestern Silk Road (SSR). A number of factors have revived the case for making Nepal a land-linked state in Asia. Nepal has adopted a multi-track approach to promoting regional cooperation and integration in connectivity with its neighbors. But a lot more needs to be done, especially in the context of the difficult political situation in the country, and donors have an important role to play in this regard. Ten priority projects to convert Nepal into a land-linked state are identified, but a detailed impact analysis of these projects is beyond the scope of this paper.

JEL Classification: F15

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1. INTRODUCTION

After a decade of civil conflict, Nepal is going through a transitional phase in its economic development. Economic growth and the overall macroeconomic situation have improved somewhat during the post-conflict period (that is, after November 2006). This is mainly due to two factors: the rise in remittances from the export of labor services and the improved performance of the agricultural sector, which is still very much weather driven. This paper makes the case for a connectivity-driven development strategy for Nepal.¹ It argues that improved connectivity within Nepal and Nepal's cross-border connectivity with its neighbors in South Asia, the Association of Southeast Asian Nations (ASEAN), and the People's Republic of China (PRC) that are converting Nepal from a landlocked into a land-linked state, will be important "engines of growth" for the country's economy. Such a development strategy in Nepal would also lead to a win-win situation for all countries in South Asia and East Asia.

Why do we need a connectivity-driven strategy for Nepal? National, sub-regional, and regional contexts need to be considered. First, Nepal is a landlocked and mountainous country and therefore faces high trading costs. Improved connectivity within the country would reduce such costs and promote internal trade, investment, and economic growth. Second, Nepal is strategically located between two dynamic "giant" countries, the PRC and India, which rank first and third, respectively, in terms of Asia's gross domestic product (GDP) (the PRC also ranks second in terms of world GDP, behind the United States). Hence, Nepal has the potential to benefit greatly from regional cooperation and integration (RCI) for improving connectivity with its neighbors through transport, energy, and telecommunications projects. Connectivity-related RCI with its neighbors could unlock the full development potential of Nepal by reducing trading costs and by helping the country to overcome the disadvantages of size—a small population, small markets, and an inability to take advantage of agglomeration and scale economies. Ahmed et al. (2010) estimated that Nepal could double its GDP if it were to export hydro-based electricity to India, which is an energy-thirsty country. A connectivity-driven strategy in Nepal would also benefit India and the PRC. Third, as argued in this paper, a connectivity-driven strategy is not a new one for Nepal. In the past, Nepal was strategically located on the Southwestern Silk Road (SSR), which started in the PRC's Yunnan province, then passed through Myanmar to India and Nepal, and looped back through Tibet to Yunnan. Nepal was an entrepôt for trade mainly between India and the PRC on the SSR. After a gap of about 5 centuries, the case for reviving the SSR has become strong and Nepal has an important role to play. A connectivity-driven strategy for Nepal, together with the ongoing efforts to revive the SSR, would benefit all countries along the SSR. Economic integration in South Asia and broader pan-Asian integration would also deepen (Rana and Chia 2014, forthcoming).

The rest of the paper is organized as follows: Section 2 reviews the recent performance of the Nepalese economy. Section 3 presents indicators of infrastructure development in Nepal and highlights the poor state and quality of physical connectivity in Nepal, which is among the worst in South Asia. Section 4 describes the strategic location of Nepal in Asia, and the historical role Nepal had played in the past as an entrepôt for India–PRC trade and as a node in the SSR. Section 5 argues that the case for reviving Nepal's role as a land-linked state has increased significantly in recent years for a number of reasons. This section also proposes four conceptual economic corridors for the purpose and makes the case for the involvement of the Asian

¹ Such a development strategy could be feasible for a landlocked country facing high transport cost. It could also be feasible for inland regions in a large continental country like the United States (in the 19th century) and presently the PRC (Lee 2013).

Development Bank (ADB) as an “honest broker” to carry forward the ideas (as in other sub-regional schemes, such as the Greater Mekong Subregion [GMS]; Brunei Darussalam, Indonesia, Malaysia, Philippines–East Association of South East Asian Nations [ASEAN] Growth Area [BIMP-EAGA]; and Central Asia Regional Economic Cooperation [CAREC]). Such a role would lead to a “garlanding” or linking of sub-regional cooperation efforts and enhance ADB’s catalytic role in pan-Asian integration. Section 6 reviews Nepal’s multi-track approach to promoting RCI in connectivity—national, bilateral, subregional, interregional, regional, and multilateral. Section 7 highlights the recently completed and ongoing connectivity-related RCI projects (cross-border projects as well as national projects with cross-border implications) in Nepal and identifies the priority connectivity projects the country should consider in future under the proposed connectivity-driven strategy. Section 8 summarizes and concludes.

2. RECENT ECONOMIC PERFORMANCE

Since its emergence from the decade-long civil conflict (from 1996 to 2006), Nepal has been going through a challenging transitional phase in its development. The signing of a Comprehensive Peace Agreement (CPA) in November 2006 resulted in a number of significant achievements, such as participation of the Maoist party in mainstream politics and relative peace, the election of the Constituent Assembly in 2008, and the decommissioning of the Maoist army. Unfortunately, however, the failure of the Constituent Assembly to meet the end-May 2012 deadline to ratify a new constitution has proven to be a serious political setback for the country, taking a heavy toll on the economy. Following the expiry of the Constituent Assembly’s term in May 2012, a second Constituent Assembly was elected in November 2013.

The data in Table 1 show that both the real sector and the current account balance have been fairly resilient in Nepal. While economic growth slowed to an average 4.12% per year during the conflict period (1996–2006), it recovered somewhat, to 4.52%, in the post-conflict period (2007–2012). GDP per capita has shown an upward trend since the 1990s. Although export growth has slowed considerably, the current account balance as a share of GDP has been increasing. This has been due mainly to rapid growth of remittances, which stood at around 21% of GDP during the post-conflict period. Needless to say, Nepal’s economic performance would have been better had the constitution been ratified on time and had political stability been achieved.

Table 1: Key Macro-economic Indicators for Nepal

(annual averages)

	Pre-conflict 1990–1995	Conflict 1996–2006	Post-conflict 2007–2012
GDP Growth Rate (%)	5.52	4.12	4.52
GDP per Capita (\$)	200.73	265.94	570.97
Merchandise Exports (\$) Growth (%)	14.76	9.53	3.08
Merchandise Imports (\$) Growth (%)	12.62	6.62	16.11
Trade Balance (% of GDP)	(14.70)	(16.63)	(21.84)
Current Account Balance (% of GDP)	(6.21)	(0.38)	1.44
Remittances (% of GDP)^a	1.80	8.32	20.96

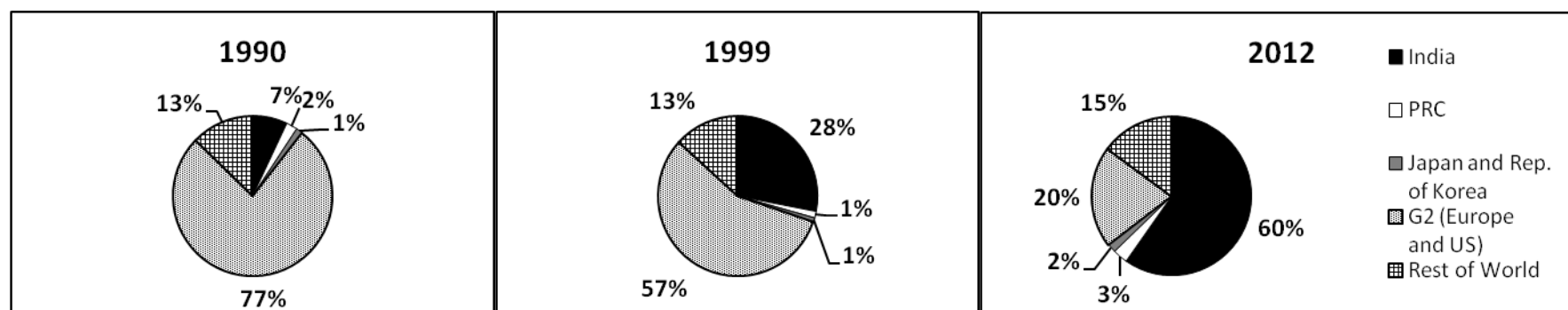
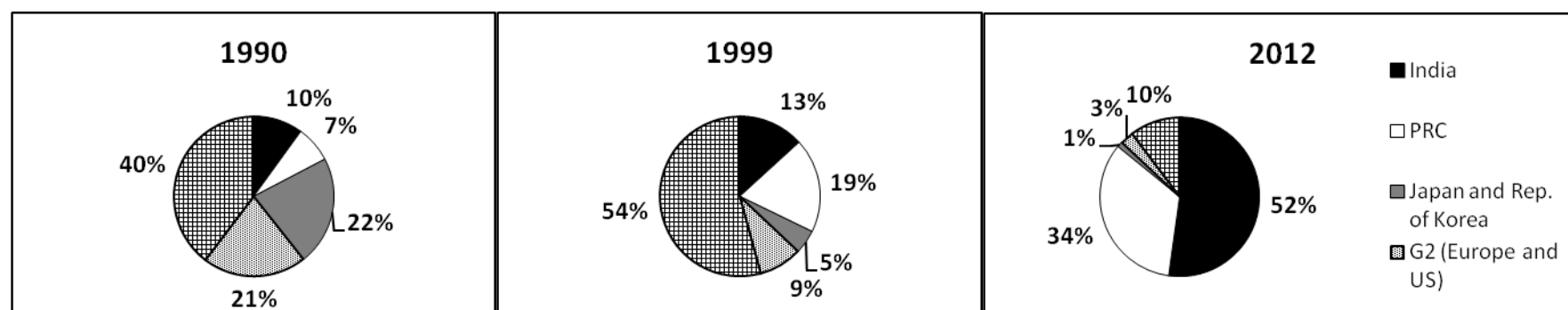
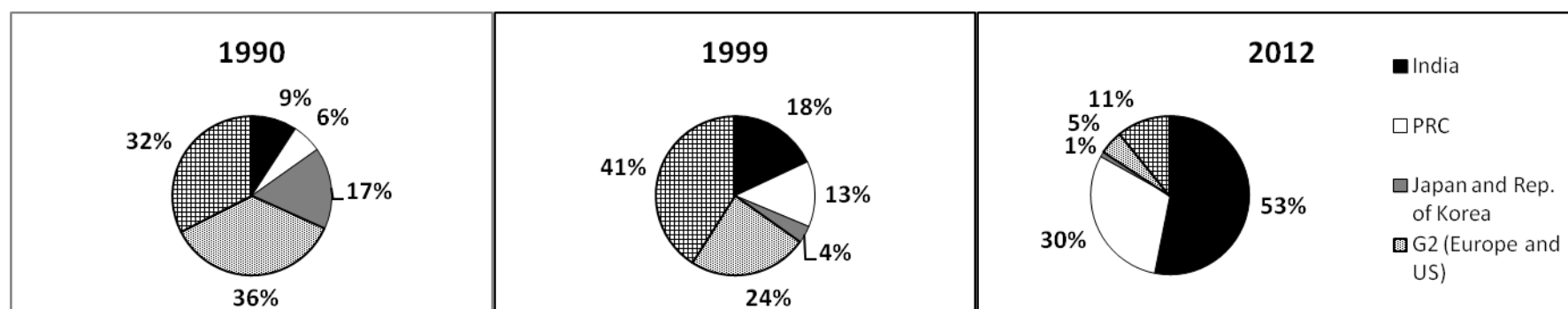
GDP = gross domestic product; () = negative values.

