

# Quest for Prosperity Nepal's Development, Trade & Diplomacy 2020

# **Editors**

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The publication is the initiative of Institute of Foreign Affairs(IFA), Nepal to compile research papers submitted by the interns as part of the interna program conducted by the Institute, primarily in the foreign policy realm, with inclusion of the research studies in the field of disaster diplomacy, LDC graduation, hydro-power trade, soft power, and landlocked Nepal.

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# Acronyms

ADB Asian Development Bank
ALA Alpha-Linolenic Acid
BCE Before the Common Era

BCPR Bureau for Crisis Prevention and Recovery

**Bo**T Balance of Trade

BPC Beauty and Personal Care
BPoA Brussels Program of Action
CAGR Compound Annual Growth Rate

**CARE** Cooperative for Assistance and Relief Everywhere

CCP Central Command Post
CDO Chief District Officer

**CDP** Committee for Development Policy

CE Common Era

**CFE-DMHA** Center for Excellence in Disaster Management & Humanitarian

Assistance

CNDRC Central Natural Disaster Relief Committee

CNN Cable News Network
COVID-19 Coronavirus Disease 2019

CPN-M Communist Party of Nepal-Maoist

CSIS Center for Strategic and International Studies

DAAD Deutscher Akademischer Austauschdienst

**DC** Developing Country

**DDMC** District Disaster Management Committee

DESA Development/Department of Economic and Social Affairs

**DFID** Department for International Development

DHS Demographic and Health SurveyDPNet-Nepal Disaster Preparedness Network- Nepal

**DRR** Disaster Risk Reduction

**DRRM** Disaster Risk Reduction Management

**ECHO** European Civil Protection and Humanitarian Aid Operations

EOCEmergency Operation CenterERASMUSEuropean Region Action SchemeERSBEmergency Response Support Branch

**EU** European Union

EVI Economic Vulnerability Index

**EWS** Early Warning System

FAO Food and Agriculture Organization

FDI Foreign Direct Investment FMAs Foreign Military Assets

FY Fiscal Year

GAEI Global Applied Ethics Institute

GAR Global Assessment Report
GDP Gross Domestic Product
GFP Global Firepower

GLOFs Glacier Lake Outburst Floods
GMM Generalized Method of Moments

**GMT** Greenwich Mean Time GNI Gross National Income **GNP** Gross National Product GoN Government of Nepal HAI Human Asset Index Human Coordinator HC HDI Human Development Index **HFA** Hyogo Framework for Action

**HSA** 

HuMOCC Humanitarian-Military Operational Coordination Concept
ICNR International Conference on Nepal's Reconstruction
ICONEG International Conference on Environmental Governance

Humanitarian Staging Area

ICRC International Committee of the Red Cross

IEC INSARG External Classification
IFA Institute of Foreign Affairs
IFIs International Financial Institutions

**IFRC** International Federation of Red Cross and Red Crescent

Societies

INGOs International Non-Governmental Organizations
INSARAG International Search and Rescue Advisory Group

IOL Intra-Ocular Lens

IOM International Organization for Migration
 IPCC Intergovernmental Panel on Climate Change
 IpoA Istanbul Declaration and Program of Action
 ISET Institute of Social and Environment Transition

ISIS Islamic State of Iraq and Syria
JCC Joint Command Center
KFC Kentucky Fried Chicken
KII Key Informant Interview
LDC Least Developed Country

**LEMA** Local Emergency Management Authority

**LLC** Land Locked Country

MAPS Medicinal and Aromatic Plants
MCC Millennium Challenge Corporation

MICS Ministry of Industry Commerce and Supplies Nepal
MLESS Ministry of Labour Employment and Social Security
MNMCC Multi-National Military Coordination Center

MoFMinistry of FinanceMOFAMinistry of Foreign Affair

MoHA Ministry of Home Affairs Medecins San Frontiers **MSF** 

MTMetric Ton NA Nepali Army

**NCDRRM** National Council for Disaster Risk Reduction and Management

NCP Nepal Communist Party **NCRA** National Calamity Relief Act

**NDMO** National Disaster Management Organization

**NDRF** Nation Disaster Response Framework

National Disaster Risk Reduction and Management Authority **NDRRMA** 

**NEOC** National Emergency Operation Center **NGOs** Non-Governmental Organizations NPC National Planning Commission

**NPCS** National Planning Commission Secretariat

**NRCS** Nepal Red Cross Society

**NRNA** Non- Resident Nepali Association **NRRC** National Risk Reduction Consortium

**NSDRM** National Strategy for Disaster Risk Management

**NTIS** Nepal Trade Integration Strategy

**OBOR** One Belt One Road

ODI Overseas Development Institute

OSOCC On-site Operations and Coordination Center **PDMC** Provincial Disaster Management Committee

**PM** Prime Minister

**PNS** Partner National Societies RC Regional Coordinators SAR Search and Rescue

SFDRR Sendai Framework for Disaster Risk Reduction SIAS South Asia Institute of Advance Studies Substantial New Program of Action **SNPA** 

SPA Seven Party Alliance

**SWOT** Strength Weakness Opportunity Threat

TAR Tibetan Autonomous Region TIA Tribhuvan International Airport

UAE United Arab Emirates UK United Kingdom **UML** Unified Marxist-Leninist

UN United Nations

**UN CDP** United Nations Centre for Development Planning

UN United Nation

**UN-CMCOOrd** United Nations Civil-Military Coordination

UNCTAD United Nations Conference on Trade and Development UNDAC United Nations Disaster Assessment and Coordination United Nations Department of Economic and Social Affairs **UNDESA** 

**UNDP** United Nations Development Programme

**UNDRR** United Nations Office for Disaster Risk Reduction

UNESCO United Nations Educational, Scientific and Cultural Organization

UNFPA United Nations Population Fund
UNGA United Nations General Assembly

UNHCR United Nations High Commissioner for Refugees

**UNIECF** United Nations Children's Fund

UNISDR United Nations International Strategy for Disaster Reduction
UNOCHA United Nations Office for the Coordination of Humanitarian

Affairs

UNRCO United Nations Resident Coordinator Office

USA United States of America
USAR Urban Search and Rescue
USD United States Dollar

WAS Water, Sanitation and Hygiene

WB World Bank

WFP World Food Programme
WHO World Health Organization

WTTC World Travel and Tourism Council

# **FOREWORD**

Encouraging any enthusiastic and creative minds for study should be the effort of any national institutions. It would in turn make researcher become aware of quest for knowledge to contribute to the development and prosperity of the country. In the meantime, it would also enrich the literature in the relevant fields of study. The Institute of Foreign Affairs, therefore, is glad to introduce research papers by the interns comprising five studies in the fields of disaster diplomacy, LDC graduation, hydro-power trade, soft power, and landlocked Nepal.

It is also equally important to engage and guide bright young minds in Nepal's Foreign Policy. This initiative is a small step in that direction. We paired up the young interns with veterans, who supervised the project, so that the young scholars can learn from their interactions with the supervisors. After all, the young people are the future.

The paper on "Diplomatic Role of Nepal to Mobilize International Assistance for Disaster Response" attempts to explore on the strengths and weaknesses of Nepal in mobilizing international response during a disaster through the concept of disaster diplomacy. Focused on the earthquake, study identifies ways to efficiently mobilize international response during the time of disaster. It also tells Nepal's need to improve the capacity of resources (human and physical), access to technology and sharing of knowledge and experience of disaster response with international actors to support and strengthen its domestic policy on Disaster Risk Reduction and Management, which incorporates international commitment and national interest.

The second paper, "Study of Social Impacts Expected for Nepal upon Graduation to the Developing Country Status", examined the increased Gross National Income in the Least Developed Countries as a result of reduction of the income inequalities between rich and poor. The study further analysed whether such reduction in inequality is also accompanied by increased human capability and reduced economic vulnerability. In the first objective, data from the Gini Coefficient Index is used of the World Bank to estimate for identifying income inequalities of countries that have recently graduated. For the second objective, data of the female literacy rate is used from UNESCO for comparing the educational status of women of graduated countries. And data from the World Bank on the status of malnourishment are compared as an indicator of food security to see whether the graduation process leads to reduced economic vulnerability. The status of the Gini Index is compared with the pre-graduation value and post-graduation value of countries that have recently graduated to the status of developing countries. The analysis of the Gini Index of five graduated countries found the post-graduation value of the Gini Index to be lower than the pre-graduation value. It means the income inequalities are reduced after country graduation to developing country status. Similarly, post-graduation status of the female literacy rate is found increased in comparison to its pre-graduation value. It means the female literacy rate increases after country graduation. Likewise, the prevalence of undernourishment of the population was taken for understanding the status of food security. The post-graduation value of the prevalence of undernourishment among the population is found lower than the pre-graduation value. It means the status of food security increases after graduation. After the research, the Least Developed Countries like Nepal requires additional financial resources for investing in the agricultural and industrial sectors after graduation to developing status. As some of the development cooperation and preferential facilities to the LDCs would no longer be available, LDCs like Nepal, besides mobilizing domestic resources, will benefit more by strengthening economic diplomacy to attract foreign direct investment. Finally, the study contributes to the policy makers and planners, stakeholders and experts.

The third study, "Prosperity through Hydropower Trade: A Metanarrative Study" synthesizes literature exploring Nepal's potential to export its surplus energy beyond the borders. Since 2019, Nepal Electricity Authority (NEA) has been urging households to use more electricity. The current peak load electricity demand is around 1,500 MW, which is expected to increase to 2,379 MW by 2022 and 4,280 MW by 2030 in the business-as-usual scenario. Hydropower projects currently under construction are expected to add 3,000 MW by 2030, and soon Nepal will be able to become an energy surplus country. The feasibility of hydropower trade is studied from the technical and economic aspects and the present study fulfills the gap in the research.

The fourth paper, "Unleashing Nepal's Soft Power and Nation Branding Strategy" seeks to answer three major questions relating to the soft powers of Nepal, i.e. what could be the potential soft powers of Nepal that enhance its global influence? How can the existing enterprises and endowed resources be projected as the soft powers? And what resources of Nepal can be branded in nation-building?

A prevalent trend in today's global affairs is individual nation-states' concern over their power and influence. It is especially significant in the light of growing geopolitical tensions as well as the diffusion of power among the global actors. In a general understanding, power is the ability to influence or affect others to obtain the outcomes one wants. Soft power is the ability of a nation to influence global affairs without coercion by relying on the attraction of its norms and success. On the other hand, hard power, which has been exercised for many centuries, is an ability to reach one's goals through coercive actions or threats, the so-called 'carrots' and 'sticks' of international politics, while economic power is defined as the ability to control or influence the behavior of others through deliberate and politically motivated use of economic assets. Smart power, a newly introduced terminology, is considered as a combination of hard and soft power. Nation branding incorporates many elements, along with the national identity of countries, and positive aspects of the countries are nation brand values. Soft power not only influences but also brings foreign investment and growth in national income. It plays a vital role in determining the relationship between countries in international politics. To influence the international community and the rest of the world, soft power could be the best tool to be considered in policy and strategies for Nepal rich in cultural and natural resources lagging in economic development.

Nepal can take benefit from two large markets of India and China defying the landlockedness. Nepal can maximize trade gains with these two countries by analyzing the existing trade relationship, obstacles and finding commodities that have potential to be exported for maximal gains. The study revealed comparative advantage of the commodities to identify a list of commodities that could be exported to India and China for the maximum benefit. Similarly, it identified quality infrastructure, labor productivity and institution as the major thrust for maximizing trade gains.

We offer our sincere gratitude to the interns and respective supervisors for contribution in response to our call. At the end, we are extremely happy to receive support from Prof Dr Dinesh Raj Bhuju, Dr Dadhi Adhikari, Late Mr Suresh Bahadur Pradhan, Dr Narayan Thapa, Dr Sameer Thapa, Mr Bijaya Lal Shrestha, Dr Naresh Nath Rimal, Mr Gaurav Bhattarai and Resources Himalayan Foundation for collaborating with us.

Thank you all.

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### TABLE OF CONTENTS Defying the Curse of Landlockedness: Prakriti GC 2 Strategies of Nepal towards Maximizing Trade Gains with its Neighbors Social Impacts Expected for Nepal upon Khagendra Prasad 27 Graduation to Developing Country Status Pandey Diplomatic Role of Nepal to Mobilize 73 Lasata Joshi International Assistance for Disaster Response Rupesh Tha Unleashing Nepal's Soft Power and 124 Nation Branding Strategy 180 Prosperity through Hydropower Trade: A Sudeep Shrestha Metanarrative Study

# Defying the Curse of Landlockedness: Strategies of Nepal towards Maximizing Trade Gains with its Neighbors

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### 1. INTRODUCTION

A landlocked country (LLC) faces many development challenges. Geographical remoteness, lack of direct access to the open sea and the high transport and transit cost are the fate of LLCs. An assessment of landlocked countries shows that their macroeconomic performance lags behind coastal developing countries, export structure is narrow, international trade is more difficult and expensive, receive little foreign direct investment (FDI) (UN-OHRLLS, 2013). It's not only trade-related issues but other factors, which arise due to landlockedness, that inhibit the development process of a LLC. Geographical barriers affect those countries adversely through poor circulation of goods and services, lower level of people's movement from one place to another, limited diffusion of new ideas, and low level of technological advancement (Carmignani, 2015). A landlocked Nepal, bordered by China on its north and India in the south, east and west, faces similar development challenges that other landlocked countries in the world are facing. Nepal's trade is largely confined to India and China with very small numbers of export items. Three-fourth of Nepal's total trade is with these two countries where

Nepal exports only 379 items (HS6 digit products) to India and 450 items to India (WITS, 2020). Contrary to exports, Nepal imports 3,869 types of products from India and 3,017 types of products from China (WITS, 2020). These data are enough to show that Nepal has a narrow export base and is highly dependent on trade with India and China.

Positive impact of international trade on the growth of an economy has been widely advocated on both theoretical (Grossman and Helpman, 1997) and empirical (Keller, 2002) ground. Although landlockedness reduces bilateral trade (Carmignani, 2015), international trade is the path to development of a landlocked country, too. The need is to overcome the supply-side barriers. The curse of being landlocked can be transformed into a boon of being landlinked by integrating them with the global economy through trade and investments. This transformation requires (Wei, 2018): connecting these economies with the global value chain, developing proper legal and institutional arrangements, developing a vibrant financial sector and developing quality human resource.

Nepal is one of the most fortunate LLCs in the sense that it is surrounded by two most populous countries in the world -China and India. China is home to about 1.40 billion people and India to 1.38 billion in 2020. China and India together account for about 36% of the total world population and 67% of Asia's population. Not only in terms of population but in terms of gross domestic product (GDP) also, China and India are giant countries in the world. China with a GDP equal to \$13.4 trillion and India with a GDP equal to \$2.72 trillion are the second and seventh largest economies in the world. Large GDPs and populations make these two countries one of the largest markets for goods and services in the world. Nepal can take benefit of this large market. The need is to produce goods and services that have high demand in these countries and have comparative advantage.

Several studies have analyzed the strategies to be adopted for increasing Nepal's exports to India and China. These studies have focused on the supply side aspects only. For example, Paudel (2018) suggests producing high value to weight products, develop quality infrastructure, reach bilateral trade agreements and improve quality of governance for improving export performance. Adhikari (2010) suggests producing commodities with higher comparative advantage. Paudel and Burke (2015), Paudel and Wagle (2017) also suggest producing high value to weight products. Pant and Panta (2009) suggest policy reform and diversification of markets for improving export performance. However, there are no study that analyze the demand side aspects of the export. Demand situation in the destination country is an important aspect of international trade (Wood and Robertson, 2000). This study attempts to analyze the same side of Nepal's trade with focus on India and China. The aim of the paper is to explore ways of maximizing gains from trade with China and India by reviewing Nepal's trade relations and trade agreements with the two and also by identifying the goods and services that have the highest potential for exports to India and China. The first two issues will be analyzed through literature review. The third objective has been discussed on the basis of literature review and finding the commodities that have comparative advantage for Nepal. The Relative Comparative Advantage has been calculated using the Balassa (1965) method. If the value of the RCA is greater than one, then we can say the country has a comparative advantage of producing that particular commodity.

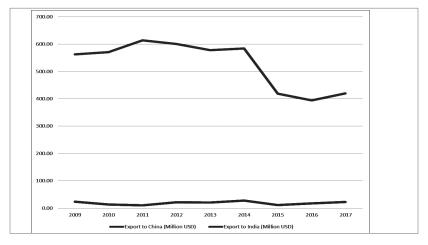
# 2. NEPAL'S TRADE WITH INDIA AND CHINA

Nepal's trade with India and China dates back to ancient times. Chanakya in his famous book Arthasastra, written 2,400 years ago, mentioned Nepal as one of the trading partners of the Maurya Kingdom (Nanik, 2009). As mentioned in Arthasastra, woolen blankets manufactured in Nepal are among the goods that are worthy to be stored in the national treasury. Trade with China flourished during the reign of Amshuverma from 595 CE to 621 CE (Nanik, 2009). In the 1640s, a treaty was negotiated, under which Newar merchants were allowed to establish 32 business houses in Lhasa (Upadhya, 2012). Trade with Tibet existed till Bahadur Shah's rule, just before the outbreak of the war between Nepal and Tibet, known as the Sino-Nepal war. Both countries signed the Treaty of Betrawati. The war ended with Nepal ending up paying tribute to the Qing Empire. Accordingly, Nepal paid tributes to China in 1792, 1794, 1795, 1823, 1842, and 1865 (Adhikari, 2018).

In ancient times, people used to export wool, herbs, handicrafts, paintings, metal castings, gems, wood and bronze carvings, and sculptures. Nepal had signed a treaty with Tibet. The treaty had provided tax free access to the Tibetan market for Nepali traders, and Tibet had access to India and Bhutan via Kathmandu (Dahal, N.A.). Nepal had signed another treaty with Tibet in 1856 and with British India Company (BIC) in 1923 (ibid). The treaty with British India Company allowed unrestricted import of British goods to Nepal. In fact, the treaty of 1923 between Nepal and British India led Nepal's trade to be India-oriented (NPC, 1983).

Currently, Nepal's trade with India and China has reached a new level. Figure 1 shows the export volume of Nepal to these two countries. Nepal's total export to India was more than USD 420 million in 2017. This is a decline in exports by 25% from the year 2009. On the other hand, exports to China, which is about 28 times less than the export to India, remained erratic, between USD 10 million to USD 28 million for the same period. Declining exports to India and low level of exports to China indicate Nepal's declining export performance.

As of 2017 data, Nepal's major export items to China (value exceeding Rs. 10 million) are handicrafts, noodles, readymade garments and pashmina, tanned hides, woolen carpet, tea, and wheat flour. Similarly, major export items to India are: Herbs, jute goods, textile, juice, polyster yarn and zinc sheets (MoF, 2020). While the export basket to India is dominated by intermediate and consumer goods, exports to China are dominated by consumer goods.



Data Source: WITS (2020)

# 3. NEPAL'S TRADE AGREEMENT WITH INDIA AND CHINA

# 3.1 Nepal-China Trade Agreements

Nepal-China trade relationship, especially with the Tibet Autonomous Region of China, dates back to primeval age because of its geo-cultural proximity. Trade agreements with the former Tibetan Kingdom (presently Tibet Autonomous Region of Peoples' Republic of China) date back to more than a thousand years entailed by a formal trade agreement (during 1960s) after the establishment of the People's Republic in China (Sharma, 2007). This along with Trade and Payments Agreement (1981) provides three trading points along their border to develop trade between the two countries. As of now, six points along the Nepal-China border have been opened for overland trade, namely, Kodari-Nyalam; Rasuwa-Kerung; Yari (Humla)-Purang; Olangchunggola-Riyo; Kimathanka-Riwo; and Nechung (Mustang)-Legze. Traditionally, the agreement allows travel to the border districts for the border inhabitants of either country for the purpose of pilgrimage, small fairs or border trade in small volumes, visiting relatives or friends with exit-entry passes of the border districts through the existing routes and entry points until such routes and entry points are specified (Sharma, 2007).

China, at the request of Nepal, has taken initiatives to improve Nepal's terms of trade in recent years. A preliminary trade negotiation between Nepal and China

was concluded at the beginning of 2006. The trade agreement between Nepal and China is based on MFN treatment. The agreement stipulates that this will not act as a barrier to potential advantages that may accrue as a result of agreements with other countries. This type of agreement does have its benefits. However, clarity in a couple of areas would be more beneficial for both countries, especially Nepal. For instance, article V states that trade will be regulated "as far as possible" on the principle of equilibrium. This leaves enough room to unilaterally define what "as far as possible" is and the absence of what will happen if and when such a situation arises and is not dealt with. Article XII stipulates that dispute settlements would be made through friendly consultations. Without explicitly mentioning the mechanism and how it will be implemented, settling disputes could be a long-term affair before any resolution acceptable to both the parties is agreed upon. Another potential area that could be a cause of discomfort would be regarding the payments as presented in article XII viz. traditional and customary way. Unless what constitutes "Traditional and customary" is agreed upon, differences in interpretation cannot be ruled out, hence a potential future problem.

Despite the fact that Nepal's trade share with China has been increasing over the years, Nepal has not really benefitted through export promotion. Recently China has provided duty free access for about 5,000 Nepali commodities. Nepal needs to take advantage of this facility by improving its competitiveness. The NTIS (2010) has argued for necessity of negotiation for preferential tariffs.

But Nepal's domestic capacity and competitiveness to produce such products are still a major problem. Besides, NTIS (2010) has listed the following issues with regard to China-Nepal trade:

- Nepali exporters' concern about arbitrary and non-transparent customs valuation
- ii) A confusing and less transparent provision of multiple permits and licenses required by China
- iii) Issue related to Rules of Origins (ROOs) putting constraints to certain exports
- iv) SPS requirements are rising, and there is a lack of transparency and knowledge with respect to standards expected in China
- Need of bilateral negotiation efforts through the intergovernmental trade cooperation committee
- vi) Poor transportation facility leading to cost of transportation and trade facilitation
- vii) Difficulties in ensuring quantity and quality for the huge market

Nepal and China have sealed agreements and Memorandums of Understanding (MoU) on using the northern neighbor's sea port facility, building a regional international airport in Pokhara, exploring the possibilities of signing a bilateral free trade agreement and finding oil and gas reserves in Nepal. The main provision of the 2016 transit treaty with China are:

- 1. Nepal to use China's sea port facility
- 2. Transit transport agreement to be reviewed every 10 years
- 3. China to build a regional international airport in Pokhara

- China, Nepal exploring the possibilities of signing a bilateral free trade agreement
- China to explore the possibility of finding oil and gas reserves in Nepal
- 6. China to provide economic and technical support to Nepal to implement the project on Pokhara airport
- China to distribute solar panels in Nepal's rural areas by tapping its Climate Fund
- China to build, manage and maintain the Xiarwa Boundary River Bridge at Hilsa, Humla
- Nepal, China to strengthen the intellectual property system in both the countries
- Nepal, China to extend cooperation and exchange information on banking regulations

Though most of the issues relating China-Nepal relations warrant addressing the non-tariff barriers (NTBs), Nepal could still face the problem of high transportation costs while exporting goods to mainland China. Nevertheless, adjoining Tibet could be a feasible destination for our exports. Nepal can supply commodities that are in demand in Tibet and could gain competitiveness in supplying those products. However, there are challenges in building Nepal's competitive supply capacity in terms of cost, productivity, and quality and, with some exceptions, the decreasing importance of tariff advantages as a competitive tool when China has been enjoying competitiveness in most of the sectors.