^a Remittances also include pensions.

Sources: Government of Nepal, Economic Survey (various issues); Nepal Rastra Bank, Quarterly Economic Bulletin (various issues); Central Bureau of Statistics, Population Census (1991, 2001, 2011).

Nepal shares a 1,800 km long porous border and 15 mutually agreed border points with India, so India is a “natural” trading partner of Nepal. India provides a large market for Nepali goods and services, and is Nepal’s largest trading partner. Nepal’s merchandise trade (exports plus imports) with India, rose from 9% of its total trade in 1990, to 18% in 1999, and 53% in 2012 (Figure 1).² The PRC’s overall share of Nepal’s total trade also increased (from 6% in 1990 to 13% in 1999 to 30% in 2012) mainly due Nepal’s growing imports from the PRC to meet domestic needs as well as re-exports to India. The PRC’s share in Nepal’s exports is very small (only about 3% in 2012), while India’s share accounted for 60% in 2012. During the last decade (2002–2014), Nepal’s external trade sector has seen a very important change. Remittances from labor exports have increased very rapidly, making Nepal one of the most remittance-dependent countries in the world. From an estimated \$100 million in 1996, remittance flows increased to \$4.9 billion in 2013 (a thirty-five-fold increase). As a share of GDP, these figures amounted to 0.5% and 25.5%, respectively. Remittances from labor exports are the single largest source of foreign exchange inflows. While India has been a traditional destination for Nepalese migrants, an increasingly large share of remittances comes from other countries, reflecting changing migration patterns, in part due to higher earnings in these new destination countries.

² This figure underestimates the value of actual trade with India. The open and porous border between the two countries makes it hard to capture the level of informal trade. Survey based research suggests that Nepalese informal trade is 30%–40% of formal merchandise trade (Karmacharya et al. 2004).

Figure 1: Nepal—Direction of Exports in 1990, 1999, and 2012**Figure 1b: Nepal—Direction of Imports in 1990, 1999, and 2012****Figure 1c: Nepal—Direction of Total Trade in 1990, 1999, and 2012**

PRC = People's Republic of China, US = United States.

Source: Calculated based on IMF, Direction of Trade Statistics (2013).

3. INFRASTRUCTURE DEVELOPMENT INDICATORS FOR NEPAL

Given the difficulties associated with the landlocked nature of the country (Arvis et al. 2011), Nepal ranks low in terms of infrastructure development indicators. In the World Bank's *Doing Business Survey* 2013, Nepal dropped significantly in the overall "ease of doing business" rankings, falling from 55th position (out of 155 countries) in 2006 to 108th position (out of 185 countries) (Table 2). This 2013 ranking is about the same as that for Pakistan (107th), but better than that of India (132nd) and Bangladesh (125th) (Table 2). In terms of "trading across border" indicators, Nepal ranked 171st, the lowest in South Asia.

Inter-country comparisons of the quality of infrastructure are difficult because of measurement problems and the subjective nature of assessments. Those available from the World Economic Forum's *Global Competitiveness Report 2013–2014* suggest that the overall quality of infrastructure in Nepal was among the worst in South Asia (Table 3). With a score of 2.9, it ranked higher only than Bangladesh (2.8). Nepal scored the lowest among South Asian countries in terms of quality of roads, railroads, air transport, and supply of electricity.

The situation is similar in terms of indicators of information technology (IT) penetration. During 2010–2011, only 9% of the population in Nepal used the internet. All other South Asian countries, except for Bangladesh (5%), had a higher share of internet users than Nepal (Table 4). In terms of mobile phone subscriptions per 100 individuals, Nepal ranked the lowest in South Asia (43.8).

Table 2: Doing Business Indicators 2013

	Overall ease of doing business		Starting a business	Dealing with construction permits	Getting electricity	Registering property	Getting credit	Protecting investors	Paying taxes	Trading across borders	Enforcing contracts	Resolving insolvency
	2013	2006										
Bangladesh	129	65	95	83	185	175	83	25	97	119	182	119
India	132	116	173	182	105	94	23	49	152	127	184	116
Nepal	108	55	105	97	96	21	70	82	114	171	137	121
Pakistan	107	60	98	105	171	126	70	32	162	85	155	78
Sri Lanka	81	75	33	112	103	143	70	49	169	56	133	51

Source: World Bank (2013).

Table 3: Quality of Infrastructure in South Asia, 2013

	Quality of Overall Infrastructure	Road	Railroad	Port	Air Transport	Electricity Supply
India	3.9	3.6	4.8	4.2	4.8	3.2
Pakistan	3.3	4	2.5	4.5	3.2	2
Bangladesh	2.8	2.8	2.4	3.5	3.2	2.2
Sri Lanka	4.8	4.7	3.6	4.2	4.8	5
Nepal	2.9	2.7	1.1	2.7	3	1.6
Bhutan	4.9	4.3	n.a.	2.2	3.5	5.9

Source: World Economic Forum (2013).

Table 4: Information and Communications Technology Indicators

	Households with computer (%)	Households with internet access at home (%)	Individuals using the internet (%)	Mobile phone subscriptions (per 100 inhabitants)
Bangladesh	3.1	2.6	5.0	56.1
Bhutan	...	...	21.0	65.6
India	...	...	10.1	72.0
Maldives	54.4	23.5	34.0	165.7
Nepal	...	...	9.0	43.8
Pakistan	...	...	9.0	61.6
Sri Lanka	12.3	5.9	15.0	87.0

Source: International Telecommunications Union (2013).

Nepal's poor performance in infrastructure development can be further assessed by analyzing the World Bank's Logistics Performance Index (LPI), which is based on surveys of operators. The index ranges from 1 to 5 (lowest to the highest) and focuses on several variables: customs performance, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness. In all these areas, Nepal ranks the lowest in South Asia (Table 5).

Table 5: Logistics Performance Index, 2012

	LPI Score	Customs	Infra-structure	International shipments	Logistics competence	Tracking/tracing	Timeliness
India	3.08	2.77	2.87	2.98	3.14	3.09	3.58
Nepal	2.04	2.20	1.87	1.86	2.12	1.95	2.21
Pakistan	2.83	2.85	2.69	2.86	2.77	2.61	3.14
Sri Lanka	2.75	2.58	2.50	3.00	2.80	2.65	2.90

LPI = Logistics Performance Index.

Source: World Bank (2012).

4. NEPAL'S STRATEGIC LOCATION AND ITS HISTORICAL ROLE AS A LAND-LINKED STATE

Nepal is a rectangular shaped country, stretching roughly 1,800 km from east to west and a quarter of that from north to south, sandwiched between the giant economies of the PRC and India. Although both countries are experiencing a slowdown in their economies, the PRC and India are among the fastest growing countries in the world. Between them, the PRC and India have around 2.5 billion people, accounting for approximately a third of the world population.