Given China's economic size and progress, China's influence on the global

economy is growing. There is every reason for Nepal to look forward to exploring trade and investment possibilities with China being Nepal's closest neighbor with its long and intimate historical ties. As Nepal-China bilateral economic ties has always been comfortable, if not very encouraging, our effort should be on identifying mutually beneficial areas of cooperation for increased bilateral trade by evaluating the successes and failures from both ends. The authorities in both countries should not be preoccupied with controlling imports but promoting exports.

China has shown the desire to increase trade with Nepal. The planned highway to connect Nepal with Tibet and near completion of the Kathmandu-Rasuwagadhi road are expected to enhance Nepal-China trade relations. China is looking forward to assisting Nepal to connect with China through the eastern part of Nepal. The repair and widening of the Kathmandu-Syabrubeshi road can also promote religious tourism by encouraging Nepali and Indian pilgrims to go to Mansarovar and Kailash in a day or two.

# 3.2 Nepal-India Trade Agreements

The Indo-Nepal trade and transit treaty is one of the early treaties in South Asia. The treaty of trade and commerce dates back to 1950. The treaty has undergone several modifications and amendments since the time of its inception. The concerns over the treaty rose significantly during the 1990s when Nepal adopted an export promotion strategy as a national policy.

The institutional framework for India in maintaining special bilateral economic ties is based on the 1991 Indo-Nepal treaties on Trade, Transit, and agreement for cooperation to control unauthorized trade (Pyakuryal, 2010). Since then, the India-Nepal treaty has been modified several times. The most recent revisions were made in December 1996, March 2002, March 2007, and October 2009. Though the treaty has been modified and amended many times, the inherent philosophy has not changed fundamentally over the period. The major elements of these treaties include (Prasad, 2007):

- Exemption from basic customs duties and quantitative restrictions on imports of primary products on reciprocal basis.
- Nepali manufactured goods
   (excluding some items on the
   negative list) are granted duty free
   access to the Indian market without
   quantitative restrictions on the basis
   of non-reciprocity.
- Manufactured goods imported from India are granted preferential entry to Nepal, without quantitative restrictions.

After signing of the Trade Treaty in 1996, Nepal enjoyed duty-free access for all Nepal-manufactured articles into the Indian market on a non-reciprocal basis except the three items that were included in the negative list - Cigarettes, alcohol and cosmetics. The three main features of the Nepal-India Treaty of Trade since its renewal in 1996 are: exemption from basic customs duty as well as quantitative restrictions on imports of agreed primary products from each

other on a reciprocal basis (Article IV); access for Nepali manufacturing exports to the Indian market free of customs duties and quantitative restrictions on the basis of non-reciprocity (Article V) (but since 2002, rules of origin have to be met and four products are subject to quantitative restrictions); and preferential entry of goods from India to the Nepali market without any quantitative restrictions (Article VI) covering goods trade only (Kharel, 2010). The 1996 treaty was more liberal than the previous treaties on two main grounds. First, it provided improved duty-free access for Nepali exports to the Indian market by removing the former 50 percent rules of origin (ROO) condition. This condition has further been improved to 30 percent under the 2009 treaty. Under the terms of the Treaty, either country could export goods to the other free of duty, without respect to the origin of raw material inputs in the production process, as long as there is some local value added in manufacturing. Second, the negative list was smaller than before (Kharel 2010; Adhikari 2009; Karmacharya 2004). These provisions indeed promoted Nepali export of selected commodities to India significantly.

When the treaty was renewed in 2002, however, it came with the onerous ROO as well as quantitative restrictions on key export items of Nepal. India re-introduced the value addition requirement for Nepali manufactured goods to qualify for duty-free access to the Indian market. The ROO required a change in tariff heading (CTH) at the 4-digit level in the Harmonized Commodities Description and Coding System as well as a 30 percent domestic

value addition. Agrawal and Pandey (1992) argues that the ostensible grounds for imposing ROO way beyond the capacity of a least developed country with a weak industrial base and serious supply constraints—the steep value addition requirement is not achievable even for Indian industries—were aimed to "promote genuine industrialization" in Nepal and "provide clarity and transparency" to the preferential scheme (Shrestha, 2003). In practice, however, ROO has been used as a means of hidden protection. Global experience shows that there is no evidence that strict ROO has helped the beneficiary countries create a viable industrial base. Indian goods, however, do not have to fulfill any ROO to gain preferential access to the Nepali market (Kharel, 2010). Besides, India also put quantitative restrictions on Nepali exports of vegetable ghee (a tariff-rate quota of 100,000 MT per year), acrylic varn (10,000 MT), copper products under Chapters 74 and Heading 85.44 of the H.S. Code (7,500 MT), and zinc oxide (2,500 MT). The provisions were such that the exports up to the set quota would get preferential access while exports in excess of the quota would attract most-favored-nation (MFN) tariff. Likewise, India also demanded that Nepal provide to India, on an annual basis, information regarding the basis of calculation (of CTH and domestic value addition) for the grant of Certificates of Origin to the manufacturing facilities in Nepal for preferential access to the Indian market. The safeguard provisions were very specific, and it provided for remedial measures in the case of a substantial increase in imports from one party, causing or threatening to cause injury to the domestic industry in the importing country. India has frequently resorted to such measures against Nepali products (Kharel: 2010).

The revision of the 2009 trade treaty allowed for duty free access of almost all domestic primary products into each other's market. The treaty also provided for duty-free access of Nepali industrial products except for those in the negative list. The revisions to the treaty agreed in August 2009, though an attempt to facilitate bilateral trade, do not go far enough to effectively address the problems faced by Nepal and contain ambiguities that could cause friction

in the future (Kharel: 2010). There are provisions of stringent rules of origin (ROO) requiring Nepali exports to fulfill the twin criteria of 30 percent value addition and change in tariff heading at the four-digit level of the harmonized commodities description and coding system (HS) to be eligible for preferential market access. Provisions related to tariffrate-quotas (TROs) are still there for four major export products to Nepal, with zero-duty treatment provided to exports up to the quota and most favored nation (MFN) tariffs applied to exports exceeding the quota. Likewise, there is requirement for Nepal to submit the

#### Box 1: Nepal-India Trade Agreement (2009)

Nepal and India have entered into a new Trade Agreement on 27 October 2009 (10 Kartik 2066) replacing the 1996 Agreement (reviewed in 2002). The salient features of this Agreement are as follows:

This Agreement is for seven years with the provision of automatic renewal for another term thereby ensuring stability to trading provisions.

- The provision of providing US dollar equivalent facility to bilateral transactions conducted in the Indian currency has freed the (bilateral) trading regime from DRP hassles.
- Tariff free facility is accorded to exports of primary goods, and provision is made for addition of numbers in the list of tariff exempt quantitatively restricted items.
- India has agreed to avail the port at Visakhapattanam for trade facilitation.
- Agreement is reached to open up additional four customs points for trade facilitation, bringing the total number of points to 26.
- A new arrangement is made for conducting bilateral trading from cities connected by air services.
- The Government of India has agreed to enhance the trading capacity of Nepal.
   India will support to upgrade the level of quarantine and examination facilities under such arrangement.
- India will exempt additional tariff levied on Nepali products on special request of the Government of Nepal.
- Nepali products unable to receive favorable status will be accorded the most favorable status, but certificate of origin would be necessary for such products.
- Provision has been made to form an Intergovernmental Committee to resolve trading-related issues that may emerge.

Source: Economic Survey, 2009/10

criteria applied for ROO on an annual basis. As safeguard measures, there is clear specification of safeguard clauses, which define 'injury' with a much more convenient trigger mechanism, for the imposition of safeguard duty over and above normal tariff. The safeguard measure provided for the original 1996 version of the treaty was with respect to an 'export surge', which was set in general terms, thus making it difficult for the Indian authorities to prove that 'injury' had actually taken place (Adhikari: 2009).

Though there has been revision of the treaty time and again, there are several issues that need to be addressed. The main issues, among others, include the provision and imposition of quantitative restriction, several para- and non-tariff barriers, transportation and transit. The first and interesting aspect of the trade agreements between these countries is that the benefits that could accrue from the articles are subdued by the annexes contained in the documents. Essentially, the result is less beneficial than what appears to be on the agreement for Nepal. But what is more interesting are the completing binding words used. For example, "explore and undertake all measures" rather than a more balanced statement such as "explore and undertake all measures that are mutually beneficial". Similarly, the statement "Unconditional treatment no less favorable than accorded to others...," provides absolutely room for maneuverability. The traded commodities from Nepal are less varied and are mainly agricultural-based and from the use of natural resources but less from the industrial sector unlike

those of India. The intra-industry complementarity is missing. Under these conditions, Nepal does not seem privy to much benefit. More favorable terms of trade may be through an agreement that can enhance Nepal's capacity to develop and expand its industrial base. Another potential problem with the wordings can be observed from the following "nonreciprocity of specially favored treatment to imports of industrial products". This can be interpreted as restrictive measures against Nepal to ensure that Nepal can purchase raw material only from India. Looking at Article VI, a more agreeable wording for Nepal would be "....maximum extent necessary for the development needs of Nepal for the protection of their local and nascent industries". Similarly, for Article VIII effectively "..cooperate to mutually beneficial solution(s) to address the difficulties faced and to address them. Finally, the wordings could be amended to ensure that ambiguities are brought to the minimum level possible.

Looking into Article 1 and Protocol 7, it would be favorable to Nepal if the statement indicated that both countries would take measures to share trade data relating to the two countries. Regarding rule of origin, there is a need to articulate what exactly constitutes "origin". Can Nepal import raw materials from another country, process them with local content? What percentage would that be if not specified? Finally, the dispute settlement mechanism is through the government. If more specific measures are developed, politicization of trivial issues could be avoided.

Despite such rooms to play with legal and

policy bindings, the major problem as seen and felt by the Nepali private sector is the non-tariff barriers. Nepali food exports, including vegetable ghee, are subjected to mandatory laboratory tests under the Indian Food Act. The nearest food-testing laboratory, in Calcutta (India), is almost 1,000 kilometers away from the main customs point at Birgunj (Nepal). Along with the quantitative restrictions and canalization, the congestion and delay to import cargo from Kolkata port has significantly increased the cost of import on top of the already higher transaction cost suffered by Nepali traders. Nepali exporters report that they face hassles at the Indian customs with issues related to non-tariff barriers, largely, sanitary and phyto-sanitary measures (SPS) and heavy 'unofficial' service charge to let the consignments pass through the customs. But the agreement is silent about such issues. Although Article 9, Protocol 1 states: "In case of problems arising in clearance of goods at the land customs stations, provided that the quality of goods in question would deteriorate or perish due to delays, such problem shall be dealt at the joint meeting of the local authorities". But such practice increases the transportation cost heavily for Nepali exporters.

Nepal Trade Integration Strategy (2010) has identified the following issues regarding access to the Indian market:

 Nepal benefits from duty-free access for most of its goods, with some exceptions based on the rules of origin. However, similar benefits are also being extended to other LDCs or other countries through RTAs, leaving Nepali exporters with little or no tariff advantage;

- ii) Imposition of arbitrary duties and non-transparent application of duties by Indian customs;
- iii) Application of non-WTO conformed duties and taxes by Indian states on Nepali exports;
- iv) SPS quarantine inspection and food testing facilities for Nepali exports to India are available at only six of the 27 border crossings. This is a limitation. This constraint could be lowered by increasing the number of facilities, as well as introducing Good Agricultural Practices (GAPs) and related Quality Management Systems monitored under the TPC, which would reduce the need for quarantine and individual testing of consignments;
- Weak SPS capacity in Nepal, limiting Nepali exports and adding costs to Nepali agro-food exports;
- vi) High transport costs due in part to weak transportation infrastructure within Nepal;
- vii) Transit through India for Nepali exports beyond India is still limited to Kolkata. Access to an additional port (Vishakhapatnam) has been agreed upon but has yet to be opened;
- viii) Small size of Nepali producers/ exporters in view of demand in the very large Indian market.
- ix) Lack of consistent quality is an issue, as is the absence of Nepali branding and product recognition

Nevertheless, the revised treaty has made some changes specially on simplifying the procedures at the quarantine check posts at the customs offices. India has committed itself to recognizing quality of certification of Nepali labs after Nepal upgrades the laboratories. This would certainly have implications in avoiding additional costs due to decrease on the days to obtain quality certification from Indian Labs. These are a few positive directions that Nepal can move to increase exports to India; however, Nepal should also take care of Indian investors' interest in Nepal, especially the eroding security due to labor market unrest. It is now imperative that Nepal deal on a broad prospective that could range from Trade to Investment to Security so as to reap benefits from trade. As India has entered into the Comprehensive Economic Partnership Agreement (CEPA) with Sri Lanka, Indian interest to reach similar agreements with Nepal in the near future should not be surprising. Nepal could take benefit from such agreements if sufficient homework is done and areas of give and take are charted out other than trade.

# 4. PREPAREDNESS FOR SUPPLY OF EXPORTABLE GOODS

Nepali politics is going through a roller coaster ride that seems to be gaining momentum rather than witnessing its dissipation. In the meantime, successive post-conflict governments have shown interest, in principle, in rejuvenating the private sector for socio-economic development. Previous efforts developing a stimulus package micro, small and medium enterprises remain to be activated. Since Nepal is predominantly an agrarian economy, it is imperative that the government and the private sector find common purpose to

move forward together.

It is now in the hands of the Government of Nepal to capitalize on the opportunity at hand to ensure efficient utilization of the resources by emulating the success of other conflict-affected countries through meaningful public private discourse to chart out a path to develop trust for the development and expansion of the role of the private sector in nation-building activities.

Liberalization of industrial policies has not been successful in attracting the scale of FDI envisaged that could have contributed to development of technologically competitive industries in Nepal. Sub-national innovation systems also have not taken off as expected. In the absence of international and national initiative, developing competitive SMEs seems unlikely in the foreseeable future.

In light of this, there are more trading houses in the country as opposed to production units. The ineffective and uncontrolled porous border between Nepal and India makes it easier for goods to proliferate into the markets. This is proving to be more profitable as there are fewer costs associated compared to manufacturing. The distance between the government and the private sector is serving no meaningful purpose either.

Government policy, domestic allocation and distribution and technological transmissions are three broad categories that are used to capture the total effect of trade policy on growth (Wacziarg, 1998). Official policy documents of the Government of Nepal favors trade openness and gives ample space for industrial growth through capital and

technological transfer. After entering into the World Trade Organization and signing regional trade agreements such as SAFTA and BIMSTEC, the sky is the only limit for Nepali exporters. But to our dismay, the Nepali private sector has not been able to reap the benefit.

Major constraints faced by Nepali private sector can be listed as (Adhikari, 2010): a) governance issues, b) trans-border access, c) labor problems, d) supply side hurdles, and e) transitional politics

In spite of supportive government policies for private sector growth, weak service delivery and a corrupt bureaucracy have discouraged the manufacturing and industrial sector. In a good practice economy, one can start a business with one application in a day. But in Nepal, it takes almost 23 days to start a business the highest in south Asia (Doing Business, 2019). The cost of transporting is almost US\$ 2,545 per container, and it takes 40 days to complete the export. The cost of transportation in neighboring countries, Bangladesh, India and Pakistan, is \$1,281, \$1,332 and 765, respectively (De, 2015). This gives the comparative disadvantage of being a landlocked country. Frequent labor strikes, mainly by the politically-backed labor unions, energy crisis and delay in delivery of goods are other pertinent problems of the Nepali manufacturing and industrial sector (ADB, DFID, ILO, 2009). Despite all these factors, stable politics is what the economy is looking for to start business again. Campaigns to limit property rights and access to property ownership, land and building seizures, and whimsical policy decisions among others can deteriorate the strength of Nepali exports (ibid).

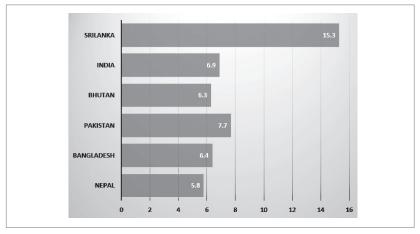
According to Global Competitiveness Report 2019, Nepal ranks 108th out of 141 countries. Although Nepal improved its position by one step in comparison to the previous year, this position is one of the lowest in South Asia, with India at 68, Sri Lanka at 84, and Bangladesh at 105 (WEF,2019). The Global Competitiveness Report 2010 had identified 12 pillars for competitiveness. Based on the level of these pillars, the report groups countries into three categories, namely factor driven economy, efficiency driven economy and innovation driven economy. The report has identified Nepal as a factor driven economy. A factor driven economy needs to have well-functioning public and private institutions, well-developed infrastructure, a stable macroeconomic framework, and a healthy and literate workforce for maintaining and improving its competitiveness (WEF, 2010). Among the 12 factors considered to estimate the competitiveness score, Nepal has a score less than 50 (out of 100) in institutions, ICT adoption, skills, product market, labor market, market size, and innovation.

Productivity increment is the source for long-run competitiveness. Similarly, investment in education and skills, machinery and equipment, physical and technological infrastructure, and innovation (including commercialization) are also contributing factors for improving productivity and competitiveness (Ara and Rahman, 2010).

#### 4.1 Labor Productivity

Labor productivity is one of the major components of overall productivity of an economy. Available data show that Nepal's labor productivity defined as GDP per worker is the lowest in south Asia (Fig 1). Lower labor productivity reduces

Figure 1: Per Hour Labor Productivity in South Asia-2017 (GDP at constant basic prices per worker, using 2011 PPP, reference year 2015)



Source: APO (2017)

Nepal's competitive capacity in the export market. It means if Nepal cannot compensate the lower labor productivity in its product thorough other measures, then export cannot be increased.

It's not only labor productivity, value added per worker is also the lowest for Nepal (Adhikari, 2010). Given the low labor productivity and value addition, the implications are clear - more resources for production and accordingly more cost, which ultimately results in low competitiveness of Nepali products in the internal market. Agricultural products have indeed been less price competitive even in the domestic market as compared to Indian products. As the private sector has been reluctant to adopt new technology, this poses serious challenges to promote Nepali exports.

# 4.2 Infrastructure and Transportation

Sufficient and efficient infrastructure is a key element in improving competitiveness and a country's ability to produce and move goods. Welldeveloped infrastructure reduces the cost to connect markets (WEF, 2010). Quality roads, railroads, ports, and air transport enable entrepreneurs to get their goods and services to the market in a secure and timely manner. The importance of infrastructure in export performance is evident from the fact that "all of the commodity market integration in the Atlantic economy after the 1860s was due to the fall in transport costs between markets.... (O'Rourke and Williamson 1999)". There are several literatures to show infrastructure as a major impediment to trade, competitiveness

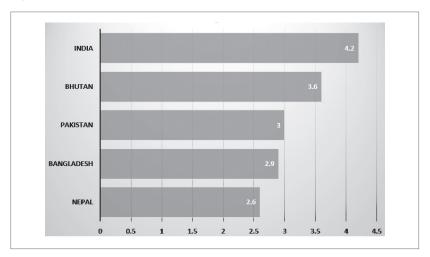


Figure 2: Infrastructure Quality Score of Nepal and other South Asian Countries

Source: WEF (2017)

and sustainable development (For literature review see Mbekeani, 2007). In Nepal too, the transporation cost has a significant share in both export and import. Some of the studies showed that Nepal can reduce the cost of export by as much as 13 percent while the same for import by 17 percent through the enhancemnt of transportation. (Adhikari 2008) The Trade Policy 2009 has highlighted very high transaction costs due to transporation, infastructure and procedures as one of the barriers for an export strategy.

The overall infrastructure situation for attracting investment in Nepal is very dismal. Expensive electricity, small and poor quality road network, expensive and deficient transportation and relatively less coverage and poor quality of telecommunication indicate lower position of Nepal in infrastructure stock when compared with its neighboring countries. Infrastructure quality score

shown in Figure 2 reveals that Nepal, in fact, has the poorest infrastructure in comparison to other South Asian neighboring countries. The highest possible score is 7, out of which Nepal secures only 2.6. Bangladesh immediately follows with a score of 2.9. Nepal's position with this score is 119 out of 137 countries in the world.

The poor quality of roads in Nepal is reflected in the higher cost of export and import. The costs for exporting and importing a container are much higher than for Bangladesh, India and Pakistan (De, 2015). In 2014, the cost to export a container from Nepal was estimated at US\$ 2,545, of which majority of the cost was on account of transportation.

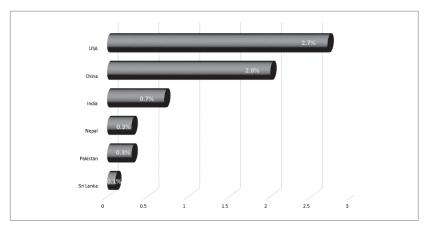
Due to its landlockedness, Nepal's transportation cost is very high. It is estimated that infrastructure accounts for 40 percent of predicted transport costs for coastal countries, and up to 60

percent for landlocked countries (Limão and Venables, 2001). Nepal's major mode of transportation is a truck or a tanker. Obtaining trucking service is problematic for Nepali firms. Limited supply of trucks and high cost of obtaining service are particular problems due mainly to the syndicate system. The syndicate system prohibits firms from choosing their own trucking operator and increases the cost by 25 to 30 percent (Biggs et al, 2004). Another reason for the costly trucking system is having to return empty after delivering the goods in the market (Ibid). Although the government recently announced it would abolish the syndicate system, it is nonfunctional due weak regulations, monitoring, and follow-up. It will take some time to fully implement this decision.

#### 4.3 Research and Development, Technology and Innovation

Economic theory and empirical findings suggest that technological change is an important determinant of productivity growth in the long run. Advancement in technology is dependent on innovation, and innovation is the outcome of Research and Development (R&D). Research and Development is defined as the effort of scientists, engineers, entrepreneurs or inventors to develop new knowledge that helps to do things in better ways (CBO, 2005). The purpose of spending in R&D is to

Figure 3: Research and Development Expenditure of Select Countries (% of GDP)



Source: UNESCO (2020)

bring out new products and reduce costs (Mairesse and Hall, 1996). There are several studies to show significant positive impact of R&D on productivity growth (see Scherer, 1984, Denison, 1979).

Figure 3 indicates that Nepal's R&D

expenditure is comparable to South Asian countries but far less than the developed countries like USA and China. A similar trend is found in the number of technicians availabe in the country. According to UNESCO (2020), there are

about 136 technicians per million people in Nepal. This number is very high in comparison to India (73), Sri Lanka (75) and very low in comparison to the UK (688) or Germany (1,092). But the number of researchers per million people is less in Nepal. According to UNESCO (2020), this number for Nepal is only 58, which is less than for Pakistan (76) and India (136). Nepal's invention rate is also very low in comparison to its South Asian neighbors. An invention is protected by patent right. Up to the year 2008, total patent applications filled by Nepal are only 25. This number is negligible in comparison to Sri Lanka (2,549), Pakistan (1,634) and India (71,023).

#### 4.4 Institution

The role of institutions is vital for enhancing productivity, profitability and for making the overall business environment more competitive. The quality of institutions has a strong bearing on competitiveness and growth (WEF, 2010). The term institution for an economy is not related with government rules and regulations only but also with systemized excessive bureaucracy and red tape, overregulation, corruption, dishonesty, lack of transparency and political dependence of the judicial system, which increase the economic cost to business significantly and bring down the competitiveness (ibid).

An institution in the Nepali context as well has a very important role for growth and development. The ADB, DFID, ILO (2009) found that institutions along with infrastructure were binding constraints for growth. According to WEF (2010), Nepal ranks the lowest in comparison to

other South Asian countries in quality of institution. Out of 133 countries, Nepal ranks 123rd with a score 3.07. Among south Asian countries, India has the most competitive institutions (rank 54) followed by Sri Lanka (rank 73), Pakistan (rank 104) and Bangladesh (rank 122).

#### 4.5 Issues with Private Sector

The private sector has been suffering from numerous supply side constraints in recent years, which have been instrumental in affecting the cost and efficiency, resulting in deteriorating domestic capacity to supply the domestic as well as international demand. Such issues in recent years have been observed in terms of labor market conflict and syndicate system in the transportation sector.

The private sector has been suffering from poor industrial relations and labor market rigidities. The industrial relations climate remains poor, and labor-related strikes and lockouts remain frequent (ADB: 2009). The same report identified that a review of lost production time due to poor industrial relations does provide an indication of the scale of the problem. In 2005/06, about 190,000 person-days of work were lost due to labor-related issues, which declined in 2007/08 to slightly less than 90,000 person-days. Given that strikes and lockouts increased during 2005/06-2007/08, the decline in lost work hours may instead be due to reduced operating time for manufacturing units due to other constraints, such as worsening power shortages (ADB, 2009).

ADB (2009) reports on Critical

Development Constraints in Nepal identify the limited supply of trucks and 'syndicate system' and 'collusion' as one of the barriers resulting in high costs of transportation services. Syndicate systems are common across countries, and the cost has increased by 25 percent to as high as 55 percent in the country.

# 5. COMPARATIVE ADVANTAGE AND EXPORT STRATEGY FOR NEPAL

## 5.1 Revealed Comparative Advantage for Nepali Products

Previous chapters identified that trade agreements at different levels have opened up the sky for the export of Nepali commodities. But the problem is that Nepali commodities have to compete with products from other countries. It means Nepal should be competitive in terms of price and quality in the basket of goods it exports. But Nepal's productivity and competitiveness are below the level of other neighboring countries. In this context, it is imperative to know in which commodity Nepal can compete in the world market. A few studies using different methodologies have suggested commodities that can be produced by Nepal to take advantage from exports.

Agrawal and Pandey (1992), estimating the Revealed Comparative Advantage (RCA), suggested 15 products that Nepal could produce for export. The products are live animals, butter, rice, wheat, vegetables (simply preserved), spices, animal feed, fixed vegetable oil, seeds for other fixed oils, rough wood, jute,

stones, sand and gravel, crude animal and vegetable products.

ADB, DFID, ILO (2009), using product space analysis suggested by Hausmann and Klinger (2006), has suggested 26 products that Nepal could produce. The report has identified top three strategic products, namely wood-based paneling; knitted/crocheted fabrics (elastic or rubberized); and bacon, ham, and other dried pork products.

Adhikari (2010), estimating the Revealed Comparative Advantage (RCA), suggested 20 products that Nepal could produce for export. The products are carpets, woven fabrics of jute, cardamom, animal or vegetable fats, woolen products, yarn, ginger and other spices and herbs, and vegetable products. The author suggested improving infrastructure and increasing labor productivity to increase the country's competitiveness.

Government of Nepal, in its report Nepal Trade Integration Strategy 2010 (NTIS 2010) (GoN, 2010), has identified 19 priority export products on the basis of four criteria. The four criteria used for indentifying the products are: (i) current export performance (ii) current demand condition (iii) domestic supply capacity and (iv) socio-economic impact of the product on Nepal. Based on these criteria, the identified products are: (i) Agro-food products: cardamom, ginger, honey, lentils, tea, noodles, medicinal herbs/essential oils (ii) craft and industrial goods: hand-made paper, silver jewelry, iron and steel, pashmina, woolen products (iii) Services: tourism, labor services, IT and BPO services, health services, education, engineering, hydroelectricity. The report has put tourism and labor service as the products with high export potential and socioeconomic impact while large cardamom, lentils and iron and steel as the products with high export potential but medium socioeconomic impact.

Four studies mentioned above have identified different sets of commodities, and they are not very similar. The reason may be due to the time difference in between the first and the other two studies and methodological differences in between the second and third studies. The important aspect of products identified by the ADB, DFID, ILO (2009) is that the products are mainly labor intensive. Most of the products have very high unskilled labor quotient. GoN (2010), on the other hand, has analyzed the need of electricity and water for producing the commodity. Most of the commodities identified require less or medium level of water and electricity.

International trade theory postulates that a feature of developing countries is abundant labor force relative to capital, making them comparatively advantageous in labor-intensive products in their trade with the rest of the world. However, low skill levels observed in the Nepali labor force may limit the country's comparative advantage in such products. Revealed comparative advantage (RCA) indices can be used to assess the capacity of Nepal's exports to resist competitive pressure in the international market.

The term comparative advantage was first discussed by Robert Torrens in

1815 in his essay 'Corn Laws' where he argued that England has an advantage to trade with Portugal for grain as it can be produced more cheaply in England. Later, Adam Smith proposed a theory of absolute advantage of trade. This theory explains that a country has absolute advantage of trade when a particular good can be produced at a lower cost than other countries. The theory of absolute comparative advantage, however, does not take into account the opportunity cost. Ricardo developed a theory of comparative advantage, which states that a country has comparative advantage of trade if a country can produce the commodity at lower opportunity cost than the rest of the countries. The fundamental assumption of this theory is that different countries have different states of technology, and as a result there is difference in the cost of production across the countries. Adding to the comparative advantage theory of trade, Heckscher-Ohlin (popularly known as H-O theory) argued that cost differences across countries are due to the differences in prices of factor inputs rather than different states of technology. This theory assumes the same technology across countries, and comparative advantage is attributed to the difference in cost arising from different levels of factor prices across countries.

Given the theoretical explanations of comparative advantage, its empirical examination is, however, complicated mainly due to the fact that the 'relative prices', as suggested in H&O theory, are not readily observable. Instead, economists have suggested that the

1

comparative advantage can be measured through the observed pattern on trade (Liesner 1958; Balassa 1965). For empirical purpose, they argued that comparative advantage can be 'revealed' from observed pattern of trade flow. Therefore, it has been commonly termed as Revealed Comparative Advantage (RCA) in international economics jargon.

RCA is an index that measures the relative importance of the commodity or group of commodities (product group) vis-à-vis world trade. More formally, it measures the importance of export of a commodity or product group by a country to total export of that commodity or product group by the world. Nevertheless, economists have developed different indices to calculate the RCA. For example, Liesner (1958) has measured the RCA simply as a ratio of export of commodity say 'I' by country 'k' to export of same commodity by the world. This, however, does not capture the relative importance of the export of a commodity in a country as well as world exports. Therefore, Balassa (1965) developed an alternative and comprehensive RCA index as the ratio of country's export of a commodity relative to its total exports and to the corresponding export of the world. Greenaway and Milner (1993), however, argued that the RCA measure developed by Balassa (1965) omits imports and, hence, provided biased measures, especially when a country's size is important. In literature and on empirical work, we find different RCA measures taking into account imports also.

This study uses the RCA index developed by Balassa (1965) as the objective of the paper is to identify the potential set of commodities that Nepal has comparative advantage in. Moreover, this measure will not have 'import bias' as Nepal almost has disjointed sets of exported and imported commodities.

Following Balassa (1965), the RCA is calculated as the ratio of share of commodity i' in country k's exports to share of commodity i' in world trade. That is,

$$RCD = \frac{\frac{X_{ki}}{X_k}}{\frac{X_{wi}}{X_w}}$$

Where,

 $X_{ki}$  = Export of commodity % by Kth country

 $X_k$ = Total export of Kth country  $X_w$ = World's export of commodity 'i' X = Total World's Export In other words, RCA is

RCA= Share of Commodity 'i' in country's export
Share of commodity 'i' in world's export

Therefore, as argued above, the RCA measures the relative importance of commodity 'i' on country K's export to that of the world's trade of that commodity. Now, if country K has a large share of export of commodity ?' on her total export than commodity 5's share on world's export, the RCA value will be greater than unity. In such cases, country K is said to have a revealed comparative advantage in commodity 5'. On the contrary, if the RCA index is less than unity, the country will not have a RCA (rather comparative disadvantage) on that commodity as country k has a small share than expected from the world's average. In a typical case, if the RCA is equal to unity, implying that two ratios are equal, country k does not have RCA on that particular commodity.

The required data for calculating the RCA have been obtained from the data library of the ITC trade map data (ITC, 2020). The RCA has been calculated for the year 2019 and product cluster at six digits. ITC trade data show that while the world exported a total of 5,637 commodities (product cluster at 6 digits), Nepal exported only 822 commodities in 2019. Out of the 822 commodities, Nepal

has a revealed comparative advantage in 307 commodities, i.e., 307 commodities have a RCA value greater than one. Adhikari (2010) found only 91 products with comparative advantage. This indicates that Nepal has made progress on competitiveness in one decade.

The 30 major commodities in descending order of RCA value are shown in Table 1<sup>2</sup>. The list with RCA includes primarily garments and agricultural products; however, it also has commodities with comparative advantage of the

Table 1: Commodities with Highest Revealed Comparative Advantage (Export value in thousand USD)

Code	Commodities	World export	Nepal's export	Nepal export share	World export share	RCA	India's import rank
531090	Woven fabrics of jute or of another textile	38647	26998	0.028134	0.000002	13620	4526
90832	Cardamoms	50117	20205	0.021055	0.000003	7860	2769
570110	Carpets and other textile floor coverings	593583	64816	0.067544	0.000032	2129	3487
370690	Cinematographic film	1253	130	0.000135	0.000000	2023	4728
630510	Sacks and bags for packing goods	258860	23502	0.024491	0.000014	1770	1029
550951	Polyester yarn	456682	31852	0.033193	0.000024	1360	1279
560290	Felt	238747	16108	0.016786	0.000013	1315	2445
560221	Felt	98792	4215	0.004392	0.000005	832	3939
90930	Cumin Seeds	133	5	0.000005	0.000000	733	5454
150790	Quartz	1584251	52079	0.054271	0.000085	641	851
550932	Acrylic Yarn	592863	17288	0.018016	0.000032	569	1653

<sup>2</sup> List of all products with RCA value greater than one is available upon request.

	Value of All exports	18708548787	959608	1	1	1	
621420	Women's or girls trousers, bib and brace	1149818	15454	0.016104	0.000061	262	3186
530720	Multiple "folded" or cabled yarn of jute	186749	2616	0.002726	0.000010	273	1386
410621	Hides and skins of goats	61173	859	0.000895	0.000003	274	1533
200941	Pineapple juice	168541	2451	0.002554	0.000009	284	4440
701310	Glassware of glass ceramics	256561	3739	0.003896	0.000014	284	3460
50610	Ossein and bones treated with acid	49836	739	0.000770	0.000003	289	4299
200990	Mixture of fruit juice	1895991	28327	0.029519	0.000101	291	3927
550959	Polyester stable fiber yarn	73033	1094	0.001140	0.000004	292	3079
531010	Woven fabrics of jute	171904	2934	0.003057	0.000009	333	652
140490	Vegetable products	829282	14458	0.015067	0.000044	340	2008
570210	Hand-woven rugs	112371	2008	0.002093	0.000006	348	4578
630520	Sacks and bags of cotton	191765	4129	0.004303	0.000010	420	3889
540720	Woven fabrics of strip	1393568	30531	0.031816	0.000074	427	2444
480210	Handmade paper and paper board	83196	1837	0.001914	0.000004	430	3154
550921	Single polyester yarn	924324	21158	0.022049	0.000049	446	475
550931	Single acrylic yarn	183263	4681	0.004878	0.000010	498	2634
551012	Artificial yarn	218627	5659	0.005897	0.000012	505	2475
380610	Rosin and Resin acids	429925	11197	0.011668	0.000023	508	872
90831	Auxiliary Machine	927440	24213	0.025232	0.000050	509	927

Source: Author's calculation using ITC Trade Map data

manufacturing sector.

The findings suggest that Nepal has few products that have comparative advantage. We found that there are 91 commodities that Nepal enjoys comparative advantage vis-à-vis world trade (The list of commodities with RCA is provided in annex 1). The trend on RCA indicates that Nepal's RCA is increasing in agricultural products whereas there is decreasing comparative advantage, barring some exceptions, in commodities other than agriculture.

The list of commodities from the agriculture sector includes vegetable plaiting materials and vegetable products, tea and coffee, spices, animal and vegetable fats and oils, and seeds and fruits. For example, big cardamom has been found to have the highest RCA in Nepal. The other major products include vegetable and animal fats, ginger, saffron, turmeric, thyme, bay leaves, vegetable products, and tea and coffee. The result also shows that Nepal has a higher RCA in the export of products based on natural resources like sand and stone, medicinal plants and aromatic herbs. As these commodities have a large chain of value addition in Nepal, it can really benefit, especially from backward linkages of the production chain, providing employment as well as use of local resources. Since, these commodities are largely exported to India, and the agriculture sector is heavily subsidized in India, Nepal's price competitiveness is a crucial issue.

In the manufacturing sector, Nepal has comparative advantage in the export of carpets and other floor covering textile items, iron and steel, garments and accessories, beverages, spirit, and vinegar. The ready-made garment sector saw growth in manufacturing output, exports, and employment. Other product groups include handmade commodities and commodities of historical importance like works of art, collector's pieces and antiques. The result shows that Nepal has historically had higher comparative advantage in carpets and other textile floor coverings, providing greater RCA than agricultural products.

Now the question is, is there a demand for these commodities, in which Nepal has revealed comparative advantage, in India and China? The last column of Table 1 shows the ranking of the commodities (in terms of import values) in which Nepal has higher RCA in India's basket of imports. None of the commodities have a ranking above 1,000 except four commodities - quartz, auxiliary machines, rosin and resin acids, single varn polyester and woven jute fabric. It means these commodities are the most promising commodities for export to India. Similar lists can be prepared for China, too. Some other promising products for Nepal could be cotton (ranking 42 in India), and precious or semiprecious stones (ranking 113).

Another million dollar question is, if India and China were open to imports of goods that Nepal has comparative advantage in, can Nepal meet their demand? Nepali producers produce on a small scale. Small scale production might not be able to meet the demand, hence Indian and Chinese importers will likely divert to other countries. In this context, the Government of Nepal needs to provide support to Nepali producers and strengthen economic diplomacy so

that Indian and Chinese importers give priority to Nepali products.

### 6. CONCLUSION

Nepal being a landlocked country faces several development challenges. One major challenge is the severe constraint faced in international trade in the absence of direct access to the sea. Fortunately, Nepal neighbors two giants (in terms of size, population and economy) - China and India. Nepal can benefit from these two huge markets and can defy the curse of being landlocked. For this, Nepal should be able to produce goods and services at low cost.

Some of the obstacles to producing goods and services and exporting them to India and China at low cost are poor infrastructure, low labor productivity, and poor institutions. Although there are policies and programs to address these issues, they have not materialized.

The government should provide support to the private sector in three basic areas: First, tax exemption in various forms for potential exporters; second, technical support for making exportable goods of international standard and training in various aspects such as searching market, anlyzing market data and survey of market. Third, the government should enhance the institutional capacity of the

private sector.

Most of the agriculture products are produced at the household level. This has a negative impact on awareness about quality, and the farmers are exploited by the middleman. To overcome the problem, the government should provide incentives for large-scale production. This can be done either by creating a land market or by starting cooperatives in the agriculture sector for producing exportable commodities. Moreover, there should be a risk mitigating strategy in the agriculture sector.

The government should give responsibility of enhancing exports to our missions based abroad. Growth in exports to a particular country could be used to evaluate the performance of an ambassador and the team.

Landlockedness has left Nepal in a position where it cannot expand its merchandize trade to countries beyond India, China and Bangladesh. It is unfortunate that Nepal's production list does not tally with the major import items of these three countries. Considering this fact, Nepal needs to look for products that can be sold in China and India. Tourism can be one of these major areas. The country should have a long-term plan and build consensus among the political parties to develop hydroelectricity and

the tourism sector as a major source of earning foreign currency.

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# Social Impacts Expected for Nepal upon Graduation to Developing Country Status

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# 1.1 BACKGROUND OF THE STUDY

For the current 2020 fiscal year, lowincome economies are classified as those with a per capita GNI, measured using the Atlas system of the World Bank, amounting to \$1,025 or less in 2018; lower middle-income economies range from \$1,026 to \$3,995 per capita GNI; upper middle-income economies range from \$3,996 to \$12,375 per capita GNI; high-income economies range from \$12,376 or more per capita GNI. Low-income economies include countries, lower-middle income economies include 47 countries, uppermiddle-income economies include 60 countries, and high-income economies include 80 countries (World Bank, 2020). Least developed countries (LDCs) are defined by the United Nations as the most vulnerable members of the international community - having both low incomes and facing severe structural and physical impediments to their longterm economic and social development. The Fourth United Nations Conference on the Least Developed Countries (2011) stated that the least developed countries, consisting of 48 countries, have a total population of 880 million (about 12 percent of the world population), but account for less than 2 percent of the world GDP and about 1 percent of the

global trade in goods, and thus represent the poorest and weakest segment of the international community. At the time of the Fourth UN Conference on the Least Developed Countries in Istanbul, member states agreed on the Istanbul Programme of Action for the LDCs for the 2011-2020 decade. The main goal of the Istanbul Programme of Action is to overcome the structural challenges faced by the LDCs, to eradicate poverty, achieve internationally agreed development goals, and graduate half of these 48 LDCs by 2020 (UN, 2011).

At the sixth session in January 1970, the Committee for Development Planning (CDP) formed a working group to define the methodology for identifying LDCs. At its seventh session in 1971, the committee proposed a tentative list of 25 LDCs, and, as recommended, were reviewed again in 1975. Since that time, the eligibility criteria for the LDCs have been refined and have evolved into the following three types. They are Gross National Income (GNI) per capita, human assets index (HAI), and economic vulnerability index (EVI). The category of LDCs was officially established in 1971 by the UN General Assembly with a view to attracting special international support for the most vulnerable and disadvantaged members of the UN family. The current list of LDCs includes 48 countries – 34 in Africa, 13 in Asia and the Pacific, and one in Latin America. Cape Verde, Maldives, Samoa and Equatorial Guinea graduated from the list in 2007, 2011, 2014 and 2017 respectively. At present, Nepal is still among the group of 48 LDCs, though it has met two criteria, i.e., HAI and EVI out of three, by the 2015 Triennial Review of the Committee for Development Policy (UNCDP, 2015), a subsidiary body of the UN Economic and Social Council.

During the formulation of three categories of nations (developed, developing and LDCs) in 1971, only 25 members were tagged as LDCs. But only four member nations graduated to developing nation status, and another 27 nations joined the club over the last four and half decades. Today, the UN Agency aims to reduce the number of LDCs from 48 to 24 by 2020. As poverty, inequality and underdevelopment anywhere are a threat to prosperity, the agenda of graduating as many LDCs as possible to developing country status has become a shared concern of all.

Table 1: Thresholds for Inclusion and Graduation and Nepal's position

		Year of Triennial Review				
Criteria	Thresholds	2006	2009	2012	2015	2018
	Inclusion Thresholds	749	905	992	1035	1025
GNI per capita (US\$)	Graduation Thresholds	900	1086	1190	1242	1230
сарна (ОЗ\$)	Nepal's Situation	242	320	442	569	745
	Inclusion Thresholds	58	60	60	60	60
HAI	Graduation Thresholds	64	66	66	66	66
	Nepal's Situation	56.0	58.3	59.8	68.1	71.2
	Inclusion Thresholds	42	42	36	36	36
EVI	Graduation Thresholds	38	38	32	32	32
	Nepal's Situation	37.4	33.6	27.8	26.8	28.4

Source: UNCDP (2018) and NPC (2014)

The above table gives information about inclusion thresholds, graduation thresholds, and Nepal's situation. According to this criteria, Nepal has met the HAI and EVI criteria, but is only below in the income criteria. In the case of GNI per capita income, the graduation thresholds were set 20 percent above from inclusion thresholds and 10 percent above in HAI. Similarly in the case of EVI, the graduation thresholds were set 10 percent below from inclusion thresholds.

The history of graduation of LDCs since 1991 can be basically divided into two periods. From 1991 until the middle of the 2000 decade, only one country, namely Botswana, graduated from the category – in December 1994 – according to the prevailing rule at the time. This modest outcome was not only due to the economic trends in the LDCs, but also and mainly to the precautionary graduation conditions, as indicated above and shown below. The graduation process has also been affected since the

late 1990s by opposition from some qualifying countries (CDP, 1997, 2000, 2003, 2006, CDP and UNDESA 2008). Four countries actually graduated from the group from mid-2000 to 2018: Cape Verde in December 2007, the Maldives in January 2011, and Samoa in January 2014, all based on their GNI per capita and human asset index (HAI), and Equatorial Guinea in 2017 purely based on its high GNI per capita income.