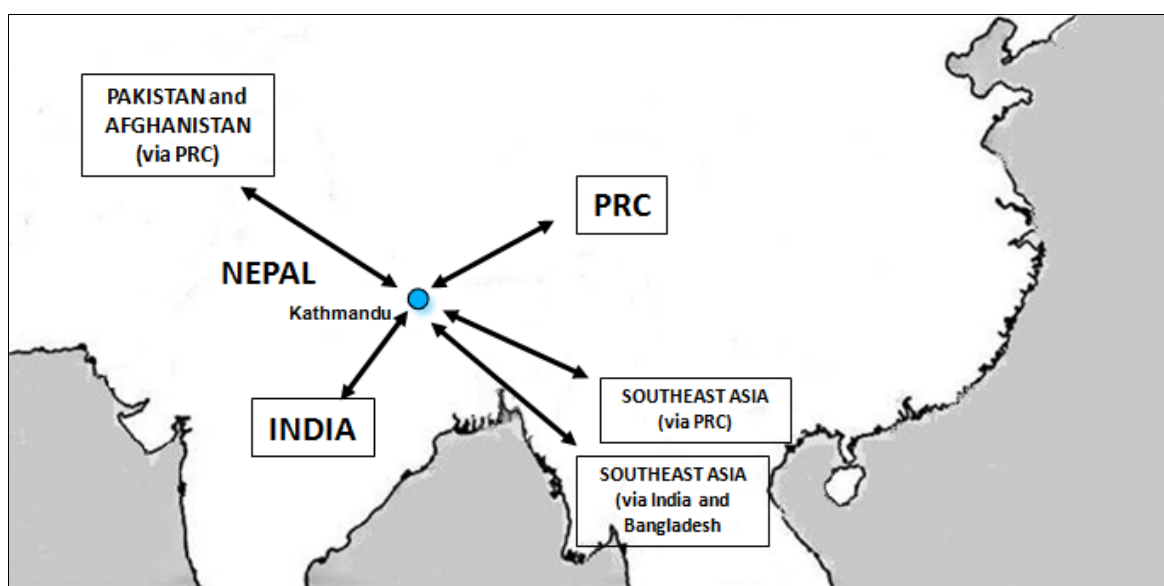
Nepal is a landlocked and mountainous country and has high trading costs, which reduces competitiveness domestically and externally. Connectivity problems facing Nepal on its northern border with the PRC are related to the Himalayan mountain range, which has eight out of the 10 highest mountain peaks in the world. Nine points of connectivity with Tibet have been identified, of which only several are economically feasible at present. The one that is operational and used for trade with the PRC is in Kodari along the Friendship Road connecting Kathmandu with Lhasa or the Kodari–Barhabise–Kathmandu–Hetauda–Birgunj road. However, open space is limited in this pass and it is not possible to set up a dry port to handle large volumes of traffic

(Pandey 2010). Another point of connectivity that has recently become operational since the completion of the Rasuwagarhi–Syaphrubeshi road is the Rasuwagarhi–Syaphrubeshi–Kathmandu–Hetauda–Birgunj corridor. This new corridor has greater potential and there are ongoing efforts to build a dry port for trade with the PRC. But a lot still remains to be done to make it a proper transport corridor with modern highways and border points.

The southern border of Nepal with India is essentially porous, with large amounts of unofficial trade. There are 15 mutually agreed entry/exit points, seven of which are operational, and of which the most important are Birgunj and Bhairawa. Inland container depots (ICDs) have been built in these two cities and in Biratnagar. The closest sea port for Nepal's foreign trade is Kolkata port, which is 400 km away from Nepal's border. This port is very congested and roads leading to it from the Nepalese border are in poor condition. Nepal has been attempting to diversify its trade and use sea ports in Bangladesh, but there are sensitivities and transit issues with India.

Figure 2 highlights the strategic location of Nepal. Nepal has the potential to be a land link between India and other South Asian countries and the PRC. Nepal, together with Bangladesh, the northeastern part of India, and the PRC can also be a land link between Pakistan, Afghanistan, Central Asia, South Asia, and Southeast Asia. Rana (2013) has argued that in the past Nepal had indeed been an entrepôt for India–PRC trade and a node on the historical SSR, which started in Yunnan (the southeastern province of the PRC), passing through Myanmar to India and Nepal, and looping back to Tibet and Yunnan.³

Figure 2: Strategic Location of Nepal



PRC = People's Republic of China.
Source: Authors.

The entrepôt role of Nepal in trade between India and the PRC, however, declined significantly after the late 18th century. Two explanations are given for this. Pandey (2010) argues that the British, who had colonized India at that time, diverted their trade and started selling opium to the PRC through the ports on the eastern coast of the PRC. This trade was very profitable for the British and their interest in the trade route through Nepal dwindled as a consequence. Another

³ See also Appendix 1.

explanation is the discovery of a new trade route between India and Tibet in 1888 through the Chumba Valley and the Nathu La pass closer to Lhasa.

Ever since, Nepal has seen the Himalayas as a barrier and focused on greater trade with India (Pandey 2010). The recent policies of pro-Indian parties in Nepal have further deepened this trend. Thus Nepal has become overly dependent on the congested Kolkata port for its external trade. The Chinese, on the other hand, have continued to use Nepal to trade with India. PRC goods enter Nepal through the Khasa point on the Kodari highway and are taken to northern Indian cities, either through Kathmandu or directly to the border towns in Nepal's Terai.

5. THE CASE FOR REVIVING NEPAL'S ROLE AS A LAND-LINKED STATE

Although sea transport is expected to be the dominant form of connectivity in the foreseeable future, the case for reviving Nepal's role as a land-linked state in Asia has strengthened greatly in recent years. This is for a number of reasons:

- (i) Maritime Asia, defined as the dynamic north–south coastal region from the Republic of Korea to Indonesia, is starting to become increasingly continental-based, with expanding networks of roads, railways, and pipelines. The trend toward the evolution of a continental-based Asia is mainly a result of the PRC's "Western Development" plan or the "Go West" policy being implemented since 2000. The main components of this policy were the construction of infrastructure (mainly transport, but also power plants), attracting foreign direct investment (FDI) to the inner provinces, and the development of human resources (health and education) in the inner provinces. A number of expressways have been constructed from the coastal cities of Shanghai and Beijing to the inner provinces (Figure 2 in Rana and Chia [2014]). These include the Shanghai–Xi'an, Shanghai–Chongqing–Kunming, Shanghai–Kunming, and Beijing–Lhasa expressways.⁴

Figure 3 in Rana and Chia (2014) shows the key existing and proposed railways and pipelines in the PRC. In addition to east to west railways, several north–south connectivity projects have either been completed (such as the Sino–Myanmar pipeline) or planned (such as the Pakistan–PRC rail and road link project across the Karokoram mountain ranges, and the Yunnan–Lao PDR–Thailand Railway). Railway connectivity with Europe and oil pipelines connecting the PRC with the Central Asian Republics have also been established.

Lhasa is emerging as a major transportation hub in the western part of the PRC. Five major highways converge in Lhasa: the Kunming–Lhasa, Shanghai–Chengdu–Lhasa, Beijing–Lhasa, and Yecheng–Lhasa expressways, and the Friendship Highway that connects Kathmandu (Nepal) with Lhasa. Also, the Beijing–Tibet Railway will reach Xigaste in late 2014 and is to be extended soon to reach the border with Nepal. Mainly because of these massive efforts to build infrastructure, cities in inner provinces, such as Kunming, Chongqing, Chengdu, Xi'an, and Xining have emerged as major metropolitan

⁴ The PRC's highways have grown rapidly in total length, from 271 km in 1990 to 85,000 km in 2011, making it the world's largest national freeway system. The United States Interstate Highway system—started in 1956 and considered complete in 1991—totals 75,932 km and is not expected to grow much. The PRC, on the other hand, will expand its expressway system and is intent on connecting all provincial capitals and cities with populations over 200,000. The new highways and the economic growth they will drive will help close the gap with the United States (Lee 2013).

cities with urban infrastructure projects rivaling some of those in the coastal areas. Nepal could benefit from joining this trend.

- (ii) Increasing connectivity within India and ongoing efforts to promote ASEAN–India connectivity have also strengthened the case for Nepal to improve connectivity with neighboring countries. In India, the Golden Quadrilateral Project, which improves connectivity between the four major nodal cities in the country—Delhi, Mumbai, Chennai, and Kolkata—has been completed. As a component of its “Look East” policy, India is actively promoting connectivity with Southeast Asia. More recently, further to the request of the East Asia Summit (EAS), the Economic Research Institute for ASEAN and East Asia (ERIA) has come up with two projects for ASEAN–India connectivity: the Mekong–India Economic Corridor (MIEC) and the Trilateral Highway connecting India and Myanmar with Thailand (Figure 4 in Rana and Chia 2014). While the first project focuses on connecting production blocks and supply chains in Southeast Asia with those in India—especially the automotive industry in Bangkok—with those in Chennai (India) by sea and land, the second project focuses on the development of the North East Region of India. One major project in the MIEC is the \$8.6 billion Dawei deep-sea port and industrial estate in Myanmar. ADB is the implementing body for the MIEC and it stands ready to bring together the stakeholders and provide technical assistance and co-financing. This role is similar to the one ADB played in the Greater Mekong Subregion (GMS) and Central Asia Regional Economic Cooperation (CAREC) sub-regional cooperation efforts.
- (iii) The encouraging but gradual political and economic reforms in Myanmar, a node between South Asia and East Asia, has also provided a fillip for improving connectivity between South Asia and East Asia. Both the PRC and India are actively involved. PRC strategists have written about the “Malacca Dilemma,” with the Straits being a natural choke point, and the need to find an alternative route.⁵ The 1,100 km gas pipeline component of the Sino–Myanmar pipelines project from Kyaukphyu, a port in Myanmar, to Kunming became operational earlier this year. Next year, an oil pipeline that is expected to meet about 10% of the PRC’s oil import demand will open along the same route. Road and railway are to follow suit. Work on the Kaladan Multimodal Project, seeking to connect Kolkata in India with Sittwe in Myanmar by sea and then the north east region of India by river and road transport, is ongoing.
- (iv) To realize the potential of dynamic complementarities associated with the newer theories of trade pioneered by Jones and Kierzkowski (1990), connectivity between South Asia and East Asia needs to be strengthened, and Nepal has a role to play. The traditional theory of comparative advantage proscribes that developing countries produce labor-intensive goods which they exchange for relatively capital- and skill-intensive goods produced by more advanced countries. All separate tasks involved in producing a good, however, are carried out entirely in one country. Under the newer theories, production is spliced and diced into separate fragments and production of parts and components are located in production blocks around the world, which are linked by efficient service links. The type of service link required depends on the sector being considered. While for bulky items sea freight is still the most cost-effective way of moving goods, for less bulky and high value-added parts and components, road transportation could be more cost-effective, especially between neighboring countries.

⁵ Roughly 80% of the PRC’s crude oil imports pass through the Straits. The other strategic projects for the PRC’s oil imports are: (i) the proposed PRC–Pakistan Economic Corridor passing through some of the highest and most landslide-prone mountains (Figure 3B); (ii) the proposed Kunming–Lao PDR–Thailand Railway (Figure 3b); and (iii) pipelines with Central Asian countries and the Russian Federation.

- (v) A final reason for reviving Nepal as a land-linked state is that the distances between Indian cities and the inner cities of the PRC would be greatly reduced if the land route through Nepal were used (Table 6). For example, the distance from New Delhi, where the Delhi–Mumbai Industrial Corridor starts, to Kunming via Hong Kong, China is about 10,345 km, whereas through Nepal it would be only about a quarter of that distance. Similarly, the distance from Chennai to Kunming through Hong Kong, China is 6,841 km compared with 3,540 km through Nepal. Besides, using Nepal as a land link would result in an additional cost saving as there would be no need to transship goods in the PRC ports from ships to trucks to ferry them to the PRC's inner cities. Finally, the Nathu La Pass, the height of which is around 4,300 meters (14,000 feet above sea level), is higher than the passes in Nepal (Zhangmu and Kyirong near Syaphrubeshi) (Table 7). Hence, for much of the year the Nathu La pass is covered by ice and the value of trade that passes through it averages only about US \$100,000 per annum.

Table 6: Distance Between Indian Cities and Inner Cities of the People's Republic of China

(km)

To From	Via Sea and Land Route (through Hong Kong, China)			Via Land Route (through Nepal)		
	Kunming	Chongqing	Chengdu	Kunming	Chongqing	Chengdu
New Delhi	10,345	10,669	10,437	2,887	3,151	2,911
Chennai	6,841	6,745	7,004	3,540	3,804	3,564

Note: Sea distances are actual; land distances are based on the straight-line method.

Sources: www.searates.com and www.freemaptools.com.

Table 7: Height above Sea Level

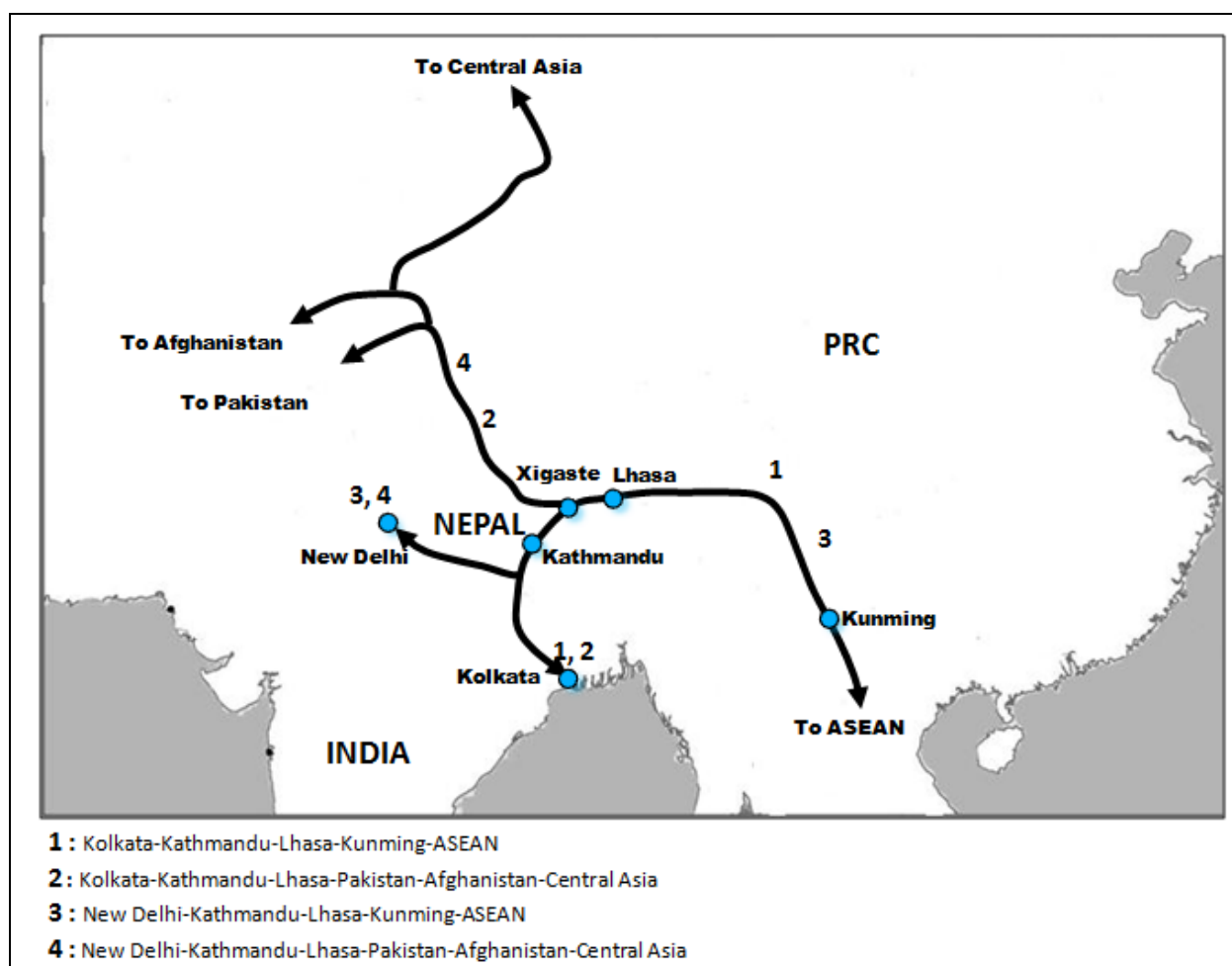
	Meters	Feet
Zhangmu (near Kodari)	2,300	7,544
Kyirong (near Syaphrubeshi)	2,600	8,500
Lhasa	3,657	11,997
Nathu La Pass	4,297	14,097

Source: Google Map Find Altitude.

As part of the revival of the Southwestern Silk Road, Rana and Chia (2014) have proposed four conceptual multimodal economic corridors: (i) Kolkata–Kathmandu–Lhasa–Kunming–ASEAN; (ii) Kolkata–Kathmandu–Lhasa–Pakistan–Afghanistan–Central Asia; (iii) New Delhi–Kathmandu–Lhasa–Kunming–ASEAN (linking up with the Delhi–Mumbai Industrial Corridor); and (iv) New Delhi–Kathmandu–Lhasa–Pakistan–Afghanistan–Central Asia (Figure 3).⁶

Lohani (2005) and Pandey (2010) have made the case for a trans-Himalayan railway. While rail transport has a potential advantage over roads because of higher speed, shorter border crossings, and fewer en route delays, the extent to which this potential can be realized is subject to debate (Arvis, Raballand, and Martheu 2011). Hence, the corridors proposed in this study are multimodal, both railways and roads, pending further analysis of feasibility.

⁶ These corridors are consistent with the corridors identified in the ADB–South Asian Association for Regional Cooperation (SAARC) Regional Multimodal Transport Study.

Figure 3: Proposed Conceptual Multimodal Corridors in South Asia

ASEAN = Association of Southeast Asian Nations, PRC = People's Republic of China.

Source: Rana and Chia (2014).

Transport corridors foster linkages between major urban centers and their relatively backward hinterlands. They generate the potential for development along the corridor and for exploiting economies of scale, and provide opportunities for industrial agglomeration along the corridor. They also provide an opportunity for complementary specialization to be exploited within a geographic region and to link remote regions to global supply chains. Sometimes, trade corridors or roads by themselves can also have negative impacts (Box 1). For this potential to be realized, however, transport corridors have to be transformed into full-fledged economic corridors, where stakeholders are fully involved in coming up with initiatives to promote economic growth and poverty reduction. This has been the experience of the GMS and CAREC regions (Box 2).

However, Nepal is only one of the countries involved in the proposed economic corridors. Actions are required in the PRC as well as India. Just as in the GMS, CAREC, South Asian Subregional Economic Cooperation (SASEC), and more recently in the MIEC, ADB will have to play an important role as a “facilitator, financier, honest broker, and technical advisor”. The difference in size, institutional capacity, and the distribution of the benefits and costs among the three countries involved in the proposed India–Nepal–PRC economic corridor will make ADB a welcome balancing force and honest broker.

Box 1: Connectivity in the GMS and Impacts on the Lao People's Democratic Republic

Not so long ago, references to economic development in Lao PDR typically mentioned the disadvantages of being a country that is landlocked. Lao PDR was viewed as fated to grow less rapidly than its neighbors. But now, with the GMS corridors, Lao PDR finds itself as the pivot point between ASEAN's 600 million people with \$2 trillion in GDP, and the PRC's population of 1.3 billion and its \$7 trillion economy.

But not all of the impacts of connectivity are positive. If Lao PDR ends up serving only as a "chute" for goods and passengers speeding between its richer neighbors, the country could find itself lagging even further behind the region's fast development. (Human trafficking would also increase.) The Lao PDR trucking industry, for example, is suffering because of a recent agreement under which pre-inspected fruits from Thailand can be transported cross-border to the PRC uninterruptedly, without being loaded into Lao PDR trucks.

Fortunately, Lao PDR has plenty to offer, in regional commerce and supply chains as well as in tourism. With wages rising sharply in the PRC and other Southeast Asian countries, Lao PDR has been able to attract FDI in food processing, wood furniture, and the apparel industry, and is able to sell finished products to neighboring countries using the new transport infrastructure. It has also developed two special economic zones (SEZs) situated near routes connecting Thailand to the PRC and Thailand to Viet Nam. These SEZs have attracted FDI to make products such as electrical wire, processed foods, wood products, textiles, shoes, and handbags for export to neighboring countries. Toyota is planning to locate in one of the SEZs to make interior components, including vehicle seat covers, to supply assembly plants in Thailand.

Improved connectivity has enabled Lao PDR to attract more tourists to its world-class sites. Data show that most international visitors to the Indochina region now include Lao PDR in their itineraries. Data also show that more European tourists choose to enter Lao PDR via the bridge in Vientiane than through the Vientiane International Airport.