Table 2: Date of inclusion & date of graduation of different countries

S.N	Country	Date of inclusion	Date of graduation
1	Botswana	1971	1994
2	Cape Verde	1974	2007
3	Maldives	1971	2011
4	Samoa	1971	2014
5	Equatorial Guinea	1982	2017

(Source: World Bank, 2018)

To explore the expected impact of LDC graduation of Nepal, it would be beneficial to compare the recently graduated country trends from least developed country status. There are five countries that have been upgraded in different years and have various characteristics. These countries have varying perspectives, i.e., geographic,

culture, trade and economy. It is not possible to examine every sector of these countries, so this study has selected some dimensions of economic and social changes. These are income inequality, status of food security, and female literacy rate as well as changing implications for foreign policy after country graduation.

Table 3: Introducing graduated countries

	GNI per capita (US\$)	EVI	HAI
Threshold	>\$1242	<32	>66
Botswana	7,410	43.4	75.9
Cape Verde	3,595	38.8	88.6
Maldives	6,645	49.5	91.3
Samoa	3,319	43.9	94.4

(Source: CDP, 2015)

Botswana was the first country to graduate from the LDC status in 1994. Botswana is the world's largest producer of diamonds, and the trade has transformed it into a middle-income nation. Botswana has more than 2 million people and an area of 581,730 sq. km. The national language of this country is English, and majority of the people are Christians or hold indigenous beliefs. The average life expectancy is

54 years, and the currency of Botswana is the pula. Living conditions for the people of Botswana have improved, and poverty has declined considerably. In fact, the share of the population living on less than \$1.90 a day at 2011 Purchasing Power Parity declined steadily from 29.8 percent between 2002-03 and 2009-10 to 18.2 percent, and in 2015-16 to 16.1 percent. This rapid reduction in poverty can be attributed primarily to a combination of increasing agricultural income, including subsidies and demographic changes. Improvement in shared prosperity has accompanied progress in reducing poverty. The per capita consumption growth rate for the bottom 40 percentile of the population between 2009-10 and 2015-16 was 42 percent per annum, higher than the top 60 percentile growth rate. Yet the performance of Botswana was only in the middle of the shared-prosperity distribution worldwide. Inequality also dropped, while still high. Inequality, measured by the Gini index, fell from 60.5 to 53.3 percent between 2010 and 2015. Factors associated with declining income inequality in Botswana include regional convergence, due to rapid growth in the rural areas and demographic changes. Botswana remains, however, one of the most diverse countries in the world (World Bank, 2018).

Cape Verde occupies 4,033 sq. km in area and has a population of 505,000. The mean life expectancy is 71 years, and women's life expectancy is 78 years. The currency of this country is the escudo. In 2007, Cape Verde joined the World Trade Organization (WTO), and in 2008 the country graduated from an LDC to a lower middle income country

status (UN, Word Bank, 2018). The Cape Verde reports in 2007 argued that the country's situation had greatly improved in each of the three graduation criteria, and that economic growth was robust, despite it remaining vulnerable. It noted that sustained efforts were needed to move towards structural transformation and economic upgrading.

2003, the CDP recommended Maldives for graduating from the LDC category, and in 2004, the recommendation was endorsed by the United Nations member states. The nation graduated on January 1, 2011, after being given an extended adjustment period due to the devastating impacts of the 2004 tsunami. The Maldives has 324,000 people in an area of 289 sq. km. Divehi is the country's national language, which is spoken by most of the people who are Muslims. The mean life expectancy for women is 79 years, and the average life expectancy for the people is 76 years. This country's currency is the Maldives rufiyaa (UN, Word Bank, 2018). Reports on the Maldives in 2011 had noted that the country recorded progress since its graduation in terms of GNI per capita and EVI; however, the HAI had experienced a slight reduction due to a decline in the gross enrolment ratio in secondary schools, while the EVI had remained high; the termination of trade preferences had been well managed by the country through market reorientation and had not affected its fish exports.

Samoa was governed by New Zealand until its people voted for independence in 1961. The national languages of this country are Samoan and English, and majority of the people are Christians. The economy revolves around fishing and agriculture, which are vulnerable to cyclones and disease. Samoa has 195,000 people in an area of 2,831 sq. km. The mean life expectancy is 72 years, and women's life expectancy is 78 years. The currency of this country is the Samoan Tala (UN, Word Bank, 2018). Samoa graduated from LDC status in 2014, and the 2015 monitoring indicated that the country had registered improvement since graduation and had recovered almost entirely from the impact of the cyclone, improving its level of income and retaining its high HAI ranking, but remaining vulnerable to economic and environmental shocks.

Table 4: Samoa - LDC criteria indicators, 2010-2017

Criteria	2010	2011	2012	2013	2014	2015	2016	2017
GNI per capita (USD)	2707	3023	3254	3439	3634	3842	4009	4079
Human asset index(HAI)	94.1	93.6	94.9	94.6	94.4	94.6	94.8	94.4
Economic vulnerability index (EVI)	54.3	50.8	48.3	42.6	44.2	43.7	41.1	41.1

(Source: Committee for Development Policy Secretariat)

Equatorial Guinea is a small country in Africa's west coast that struck oil in 1995 and is now referred to as a resource curse textbook case – or the paradox of abundance. Equatorial Guinea was to graduate from LDC status in 2017. It has 1.2 million people and an area of 28,051 sq. km. The national languages of this country are Spanish and French, and majority of the people are Christians. The mean life expectancy is 56 years with women's life expectancy being 59 years. The currency of this country is the CFA (Communaute Financiere Africaine) (UN, Word Bank, 2018).

Table 5: Equatorial Guinea - LDC criteria indicators, 2010-2017

Criteria	2010	2011	2012	2013	2014	2015	2016	2017
GNI per capita (USD)	8,182	11,871	12,802	13,417	13,240	14,884	14,952	13,275
Human asset index(HAI)	50.4	51.1	51.8	52.5	53.2	53.9	54.5	55.1
Economic vulnerability index (EVI)	43.8	44.2	41.7	40.9	40.6	39.3	35.1	29.1

 $(Source:\ Committee\ for\ Development\ Policy\ Secretariat)$ 

Equatorial Guinea still faces serious challenges due to low oil production and prices. The GNI per capita remains high above the graduation threshold, but 27 percent below the last year level. The HAI is improving, and the EVI remains below graduation threshold.

Table 6: Current status of Equatorial Guinea

Current status of Equatorial Guinea		
GNI Per Capita	9,665	
HAI	58.5	
EVI	27.8	

(Source: CDP, 2018)

# **Characteristics of Least Developed Countries**

A least developed country is often classified as a low-income country that is economically less developed, and underdeveloped. Compared to other nations, these nations have less developed industrial base and a weak Human Development Index (HDI). Their low level of socio-economic development characterized by weak human and institutional capacities, low and unequally distributed income, and scarce domestic financial resources. They often suffer from governance crisis, political instability, and, in some cases, internal and external conflicts. Their largely agrarian economies are affected by a vicious cycle of low productivity and low investment. They rely on the export of a few primary commodities, which makes them highly vulnerable to external terms-of-trade shocks. Only a handful have been able to diversify into the manufacturing sector, though with a limited range of products in labor-intensive industries, i.e., textiles and clothing. These constraints are responsible for insufficient domestic resource mobilization, low economic management capacity, weaknesses in program design and implementation, chronic external deficits, high debt burdens, and heavy dependence on external financing that keep LDCs in a

poverty trap. A country is classified as an LDC if it meets the following three criteria.

Low income per capita: The indicator is the GNI per capita. The threshold for this criterion is a three-year average, as calculated by the World Bank. In 2015, countries with less than US\$1,035 (current nominal) GNI were classified as LDCs.

Limited human capital: A composite index of nutrition, health, education, and adult literacy, the HAI (human assets index) is constructed to measure the level of a country's human assets. Countries are classified as LDCs if their HAI value falls below a defined threshold. From 2018, the index has also included the Maternal Mortality Ratio (MMR).

High economic vulnerability: The Economic Vulnerability Index (EVI), composed of instability in agricultural production, instability in exports of goods and services, economic importance of non-traditional activities, merchandise export concentration, handicap of having a small population (and thus small markets), and proportion of the population affected/displaced by natural disasters, is constructed to measure a country's economic vulnerability. Countries are classified as LDCs if their EVI value is above a defined threshold (the lower the EVI, the less the vulnerability).

# Social indicator of country graduation

Economic and social indicators for countries' graduation are the Gross

National Income (GNI) per capita, Human Assets Index (HAI), and Economic Vulnerability Index (EVI). 20 percent above the inclusion threshold.

# Gross National Income (GNI) Per Capita

Gross National Income (GNI) per capita provides information on the income status and the overall level of resources available to a country. The inclusion threshold is set at the three-year average of the level of GNI per capita which the World Bank defines for identifying low-income countries. The above table 1 clearly gives the information about threshold for inclusion and graduation of countries. In the 2018 review, it was \$ 1,025. The graduation threshold is set at

## Human Assets Index (HAI)

The Human Assets Index (HAI) is a measure of human capital. A lower HAI represents a lower development of human capital. The graduation threshold has been set at 10 percent above the inclusion threshold at 66. The HAI consists of five measures, grouped into a sub-index for health and education. Original values are converted to index numbers for each HAI indicator using a max-min process.

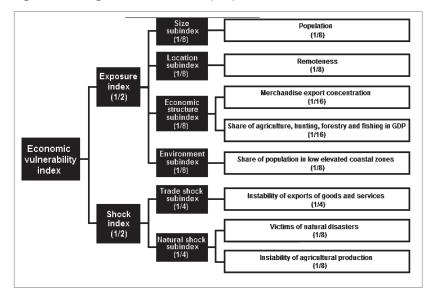


Figure 1: Showing Human Assets Index (HAI)

(Source: United Nations, ESCAP, 2018)

# Economic Vulnerability Index (EVI)

The EVI is a measure of structural vulnerability to economic and environmental shocks. High vulnerability indicates major structural impediments to sustainable development. A higher EVI represents a higher economic vulnerability. The

graduation threshold has been set at 10 percent below the inclusion threshold at 32. The EVI is composed of eight indicators, grouped into various sub-indices.

Under-five mortality rate (1/6)Health Percentage of population undernourished index (1/6)(1/2)Maternal mortality ratio Human (1/6)assets index Gross secondary school enrolment ratio Education (1/4)index (1/2)Adult literacy rate (1/4)

Figure 2: Economic Vulnerability index (EVI)

(Source: United Nations, ESCAP, 2018)

# **Economic Diplomacy**

Diplomacy in its traditional sense is referred to as "the conduct of relations between states and other entities with standing in world politics by official agents and by peaceful means" (Bull 1995, p.156). Economic diplomacy is a relatively new term that is often used in a nebulous manner. The term 'economic diplomacy', as described by Bayne and Woolcock, 2007, is "broad and elastic" enough to accommodate a scope and content that is much broader than diplomacy in its traditional sense. Economic Diplomacy is understood as 'the process through which countries tackle the outside world, to maximize their national gain in all the fields of activity, including trade, investment and other forms of economically beneficial exchanges' (Rana, 2007, p. 201). It provides a means with which microstates could mitigate the multifaceted challenges

that they face. In an increasingly competitive world of eroding trade preferences owing to trade liberalization and intense competition among countries to attract FDI, commercial diplomacy, which entails services provided usually through 'a diplomatic mission or trade promotion organization to the business community' with the aim of developing 'socially beneficial international business ventures' (Kostecki and Naray, 2007, p.1), albeit costly from the perspective of smalls states, provides a tool for small states to increase their engagement in the wider gamut economic diplomacy.

Economic diplomacy requires application of technical expertise that analyze the effects of a country's (receiving state) economic situation on its political climate and on the sending state's economic interests. Economic diplomacy is the term promoting and protecting a country's economic interests in dealing

with other state and non-state actors through negotiation, lobbying, forming alliances, and mobilizing resources. Economic diplomacy encourages international investment and escorts the country along a prosperous path. It refers to convergence of economic and political interests (Adhikari, 2015). Economic diplomacy can be useful in this context, especially to establish good political relationships that breed trust and facilitate mutually beneficial trade and investment. Economic diplomacy has two facets, i.e., economy for diplomacy and diplomacy for economy. The main purposes of economic diplomacy are enhancing economic and overall national security, mobilizing resources for development, promoting trade, exploring markets for national products, supporting businesses overseas, attracting FDI in priority sectors, promoting economic growth, promoting culture and tourism, promoting foreign employment, increasing volume of aid and its effectiveness, mobilizing Diaspora resources, and post-disaster reconstruction. Technological progress (the internet and further improvements in transportation) has reduced the economic costs of trading with distant countries. In the Nepali context, in addition to promoting exports, economic diplomacy can contribute to the country's economy attracting foreign investment, promoting tourism, managing labor export, and discouraging illegal trade and transactions (Thapa, 2015).

# Impact of COVID-19 on Nepali Economy:

Coronavirus disease 2019 (COVID-19),

which first appeared in China in December 2019, spread gradually all over the world within three months. For some years now, many Nepali students have been going to China for higher education, and many Chinese workers are also employed in different Chineseled development projects in Nepal. On the other hand, Nepal shares an open border with India, and people can easily cross the border without a passport and also do not need any work permit to work on either side of the border. Similarly, many Nepalis (more than three million) work in different countries all over the world other than India, and a large number of students go abroad for higher education as well. It shows that there is high mobility of Nepalis these days.

There is direct impact of the novel coronavirus outbreak on the Nepali economy as Nepal. The country is dependent on remittance flow, so the impact will be seen for the next five years. The labor market and education system have also been affected. Unemployment will be higher in the tourism-related industry in the days to come. Merely calculating the impact on tourist trips, hotels, decline in the retail trade and remittance, and shut down of educational institutions are not enough to get the real picture of the impact on Nepal's economy. There are linkages in the economy across various sectors, so both direct and indirect impact need to be calculated as the economic shock of one nation will be directly linked to another nation in this global world. The impact illustrated through qualitative data is far greater than the cost of treatment of cases involved.

Apart from the three graduation criteria,

Nepal must also meet the graduation criteria in the triennial review. As an LDC country, it is eligible for graduation after two successive triennial reviews. In the 2018 triennial review, Nepal met only two graduation criteria, i.e., HAI and EVI, but not the GNI per capita. At present, the government is fighting with the pandemic just like the rest of the world. So it is a major challenge for the government to increase the GNI per capita of the nation. This research is focused on the potential impacts on the social status of the Nepali people after graduation from LDC status and implications for the foreign policy after graduation to developing country status. The research will draw these impacts and implications by analyzing the country experiences of five LDCs that have graduated to developing country status. The research aims to learn about income inequality, human capacity (female literacy rate), status of food security and economic diplomacy from the graduated countries.

When the GNI per capita of the nation increases, will the income level of the poor people also increase (reduced income inequality between rich & poor)? What is the relationship between income inequality and female literacy rate of the nation?

What is the impact of reduced income inequality on food security in the nation?

The information is based on secondary sources of data for the five countries that recently graduated to developing status. It was not possible to take all indicators due to limited time and resources. The study can be indicative but not conclusive since only a small sample of countries were taken for the study. While

exploring the expected status of Nepali people after graduation from LDC status, this study intends to see whether the increase in GNI is also accompanied by better income opportunities for the poor. It will be examined by comparing reduction in the income inequality between high income people (rich people) and low income people (workers) upon graduation to developing country status. As for better human capacity, it will be examined by comparing data on female literacy rate before and after graduation. Also whether the graduation process will lead to better food security for the people after graduation will be examined. Research findings from the five graduated countries should be useful for academic purposes as well as policymaking. A comparative study like this can shed some light on changes (i.e., social change, economic change, income inequality, health index) in the Nepali society after upgrading from LDC status.

Nepali policymakers are formulating policies to graduate to developing status by 2022. This process would also require analyzing implications for foreign policy (or economic diplomacy). It won't be suitable policy for implementation without any research on the corresponding field. This research will have an empirical part and corresponding descriptions that may be useful for the policy makers.

# 2. LITERATURE REVIEW

This section covers the literature review on graduation of LDCs to developing country status. The review includes conceptual review, theoretical review, empirical review, and policy review. Much of the literature related to other LDCs also relate to Nepal's case.

# 2.1 Conceptual Review

This research covered mainly three areas, i.e., income inequality, female literacy rate and food security as well as changing foreign policy after country's graduation. The following literature covers all components of this research.

# 2.1.1 Income Inequality

Inequality is a multidimensional concept. It is extreme disparity of income distributions with a high concentration of income usually in the hands of a small percentage of the population. When income inequality occurs, there is a large gap between the wealth of one population segment compared to another. Economists typically use the Gini index of per capita income or household consumption expenditure as a measure of inequality. This index ranges in value from 0 to 1, with 0 denoting perfect equality (everybody has the same income level) while 1 represents perfect inequality (one person has all the income). According to economist Simon Kuznets' well-known hypothesis, inequality first increases as countries develop, then peaks and starts decreasing after a certain level of development is attained. It would appear that Nepal is at the very early stages of development and that the engine of growth has not started cranking up to the extent where it generates a widening consumption distribution. Inequality can affect development also through its effect on the political economy of the provision of public goods. For example, in Nepal, as incomes and living standards have improved, private school enrollments have increased, leaving public schools, especially in remote rural areas, struggling to fill classrooms. This weakened demand will inevitably lead to further lowering of quality of public schools, which remain the preserve of the poorest.

In 2019, Oxfam International & HAMI

published a report 'Fighting Inequality in Nepal'. It explores the current status of income inequality and wealth inequality, which is given below. Available data show that income inequality is significant and growing in Nepal. In 2010/11, Nepal had one of the highest Gini coefficients in the world, at 0.49. This had increased considerably since 1996. Analysis of the Palma ratio, which measures the ratio between the income share of the top 10 percent and the bottom 40 percent, tells the same story. It has risen steadily, from 2.28 in 1995/96, to 2.65 in 2003/04, and then 3.32 in 2010/11. This means that, according to the most recent data, the income of the richest 10 percent is more than three times higher than that of the poorest 40 percent. The poorest 40 percent saw their share of income decline over that 15-year period; from 15.3 percent in 1995/96 to 11.9 percent in 2010/11, while the income share of the top 10 percent rose. Trends in income and wealth tell a clear story about the gap between the rich and poor in Nepal: economic inequality is extreme and growing.

### 2.1.2 Female Literacy Rate

Education is the main factor in achieving knowledge, awareness and rationality. A country cannot produce skilled and devoted human resources in the absence of education. That's why each family and society should give priority

to providing quality education to their children. However, in Nepal, there are barriers to providing quality education to all. The laws are not gender-friendly, so women have to raise their voice time and again to be treated at par with the boys. The literacy rate of Nepal is 65.9 percent. The female literacy rate has jumped from 35 percent to 57 percent in one decade, which is a significant improvement. But when compared with the male literacy rate, i.e., 75 percent, there is still a big gap between the two genders (CBS, 2011).

#### 2.1.3 Food Security

"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (World Food Summit, 1996).

**Food availability**: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).

Food access: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).

**Utilization:** Utilization of food through adequate diet, clean water, sanitation and

health care to reach a state of nutritional well-being where all physiological needs are met. This brings out the importance of non-food inputs in food security.

**Stability:** To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g., an economic or climatic crisis) or cyclical events (e.g., seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security.

According to food assistance fact sheet Nepal, 2019, the country remains one of the poorest countries in the world. Susceptibility to natural disasters, such as droughts, earthquakes, floods, and landslides, vulnerability to fluctuations in global prices, civil unrest, poor infrastructure and its trade practices drive food insecurity in the country. Disparities in wealth, education, and nutrition exacerbate vulnerabilities in the marginalized communities, leaving them less likely to recover from shocks. While food security in Nepal has improved in recent years, 4.6 million people are foodinsecure, with 20 percent of household's food-insecure, 22 moderately food-insecure, and 10 percent severely food-insecure, according the 2016 Nepal Demographic and Health Survey (DHS). Overall, households in rural areas of the country-where food prices tend to be higher—are more likely to be food-insecure than people living in urban areas, according to the survey (USAID, 2019).

### 2.1.4. Economic Diplomacy

Economic diplomacy is concerned with economic policy questions, including the work of delegations to conferences sponsored by bodies such as the WTO" and includes "diplomacy which employs economic resources, either as rewards or sanctions, in pursuit of a particular foreign policy objective". With the formation of the WTO, the issue of trade liberalization was given increased attention. The Uruguay Round proposed to confine special treatment to the LDCs by eventually merging other developing with countries the industrialized countries, and distinctions were also made in the time period given to the LDCs and other developing countries (Berridge & James, 2003).

Rishi Raj Adhikari (2015) had published a report "Rebuilding Nepal: postearthquake foreign policy & economic diplomacy in the changed context" through the Institute of Foreign Affairs (IFA). Nepal and the Nepali people suffered hugely due to the megaearthquake of April 25, 2015 and aftershocks, which killed over 9,000 people, injured over 22,000, destroyed hundreds of thousands of homes and monuments. Economic diplomacy plays a crucial role in mobilizing crucially important FDI for post-earthquake rebuilding of the country, more so for a poor country like Nepal that has suffered due to conflicts and disasters.

According to Kishan S Rana (2009), in his report "Economic Diplomacy: India's Experience", economic diplomacy connects closely with the country brand, because both a country's trade and investment destination profile contribute to and are influenced by the reputation the country enjoys internationally. Foreign ministries and their agents, and the network of embassies are directly concerned with this. It is another matter that in many developing countries a 'whole of government' approach either does not exist, or is in evolution. Aid diplomacy also intersects with commercial diplomacy in the leverage it provides for trade, service and investment opportunities for the donor country.

#### 2.1.5 LDC Graduation

The first United Nations Conference on the Least Developed Countries in Paris in 1981 adopted the Substantial New Program of Action (SNPA) for the 1980s for the LDCs. The guidelines of this conference were focused on domestic action by the LDCs and international support measures as complementary action. The Brussels Program of Action (BPoA) held in 2001 made seven commitments. Those commitments aimed at significantly improving the human conditions of people in the LDCs and provided a framework for a strong global partnership to accelerate sustained economic growth and sustainable development in the LDCs. In this regard, it introduced two other partners, i.e., civil society and private sector. Furthermore, the overarching goal of the BPoA was to make substantial progress towards halving the proportion of people living in extreme poverty and suffering from hunger by 2015 and promoting sustainable development (UN, 2001).

The objectives of the Istanbul Program

of Action (IPoA) held in 2011 are building human capacities, reducing vulnerability, enhancing and making effective use of financial resources, and promoting good governance. Regarding these objectives, it also introduces eight principles and priority areas for action (UN, 2011). The overarching goal of the Program of Action for the decade 2011-2020 is, however, to overcome the structural challenges faced by the LDCs in order to eradicate poverty, achieve internationally agreed development goals and enable graduation from LDC category (UN, 2011).