Source: *Bangkok Post*, 1 July 2013.

Box 2: GMS and CAREC Corridors, and the MIEC: the Role of ADB

The corridor approach to subregional development was adopted by ADB in 1992 in the Greater Mekong subregion comprising Cambodia, Lao PDR, Myanmar, Thailand, and Viet Nam plus the PRC's Yunnan Province and the Guangxi Autonomous Region. The GMS corridor system comprises three main corridors involving multiple routes: the North–South Economic Corridor, the East–West Economic Corridor, and the Southern Economic Corridor. These corridors are oriented towards seaports and provide valuable access to world markets for landlocked Lao PDR and Yunnan province of the PRC. Of the three corridors, the North–South Economic Corridor is the most advanced.

Initially, these corridors were transport corridors, but since 2008 efforts have been made to develop institutions to transform these corridors into full-fledged economic corridors. An Economic Corridors Forum (ECF) has been established to bring together the various stakeholders in corridor development—national governments, local governments, the business community, and civil society—to network, exchange views, recommend initiatives for economic development, and promote corridor activity.

ADB has taken on the role of secretariat as well as “roles of the facilitator, financier, honest broker, and technical advisor.”

The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 10 countries in Central Asia, several of which are landlocked, supported by six multilateral institutions with ADB as the secretariat. CAREC has identified six multimodal transport corridors that run east–west from the north of the PRC to Azerbaijan in the Caucasus, and north–south from the border of Kazakhstan to Pakistan. Nearly 50% of the corridors have been built or rehabilitated, covering almost 4,000 km of roads and 3,500 km of railways. There are plans to convert these transport corridors into economic corridors.

Sources: Weimer (2009), ADB (2012).

6. NEPAL'S REGIONAL COOPERATION AND INTEGRATION POLICIES

Nepal has adopted a multi-track approach to fostering RCI in connectivity with its neighbors and the rest of the world, comprising actions at the national, bilateral, subregional, regional, inter-regional, and multilateral levels.

6.1 National Policies

Since it embarked on the periodic development planning exercise in 1956, Nepal has conducted an interventionist, protectionist, state-led policy, which has resulted in a large public sector, the dominance of state corporations, and a relatively closed economy. The serious macroeconomic imbalances and widening current account deficit in the mid-1980s led Nepal to start implementing economic policy reforms to facilitate its integration with rest of the world by opening up its economy to trade in goods and services, technology, and investment. The economic reform process was further intensified in 1992, when the newly elected democratic government brought about a sea change in economic and trade policies. The new government tried to inject new life into the economy by adopting a range of liberal and private sector-friendly policies; enacting new rules and regulations and establishing new institutions; privatizing public

enterprises; and giving greater importance to the private sector in the economy. In the most recent round of reforms, the government has improved tax administration, introduced a medium-term expenditure framework, and started a reform of the financial sector.

a) Trade and Industrial Policies

Economic policy reforms since early 1990s have substantially reduced the level and variations in nominal tariff rates in Nepal. The average applied Most Favored Nation (MFN) tariff rate had fallen to 12.1% by 2012, down from 39.8% in 1991 (Table 8). The tariff structure has also been streamlined: the highest level of tariff had been reduced from 245% in 1991 to 80% in 2012, mostly applicable to motor vehicles.

Table 8: Nepal's Average MFN Tariff Rate for Selected Years

	1991	2001	2012
Average tariff rates (simple applied)	39.8	14.4	12.2
Maximum tariff rate	245	80	80
Number of tariff bands	7		6

MFN = Most Favored Nation.

Sources: Government of Nepal, Economic Surveys: Trade Policy Review, Nepal; World Trade Organization (WTO) 2011: World Trade Indicators; World Bank.

Recognizing the vital role of trade in the growth and transformation of its economy, Nepal has undertaken several major reviews of its trade policy. In 2009 it issued its first new trade policy since its accession to the World Trade Organization (WTO) in 2004, fully consistent with the principles of the WTO and adhering to the principles of a liberal, open, and transparent economic system. This new policy contained a variety of export promotion and trade facilitation measures to enhance Nepal's competitiveness. In 2010, Nepal came up with the Nepal Trade Integration Strategy (NTIS) to enhance the competitiveness of its exports and seek opportunities abroad. This strategy seeks to improve market access and build domestic support institutions for exporters, and enhance the government's capacity to coordinate trade-related institutions and development partners.

Initiatives have been taken to establish integrated checkpoints at five major customs facilities in the border areas and priority has been given to establish dry ports at all major customs points. Efforts have also been initiated to establish Special Economic Zones in major business hubs. The government has drafted a Special Economic Zone Bill and submitted it for parliamentary approval.

b) Customs Reform and Modernization Policies

In recent years, there have been a number of efforts to modernize the customs system to reduce costs and clearance times. Customs authorities have recently finalized their latest Customs Reform and Modernization Plan (2013–2017). This 4-year plan contains a number of measures in relation to: (i) simplification of procedures; (ii) establishment of client service desks at border offices; (iii) improvement of cargo selectivity, based on better risk management profiling; (iv) more effective use of post clearance audits; (v) Memorandums of Understanding with the trading community; (vi) an improved valuation data base access; and (vii) zero tolerance of incorrect declarations.

A major development has been the introduction and expansion of the Automated System for Customs Data (ASYCUDA), which is now available at 15 customs posts. The government has been planning to eventually launch a web-based clearance system. It is also planning to establish a national single window to streamline trade procedures and reduce transaction costs for doing business across the border.

c) Transport Sector Policies

The transport sector in Nepal continues to be governed by the following policies: the National Transport Policy (2001), the 20-year Strategic Road Network Master Plan, the Priority Investment Plan (PIP) 2007–2016, and the Local Infrastructure Development Policy (2004). These policies recognize the need to connect the whole country and develop and extend a road network that brings all people within reach of an all-season road within four hours walk in the hills and mountains and two hours walk in the Terai. Air transport is focused mainly on promoting tourism and access to remote mountain districts, where road transport will not be economically viable.

In the road subsector, substantial efforts are being made through partnerships with the donors to help the Department of Roads improve its road management capacity, planning and monitoring capability, environmental and traffic safety practices, and control of overloading.

d) Energy Sector Policies

The government's policy initiatives in the energy sector include the Electricity Act 1992, which was designed to develop and manage the hydropower regime in Nepal and to standardize and safeguard electricity services. It dealt with issues such as licensing, royalties, duties and taxes, tariff fixation, and land acquisition. This was followed by the Hydropower Development Policy Nepal (2001), which listed objectives and rules to govern the hydropower sector, including specific functions relating to generation, transmission, and distribution, and the creation of an independent power systems operator. Recently, draft versions of the Nepal Electricity Act and the Nepal Electricity Regulatory Commission Act have been approved by the Cabinet and submitted to Parliament in 2013: the former is to restructure Nepal Electricity Authority (NEA) through unbundling of its generation, transmission, and distribution operations; the latter is to set up an independent regulatory regime for the power sector, which has long been considered necessary to attract investment into the sector. Other government initiatives include the National Water Resource Strategy 2002, which contains policy directives such as (i) NEA to become commercially viable through corporatization, improved management, and separation of its rural electrification operations; (ii) NEA to be unbundled by separately creating a transmission/load dispatch center; and (iii) generation to become the responsibility of a separate corporation. With a declared state of energy crisis, the National Electricity Crisis Resolution Action Plan 2008 was approved by the cabinet with various action points, ranging from immediate to long-term strategies, to deal with the worsening situation. These included increasing power imports from India, construction of thermal power plants, expanding transmission capacity, and curbing electricity theft. In December 2006, the government set up a task force to prepare a road map for a hydropower development plan in Nepal, with the objective of generating 10,000 MW in 10 years.

e) Infrastructure Financing Policies

Nepal has recently recognized the need to engage the private sector in infrastructure development. The priorities are the construction of new road networks, generation of hydroelectricity, railways, and airports. It established the Nepal Investment Board to focus on mobilization of investment for mega infrastructure projects under public–private partnerships (PPP) and other suitable funding mechanisms. It introduced the Build, Own, Operate, and Transfer (BOOT) Act 2006, the Banks and Financial Institutions Act, and the Private Financing in Build and Operation of Infrastructures Act 2063 BS (2006).

Recently, Kathmandu–Kulekhani–Hetauda tunnel (58 km) project received the permission from the government to be developed under the BOOT system. Some of the other projects under consideration for private participation include a “fast-track” north–south corridor linking

Kathmandu with Terai, an east–west rail corridor in Terai, and two north–south corridors linking the PRC with India.

Numerous studies have indicated that the prolonged political instability that has weakened the country's governance has been a critical constraint on private sector investment.⁷ The political uncertainties following the dissolution of the country's constituent assembly in May 2012 have disrupted the formulation and implementation of policies conducive to private investment. Of particular importance is the delay in amending the Private Financing in Build and Operation of Infrastructures Act—popularly known as the BOOT act—which governs PPP investments and currently lacks clarity. For example, the government's ability under the act in its current form to cancel concession agreements without effective compensation for the concessionaire in FDI and BOOT projects heightens the risk profile in the view of private investors and discourages them from investing in Nepal. Moreover, the limited capacity of the bureaucracy and its weak governance has meant that a comprehensive strategy to deal with the exigencies of private sector development (PSD) is lacking. Among other obstacles to business, the private sector must deal with slow bureaucratic procedures, weak enforcement of contracts, a cumbersome tax regime, and inconsistent policies. In 2010, the government set up the Nepal Business Forum to address these issues; facilitate a national platform for public–private dialogues; and establish a structured, transparent, and results-oriented mechanism through which the public and private sector can collaborate to find solutions.

6.2 Bilateral Cooperation and Integration Policies

Nepal has also attempted to improve cooperation with its neighboring countries.

a) Nepal–India Cooperation

The governments of Nepal and India have a long history of cooperation on trade and transit. The treaties governing bilateral trade and transit between the two countries include: (i) the Treaty of Trade, (ii) the Treaty of Transit, and (iii) the Railway Service Agreement.

The Treaty of Trade was renewed in October 2009 for 7 years. Under this treaty, India and Nepal accord each other unconditional MFN treatment; they also exempt imports of certain primary products from customs duties and quantitative restrictions on a reciprocal basis; and India grants (non-reciprocal) preferential treatment to almost all industrial products manufactured in Nepal to promote the industrial development of Nepal. The renewed treaty has: (i) expanded the list of primary products with duty free access to India; (ii) agreed to recognize the sanitary and phyto-sanitary certificates issued by the competent authority of the exporting country if that authority is internationally accredited; (iii) adopted a joint mechanism for clearance of perishable goods; (iv) established an Inter-Governmental Sub-Committee at the joint-secretary level in addition to an Inter-Governmental Committee; and (v) agreed to capacity building for Nepal on technical standards, quarantine and testing facilities, and human resources.

The Treaty of Transit, which was renewed in March 2006 and again in 2013, confirms transit rights through each other's territory through mutually agreed routes and modalities, restricting Nepalese traders to the use of only the port, at Kolkata–Haldia. India allows Nepali trucks to operate on designated routes. Indian trucks can go anywhere in Nepal as long as they return to India within 72 hours. Goods can move by road or rail through the two countries. The Inland

⁷ World Economic Forum (2013); ADB, Department for International Development, and International Labour Organization (2009).

Clearance/Container Depot (ICD) in Birgunj and the extension of the railway line from Raxaul to Birgunj has facilitated the direct movement of goods by rail between the two countries.

As part of a 2012 review of the Rail Services Agreement, India agreed to the movement of containerized railway cargo between all ICDs and Integrated Check Posts (ICPs) between Nepal and India through which Nepal is authorized to carry out third country trade. However, break bulk and open wagons are still not permitted, restricting the types of products Nepal can trade internationally.

Nepal and India have also signed an Agreement of Cooperation to Control Unauthorized Trade between India and Nepal, a Double Taxation Avoidance Agreement, Bilateral Investment Promotion and Protection Agreement (BIPPA), and Air Service Agreement. Moreover, the two countries have signed a bilateral agreement to exchange power to address the seasonal disparity of demand and supply of electricity in both countries.

b) Nepal–Bangladesh Cooperation

In 1976, Nepal and Bangladesh signed a bilateral agreement on transit under which traffic-in-transit was made exempt from customs duty and from all transit duties or other charges (except reasonable charges for transportation). It provides six points of entry and exit for the movement of traffic-in-transit through Bangladesh ports and border crossings—Mongla Port, Chittagong Port, Birol, Banglabandha, Chilahati, and Benapole. However, the agreement is bilateral rather than tripartite and Nepal still needs Indian consent to reach Bangladesh through India. It may be that this agreement is largely symbolic, as this is not considered to be a commercially viable transit route. Furthermore, rail connection between Nepal and Bangladesh is also possible on the Rohanpur–Singhabad sector. The necessary studies on the feasibility of this route have been conducted, but the government has yet to make the necessary arrangements and amendments to make the route fully operational.

c) Nepal–PRC Cooperation

Nepal and the PRC have concluded a number of trade and trade-related treaties. These include the Trade and Payment Agreements 1981, the Agreement with Tibet Autonomous Region (TAR) of the PRC on Trade and Other Related Matters 2002, the Bilateral Road Transportation Agreement 1994, the Agreement of Cooperation for Industrial Product Inspection 2005, and the Air Services Agreement 2003. Moreover, a Memorandum of Understanding between Nepal and TAR of the PRC to establish a Nepal–Tibet Trade Facilitation Committee was signed on 2 September 2009. The letter of exchange of 14 May 2010, which provides zero-tariffs for 4,721 exports to the PRC, could also serve as an important step in promoting Nepal's exports to the PRC.

The Trade and Payments Agreements 1981 also identified three trading points for frontier trade: Kodari–Nyalam, Rasuwa–Kerung, and Yari (Humla)–Purang. Two further trading points, Kimanthang–Riwu and Nechung (Mustang)–Lizi, were added through letters of exchange on 3 December 2003, and it was recognized that the Olangchunggola–Riwu trading point was also in operation. The provisions of the traditional border trade on barter basis and the movement of the border inhabitants were also given continuity by the agreement. The Kodari–Nyalam (41 km) trading route was the only trading point with a road connection until recently. With the recent completion of the Syaphrubesi–Rasuwa–Gadhi (18 km) road, Rasuwa–Kerung (22km) has also come into operation.

6.3 Subregional Cooperation and Integration Policies

Nepal has played an active role in the South Asian Subregional Economic Cooperation (SASEC) program, which is designed to promote subregional cooperation initiatives between Bangladesh, Bhutan, India, and Nepal. It aims to foster cooperation among these countries in the areas of transport, energy, and trade. Nepal perceives that the advantage of SASEC lies in its pragmatic, results-oriented, and project-based focus. ADB assumed the role of facilitator in supporting the SASEC initiative program as an honest broker. SASEC provided strategic directions and venues for dialogue and decision-making regarding identification and implementation of cross-border projects. Following the successful meetings of its working groups in Bangkok (20–22 October 2011) and Kolkata (5 March 2012), the SASEC program has made substantial progress, particularly in the areas of transport, trade facilitation, and energy.

6.4 Regional Policies

Nepal played an active role in the formation of the economic development-oriented South Asian Association for Regional Cooperation (SAARC) and hosts its secretariat. The original seven members (Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka) signed the South Asian Preferential Trading Arrangement (SAPTA) in 1993. Afghanistan became a member in 2008. The objective of SAPTA was to promote and sustain mutual trade and economic cooperation among the member states through exchange of trade concessions. It was agreed that SAPTA would be a first step to higher levels of trade liberalization and economic cooperation among the members.

Nepal is also a party to the South Asian Free Trade Agreement (SAFTA), whose members have committed to a 10-year tariff phase-out beginning in 2006. Members reached an agreement on some outstanding issues to render SAFTA effective from January 2006, which include safeguard measures—sensitive lists (to be within 20% of the total tariff lines of member countries) and rules of origin (at least 40% value addition)—as well as a revenue compensation mechanism for the least developed country (LDC) members for loss of customs duties (to be in place for 4 years). The SAFTA agreement does not address cross-border investment or movement of labor, and no timeframe has been set for eliminating NTBs. In 2010, the SAARC Agreement on Trade in Services (SATIS) was signed with the aim of fostering economic integration in the region.⁸

The net benefits from regional integration under SAFTA for Nepal depend on scale economies gained from access to a larger market, offsetting any trade diversion and loss of customs revenue (Karmacharya 2005). Given that it already has significantly higher interregional trade by virtue of its ties with India, particularly important for Nepal would be whether and how the preferential trading agreement with India is integrated into SAFTA. The impact on tariff-free market access to the Indian market as well as a reduction in NTBs would be crucial. However, as trade gains might be limited by similar production structures and factor endowments, appropriate focus would be required on improving trade facilitation (transit agreements, lowering trade-related costs through more efficient customs procedures, and harmonizing standards). The benefits of SAFTA will also depend on the effective and time-bound implementation of safeguard measures, better infrastructure, and regional connectivity.

⁸ The signing took place during the Sixteenth SAARC Summit held in Thimpu, Bhutan.

6.5 Inter-regional Policies

Nepal is a member of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), which entered into force in 1997 as a forum to facilitate and promote trade, investment, and technical cooperation among participating countries. It consists of five SAFTA member countries (Bangladesh, Bhutan, India, Nepal, and Sri Lanka), plus Myanmar and Thailand of ASEAN.⁹ BIMSTEC has identified 13 broad sectors for cooperation, including: trade and investment, technology, tourism, transport and communication, energy, agriculture, fisheries, poverty alleviation, and counter-terrorism and transnational crimes.¹⁰

In 2004, BIMSTEC parties agreed to establish the BIMSTEC Free Trade Area Framework Agreement on goods, services, and investment. Article 3 of the agreement provides that products, except those included in the “negative list,” will be subject to tariff reduction or elimination on the basis of fast and normal tracks for its developing country parties (India, Sri Lanka, and Thailand) and LDC parties (Bangladesh, Bhutan, Myanmar, and Nepal). Rules of origin have not yet been agreed among BIMSTEC countries. These issues are being discussed in BIMSTEC’s Trade Negotiating Committee.

6.6 Multilateral: World Trade Organization and Nepal

Nepal had applied for membership of the General Agreement on Tariffs and Trade (GATT) in 1989 and finally acceded to the WTO in April 2004 following a strenuous accession process. It became the first LDC member to join the WTO through the accession process. Nepal is an active participant in WTO negotiations. It participates mainly in NAMA, Agriculture, Services, Trade-Related Aspects of Intellectual Property Rights (TRIPS), Trade Facilitation, Subcommittee on Least Developed Countries, Special and Differential (S&D) treatment, and Sanitary and Phytosanitary Agreement (SPS) negotiations. Mostly, Nepal raises issues related to LDCs.

In the process of accession, Nepal had made several commitments, many of which have already been implemented. Regarding those that remain to be implemented, although Nepal is fully committed to implementing them, the government intends to do so gradually and prudently to avoid hurting Nepal's already weak and vulnerable economy as much as possible. As part of this process, the Ministry of Commerce and Supplies (MoCS) has launched a project to implement the remaining WTO commitments. The ministry has formed a committee representing concerned agencies and other stakeholders to support and oversee implementation of WTO commitments.

⁹ BIMSTEC was initiated with the goal of combining the “Look West” policy of ASEAN with the “Look East” policy of South Asia. The purpose and principles of BIMSTEC date back to the Bangkok Declaration of 6 June 1997 on the establishment of Bangladesh–India–Sri Lanka–Thailand Economic Cooperation (BISTEC). Nepal had participated as an observer from 1998 and became member in 2004, together with Bhutan.