# 2.2 Theoretical Review

# 2.2.1 LDC Identification

In qualitative terms, two parameters have been identified, i.e., low income and significant systemic impediments to sustainable growth. GNI, HAI and EVI have been used in quantitative terms, while GNI is related to income criteria, and two other quantitative criteria apply to sustainable development with the Extreme Systemic Impediments (Rai, 2017).

# 2.2.2 LDC Inclusion and LDC Graduation

In the 2015 triennial review, five countries met the eligibility criteria for graduation for the first time. They include Bhutan. To be recommended for graduation, a country must be found eligible at two successive triennial reviews by the CDP. That's why, if Bhutan meets the criteria for graduation during the 2018 triennial review, it may be recommended for graduation by the Committee (UNOHRLLS, 2015). As per the 2018

Triennial Review, the current criteria and thresholds must be met for a country to be identified for inclusion in the list of LDCs. It is important that inclusion thresholds for LDC vary in the Triennial Review (Rai, 2017).

# 2.2.3 Gross National Income per capita (GNI per capita)

The GNI criterion serves as a measure of an economy's competitive and incomegenerating capabilities and its capacity to provide necessary services. The GNI value is an average GNI of three years before the analysis, and is measured using the Atlas method of the World Bank. For instance, the 2018 triennial review measures the GNI per capita from 2014 to 2016. With an inclusion threshold of US\$ 1,035 in the 2015 review, the threshold for graduation is set at 20 percent above the inclusion threshold. It is \$1,242 in the 2015 review. And the inclusion and graduation thresholds are different than in the previous triennial review. It means these threshold values will be different than the value of the 2015 triennial review (UN-CDP, 2014).

### 2.2.4 Human Asset Index (HAI)

The HAI contains 2 variables related to health and 2 related to education. Underfive mortality rates and percentage of undernourished population are covered by health sub-indices, and the ratio of total secondary school enrolment and the rate of adult literacy are covered by the education sub-indices. This is founded upon a compilation of four similarly weighted health and education measures. Original (or raw) values are transformed into indices ranging from 0 to 100, using lower and upper bounds imposed on

the rough basis of the minimum and maximum values derived from a set of developing countries. HAI is the sum of 4 equally weighted indices, and the higher the value, the better the country situation is (Kawamura, 2014).

# 2.2.5 Economic Vulnerability Index (EVI)

The Economically Vulnerable Index (EVI) tests countries' systemic vulnerability to exogenous economic and environmental shocks. The EVI comprises eight indicators, divided into separate sub-indices (UN CDP, 2014). The EVI is comprised of two groups of variables; one intended to measure exposure (the exposure index) and is composed of 5 variables. These variables are population, remoteness, merchandise export concentration, share of agriculture, hunting, forestry and fishing, and share of population in low elated coastal zones. Likewise the other is the shock index, which includes 3 variables. They are instability of exports of goods and services, victims of natural disasters, and instability of agricultural productions (Rai, 2017).

### 2.3 Empirical Review

Because of the limited availability of literature related to the research topic, it has been reviewed from the empirical perspective. My findings were that: According to Johnson (2006), categorization of LDC groups from the developing countries group is favorable for these countries (LDCs). He writes 'the least developed countries continue to receive an array of benefits granted by the international community. The list of benefits from multilateral organizations

includes non-reciprocal preferences, exemption from the obligation to reduce trade barriers and favorable treatment for certain least developed countries' exports. Certain groups of least developed countries also receive significant benefits defined in bilateral arrangements, such as the benefits of free entry for a wide range of goods offered by the United States to 37 African states (Johnson, 2006).

Fialho (2015) argues on the logical reason on creation of the LDC group. There are two ways of understanding this argument. First, from the side of pessimism, limiting the number and type of countries on the list meant limiting the responsibility of those expected to provide them with special benefits (i.e., donors). The creation of the category in those specific terms was indeed a success from the perspective of both donors and more advanced developing countries. It was built off the three world models which, more than developmental (or even economic), was an apolitical approach to the world structure - and, thus, it protected the position of the major world powers. This side of view is contrary to the previous study done in 2008 and Johnson (2006). In spite of this view, she also has another view, which supports Johnson (2006).

Second, from the side of optimism, the establishment of the LDC category represented an important step towards greater recognition of the plight of the most disadvantaged countries and the need to treat them differently and more favorably. Indeed the idea behind the category did represent a significant advance in that direction. However, its

operation has not allowed the category to live up to its main philosophy as indicated by the extremely low number of graduation cases.

Fialho (2015) finds, in her study on developing country differentiation, the relationship between a developing country and an LDC is changed from partners to competitors. However, her study set a challenge in answering the question: 'What were the main motivations behind the establishment of the LDC category in 1971?' Thus, it can be concluded that this time she has taken in a broader view of the preceded researches.

Faye et al. (2004) conclude that landlocked countries have several aspects of dependence on maritime neighbors. They see four types of dependency, i.e., dependence on neighbors' infrastructure; dependence on sound cross-border political relations; dependence on neighbors' peace and stability; and dependence on neighbors' administrative practices. Being a landlocked country, Nepal has all these dependencies on maritime neighbors, especially with India.

Bhattacharya and Borgata (2012) argue for an atypical graduation from the LDC level, which delinks the graduation prospects from the income approach. In other words, they opt for an alternative approach to graduation based on the two non-income criteria (without GNI per capita criteria), i.e., HAI and EVI. UNCDP (2015) shows in its 2015 triennial report that Nepal has met two criteria (HAI and EVI) out of three, which is an atypical LDC graduation

study.

(2014)examines Kawamura prospects of achieving the main goal of the Istanbul Program of Action by at least half of the LDCs to meet the graduation criteria by 2020. According to his study, Nepal may become eligible for graduation, meeting both the HAI and EVI criteria by the 2021 triennial review. This has been supported by the 2015 triennial review, which shows that Nepal has met both these criteria. Apart from that, Nepal is making progress on both the criteria. The study/finding is seen related to Bhattacharya and Borgatti (2012) as well.

The National Planning Commission (NPC) of Nepal (2014) published an approach paper relating to LDC graduation. This approach paper also supports the argument of Kawamura. Despite the long political transition and weak governance, Nepal is gradually improving socio-economic on its condition. As per the approach paper, Nepal is expected to meet the GNI criterion only in the 2021 triennial review, and it will require around 10-11 percent annual economic growth rate. But this is not possible because Nepal must invest around \$1,300 million per annum. The current situation does not allow for such a big budget.

#### 2.4 Policy Review

#### 2.4.1 15th Periodic Plan

The 15th Periodic Plan, along with the long-term vision prepared by the NPC, envisions graduating the country to the status of a rich nation by 2099 BS (2043 AD). NPC has prepared the five-

year plan with a long-term vision of 25 years to realize the national goal of 'Prosperous Nepal, Happy Nepali' set by the government. The plan will remain under implementation from fiscal year 2019/2020 to fiscal year 2023/2024. It is stated in the plan that the per capita income of the country would increase to \$12,500 by 2044 AD. The per capita income at present is \$1,004, while the GDP is Rs 3 trillion 7 billion. Of the total population, 21.6 percent lives below the poverty line. The Human Development Index of State-2, Karnali State and Sudurpaschim (far-west) State is low in comparison to the other States. The governing Nepal Communist Party (NCP) had declared in its election manifesto that Nepal would graduate to the status of a rich country by 2043.

#### 2.4.2 13th Periodic Plan

Rai (2017) has explored the Thirteenth Periodic Plan (2013/14 - 2015/16), which has targeted Nepal's graduation from an LDC to a developing country by 2022. Regarding the target, the NPC has drafted an approach paper 'Graduation from the Least Developed Country by 2020' to achieve the LDC graduation. Nepal is still an LDC but on the graduation pace.

Shrestha (2018) reported in February 2018 that the government had officially requested the UN not to consider Nepal for graduation from the LDC category in the 2018 Triennial Review. Nepal argued that graduation without fulfilling the per capita income criteria would not be sustainable.

The National Planning Commission in 2014 reviewed the existing database and built the macro econometric model consistent with the LDC graduation approach. It worked out LDC indicators up to 2021/22 through baseline projections from 2012/13. It also predicted that more than 10 percent annual growth rate must be necessary by 2021/22 to graduate from LDC category.

Shrestha (2018) has explored the LDCs' need of financial and technical resources for investment in their economic and social development. For economic development, they need to attract more FDI for capital and technology. They need to attract multi-lateral, bilateral, and private corporate philanthropic development cooperation (finance, technology) for boosting income, and improving the health and education status of their people.

# 2.5 Literature or Knowledge Gaps

Table 7: Literature or knowledge gaps

Category	Focus	Gaps
Knowledge	Country graduation meets three criteria, i.e., GNI per capita, HAI & EVI.	Through increase in GNI per capita, a nation's income inequalities between rich and poor people are reduced. Economic diplomacy of graduated countries.
Methodology	Explanatory, Qualitative methods.	Quantitative and Descriptive analysis based on secondary data.
Relationship	No relationship between two or more variables.	Relationship between Gini Index and female literacy rate as well as status of food security.
Analytical	Challenges to country graduation, Gini coefficient, etc.	Gini index of different countries, comparisons of Nepali status to recently graduated countries.
Theoretical	Dual economy or Lewis (1954) model, General theories of income distribution, etc.	Cause & effect theory, Sustainable Development theory etc.

(Developed by the researcher, 2020)

# **Analysis and Interpretation**

This section deals with the result of the study, which involves presentation of data. Secondary source of data has been used from Economic Survey report, World Bank estimate, and education management system of different countries. Graph and charts are used to analyze the trends of income inequalities, female literacy rate, and status of food security with comparison between before graduation and after graduation of countries.

Table 8: Different information about graduated countries

Poverty rates, Gini index, and unemployment rate for the graduated countries, various year					
Countries	Poverty rates	Gini index (%)	Unemployment rate (2014)		
Botswana	18.2	60.5	18.2		
Cape Verde	8.1	47.2	9.2		
Maldives	7.3	36.8	11.2		
Samoa	0.8	42.7	_		

(Source: World Bank, World Development Indicators database, 2016)

Note: Data for the poverty rates and the Gini index for Botswana and the Maldives refer to 2009. Data for Cape Verde refer to 2007 while data for Samoa refer to 2008. More recent data were not available.

Botswana was the first country to graduate from the LDC status in 1994. The country has a US\$ 7,410 GNI per capita income, an EVI value of 43.4 and HAI of 75.9 (CDP, 2015). Three things have been studied about this country. These are the income inequality, female literacy rate, and status of food security. Botswana is

the 48th largest nation in the world, with an area of 581,730 km2 (224,607 sq. mi). The population is comparable to that of France. Botswana is faced with two big environmental problems, drought and desertification, which are closely related. Botswana has had one of the highest per capita income growth rates in the world. Botswana has developed from one of the world's poorest countries into an upper middle-income economy. The per capita GDP has risen from \$1,344 in 1950 to \$15,015 in 2016. Botswana's Ministry of Trade and Industry is responsible for supporting national business growth.

The economic growth averaged over 9 percent a year between 1966 and 1999, according to the International Monetary Fund. Compared with other African countries, Botswana has a high degree of economic independence. Since independence in 1966, Botswana has made great strides in education. There were very few graduates in the country at the time, and only a very small percentage of the population completed secondary education. Botswana increased its literacy rate among adults from 69 percent in 1991 to 83 percent in 2008.

Table 9: Composition of gross value added, average before and after graduation (Botswana)

Botswana: Sectorial composition of gross value added, averages before and after graduation				
	Pre	Post		
Agriculture, hunting, forestry, fishing	5.8	3.3		
Industry	55.1	47.3		
Manufacturing	6.3	6.2		
Construction	7.0	6.2		
Services	39.1	49.4		
Wholesale, retail, restaurants and hotels	7.2	11.9		
Transport, storage and communications	3.2	3.7		
Other activities	28.7	33.9		

(Source: UNCTAD database, 2016)

Note: Ten-year average prior to graduation (pre) and ten-year average or less post-graduation (post). The post-graduation periods are: 1994-3003.

Cape Verde is the second country to graduate from the LDC group since its establishment in 1974. It graduated in December 2007. Cape Verde has a US\$ 3,595 GNI per capita, an EVI of 38.8 EVI and A HAI of 88.6 (CDP, 2015). Three things have been studied about this country. These are income inequality, female literacy, and status of food security. Real GDP increased on average by more than 7 percent a year between 2000 and 2009, well above the average for Sub-Saharan countries and faster than most of the region's smaller island economies. Strong economic performance

was assisted by one of the world's fastest growing tourism industries, as well as significant capital inflows that allowed Cape Verde to create national currency reserves for long-term imports. Unemployment has been rapidly, and the country is on track to achieve most of the UN Millennium Development Goals - including halving its 1990 poverty level. But Cape Verde still has high levels of poverty and unemployment, partly attributable to a lack of obvious economic growth opportunities and a scarcity of resources, particularly water. Despite the poor natural resource base, partly due to serious water shortages caused by cycles of long-term drought, Cape Verde has a per capita gross domestic product (GDP) close to \$2,000, allowing for recent reclassification from least-developed to middle-income country status. Cape Verde's economy is vulnerable to external shocks and depends on development aid, foreign investment, remittances, and tourism. The economy is serviceoriented with commerce, transport, tourism, and public services accounting for about three-fourths of GDP. Tourism is the mainstay of the economy and depends on conditions in the euro-zone countries. Cape Verde annually runs a high trade deficit, financed by foreign aid and remittances from its large pool of emigrants; remittances as a share of GDP are one of the highest in Sub-Saharan Africa. Although about 40 percent of the population lives in rural areas, the share of food production in GDP is low. The island's economy suffers from a poor natural resource base, including serious water shortages, exacerbated by cycles of long-term drought and poor soil for growing food

on several of the islands, requiring it to import most of what it consumes. The contribution of agriculture to GDP is less than 12 percent, but the sector is a key in today's transformation in Cape Verde. The government's strategy includes the construction of 17 dams and more than 10 embankments and a dozen wells to mobilize water, especially rainwater, which will directly benefit agribusinesses. The construction of these dams will help expand the availability of arable land and overcome some constraints associated with water scarcity.

The economy of Cape Verde is serviceoriented, with commerce, transport, and public services accounting for more than 70 percent of GDP. Agriculture and fishing contribute only about 9 percent of GDP. Light manufacturing accounts for most of the remainder. An amount estimated at about 20 percent of GDP is contributed to the domestic economy through remittances from expatriate Cape Verdeans. Since 1991, the government has pursued marketoriented economic policies, including an open welcome to foreign investors and a far-reaching privatization program. It established as top development priorities the promotion of a market economy and the private sector; the development of tourism, light manufacturing industries, and fisheries; and the development of transport, communications, and energy facilities. From 1994 to 2000, there was a total of about \$407 million in foreign investments made or planned, of which 58 percent was in tourism, 17 percent in industry, 4 percent in infrastructure, and 21 percent in fisheries and services. The government has launched an ambitious plan to reduce the country's dependence on imported fossil fuels through increased energy production from renewable resources. Through private-sector investment and government-supported projects, Cape Verde intends to generate at least 50 percent of electricity from renewable sources by the year 2020, up from the current level of 3.2 percent.

Table 10: Composition of gross value added, averages before and after graduation (Cape Verde)

Cape Verde: Sectorial Composition of gross value added, averages before and after graduation				
	Pre	Post		
Agriculture, hunting, forestry, fishing	13.4	9.3		
Industry	24.5	20.8		
Manufacturing	7.3	6.2		
Construction	10.0	12.2		
Services	62.1	69.9		
Wholesale, retail, restaurants and hotels	15.3	19.6		
Transport, storage and communications	17.0	16.4		
Other activities	29.8	34.0		

(Source: UNCTAD database, 2016)

Note: Ten-year average prior to graduation (pre) and ten-year average or less post-graduation (post). The post-graduation periods are: 2007-2014.

The Maldives is the third country to graduate from LDC group since its establishment in 1971. It graduated from LDC status in 2011. The Maldives has a US\$ 6,645 GNI per capita, an EVI value of 49.5 and a HAI of 91.3 (CDP, 2015). Three things have been studied about this country. They are income inequality, female literacy, and status of food security. The Maldives, officially the Republic of Maldives, is a small island nation in South Asia, located in the Arabian Sea of the Indian Ocean. It lies southwest of Sri Lanka and India, about 1,000 kilometers (620 mi) from the Asian continent. Male is the capital and the most populated city, traditionally called the "King's Island" from where

the ancient royal dynasties ruled because of its central location. Agriculture and manufacturing continue to play lesser roles in the economy, constrained by the limited availability of cultivable land and a shortage of domestic labor. For many centuries, the Maldivian economy was entirely dependent on fishing and other marine products. Fishing remains the main occupation of the people, and the government gives priority to the fisheries sector.

Samoa graduated from LDC status in 2014. It has a GNI per capita of US\$ 3,319, EVI value of 43.9 and a HAI of 94.4. Three things have been studied about this country. They are income

Table 11: Composition of gross value added, averages before and after graduation (Maldives)

Maldives: Sectorial Composition of gross value added, averages before and after graduation				
	Pre	Post		
Agriculture, hunting, forestry, fishing	5.7	3.7		
Industry	14.1	17.8		
Manufacturing	5.4	5.3		
Construction	7.0	11.3		
Services	80.3	78.6		
Wholesale, retail, restaurants and hotels	32.9	31.1		
Transport, storage and communications	13.5	12.6		
Other activities	33.9	34.9		

(Source: UNCTAD database, 2016)

Note: Ten-year average prior to graduation (pre) and ten-year average or less post-graduation (post). The post-graduation periods are: 2011-2014.

inequality (Gini index), female literacy rate, and status of food security. In 2017, Samoa's GDP in purchasing power parity was estimated to be \$1.13 billion, ranking 204th among all countries. The services sector accounted for 66 percent of GDP, followed by industry and agriculture at 23.6 percent and 10.4 percent, respectively. The same year, the Samoan labor force was estimated at 50,700. The economy of Samoa has traditionally been dependent on agriculture and fishing at the local level. In modern times, development aid, private family remittances from overseas, and agricultural exports have become key factors in the nation's economy. Agriculture employs two-thirds of the labor force and furnishes 90 percent of exports, featuring coconut cream, coconut oil, noni (juice of the nonu fruit, as it is known in Samoan), and copra. Because of variations in altitude, a large range of tropical and subtropical crops

can be cultivated, but land is not generally available to outside interests. Of the total land area of 2,934 km2 (725,000 acres), about 24.4 percent is under permanent crops and another 21.2 percent is arable. The Samoan government provides eight years of primary and secondary education that is tuition-free and is compulsory through age 16. Primary education includes grades 1-8, ages 6-13. After primary education comes middle school which is also free and is of 2 years. After this, students are required to take a national exam, which ranks them for selection into secondary schools. Once the students are in secondary school, everything is taught to them in English, and they also have to pay a yearly tuition, which is \$60 for Samoan citizens and \$150 for non-Samoan citizen students.

Equatorial Guinea graduated from LDC category in 2017. The GNI per capita of this country is US\$ 9,665, HAI value

Table 12: Composition of gross value added, averages before and after graduation (Samoa)

Samoa: Sectorial composition of gross value added, averages before and after graduation				
	Pre	Post		
Agriculture, hunting, forestry, fishing	10.6	9.2		
Industry	27.7	24.9		
Manufacturing	13.1	10.0		
Construction	10.7	10.1		
Services	61.7	65.8		
Wholesale, retail, restaurants and hotels	27.6	33.6		
Transport, storage and communications	10.2	7.6		
Other activities	23.8	24.6		

(Source: UNCTAD database, 2016)

Note: Ten-year average prior to graduation (pre) and ten-year average or less post-graduation (post). The post-graduation period is 2014.

is 58.5, and EVI is 27.8 (CDP, 2018). The Republic of Equatorial Guinea is a country located on the west coast of Central Africa, with an area of 28,000 square kilometers (11,000 sq. mi). Formerly a colony, Spanish Guinea, its post-independence name evokes its location near both the equator and the Gulf of Guinea. Equatorial Guinea is the only sovereign African state in which Spanish is an official language. As of 2015, the country had a population of 1,225,377. Since the mid-1990s, Equatorial Guinea has become one of Sub-Saharan Africa's largest oil producers. It has subsequently become the richest country per capita in Africa, and its GDP adjusted to purchasing power parity (PPP) per capita ranks 43rd in the world; however, the wealth is distributed unevenly, with few people benefiting from the oil riches. The country ranks 144th on the 2019 Human

Development Index, with less than half the population having access to clean drinking water and 20 percent of children dying before the age of five. Despite its name, no part of the country's territory lies on the equator—it is in the northern hemisphere, except for the insular Annobón Province, which is about 155 km (96 mi) south of the equator.

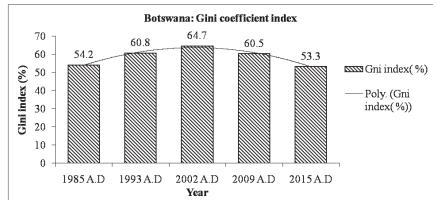
Before independence, Equatorial Guinea exported cocoa, coffee and timber, mostly to its colonial ruler, Spain, but also to Germany and the UK. The discovery of large oil reserves in 1996 and its subsequent exploitation contributed to a dramatic increase in government revenue. As of 2004, Equatorial Guinea is the third largest oil producer in Sub-Saharan Africa. Its oil production has risen to 360,000 barrels per day (57,000 m3/d), up from 220,000 only two years earlier. Forestry, farming, and fishing

are also major components of its GDP. Subsistence farming predominates. The deterioration of the rural economy under successive brutal regimes has diminished any potential for agriculture-led growth. According to the World Bank, Equatorial Guinea has the highest GNI per capita of any African country, 83 times larger than the GNI per capita of Burundi, the poorest country.

# **Income Inequality and Economic Diplomacy of Graduated Countries**

Income inequality is an extreme disparity of income distributions with a high concentration of income usually in the hands of a small percentage of the population. When income inequality occurs, there is a large gap between the wealth of one population segment compared to another. There can be varying types of income disparity segregations and analysis used to understand income inequality. Income inequality means different individuals earn varying sums of income. The wider those earnings are dispersed, the more unequal they are. The Gini index, or Gini coefficient, is a statistical distribution measure created in 1912 by Corrado Gini, an Italian statistician. It is often used to gauge economic inequality, measuring the distribution of income, or, less commonly, distribution of wealth among the population. The coefficient varies from 0 (or 0 percent) to 1 (or 100 percent), 0 being perfect equality and 1 reflecting perfect inequality. Values over 1 are technically possible regardless of negative income or property.