¹⁰ See BIMSTEC online information. Viewed at: http://www.bimstec.org/about_bimstec.html.

7. ONGOING AND PRIORITY CONNECTIVITY-RELATED REGIONAL COOPERATION AND INTEGRATION PROJECTS IN NEPAL

7.1 Recently Completed and Ongoing Regional Cooperation and Integration Projects

Appendix 2 provides a detailed list of recently completed and ongoing connectivity-related RCI projects in Nepal, together with their expected benefits and costs.¹¹ The key RCI connectivity projects are:

- (i) Nepal Multimodal Transit and Trade Facilitation Project, which focused on constructing Inland Container Depots (ICDs) at three locations along the Indian border: a rail-based ICD at Sirsiya (close to the Birgunj border), where rail traffic from India is transshipped to road trucks in Nepal; and road-based ICDs at Biratnagar in the eastern part of Nepal and Bhairahawa to the west of Kathmandu.
- (ii) Syaphrubesi–Rasuwegadhi Road Project and the Galchi–Trisuli–Dhunchi–Syaphrubesi road under the Road Connectivity Sector I Project: the Syaphrubesi–Rasuwegadhi road linked Rasuwa in Nepal to Kerung in Tibet and together with the Galchi–Trisuli–Dhunchi–Syaphrubesi road provides the second alternative road connecting the PRC with India. It is believed that this road has greater potential than the present one through Kodari.
- (iii) Integrated Check Posts Project, which helped to construct and improve four integrated check posts (ICPs) on the border with India. These included check posts in Raxaul (India)–Birgunj (Nepal), Sunauli (India)–Bhairahawa (Nepal), Jogbani (India)–Biratnagar (Nepal), and Nepalgunj Road (India)–Nepalgunj (Nepal).
- (iv) B. P. Koirala Highway Project, which seeks to connect the capital city of Kathmandu with the Eastern Terai and link them to neighboring cities in India. This road link will also provide an alternative link between Kathmandu and the Terai.
- (v) Airport Enhancement Project, has been upgrading Tribhuvan International Airport (TIA) and three domestic airports.
- (vi) Sub Regional Transport Enhancement (STEP) Project, which aims to facilitate efficient and safe transport within Nepal, with India and through India, with Bangladesh, and with Bhutan by (a) improving connectivity of remote areas with national and subregional markets, and (b) enhancing the capacity of major international trade corridors in conjunction with customs system improvement.
- (vii) SASEC Trade Facilitation Project aims to help the three SASEC countries, including Nepal, adopt an international customs administration protocol, upgrade existing automated customs management systems, and establish web-based electronic trade portals, which will give importers and exporters timely, accurate information.
- (viii) Nepal–India Electricity Transmission and Trade Project, which seeks to establish cross-border transmission capacity of about 1,000 MW to facilitate electricity trade between India and Nepal and to increase the supply of electricity in Nepal by at least 100 MW.

¹¹ For details, see Karmacharya (2013).

- (ix) East–West Optical Fibre Cable Project, which includes placing 858 km of optical fibre along the East–West Highway.
- (x) SASEC Information Highway Project, which seeks to develop (i) a SASEC regional network with fiber-optic and data interchangeable capacity, (ii) a SASEC village network by expanding broadband information and communications technology (ICT) access, and (iii) a SASEC research and training network to build technical and business skills in ICT.
- (xi) South Asia Tourism Infrastructure Development Project, which aims to develop the Nepal side of the “Footsteps of the Lord Buddha Circuit” by focusing interventions on Lumbini.
- (xii) SASEC Road Connectivity Project, which aims to enhance local and regional connectivity along the Kakarbhitta (Nepal)–Panaitanki (India)–Phulbari (India)–Banglabandha (Bangladesh) regional road corridor identified by the ADB-supported SAARC Regional Multimodal Transport Study (SRMTS). In particular, the project aims to improve the East–West Highway links around the Indian border in the east and increasing the cross-border trade volume and hence regional economic growth.
- (xiii) Nepal India Trade and Transport Facilitation Project, which aims to decrease transport time and logistics costs for bilateral trade between Nepal and India and transit trade along the Kathmandu–Kolkata corridor for the benefit of traders by reducing key infrastructure bottlenecks in Nepal and by supporting the adoption of modern approaches to border management.
- (xiv) Tatopani Frontier Inspection Station Project, which seeks to construct a dry port at Larcha in Tatopani, the main customs point between Nepal and the PRC. The project is expected to facilitate trade between the two neighboring countries by reducing the massive congestion at the Tatopani customs point.

7.2 Priority Regional Cooperation and Integration Connectivity Projects for Nepal

The priority RCI connectivity projects that should convert Nepal into a land-linked state are:¹²

a) Transport Sector (Appendix 3)

- (i) Completion of the Kathmandu–Kulekhani–Hetauda Tunnel Road (the “Tunnel Road”), which is at the planning stage and implementation has been proposed to start soon. This will be a new mountainous road along an entirely new alignment connecting Kathmandu with Hetauda in the south. The project will be developed under a PPP scheme by a private company.
- (ii) Upgrading of four important trade routes to six-lane highways to facilitate bilateral trade with India. These include: (i) Pathalaiya–Birgunj (Nepal)–Raxaul (India) Road; (ii) Dharan–Biratnagar (Nepal)–Jogbani (India) Road; (iii) Belhiya (Nepal)–Sunauli (India) to Bhairahawa–Butawal Road; and (iv) Suryabinayak–Dhulikhel Road (Appendix 3).
- (iii) Upgrading of the Kathmandu–Kolphu–Trishuli–Syaphrubesi–Raswagadhi corridor to a high quality (7-meter wide paved) road and connecting it to the fast-track Kathmandu–Birgunj road. An ICD also needs to be built at Raswagadhi.

¹² The projects were identified based on the authors’ assessments of their development impacts and discussions with several researchers.

- (iv) Upgrading of the international airport in Kathmandu, upgrading of airports in various parts of the country and building a new international airport somewhere in the country (possibly in Nijgadh) to reduce pressure at the Kathmandu airport and to act as a diversion airport in case of adverse weather.
- (v) Establish new rail links between the Nepalese border towns and the Indian rail network at five locations on the Indo-Nepal border.¹³ One of these rail links could eventually connect to Kathmandu.
- (vi) Consider the Trans-Himalayan Railway project to link the PRC with India. For bulky items, railroads will be more cost-effective than roads. Railroads will be more energy-efficient and environmentally-friendly as well. A recent feasibility study has established the viability of a railway from Kathmandu to Birgunj. Also, the Beijing–Tibet Railway has already reached Xigaste, a PRC city close to Nepal.

b) Energy

Prioritize the three projects that were proposed in ADB's SAARC Regional Energy Trade Study (SAARC Secretariat 2010).

- (vii) SASEC Power System Expansion (\$180 million), which will support the construction and operation of national high-voltage transmission lines for domestic demand and also enhance cross-border power trading capacity. The interconnection between Nepal and India will eventually form part of interconnected SASEC power systems.
- (viii) Subregional Transmission Capacity Expansion Project (\$225 million), which targets the strengthening and expansion of transmission systems and will enable Nepal to benefit more extensively from its abundant hydropower resources.
- (ix) Project Preparatory Facility (\$21 million), which is intended to prepare a series of hydropower projects and related transmission infrastructure for development in Nepal, emphasizing private sector participation and regional integration.

c) Trade Facilitation

- (x) Prioritize modernizing customs procedure under the SASEC Trade Facilitation Program II (\$60 million) supported by ADB.

8. CONCLUSIONS

This paper makes the case for a connectivity-driven development strategy for Nepal by making it a land-linked state between South Asia, the Association of Southeast Asian nations (ASEAN), and the People's Republic of China (PRC). It has argued that such a strategy is not a really new one for Nepal as in the past the country was strategically located on the Southwestern Silk Road. A number of factors have strengthened the case for reviving the Southwestern Silk Road for the mutual benefits of the countries it straddles. However, a large number of constraints will have to be overcome for Nepal to be able to realize this vision. The main constraints are the unstable political situation and rampant corruption in the country—which is hampering implementation of projects—the chronic lack of financial resources, and the lack of goodwill from some of the neighboring countries. The quality of infrastructure is also poor in Nepal. Partnerships with neighboring countries and donor support will be the key factors determining the success of the proposed connectivity-driven strategy.

¹³ Nepalgunj, Bhairahawa, Janakpur, Biratnagar, and Kakarbhitta.

This paper has proposed four conceptual corridors to connect South Asia with the PRC and ASEAN. Further research has to be undertaken to fully assess the economic impacts of these proposed corridors, using a geographical simulation model (e.g., Kimura and Umezaki 2010) or a global computable general equilibrium model (e.g., Bhattacharyay, Kawai, and Nag 2012). Such an approach was beyond the scope of this paper.

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APPENDIX 1

Nepal and India are linked together by age-old geographic, cultural, social, and economic ties. Historical records show the extensive trade relations between Nepal and India dating back to the golden age of the Guptas beginning in 320 AD. This continued during the British colonial rule over India and to the present day. While trading with India is important for Nepal, India's motivation for trading with Nepal is largely strategic because the volume of trade with Nepal represents only a fraction of India's trade globally. Although relations between India and Nepal are intimately intertwined, they are fraught with difficulties, due in part to the asymmetric power relations between the two neighbors (SAWTEE 2012a).

Historically, Nepal's cultural and economic ties with Tibet were also quite extensive. There are hundreds of cave dwellings in the upper Mustang Valley of Nepal filled with magnificent centuries old Hindu and Buddhist paintings. These vast cave settlements are evidence that the valley was frequented by pilgrims from Tibet and India (Bohara 2010). On the economic front, Nepal and Tibet traded salt, rugs, and spices for centuries and Nepal used to have a strong business presence in Lhasa. Even now, there are hundreds of Nepalese permanently settled in Tibet (Bohara 2010).