4.3.1 Income inequality and economic diplomacy in the case of Botswana Figure 3: Gini Coefficient index of Botswana before graduation & after graduation



(Source: World Bank, 2015)

The above histogram gives information about income inequality of Botswana in different years. The Y-axis shows the Gini index in percentage, and X-axis shows different data in which the value of the Gini index was noted. Botswana graduated in 1994 and it shows the income inequality before graduation and after graduation from

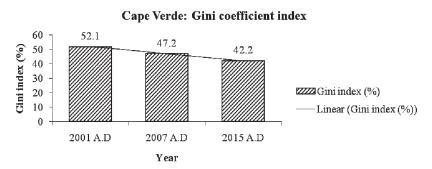
LDC status. In 1993, the value of the Gini index was 60.8 and in 2002 it had increased and reached 64.7. It shows that the income inequality after graduation did not decrease, but a decreasing pattern was noted from 2009 and 2015. The data show that the income inequality may decrease after a country graduates to developing country status.

Economic diplomacy of Botswana: Botswana maintains friendly diplomatic relations with most African nations, as well as with many European and Arab nations. The country is a member of the UN, where it established a reputation for consensual, constructive participation during its term on the Security Council. The Botswana is a middle income developing country, and is always looking to diversify its economy, which is currently dependent on diamonds. To that end Botswana has various trade and investment incentives. Botswana has concluded and signed numerous bilateral and regional trade agreements.

Some of these agreements provide duty free and quota free market access, while some accord preferential market access to Botswana's goods and services. Botswana is also a member of the World Trade Organization. Botswana signed an Economic Partnership Agreement with the European Union in December 2007, and, as a member of the Southern Africa Customs Union (SACU), it signed a preferential trade agreement in 2004 with Marcos. Botswana is a member of the 15-nation Southern African Development Community (SADC), and Gaborone hosts the SADC Secretariat's headquarters. SADC has a broad mandate to encourage growth, development, and economic integration in Southern Africa. SADC's Trade Protocol calls for the elimination of all tariff and non-tariff barriers to trade among the 12 signatory countries. However, implementation of the protocol has been slow and is not yet complete (Global Security Organization, 2016).

# 4.3.2 Income inequality and economic diplomacy in the case of Cape Verde

Figure 4: Gini Coefficient index of Cape Verde before graduation & after graduation



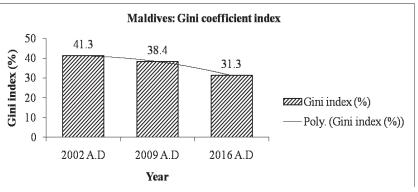
(Source: World Bank, 2015)

The above histogram gives information about the Gini index of Cape Verde. In 2001, it had a Gini index value of 52.1 percent, which in 2007 had decreased to 47.2 and 42.2 in 2015, which meant income inequality was decreasing. The graph shows that after graduation, the income status of the poor people in the state had improved.

Economic diplomacy of Cape Verde: Cape Verde is a middle-income country, and its growth continues to be very satisfactory, particularly for a country with high vulnerability and with very limited natural resources. Good governance, fiscal discipline, and strong measures adopted by the Government to minimize the effects of these external shocks will help, but the economy is suffering from some measure of contraction. It follows a policy of nonalignment and seeks cooperative relations with all friendly states. Cape Verde is actively interested in foreign affairs, especially in Africa. It also participates in most international conferences on economic and political issues. Cape Verde is a services-based open economy, historically oriented toward the world economy and deeply enmeshed in global commerce since the slave trade. Cape Verde's exportoriented primary sector productions of the past have long lost their importance, or disappeared. Domestic production of food has been structurally far below the national needs; manufacturing has never been a significant sector. With the emergence of tourism as the leading sector, Cape Verde is more than ever a service-based economy. The successful development of tourism provides Cape Verde with many opportunities - directly and indirectly - including for diversification (World Bank, 2007).

### 4.3.3 Income inequality and economic diplomacy in the case of Maldives

Figure 5: Showing Gini coefficient index of Maldives with pre-graduation value and postgraduation value.



(Source: World Bank, 2016)

The above graph gives information about the Gini index of the Maldives. The Maldives graduated from LDC status in 2011. The value of the Gini index in 2002 was 41.3, which decreased in 2009 to reach 38.4, and similarly in the year 2016, its value was 31.3. This graph shows that before graduation there was high income inequality, which decreased gradually after graduation.

Economic diplomacy of Maldives:

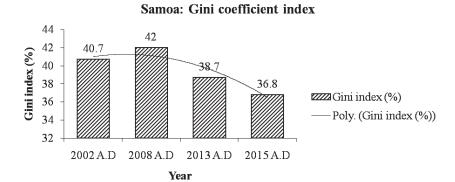
The foreign policy of the Maldives received the respect of the international community. There is a need to strengthen and clearly articulate strategic objectives and targets of the Maldives Foreign policy. In addition, the government aims to continue its work to strengthen the diplomatic machinery and foreign services training in order to promote Maldives interests and meet the challenges of globalization. Historically, Maldives has had close relations with Britain, its former colonial power, and has been a full member of the British Commonwealth since 1985. Maldives participates in a variety of international organizations. It joined the UN in 1965 and the World Bank and the IMF in 1978. In connection with its concern over the security of the Indian Ocean

area, Maldives became a founder of the South Asian Association for Regional Co-operation (SAARC) in 1985. It has been a member of the Colombo Plan designed to promote economic and social development in Asia and the Pacific since 1963. In 1990, the fifth SAARC annual conference was held in Male. Maldives is also a member of the Asian Development Bank.

At the time of independence the Maldives was one of the poorest countries in the world. Exports of dried fish and coconuts to neighboring countries provided the only means of foreign exchange earnings. The 1970s brought added miseries to the country in the form of a ban on Maldives fish by Sri Lanka and the 1975 closure of the British RAF base on the southernmost atoll of the Maldives. The Maldives has also been actively trying to mobilize the support of its traditional bilateral donors in the oil-rich Arab world to remedy the oil and food price situation. The Maldivian foreign minister toured several Arab countries and held bilateral discussions with his counterparts to address the Maldives' concerns over the rising prices of oil and food in the global market and sought their assistance to ease the situation (Naeem, 2008).

# 4.3.4 Income inequality and economic diplomacy in the case of Samoa

Figure 6: Showing Gini coefficient index of Samoa, before graduation and after graduation



(Source: World Bank, 2015)

The above graph gives information about the Gini index of Samoa. The country graduated from LDC status in 2014. There are different values of the Gini index for different years. The value of the Gini index in 2008 was 42, which shows there was high income inequality in Samoa. But in 2013, the valve of the Gini came down to 38.7, which further decreased in 2015 to 36.8. The data show that country graduation has had positive impact on income inequality.

# Economic diplomacy of Samoa:

The Samoa participates in the first round of negotiations with its Pacific island neighbors for regional trade agreement in August 2000. The economy of Samoa is dependent on agricultural exports, development aid, tourism and private remittance from overseas. Samoa annually receives important financial aid from abroad. The more than 100,000 Samoans who live overseas provide two sources of revenue. Their direct remittances have amounted to \$12.1

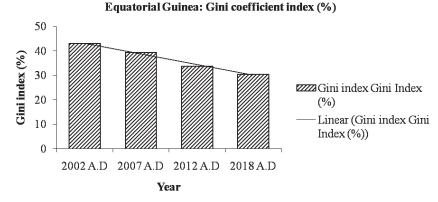
million recently, and they account for more than half of all tourist visits. Samoa also receives \$7.57 million annually in official development assistance from sources led by Japan, Australia and New Zealand.

The Samoan government is generally conservative and pro-Western, with a strong interest in regional political and economic issues. The Samoa Economic Reform Program is supporting the Government of Samoa to stabilize its economy as it recovers from the impacts of external shocks. Australia is helping Samoa to build greater economic resilience. Support is focused on activities that strengthen Samoa's public financial management systems and promote an open, competitive private sector-led economy, improving the regulatory environment for business and international trade to encourage investment, innovation, tourism and private-sector-led growth, improving Samoa's economic infrastructure, such as roads, bridges, and communication

services, supporting Samoa to pursue reforms which stimulate economic growth, improve the performance of state-owned enterprises, increase revenue and build resilience to future economic shocks, increasing economic opportunities for women, and promoting labour mobility for the Samoan workforce, including through the Seasonal Worker Programmed and the Labour Mobility Assistance Program (International Business publication Samoa, 2016).

# 4.3.5 Income inequality and economic diplomacy in the case of Equatorial Guinea

Figure 7: Showing Gini Coefficient index of Equatorial Guinea



(Source: World Bank, 2018)

The above histogram gives information about the Gini index of Equatorial Guinea. The country graduated from LDC status in 2017. The value of the Gini index was about 43 in 2002. The value decreased and reached 39 in 2007. The value of the Gini index was 33 in 2012 and decreased and reached nearly 30 in 2018. The pre-graduation value of the Gini index was 33 percent in 2012 and post-graduation value of the Gini index was nearly 30 in 2018. The data show that there has been positive impact on income inequality after country graduation.

# Economic diplomacy of Equatorial Guinea:

The country has been one of the fastest growing economies in Africa in the past decade. After the discovery of large oil reserves in the 1990s, Equatorial Guinea became the third-largest producer of oil in Sub-Saharan Africa, after Nigeria and Angola, with an estimated 181,400 barrels being produced each day. Foreign investment has flown in from around the globe, especially from the U.S. Economic growth has been the fastest in the world, and the IMF predicts a staggering 45.1 percent rate of growth for 2005. This rapid growth, coupled with the country's miniscule population of less than 500,000, has brought GDP per capita estimates (PPP) to an astounding \$50,240, the second highest in the world

### after Luxembourg.

Equatorial Guinea highlights the predominance of hydrocarbons, which made up 86.5 per cent of the country's total exports in 2015, although their relative share has decreased slightly since 2010. Furthermore, the share of crude oil in the exports of Equatorial Guinea (59 per cent in 2015, compared to 62.3 per cent in 2014) has decreased in comparison to exports of gas and methanol. The overwhelming predominance of hydrocarbons in the composition of exports confirms the decline in commercial crops (cocoa and coffee) and in forestry, which make insignificant contributions to GDP (McSherry, B, 2006).

# 4.4 Graduation process leads to better human capacity (Female literacy rate)

Literacy rate is an outcome indicator to evaluate educational attainment. This data can predict the quality of the future labor force and can be used in ensuring policies for life skills for women. Adult literacy rate is the percentage of people aged 15 and above who can both read and write with understanding a short simple statement about their everyday life.

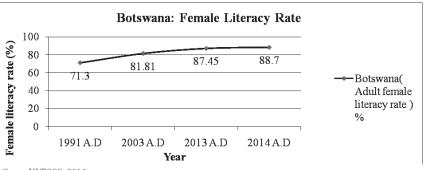
#### Correlation coefficients

Correlation is a statistical measure of how two securities move in relation to each other. Correlation coefficients are used to measure the strength of the relationship between two variables. Pearson coefficient is a type of correlation coefficient that represents the relationship between two variables that are measured on the same interval. The Pearson correlation is the one most commonly used in statistics. This measures the strength and direction of a linear relationship between two variables. The values range between -1 (strong negative relationship) and +1 (strong positive relationship). Values at or close to zero imply weak or no linear relationship. The correlation coefficient which has values less than +0.8 or greater than -0.8 is not considered significant.

The coefficient of determination is a measure used in statistical analysis to assess how well a model explains and predicts future outcomes. Negative correlation is a relationship between two variables in which one variable increases as the other decreases, and vice versa. Positive correlation is a relationship between two variables in which one variable increases as the other is increased. A linear relationship (or linear association) is a statistical term used to describe the directly proportional relationship between a variable and a constant. The coefficient of correlation was analyzed by Excel.

# 4.4.1 Female literacy rate of Botswana

Figure 8: Female literacy rate of Botswana before graduation & after graduation

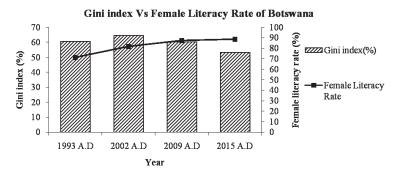


(Source: UNESCO, 2014)

The above graph gives information about the female literacy rate of Botswana before graduation and after graduation. The country graduated from LDC status in 1994. This graph shows the female literacy rate in different years. In 1991, 71.3 percent of females were literate while in 2003 it was 81.81 percent. The graph shows that when a country graduates from LDC status, it directly influences the education system of the country. Similarly the female literacy rate increased and reached 87.45 and 88.7 percent in 2013 and 2014 respectively.

### Relationship between Gini index and female literacy rate of Botswana

Figure 9: Relationship between Gini index and female literacy rate



The above figure gives information about income inequality and female literacy rate of Botswana. This figure clearly shows that there is inverse relationship between these two variables. As the income inequality decreased, the female literacy rate increased after country graduated to developing country status.

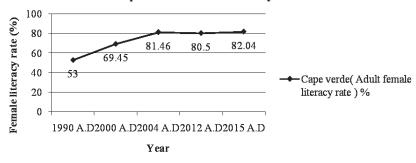
The correlation coefficient was calculated in terms of two variables. These two variables are the Gini index and female literacy rate of Botswana, where the

correlation coefficient, r = -0.455. The relationship between these two variables was not significant because the correlation coefficient has values less than +0.8 or greater than -0.8.

# 4.4.2 Female literacy rate of Cape Verde

Figure 10: Female literacy rate of Cape Verde



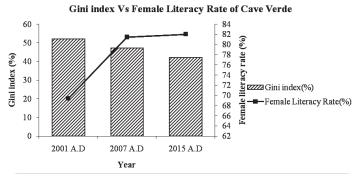


(Source: UNESCO, 2014)

The above graph gives information about the female literacy rate of Cape Verde. In the year 1990, the female literacy rate was 53 percent. In 2000, it had increased to 69.45 percent, which in 2004 stood at 81.46 percent. After the country graduated from LDC status, it had decreased to 80.5 percent in 2012. Likewise in the year 2015, it increased to 82.04 percent. The trend of data shows that the female literacy rate increased upon the country's graduation.

### Relationship between Gini index and female literacy rate of Cape Verde

Figure 11: Relationship between Gini index and female literacy rate



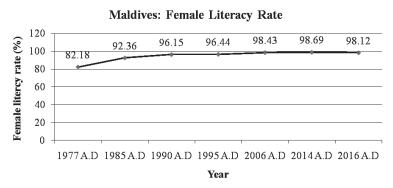
(Source: UNESCO, 2014)

The above figure gives information about income inequality and female literacy rate of Cape Verde. This figure clearly shows that there is inverse relationship between these two variables. Income inequality decreased while the female literacy rate increased after graduation from LDC category.

The correlation coefficient was calculated in terms of two variables – the Gini index and female literacy rate. The correlation coefficient (r = -0.883) shows negative correlation, as when income inequality decreases female literacy rate increases, and vice versa. The relationship between these two variables was significant, i.e., because the correlation coefficient has values less than +0.8 or greater than -0.8.

### 4.4.3 Female literacy rate of Maldives

Figure 12: Female literacy rate of Maldives before graduation and after graduation

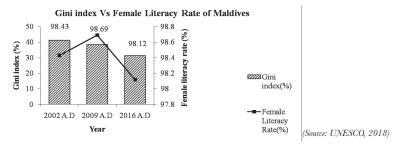


(Source: UNESCO, 2016)

The above graph gives information about the female literacy rate of Maldives. The female literacy rate was 82.18 percent in 1977. The value increased and reached 92.36 percent in 1995. From 1995 to 2016, the graph shows a straight line, which means that there was positive impact on the education system of the country.

### Relationship between Gini index and female literacy rate of Maldives

Figure 13: Relationship between Gini index and female literacy rate

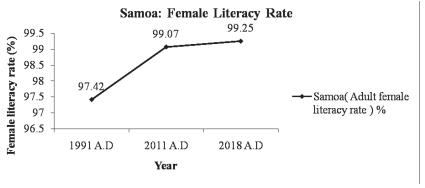


The above figure gives information about income inequality and female literacy rate of Maldives. This figure clearly shows that there is inverse relationship between these two variables. As income inequality decreased, the female literacy rate also decreased upon graduation from LDC.

The correlation coefficient was calculated in terms of two variables – Gini index and female literacy rate. The correlation coefficient (r=0.726) shows positive correlation, as with decreasing income inequality there is decreased female literacy. The relationship between these two variables was not significant.

# 4.4.4 Female literacy rate of Samoa

Figure 14: Showing female literacy rate of Samoa

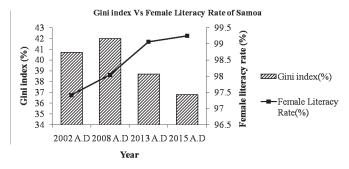


(Source: UNESCO, 2018)

The above graph gives information about the female literacy rate of Samoa. The female literacy rate was 97.42 percent in 1991. The value increased in 2011 and reached 99.07 percent. Two years – 2011 and 2018 – were compared. There was 99.07 percent female literacy in 2011, which increased in 2018 to reach 99.25 percent. The trend of the graph shows that there was positive impact on the education system of the country.

# Relationship between Gini index and female literacy rate of Samoa

Figure 15: Relationship between Gini index and female literacy rate

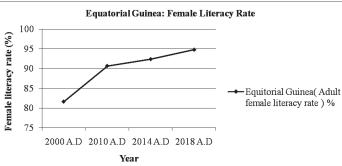


The above figure gives information about income inequality and female literacy rate of Samoa. This figure clearly shows that there is inverse relationship between these two variables. As income inequality decreased, the female literacy rate increased after the country graduated to developing country status.

The correlation coefficient was calculated in terms of two variables – the Gini index and female literacy rate. The correlation coefficient (r = -0.829) shows negative correlation, as with decreasing income inequality, the female literacy rate increases, and vice versa. The relationship between these two variables was significant as the correlation coefficient has a value less than +0.8 or greater than -0.8.

### 4.4.5 Female literacy rate of Equatorial Guinea

Figure 16: Female literacy rate of Equatorial Guinea

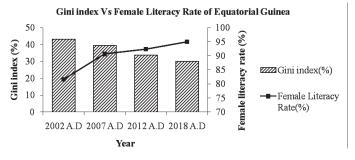


(Source: UNESCO, 2018)

The above graph gives information about the female literacy rate of Equatorial Guinea. Equatorial Guinea graduated from LDC status in 2017. The female literacy rate was about 81 percent in 2000, which increased to nearly 91 percent in 2010 and reached 95 percent in 2018. The graph shows that there was positive impact on the education system of a country after its graduation to developing countries status.

# Relationship between Gini index and female literacy rate of Equatorial guinea

Figure 17: Relationship between Gini index and female literacy rate



The above figure gives information about income inequality and female literacy rate of Equatorial Guinea. This figure clearly shows that there is inverse relationship between these two variables. As income inequality decreased, the female literacy rate increased after the country's graduation to developing country status.

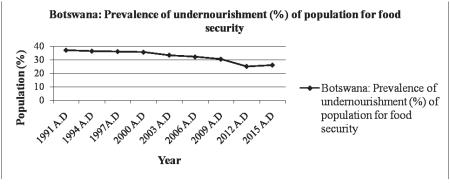
The correlation coefficient was calculated in terms of two variables – Gini index and female literacy rate of Equatorial Guinea. The correlation coefficient (r = -0.907) shows negative correlation, as with decreasing income inequality, there is increased female literacy, and vice versa. The relationship between these two variables is significant as the correlation coefficient has a value less than +0.8 or greater than -0.8.

# 4.5 Graduation process leads to better food security

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO). To understand the status of food security, the prevalence of undernourishment has been taken. The prevalence of undernourishment (PoU) is an estimate of the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life. It is expressed as a percentage.

#### 4.5.1 Status of food security in the case of Botswana

Figure 18: Prevalence of undernourishment (%) among the population in Botswana



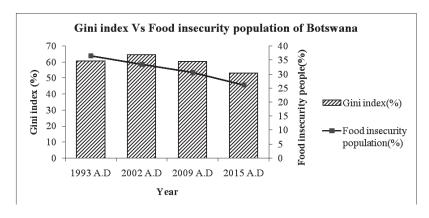
(Source: World Bank, 2015)

The above graph tells about the prevalence of undernourishment of the population of Botswana. The country graduated from its LDC status in 1994. The data is analyzed every three years to know the status of food security. In 1991, about 38 percent of the people were undernourished. After some triennial reviews, it showed that there was no rapid change but it diminished slowly. From the analysis of these data from 1991 to 2015, it showed that the food insecure population started gradually decreasing. The data show that after the country's graduation to developing country status, there was

positive impact on food security.

# Relationship between Gini index and status of food security in Botswana

Figure 19: Relationship between Gini index and status of food security

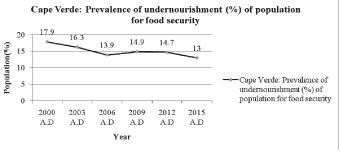


The above figure shows the relationship between the Gini index and food insecure population of Botswana. This graph shows that there is direct relationship between income inequality and percentage of food insecure people. The status of food security has improved due to reduction in income inequality. There was decreasing percentage of food insecure people due to the decrease in the Gini index.

The correlation coefficient was calculated in terms of two variables – the Gini index and food insecure population of Botswana. The correlation coefficient (r = 0.775) shows positive correlation, in which by decreasing the income inequality, the population suffering from food insecurity also decreased, and vice versa. The relationship between these two variables was not significant because the correlation coefficient has a value less than +0.8 or greater than -0.8.

## 4.5.2 Status of food security in Cape Verde

Figure 20: Prevalence of undernourishment among population in Cape Verde

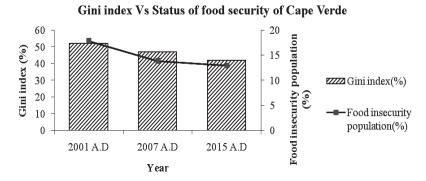


(Source: World Bank estimate, 2015)

The above graph gives information about the prevalence of undernourishment among the population. Of the total population, 17.9 percent didn't get sufficient food in 2000. Over the years, it reached 16.3 percent in 2003. Similarly the curve shows data in decreasing pattern. The percentage of people facing food insecurity was 14.9, 14.7 and 13 per cent in 2009, 2012 and 2015 respectively. The graph shows that there was positive impact on food security after the country's graduation to developing country status.

# Relationship between Gini index and food security in Cape Verde

Figure 21: Relationship between Gini index and status of food security

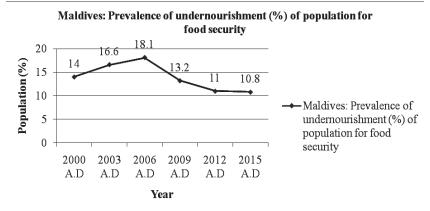


The above figure shows the relationship between the Gini index and food insecure population of Cape Verde. This graph shows that there is direct relationship between income inequality and percentage of people facing food insecurity. The status of food security has increased due to reduction in income inequality. There was decreasing percentage of people facing food insecurity with decrease in the Gini index.