In those days, cultural and trade relations between the PRC and India were close. As Tan (1999) writes, "India and PRC are naturally a pair of sister countries. Their similarities and their associations are great, numerous, and intimate. Looking over the geography and history of all the nations in the world, we find there are not any other two nations that can be compared to our two countries. This is true from every respect and from every standard of observation and judgment. Our two countries, both situated in the bright and glorious continent of Asia. India to the south-west and PRC to the north-east, spread out lordly in different directions but yet are linked up at the main line, just like the two wheels of a carriage or the two wings of a bird, and, even better to say, like the two hands and feet or the two ears and eyes of a person. And the Himalayas, gigantic and majestic, brilliant and magnificent, exactly resemble the common backbone, or the shoulders, or the neck, and also the nerve system of theirs. Though their boundaries are marked off, yet the physical shape is similar."

Nepal also used to be an entrepôt or a gateway for India and PRC trade during historical times, as alluded to in the preceding paragraph, and the country benefited significantly from this role.¹ In those days, prosperity of Nepal and its major cities was well synchronized with those of its neighbors in the north and the south and during much of the Moghul era and the Tang dynasty in the PRC, Nepal was a prosperous state (Pandey 2010). The Licchavi and Malla kings in the 14th and 15th centuries, in particular, encouraged Nepalese businessmen to arbitrage between the two countries. One Licchavi king, Angsuverma, even got his daughter, Bhrikuti, married to the emperor of Tibet.

¹ For centuries Nepal was a cradle of refuge in the middle of the Himalayas. It was a place where Hinduism, Buddhism, and Animism met (www.panasiacreativity.com).

APPENDIX 2

Table A2: Detailed List of Recently Completed and Ongoing Regional Cooperation and Integration Connectivity Projects in Nepal, 2010 onward

	Sector/ Subsector	Description/Components	Benefits	Cost	Funding Source
Nepal Multimodal Transport (1997–2003)	TF	Construction of ICDs at three locations along the Indian border: a rail based ICD at Sirsiya, Birgunj; and road based ICDs at Biratnagar and Bhairahawa.	Reduce the transport costs of Nepal's foreign trade, streamline trade and transit procedures, and improve the efficiency and organization of transit trade documents.	\$21.4 million	World Bank
Subregional Transport Facilitation Project (2005–2010)	Road/TF	i. Construction of a two-lane access road from Birgunj ICD (Padam road) to Tribhuvan Highway (about 12.4 km); ii. Upgrading of a shortcut gravel road from Bhairahawa to Bhumahi at East–West Highway (EHW) to two-lane access road leading to Kathmandu and other parts of Nepal (about 29 km); iii. Construction of an ICD at Kakarbhitta in eastern Nepal.	i. Reduction in transportation cost on the cross-border movements of goods and passengers; through the time-saving in goods dwelling time, customs clearance, and pilferage and damage of goods during storage in the customs area.	\$27 million	ADB
Syaphrubesi–Rasuwegadhi Road Project (2010–2012)	Road	Development of alternative trans-boundary route between Nepal and the PRC.	Facilitate economic, tourism, and marketing activities between Nepal and the PRC.	\$8.5 million	PRC
Road Connectivity Sector I Project (2006–2012)	Road	Upgrading of roads (227 km) including Galchi–Trisuli–Dhunchi–Syaphrubesi road.	Syaphrubesi–Rasuwegadhi Road together with Galchi–Trisuli–Dhunchi–Syaphrubesi road provides the second alternative road connecting the PRC and India.	\$80 million	ADB
Integrated Border Check Posts (2011–)	TF	Development of four Integrated Check Points at the main borders with India.	New ICPs will reduce congestion at the border and transaction costs.	\$130 million	India
B.P. Koirala Highway Project (1996–2015)	Road	Alternative road connecting Kathmandu with the Mid-Eastern Terai and linking with neighbouring cities in India.	Reduced travel distance/time/transport cost between Kathmandu valley and eastern Terai.	¥25.8 billion	Japan

Airport Transport Capacity Enhancement Project (2011–2014)	Air	Implementation of Airport Master Plan for Tribhuvan International Airport with extensions to runways, additional taxiways, extension to international terminal and new domestic terminal.	Developments will improve air connectivity by attracting larger aircraft, improve terminal condition, and enhance safety.	\$92 million	ADB
South Asia Tourism Infrastructure Development Project (2009–)	Air	Development of the Nepal side of the “Footsteps of the Lord Buddha Circuit” by (i) improving Lumbini’s environmental quality, presentation of the site, and visitor facilities and (ii) enhancing the air connectivity to Lumbini.	Improve air access to Lumbini by upgrading the Gautam Buddha Airport (Bhairahawa) to regional international airport standard, as an alternative airport to TIA in case it ever has to close, and to cater for the tourist trade from India visiting Lord Buddha’s birth place.		ADB
SASEC Road Connectivity Project (2013–)	Road	Creation of year-round passable conditions along the East–West Highway, which links around the Indian border in the east.	Enhanced local and regional connectivity along the Kakarbhitta (Nepal)–Panaitanki (India)–Phulbari (India)–Banglabandha (Bangladesh) regional road corridor and increased cross-border trade volume and hence higher regional economic growth.	\$97 million	ADB
Subregional Transport Enhancement Project (2010–)	Road+TF	Improve the country’s network totalling 195 km, by (i) providing north–south link of the country’s northeastern region to the east–west highway (EWH); and (ii) improving major international trade corridors in the country in conjunction with customs system improvement.	Savings vehicle operating cost and time-savings for traffic of goods and services. Increased production in the area served.	\$76 million	ADB
SASEC Trade Facilitation Program (2013–)	TF	Customs Reform and Modernization–upgrading of ICT, simplification and harmonization of procedures and documentation, development of a National Single Window.	Developments will reduce cross-border transactions costs and facilitate trade.	\$15 million	ADB
Nepal India Trade and Transport Facilitation Project (2013–)	Road+TF	Upgrading of 33 km of the Mungling–Narayanghat road section and studies on axle load control and road safety measures. Modernization of transport and transit arrangements, institutional capacity strengthening, and development of a trade portal.	Improvement on a critical section of existing main trade corridor. Modernization of transport and transit arrangements, institutional capacity strengthening, and development of a trade portal.	\$48 million \$32 million	World Bank
Tatopani Frontier Inspection Station Project (2012–)	TF	Construction of a dry port at Larcha in Tatopani, the main customs point between Nepal and the PRC.	Facilitate trade between the two neighboring countries by reducing congestion at the Tatopani customs.		PRC

Nepal–India Electricity Transmission and Trade Project (2011–)	Energy	Establish cross-border transmission capacity of about 1,000 MW to facilitate electricity trade between India and Nepal.	Increase the supply of electricity in Nepal by at least 100 MW.	\$202.3 million	World Bank
Energy Access and Efficiency Improvement Project (2009–)	Energy	Rehabilitation of two hydropower plants, supply-side energy efficiency, demand-side management, and strengthening of the transmission network.	Allow increased cross-border energy imports in short term and cross-border energy exports in the medium term.	\$94 million	ADB
Energy Access and Efficiency Improvement Project II (2011–)	Energy	Increased power transmission capacity between the western and central regions; (ii) increased cross-border power transmission capacity; (iii) improved generation output in selected hydropower plants.		\$83.6 million	ADB
SASEC Information Highway (2007–)	ICT	Development of (i) a SASEC regional network with fiber-optic and data interchangeable capacity, (ii) a SASEC village network by expanding broadband ICT access, and (iii) a SASEC research and training network to build technical and business skills in ICT.	Enhance the benefits of ICT and regional cooperation for inclusive growth and poverty reduction, and help the country to improve its productivity and efficiency.		
East-West Optical Fibre Cable Project (2002–2004)	ICT	This project included placing of 858 km of optical fibre cable along the East–West Highway.		NRe1180 million	India

APPENDIX 3

Table A3: List of Priority Regional Cooperation and Integration Connectivity (Roads and Rail) Projects for Nepal

	Sector/ Subsector	Description/Components	Benefits	Cost	Funding Source
Kathmandu–Kulekhani–Hetauda Tunnel Road	Road	Kathmandu–Kulekhani–Hetauda Tunnel Road is new north–south road connection from the Indian border to the capital.	Project would significantly reduce time and costs on country's key trade link.	\$367 million	
Pathalैया–Birgunj (Nepal)–Raxaul (India) Road	Road	Pathalैया (Intersection point of East West Highway)–Birgunj (Nepal)–Raxaul (India) will be upgraded to six lanes.	This is the main trade route, but it is only a single carriageway.	Rs5 billion	GON
Dharan – Biratnagar (Nepal) – Jogbani (India) Road	Road	Dharan–Biratnagar (Nepal)–Jogbani (India) road link expansion to six lanes.	Important trade route in east of the country.		GON
Belhiya (Nepal) / Sunauli (India) to Bhairahawa/Butawal Road	Road	Belhiya (Nepal) / Sunauli (India) to Bhairahawa/Butawal Road to be widened to six lanes to improve trade route in west.	Connects the west for trade purposes.	Rs2.6 billion	GON
Suryabinayak–Dhulikhel Road	Road	Suryabinayak–Dhulikhel Road to be widened to six lanes.	Speed up connection between Kathmandu and PRC for trade purpose.	Rs3 billion	Japan
SASEC Road Connectivity II	Road		Enhance local and regional connectivity.	\$45 million	ADB
South Asia Tourism Infrastructure Development		Capacity increase of Gautam Buddha Airport.		\$30 million	ADB
Air Transport Capacity Enhancement II		Upgrading of remote domestic airports.		\$60 million	ADB
Nepal–India Cross Border Rail Links	Rail	Development of up to five new rail connections with India.	New links will provide additional rail services to Indian border towns.	\$300 million	India