The correlation coefficient was calculated in terms of two variables - the Gini index and food insecure population of Cape Verde. The correlation coefficient (r = 0.937) shows positive correlation, as with decreasing income inequality there is also decreasing population facing food insecurity, and vice versa. The relationship between these two variables was significant as a correlation coefficient has a value less than +0.8 or greater than -0.8.

# 4.5.3 Status of food security in the case of Maldives

Figure 22: Prevalence of undernourishment among population

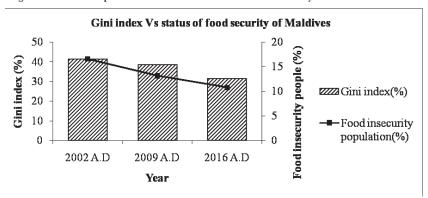


(Source: World Bank estimate, 2015)

The above graph gives information about the percentage of people facing food insecurity in the Maldives. The country graduated to developing country status in 2011. This graph shows the trends of food insecure people in this country. In the year 2000, 14 percent of the people faced undernourishment. The percentage of food insecure people increased in 2006 to 18.1 percent, but it rapidly decreased by 2009 to reach 13.2 percent. After the country's graduation, the prevalence of undernourishment further decreased to 11 percent in 2012. In the year 2015, the percentage of undernourished population came down to 10.8 percent. The data show that there is positive impact of country's graduation from LDC on food security.

# Relationship between Gini index and status of food security of Maldives

Figure 23: Relationship between Gini index and status of food security

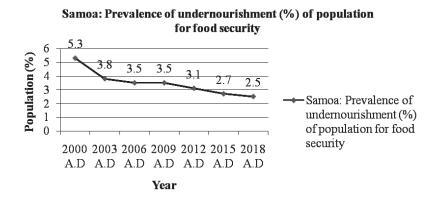


The above figure shows the relationship between the Gini index and food insecure population of Maldives. This graph shows that there is direct relationship between income inequality and percentage of food insecure people. Food security has increased due to reduction in income inequality. There was decreasing percentage of food insecure people due to the decrease in the Gini index.

The correlation coefficient was calculated in terms of two variables, namely, the Gini index and food insecure population of the Maldives. The correlation coefficient (r = 0.994) shows positive correlation, in which with decreasing income inequality there is also decreased food insecurity among the people, and vice versa. The relationship between these two variables is significant in that the correlation coefficient has a value less than +0.8 or greater than -0.8.

#### 4.5.4 Status of food security in the case of Samoa

Figure 24: Prevalence of undernourishment among Samoans



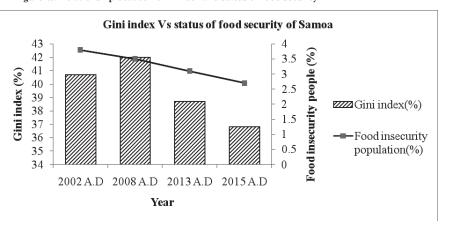
(Source: World Bank estimate, 2018)

The above graph gives information about the percentage of people facing food insecurity in Samoa, which graduated from LDC status in 2014. This graph shows the trends of food insecure people in this country. In 2000, the prevalence of undernourishment was 5.3 percent. The percentage of people facing food insecurity decreased in 2003 to reach 3.8 percent. It kept rapidly decreasing, and by 2006, it reached 3.5

percent. Figures for two years, i.e., 2012 and 2015, were compared. In 2012, the percentage of food insecure people was 3.1, and in 2015, it further decreased to 2.7 percent. Similarly, in 2018, the prevalence of undernourishment among the population decreased and reached 2.5 percent. The graph shows that after the country's graduation from LDC status, there was positive impact on food security.

# Relationship between Gini index and food security of Samoa

Figure 25: Relationship between Gini index and status of food security

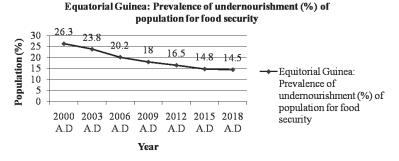


The above figure shows the relationship between the Gini index and food insecure population of Samoa. This graph shows that there is direct relationship between income inequality and percentage of people facing food insecurity. The status of food security has improved due to reduction in income inequality. There was decreasing percentage of food insecure people with the decrease in the Gini index.

The correlation coefficient was calculated in terms of two variables – the Gini index and food insecure population of Samoa. The correlation coefficient (r = 0.881) shows positive correlation, in which with decreasing income inequality there is also decrease in the population facing food insecurity, and vice versa. The relationship between these two variables is significant.

# 4.5.5 Status of food security in the case of Equatorial Guinea

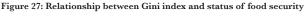
Figure 26: Prevalence of undernourishment (%) of population in Equatorial Guinea

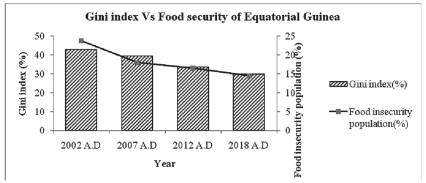


(Source: World Bank estimate, 2018)

The above graph gives information about the percentage of people facing food insecurity in Equatorial Guinea. The country graduated from a LDC in 2017. The graph shows the trends of food insecure people in this country. In 2000, 26.3 percent of the people were undernourished. The percentage of people facing food insecurity kept decreasing, and it 2003, it reached 23.8 percent. The figure reached 20.2 percent in 2006. Two years, i.e., 2015 and 2018 were compared. In 2015, the percentage of food insecure people was 14.8, and in 2018, it decreased to 14.5 percent. It assumes that there has been positive impact on food security after the country's graduation from LDC status.

#### Relationship between Gini index and food security in Equatorial Guinea





The above figure shows the relationship between the Gini index and food insecure population of Equatorial Guinea. This graph shows that there is direct relationship between income inequality and percentage of food insecure people, with the status of food security improving when there is reduction in the income inequality. The percentage of food insecure people decreased with decrease in the Gini index.

The correlation coefficient was calculated in terms of two variables - the Gini index and food insecure population of Equatorial Guinea. The correlation coefficient (r = 0.929) shows positive correlation, in which with decreasing income inequality there is also decreased

population facing food insecurity, and vice versa. The relationship between these two variables is strong as the value of the correlation coefficient is close to 1.

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

Having explored LDC graduation and its expected social impact on Nepali society, it has been discovered that after a country's graduation to developing country status, there is a decrease in income inequality. Also, there were positive impacts on the education system of a country and improvement in food security status after graduation from a LDC. Below is a summary of the

## findings:

- In Botswana, the-pre graduation value of the Gini index was 60.8 percent in 1993, and post-graduation, the value of the Gini index changed to 64.7 percent in 2002. The pre-graduation value of female literacy rate was 71.3 percent in 1991 and post-graduation value of female literacy rate was 81.81 in 2003. Similarly the pre graduation value of food insecurity was about 39 percent in 1991 while the post-graduation value of food insecure people came down to 38 percent in 2000.
- In the case of Country Cape Verde, the pre-graduation value of the Gini index was 52.1 percent in 2001 and post-graduation value of the Gini index was 42.2 percent in 2015. The pre-graduation female literacy rate was 81.46 percent in 2004 and post-graduation female literacy rate was 80.50 percent in 2012. Similarly, the pre graduation value of food insecurity was 13.9 percent in 2006 and post-graduation value of food insecurity was 14.9 percent in 2009.
- In the case of Maldives, the pregraduation value of the Gini index was 38.40 percent in 2009 and postgraduation value of the Gini index was 31.30 percent in 2016. The pre graduation female literacy rate was 98.43 percent in 2006 and postgraduation female literacy rate was 98.69 percent in 2014. Similarly, the pre graduation percentage of food insecure people was 13.20 percent in 2009 and post-graduation value of food insecurity was 11 percent in

2012.

- In Samoa, the pre graduation value of the Gini index was 42 percent in 2008 and post-graduation value of the Gini index was 38.7 percent in 2013. The pre graduation female literacy rate was 97.42 in 1991 and post-graduation value was 99.25 in 2018. Similarly, the pre graduation value of food insecure people was 3.1 percent in 2012 and post-graduation value was 2.7 in 2015.
- In the case of country Equatorial Guinea, the pre graduation value of the Gini index was about 34 percent in 2012 and post-graduation value about 30 percent in 2018. The pre graduation female literacy rate was 92.5 in 2014 and post-graduation value was 95 percent in 2018. Similarly the pre graduation value of food insecure people was 14.8 percent in 2015 and post-graduation value 14.5 in 2018.

# **CONCLUSION**

Countries have been classified by their level of development as measured by the Gross National Income (GNI) per capita. Accordingly, countries have been grouped as high-income, upper middle income, lower middle income and lowincome category. Nepal still belongs to the LDC category, and it has the goal to be a developing country by 2022. Economic and social indicators for a country's graduation are Gross National Income (GNI) per capita, Human Assets Index (HAI) and Economic Vulnerability Index (EVI). In the 2015 and 2018 triennial reviews, Nepal met only two graduation criteria, i.e., HAI and EVI, but not GNI per capita. Clearly, Nepal is still about 40 percent below the income criteria graduation threshold.

This study focused on three indicators, namely, income inequality, female literacy rate, and status of food security, and covered five recently graduated countries to explore the expected social impact on them. These countries are Botswana (1994), Cape Verde (2007), Maldives (2011), Samoa (2014) and Equatorial Guinea (2017). Mainly the study focused on two types of data, which are prior to graduation and the post-graduation period. Based on the major finding of this research, there was positive impact after a country's graduation from a LDC. There was reduction in income inequalities, increase in the female literacy rate and reduced percentage of food insecure people after graduation. The relationship between the Gini index (income inequality) and female literacy rate has a negative correlation coefficient. It means the female literacy rate increased with the reduction in income inequality. Similarly, the relationship between the Gini index and percentage of food insecure population shows a positive correlation coefficient. It means the percentage of food insecure people decreased with the reduction in income inequality.

## RECOMMENDATIONS

For a country's graduation from LDC status, there are many components, but three main ones were taken for this research. These are income inequality, female literacy rate and status of food security. The recommendations are aimed at specific foreign policy implications, and some economic and social dimensions

that the government and the private sector can adopt. After graduation to developing country status, countries like Nepal will no longer be eligible for specific international facilities applicable for the LDCs. In trade- related issues, the graduating country will lose preferential access to markets in the developed countries. While the graduating country will be under pressure to increase exports and diversify its exports, it may face increased tariffs on exports and potential export products. Such a country will also lose the specific special and differential treatment available from the World Trade Organization for the LDCs. Graduating from LDC status means higher level of national income, which also increases financial obligations on the United Nations and UN Systems entities. One of the major obligations for a graduating country is stringent compliance to Trade Related Intellectual Property Rights (TRIPs) and Trade Related Investment Measures (TRIMs). Economic diplomacy should, therefore, be an integral part of the foreign policy of Nepal, and involvement of the Ministry of Foreign Affairs is essential to strengthen bilateral relations with the developed countries as well as multilateral and regional institutions for attracting concessional finance, technical assistance and foreign direct investment, and widening export potentialities.

The government should invest in mega projects that will accelerate the growth rate. Such mega projects could be hydro projects because Nepal has a huge hydropower potential. The power generated would run industries, in which many workers can find employment. It will help to reduce income inequalities

between rich and poor people. It is necessary to establish industries to produce goods and process raw materials, which will helps poor people and the farmers. The production sector increases the GNI per capita of a nation. The government should make secondary education free and compulsory, which will help to increase the female literacy rate and contribute to the HAI. It is necessary to make the agriculture sector competent to take comparative advantage through its commercialization and diversification. Agriculture development programs should be concentrated on bringing positive changes in the living standard of the farmers through enhanced productivity. It calls for ensuring Nepal's food security by increasing production and productivity of paddy, maize, wheat and potato through the use of scientific technology. The Prime Minister's Agriculture Modernization Project (PMAMP) must be expanded throughout the country. The government should provide loans, incentives and training to farmers and modernize the agriculture sector using new technology, hybrid seeds and insurance of the cost of production, which will help improve food security. Infrastructural development, such as road construction and maintenance and maintaining a clean environment should be given priority. This will also help promote tourism activities and contribute to the whole economy of the nation. The government should create an environment for the private sector's investment in the health sector so that the general mass can benefit. A reliable body should be established to enhance coordination between institutions generating human resource and those utilizing human resource in the health

sector.

The private sector is a key stakeholder in economic development, being a major contributor to national income and the principal job creator and employer. It develops infrastructure and services, and promotes and expands the existing businesses, while addressing inefficiencies in the local economy. The private sector should promote human capital development to help vulnerable groups to participate in the labor market; encourage community development by promoting community businesses and co-operatives, local exchange systems and informal credits; and promote small, micro and medium enterprises (SMME) through supply-side measures (training, provision of space and facilities for commercial activity) and demandside measures (reforms in procurement policy to ensure access for SMMEs to contracts).

Education is the resource that drives our knowledge-based society. The ability of individuals and nations to create wealth is related to the quality of education available. Therefore, generating human capital is key to fostering economic growth in any nation. It should be an absolute priority considering the competition among developing countries. The main rationale for involving the private sector is to maximize the potential for expanding equitable access to schooling and for improving learning outcomes. Private sector involvement in education can help increase the level of financial resources committed to the sector and supplement the limited capacity of government institutions to absorb the growing demand. The private sector should increase and make productive investments in agriculture to enhance the efficiency of the supply chain, and enhance entrepreneurship and extension services (particularly technology transfer), resulting in job creation and strengthened local agribusiness.

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# Diplomatic Role of Nepal to Mobilize International Assistance for Disaster Response

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# 1. INTRODUCTION

Nepal is a disaster-prone country. Geographically, Nepal is located on the Alpide earthquake belt, where around 17 percent of the world's conspicuous earthquakes occur. Moreover, the location of Nepal in the Himalayan region, in between the tectonic collision of the Indian Plate with the Tibetan Plate, has made it the 11th most earthquake-prone country in the world (Conway, 2012). Heavy rains and storms result in severe flooding or trigger landslides that have an enormous impact on property, structures and lives. Of all the disasters reported in Nepal, floods are the most devastating in terms of the number of deaths that occur and the damage they cause (Dhakal, 2013). Nepal is ranked 30th with respect to relative vulnerability to floods (UNDP/ BCPR, 2004). Furthermore, the impact of global climate has further increased the exposure to disasters, ranking Nepal 4th in vulnerability to climate change. The country is exposed and vulnerable to multiple hazards, including landslides, glacier lake outbursts (GLOFs), and avalanches, mainly due to its rugged and fragile geophysical structure, variable climate conditions and active tectonic movements (Wendelbo et al., 2016). But these hazard-prone fragile environment Nepal becomes all the

disastrous because of poverty and poor infrastructure. Disaster is aggravated by the inequalities that exist because of the structural world problem, such as poverty. Poverty creates weaker infrastructure that implies complexities in responding to and coping with disasters because of all the complexities that existed before.

Although a disaster does not discriminate between people and countries, some are affected more; those who do not have sufficient resources suffer more. The inability of a least developed country like Nepal to cope with the adversities of major disaster events on its own, due to inefficient critical infrastructure, forces it to declare a state of emergency and reach out for assistance from international communities immediately after a disaster. But international assistance come with strings, usually a mixture of humanitarian purpose and political interest. Foreign aid during and after a disaster has a geostrategic dimension, as with aid and support. The donor state along with goodwill tries to leverage political influence on the disaster-affected nation. The impact created from the aid may overshadow the efforts of the local government, making the local government inefficient from the perspective of the general public. Foreign support is inevitable for disaster response. However, there could be lapses and gaps in properly mobilizing the assistance.

Geopolitics also plays an important role in disaster response in Nepal. It is not just geology that has kept the country in the fault line of the two big tectonic plates; even the geo-politics has placed Nepal between two giant powers (Acharya, 2015). Nepal has a unique geostrategic location, a landlocked position located between two Asian rival powers, China and India, as a buffer state. The two nations being more powerful than Nepal and rivals with each other, Nepal has adopted neutrality, or an "equidistance" strategy, to balance the cordial relations with both the neighbors. The geopolitical rivalry between India and China was also observed during the disaster response in the Gorkha Earthquake, the epicenter of which was in Gorkha, Nepal (Chand, 2017). Besides India and China, the Western countries also have geopolitical interests, which they maneuver mainly through nonstate actors, such as International Non-Governmental Organizations (INGOs). Nepal now is trying to have a foreign policy of 'equiproximity' with India and China to promote trilateral cooperation (Adhikari, 2018). Nepal's foreign policy has been adopting different strategies for its survival as per the changes in the international, regional and domestic power equations.

## 1.1 Statement of the Problem

Nepal being a disaster-prone and a least developed country requires international aid to cope with a disaster of a large scale. However, the intention of disaster response has always been a mixture of humanitarianism (focus on the interest and the need of a disaster-affected nation to cope with the effects of disasters) and non-humanitarianism (focus on the interest of the donor countries). Prior to the 2015 Gorkha Earthquake, Nepal had not faced a large-scale disaster for over many decades. But being an earthquake-prone nation and signatory to various conventions related to disaster risk reduction and management, Nepal had been working to brace for the impact of a large-scale earthquake with various development partners and UN agencies. However, the sudden tremor of 2015 rattled the preparatory efforts, where all the preparedness did not seem to be enough. The aftermath of the 2015 Gorkha Earthquake and consecutive aftershocks led to a death toll of about 9,000 lives and huge structural and financial damage. For the response, recovery and rehabilitation, Nepal required resources from the international (financial, technical community and human resources). The Nepali government made sustained efforts to mobilize financial resources, which were pooled through several windows of funding: national resource mobilization through budgetary reallocation, loans from International Financial Institutions [IFIs], grants from multilateral and bilateral agencies, contributions from the private sector and citizens (including remittance), and reallocation from existing project portfolios. (National Planning Commission [NPC], 2015).

The 2015 Gorkha Earthquake, the most recent disaster of a large scale, revealed both the strengths and weaknesses in Nepal's diplomacy in disaster response. The earthquake showed the level of

disaster preparedness, cooperation and coordination with foreign state and non-state actors. The earthquake on the other hand also revealed the country's fragility, geopolitical vulnerability, and weakness in "disaster diplomacy", and the 2015 earthquake also served as an opportunity for both India, China and other countries to enhance their influence in Nepal. Hence, there is need to have an understanding role of diplomacy during the onset of a disaster in Nepal for vigilance on the intention of the donor countries during vulnerable times. Since, foreign policy is the extension of domestic polices, this research attempts to understand the institution and mechanism of disaster management (primarily response and aid management) in Nepal.

# 1.2 Research questions

- What are the learnings in disaster response and their implication during the 2015 earthquake response?
- What are the reforms in the mechanism for disaster response and mobilization of international support after the 2015 earthquake?

This study mulls over these questions and analyzes the case of the Gorkha Earthquake through the perspective of disaster diplomacy, and also sheds light on Nepal's legal provision of disaster response and its effectiveness to receive and coordinate international assistance during and after a disaster. Concurrently, the study assesses the role of international assistance in disaster response in Nepal and evaluate diplomatic vigilance on international support.

# 1.3 Rationale of the study

Despite the fact that disasters trigger change in diplomatic relationships irrespective of the friendliness rivalry between states, literature on disaster diplomacy is dominated by case studies of the impacts of a disaster on the diplomatic relationship of the rival state. The prospect of disaster diplomacy on how disaster changes/ affects the diplomatic relationship from the viewpoint of geostrategic interest has not been extensively studied. The case study of disaster diplomacy in Nepal during the 2015 earthquake should add to the literature of disaster diplomacy and attempt to explore the geostrategic interests of foreign states in Nepal, and how disaster diplomacy played its role in this purpose.

Also, Nepal is classified as a low income country with low a Human Development Index (HDI), ranking 147 out of 187 countries in the composite HDI (UNDP, 2019). Due to political instability and poverty, Nepal has been subjected to the influence of external forces (both foreign state and non-state actors). The absence of a fully functional government coupled with its weak economic condition led Nepal to be highly dependent on foreign aid for budget support and nonbudgetary aid for more than six decades to fill the resource gap in the country (Karki, 2019; MoF, 2017). It will be of significance to understand and review the documents that outline Disaster Risk Reduction and Management and guide national and international state and non-state actors in disaster response and to protect the country from excessive international intervention during and after a disaster.

# 2. RESEARCH METHODOLOGY

Because insight into disaster management and diplomacy are limited to the case of Nepal, this research is more exploratory. This research attempts to understand the role that Nepali diplomacy plays during disaster response. This research is primarily based on secondary source of data/ information. As the data are collected from literature and interviews, the research is inclined towards qualitative method. In this research, the 2015 Gorkha Earthquake was explored and examined.

# 2.1 Source of data and information

Data and information have been predominately collected from previously published scholarly works, literature, journals, articles and research reports relevant to the research topic, which included keywords such as disaster diplomacy, aid mobilization, foreign assistance, and disaster aid. Data sources also include publicly available governmental (such as National Planning Commission, Ministry of Home Affairs) and non-governmental (development partner organizations like UNDP, DFID, etc.) agency reports. The initial phase of the work involved desk review of available documents and reports that included but not limited to: Legal and policy frameworks, guidelines (National Policy for Disaster Risk Reduction, 2018, Disaster Risk Reduction National Strategic Plan of Action 2018-2030, National Disaster Response Framework, 2013), reports and articles (Nepal disaster reports, experience of Nepal of disasters, international disaster response law in Nepal, Nepal government's emergency response) as well as documents of global instruments (International Humanitarian Architecture, Sendai Framework).

Besides these documents, information has also been retrieved from websites of donor agency organizations working on disaster management, including DRR portal website, UN ReliefWeb, UNOCHA situation reports and news reports. The data also consist of insights of unstructured interviews with personnel and professionals working in the field of disaster management in order to understand their experience of the disaster and also to reconfirm the findings from secondary data sources.

# 2.2 Analysis and interpretation

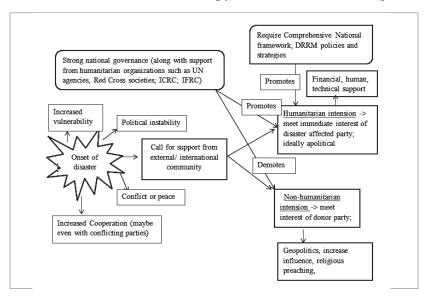
The analysis mainly relies on secondary sources of information, which include reviews of both research-based literature as well as policies, programs, and guidelines for disaster response and, in particular, focus on the experience of the 2015 Gorkha Earthquake. The results from a range of related literature were compared, and the findings generalized. Some selective interviews were conducted with the concerned stakeholders to substantiate and validate the information collected through secondary sources.

## 2.3 Conceptual Framework

An onset of a disaster alters the normal functionality of the society. Basic services, such as access to health, food and water, and education may be disrupted, increasing the vulnerability of the population exposed to the disaster. Depending on the pre-context of the disaster-affected area, a disaster may lead

to increased cooperation or animosity amongst the people within the affected area as well as between the affected area and external parties and agencies. It is common to call for support from external/ international community when the impact of the disaster exceeds the coping capacity of the disaster affected area. The intension of the responding community to the support during a disaster may vary. It may be purely humanitarian in helping the disaster affected area overcome the adversity of the disaster. They focus on meeting the needs of the affect area. However, all the response might not be purely humanitarian. The sudden onset of a disaster inevitably makes the affected area and the population vulnerable, which at times invites vested interests, such as attempt to strengthen the geopolitical influence of the responding/ donor agencies.

Figure 1: Conceptual framework of the study [Prepared by Author from (Kelman, 2012; Nelson, 2012; Surwnadono & Herningtyas, 2016; Wendelbo, et al., 2016)]



Various independent international agencies and organizations (United Nations, Red Cross Societies and many more) have been established to monitor and minimize the non-humanitarian intension or the political agendas of the responders/ donors at the time of a disaster. These agencies and organizations work closely with both the parties (affected/ recipient and responder/ donor). There are

international guidelines, frameworks and laws which guide the disaster response to focus on humanitarianism. Nations around the world also have national laws, polices, guidelines and frameworks to mobilize the national interest of coping with the impact of a disaster and strengthening the national security during the weak and vulnerable time of a disaster.

# 3. LITERATURE REVIEW

This section includes conceptual definition of a disaster and explores the concept of politics in disaster risk management and disaster diplomacy. This is followed by the scenario of a disaster in Nepal, the domestic politics, foreign policy and geopolitics. The legislative and policy context of Disaster Risk Reduction in Nepal is also included along with the International Response Mechanism and its provision in Nepal.

# 3.1. Concept of disaster

Colloquially, a disaster is considered or understood as an act of God or event that leads to loss of lives and properties. However, literature on disasters suggests that events are not in itself a disaster. (1995) reasons Dombrowsky majority of the people consider a disaster as an event, a view that is difficult to avoid. But, in order to understand the diplomatic aspect in a disaster, avoiding the social dynamics and considering it as an event would not be sufficient. Hence, the following section would address the complexities and debates in defining a disaster.

Foremost, it is important to understanding the difference and interaction between events, social functioning and disasters. The events when interacting with social factors, leading to a disruption in the functioning of a society, results in a disaster. The contemporary concept of a disaster discusses the importance of making a distinction between a disaster and an event (which is often times referred to as hazards). However, it is not the definitive interpretation of a

disaster, as a disaster is not only about making a distinction from a hazardous event. It will be further discussed in the next sections. The disaster researchers across generations have struggled to find consensus on the term (Streich & Mislan, 2014). The concept of disasters is potentially vague and has multiple interpretations. The impact and intensity of a disaster are commonly based on the causalities or use of a proxy measure of the intensity of a disaster (a common measure in disaster studies is the number of attributed deaths) (Streich & Mislan, 2014; Caldera, Wirasinghe & Zanzotto, 2016). This operationalization of a disaster raises a dilemma whether to include or not to include events that may not have any mortality but have severe socio-economic impact, such as in the case of a drought. A drought may not result in the deaths of people, but it is evident that it would cause disruption in the social function. The concept of a disaster is broad and evolving, hence it is important to delimit the concept as per the need of the research. The successive sections are an attempt at presenting a working definition for disasters that would be suitable for research.

This concept of a disaster was introduced by Barton (1969) where he has conceded it as a 'collective stress situation'. It is a situation where "many members of a social system fail to receive the expected conditions of life from the system" (p.38). From various literatures after Barton (1969), (Birkland, 1998; Wood & Wright, 2016; Yuldashev, 2018; UNISR, 2009; CB IPCC Field et al., 2012; Kreps & Deabek, 1996; Twigg, 2015), it is understood that the occurrence of a disaster causes disruption of

the normal function of society or community due to socio-economic commotion from substantial damage to human capital, physical infrastructure, social organization and ecological devastation. It is an undisputable notion. It is observed that there have been some reforms on Barton's concept of disasters, but the core properties for identification of a disaster remain the same. An event or situation is a disaster when there is disruption of the normal functioning of society or community.

However, one major dissensus lies in the notion of whether the origin of the 'collective stress situations' is exogenous or endogenous to the society. A disaster is created by the onset of hazards (or events) which might be natural (e.g., floods, earthquakes, landslides and windstorms), technological (e.g., industrial and transportation accidents, or otherwise created by humans (e.g., riots, terrorist incidents and conflicts) (IFRC, 2020). Traditionally, disasters caused by earthquakes, hurricanes, floods and droughts were inarguably addressed as 'natural' disasters. Using the term 'natural' with disaster suggested that these are attributes to "nature, fate or act of God" (Jennings, 1999), meaning they are exogenous shocks (or natural phenomena) affecting the social system. On the contrary, the contemporary disaster concept (Twigg, 2015; Streich & Mislan, 2014; Maciver, 2012; Kelman, 2011) argues that a disaster cannot be natural, only hazards can be natural, delineating the difference between a hazard (cause or harmful event) and disaster (effect or social consequence of it). They point that while the disastrous events of natural origin are certainly

exogenous to a social system, however, the damage in social events is not only determined by the natural factor but predominantly determined by the social, economic and political factor. It is the host of socioeconomic and political factors that mitigate or worsen the magnitude of misery that befalls human settlements (Cutter, Boruff, & Shirley, 2003; Streich & Mislan, 2014).

The impact on the affected community by the socio-economic and political factor is further evidenced by case studies of earthquakes of three similar magnitudes in 2010, but in three socially, economically and politically different places. In 2010, Haiti, Chile and New Zealand all were hit with earthquakes of severe intensities. However, there was large disparity in the death toll in the three affected nations. The highest death toll was in Haiti, a country stricken with extreme poverty, corruption, and fragile democracy. There was significantly lower fatality in uppermiddle-income Chile. This country with consolidated democracy and low level of corruption also had experience in dealing with earthquakes (Wright, 2013). Similarly, there was even lower damage and mortality rate in New Zealand for a similar magnitude earthquake. This explains that it is not the earthquake (or exogenous factor to society) that kills but rather the societal factor (poverty, poor governance, low preparedness against disaster).

In this research, cases of disasters caused by natural hazards (such as earthquakes, floods, and hurricanes) are taken for analysis. A disaster due to anthropogenic or technological reasons (such as conflict, war, transportation accidents) are not analyzed separately. The topic of conflict, in particular, will be discussed as the extension to the analysis of the impact of a disaster caused by natural hazards.

# 3.2. Disaster Risk Reduction Management [DRRM]

Addressing the technical or operational understanding of the terminologies regarding a disaster in an organization and among practitioners working in the field of disaster is slightly different from the sociological perspective. A disaster is considered as an external shock whereas a "disaster risk" is considered as the result of a complex interaction of a development process that generates conditions of exposure, vulnerability and hazards. Therefore, a disaster risk is considered to be the function of severity and frequency of a hazard, the number of people and assets exposed to the

hazard, and their vulnerability to damage (United Nations International Strategy for Disaster Reduction [UNISDR], 2015). All the activities conducted before, during and immediately following a disaster - to reduce, or avoid potential losses from hazards, assure prompt and appropriate assistance to victims of the disaster, and achieve rapid and effective recovery - is termed as disaster risk management (Khan, Vasilescu & Khan, 2008), while Alexander (2002) limits the time frame of disaster risk management to before and after a disaster; he notes that the time frame 'during a disaster' or 'impact' is insignificant. Similarly, Twigg (2015) has referred to Alexander (2002) but has addressed the significance of activities "during a disaster" He has defined disaster risk management as a systematic approach to identifying, assessing and reducing the risks before, during and after a disaster.

After the event

Restoration

Quiescence

Before the event

Emergency

Pre-impact

PREPARATION

Figure 2: Disaster cycle (Alexander, 2002)

Furthermore, Twigg (2015) points that a 'disaster cycle' (Figure 2) is a conceptual model, a traditional approach to disaster management and is still in use (p. 9). Alexander (2002) notes that, given that disasters tend to be repetitive events, they form a cycle that can be divided into phases of mitigation, preparedness, response, and recovery, including reconstruction (Figure 1). Elaborating on each of the phases of disaster management, Alexander 2002, Khan et al (2008) defines mitigation as all actions designed to reduce the impact of future disasters; preparedness as actions taken to reduce the impact of disasters that are imminent or forecastable; response as emergency actions taken during both the impact of a disaster and the short-term aftermath and recovery as the process of repairing damage, restoring services, and reconstructing facilities after a disaster has struck. The mitigation and preparedness phase includes activities conducted prior to the onset of disastrous events whereas the response and recovery phase includes activities conducted after a disastrous event has occurred. This research predominately focuses on the response phase of disaster risk reduction and management.

# 3.3. Politics in disaster risk management: Focus on disaster response

The aforementioned earthquake cases illustrated that a hazard can turn into a disaster when a society is vulnerable. The impact of a disaster is disproportionate due to the inequalities that exist because of the structural world problem. Hewitt (1983) argues that one of the major structural world

problems is caused by poverty. This means that a disaster disproportionately affects the poor, which delineates that low income countries, in particular with poor governance, are exposed greater to the risk of disasters and create vulnerability to sudden, unexpected events, resulting in severe destruction (Comfort, 2000; Callway, 2012; Twigg, 2015;). Low income countries, in particular, often lack the resources, have poor infrastructure and capacities to cope with disasters, and require external assistance. These disastrous events can at times set back years of economic and social development gains, generate political instability (Pelling & Dill, 2010), and cause long lasting environmental damage, making the disaster-affected nation more vulnerable and fragile to a humanitarian crisis.

The combination discussions phenomena, on disasters as social operational definition of related terms, and understanding the vulnerability of a disaster affected state creates an interesting avenue for the study of disaster diplomacy. International law, mechanism or policy exist as a custom only, which seem to be effective where the international community should assist the disaster affected nation. It is a custom to provide humanitarian aid to a disaster affected nation. But unlike in other scenarios of a humanitarian crisis (such as a conflict, genocide, human rights abuse, crimes against humanity or humanitarian emergency), where it is the duty of the international community to intervene as per the doctrine of Responsibility to Protect, the international community that has not received an invitation to assist cannot act unsolicited on behalf of an affected population (Maciver, 2012). The external organization or government can only intervene in a disaster affected country after the request for assistance or consent from a national government for assistance in order to respect territorial sovereignty of the disaster affected nation (Global Applied Ethics Institute [GAEI], 2016).

It is evident from historical accounts that countries may have imperialist motives for assisting countries. For example, America's help to Europe and the Soviet Union after the world war was to contain communism (Maier, 1977). However, the norm of non-intervention and obligation of the international community to abide by the humanitarian principle (humanity, neutrality, impartiality, and independence) to some extent has insulated disaster affected countries from imperialistic threats (Mc Goldrick, 2003; GAEI, 2016) but are not immune to imperialist countries trying to impose their will on vulnerable countries (GAEI, 2016). Disaster management, in particular disaster response or aid, has been observed as the leverage of soft power diplomacy of the 'economically powerful' nations on relatively weak or vulnerable disaster affected nations. Pérouse de Montclos (2005) in his article "The hidden face of international aid" has written that the US and other economically powerful nations have used aid/ assistance "to 'punish' renegades, 'reward' allies, and 'rally' opponents" ("Political stakes" section, para. 3). In one of the accounts of the use of aid as a tool to establish imperialism, Pérouse de Montclos notes that the underlying intension of America to provide food aid to famine-affected Ethiopia in 1984 was to encourage Mengistu's Marxist junta to turn to the West, with the hope that food aid could be employed as an "economic weapon [to seek] concession from a hostile regime" (Pérouse de Montclos, 2005: "Political stakes" section, para. 4). Similarly, Gong (2020) in her article "China disaster diplomacy, what it means for Southeast Asia" writes that China is attempting to meet its foreign policy goals like improving its international image and maintaining a benign external environment through humanitarian and disaster relief ("China's Disaster Diplomacy" section: para. 2).

The involvement of external governments is not just limited to disaster response. They also work in disaster mitigation and preparedness. The primary goal of the international community is focused on preventing new disasters and reducing the existing disaster risk through the Sendai Framework on Disaster Risk Reduction (2015-2030). The cost-benefit analysis of investment on preparedness and response shows that money and effort put into preparedness bring more value than investing in disaster response (Sen, 2019). It is estimated that one dollar invested on disaster preparedness can save four to 36 dollars on average on disaster response and recovery (depending on the type of disaster, program and cost benefit analysis method) (IFRC, 2013; World Bank, 2014; Gall & Friedland, 2020). However, despite the benefit of investing in disaster preparedness, it has been shown that globally around 4 percent of the total humanitarian assistance and less than 1 percent of development assistance to the poorer countries are spent on disaster prevention and preparedness (Acharya, 2015; p. 36); but large amounts of money

would be pledged for aid as a response to a disaster. Seck (2007) gives reason for the under-investment in disaster prevention but willingness of external assistance during a disaster - this is largely because of the high visibility of humanitarian aid in the media, and improving their image and goodwill in the international arena. Disaster response on the other hand also provides a unique opportunity for conflicting states to cooperate and possibly improve their inter-relationship in the short term or longer term. This research will primarily focus on disaster response and recovery phase of a disaster cycle as it is where both intrastate and interstate interaction and cooperation occur.

Labelling disaster response as being political and cynical would inevitably anger 'idealists' who believe that aid emphasizes humanitarian qualities and has no strategic dimension or economic interest of the donor countries when targeting the beneficiaries of their assistance (Pérouse de Montclos, 2005: "Symbolic stakes" section, para. 4). However, in effect, response/ assistance during a disaster offers a unique opportunity to transcend boundaries and overcome prejudices, build unity and accord, and strengthen community resilience (Callaway, Yim, Stack & Burkle, 2012: p. 59). It also creates a favorable environment for intervention of the powerful countries in disaster affected, weak and vulnerable nations in lieu of external assistance.

The inability to mobilize local resources to overcome the social disruption is one of the key properties for identification of a disaster (Twigg, 2015). This core property also enables the disaster affected area to appeal for assistance non-affected areas or international community. The assistance provided by an external government or organization to the vulnerable state is expected to be philanthropic, guided by the humanitarian principle (of humanity, neutrality, impartiality, and independence) (IFRC, 2009), and not be driven by political agendas and imperialism, but they are not immune from politics (Cohen & Werker, 2008). Disaster becomes political as it opens the possibility of interstate and intrastate cooperation and conflict, and also an opportunity for the assisting state to increase its goodwill in the affected state (Kelman, 2011; Herningtyas, 2018; Gong, 2020). Hence, a disaster may create the ground for diplomacy where foreign intervention or influence within the territory of a vulnerable, disaster affected nation through assistance, while the affected nation uses the assistance to meet its need to cope with the disaster and normalize its social functioning. The diplomatic process involved in a disaster is termed as "disaster diplomacy". The consecutive section will discuss more on the concept of disaster diplomacy and disaster diplomacy as a soft power.

# 3.4. Disaster Diplomacy

Disaster diplomacy combines two fairly common words - 'disaster' and 'diplomacy'. The previous section has discussed the topic of disaster, where it is understood as a hazardous event (natural or anthropogenic) where normal functioning of a society is disrupted and overwhelms the coping capacity of the society. To return to

normalcy, the community external assistance. This assistance (of humanitarian objective) provides an opportunity for diplomacy (change in international relations). Diplomacy has many definitions. However, diplomacy is vernacularly understood as a synonym for "foreign policy", which in contrast to war, is a "peaceful side of politics, where negotiation is the avenue of choice for change" (Johnson & Aggestam, 2008; p.33; Maciver, 2012; p. 2). Disaster diplomacy is a major tool of foreign policy, which is like the two edges of river, and is dependent and inter-related with each other. In this regard, Johnson and Aggestam (2008) deduces that 'disaster diplomacy' is an attempt to answer the question of whether or not diplomacy as an international agent can actually make a difference in present and future conflicts/ disasters that involve heterogeneous actors. However, the main body of research for disaster diplomacy originates from Kelman, whose main premise aligns with that of Johnson and Aggestam (2008), that a disaster creates opportunities for interaction. However, Kelman's (2011) focuses on 'cooperation adversarial countries communities' to overcome or cope with the disruption caused by a disaster. Kelman's concept revolves around disaster diplomacy as a catalyst for diplomatic process, leverage to promote peace, facilitate communication among conflicting nations or communities, promote human rights, and strengthen intercommunity ties.

However, over the years, the concept of disaster diplomacy has been defined inconsistently. While traditional practitioners (Kelman & Gaillard, 2007; Gaillard, Clave & Kelman, 2008) assert that disaster diplomacy requires intervention that leads to cooperation between factional or warring parties through formal diplomatic relations, to more contemporary practitioners (Yim, Callaway, Fares, & Ciottone, 2009), disaster diplomacy is "concerned with the extent to which disaster-related activities-prevention, mitigation, response, and recovery--induce cooperation between enemy parties, nationally or internationally" (p. 291). Callaway et al. (2012) distinguish these perspectives of disaster diplomacy within two distinct conceptual camps. One being conservative, which contends that disaster diplomacy corresponds to diplomatic cooperation that derives from a common concern about a natural disaster between national governments in conflict (Track 1 diplomacy). Another camp defines disaster diplomacy as a combination of public diplomacy, where engagement of individual citizens and local organizations is critical (Track 2 diplomacy), and grassroots engagement to rebuild social capital and create a peace constituency (Track 3 diplomacy) (Callaway et al. in their 2012 article "Integrating the Disaster Cycle Model into Traditional Disaster Diplomacy This characterization concepts"). confines disaster diplomacy as "stateto-state" relations, which is a traditional definition of diplomacy, popularly known as Track 1 diplomacy. In this reference, disaster diplomacy encompasses only international management of relations through official negotiation and interaction between government representatives, whereas the action of agencies outside of official channels, such as aid workers, non-governmental organizations [NGOs], and private philanthropists are not accepted as major participants of disaster diplomacy but rather as a part supporting disasterrelated cooperation.

However, with globalization and the rising impact and influence of non-state actors (such as NGOs, media) on disasterprone or affected nations or communities, disaster diplomacy is no longer limited to "state-to-state" relation, rather it has proliferated to augment non-state actors as actors in disaster diplomacy. This incorporation of non-state actors in disaster diplomacy directs one to the second conceptual camp. In this camp, disaster is understood not only as a rapid onset of events, such as an earthquake, but also droughts, famines and epidemics, which are a more deliberate course (Callaway, et al., 2012). The perspective of this conceptual camp is particularly concerned with how disaster-related activities influence international affairs and intrastate conflicts, irrespective of the actors involved. Unlike the conservative view, the second view on the concept of disaster diplomacy considers a critical role of non-state actors for the growth of diplomatic efforts, as it believes personal interaction between responders and community members creates a favorable environment for cooperation.

Yim et al. (2009) points out rightfully that the evolving concept of disaster diplomacy has a controversial backdrop. The advocate of disaster diplomacy sees the role in facilitating cooperation and dialogue. However, acting on disasters also leads to violation of the humanitarian principle of neutrality as often times disaster response is politicalized.

Although there are good intentions of the donating/assisting nation in supporting the disaster-affected nation, the underlying political agendas should not be undermined. Incorporating and balancing the arguments on these broad concepts, Yim et al (2009) define disaster diplomacy as "strategies for effective humanitarian action as well as the political consequences of those actions". This definition not only incorporates humanitarian action but also the political aspect of disaster diplomacy; it also does not limit the definition to "conflicting states" as suggested by Kelman (2011).

Disaster diplomacy is synonymously known as cooperation between the conflicting nations during and after a disaster. Renner & Chafe (2007) [as cited in Kovach (2013)] have also highlighted the conflicting states in their definition for disaster diplomacy, where it is derived "from the recognition that, while disasters can reinforce inequalities and trigger conflicts, they may also help foster humanitarian peacemaking in conflictaffected settings" because of the common identity created by a disaster among survivors as a "community of sufferers" (p. 11). It is evidenced by the literature on disaster diplomacy, which entirely builds up on the cooperation between the warring or conflicting states, such as Cuba-America (Glantz, 2000), India-Pakistan earthquake (Kelman, 2006), Greece-Turkey earthquake (Ker-Lindsay, 2007), rapprochement or estrangement among the government and rebel groups during the Aceh Tsunami in Indonesia and Sri Lanka respectively (Gaillard, Clave & Kelman, 2008; Kelman, 2011; Enia, 2008). However, the topic of disaster diplomacy is not extensively

researched in the case of non-conflicting nations, which is also equally subjected to politicization of disaster response. The assisting countries not only try to help the affected country but also themselves by advocating their agenda, interest or increase in their goodwill through assistance at the time of need. This in turn may or may not influence the aid recipient country to change the perception of the assisting country (Wati, Sari & Sutisna, 2018). It is also known as soft power diplomacy, which is defined by Nye (2004) as "the ability to get what you want through attraction rather than coercion or payment". This research, to a certain extent, tries to explore the diplomatic approach of assisting countries in Nepal (which is a member of the non-alignment movement, and has cordial relations with the international community and is also recognized as a zone of peace), contrary to the case of conflicting nations.

# 3.5 Understanding disaster in Nepal politics and geopolitics

Starting with disasters in Nepal, and the role of politics in disasters, the research retraces the political transition to understand the position of Nepal in the equation of disaster diplomacy. This is followed by the status of geopolitics in Nepal, with focus on Sino-Indo influence, its impact on the 2015 Gorkha earthquake and the political impact. With this understanding, the successive section will analyze how geopolitics played a significant role in disaster management.

## 3.6 Disaster scenario in Nepal

Nepal is located between two major tectonic plates, the Indian and Eurasian.

This area is a highly active seismic zone in the Himalayas due to which the entire country is prone to earthquakes. The earliest recorded event of an earthquake was in 1255 AD. Since then, Nepal has witnessed and suffered numerous earthquakes. The earthquake of 2015 is one of those catastrophic events in recent times, which affected millions of people and killed around 9,000 people (Thapa, 2018; Paudyal & Panthi, 2010).

Besides earthquakes, Nepal is susceptible to other hazards of varying scales of impact (UNDRR, 2018). The type of natural disaster events and their impact are found to be of different degrees, depending upon the geographic location of the event. The high-altitude areas in the mountain districts are at high risk of avalanches, snowstorms, and GLOFs. With steep slopes and rough topography, the mid-hills are frequently affected by landslides, causing heavy loss of lives, property and other infrastructure. Similarly, the southern Terai plains and hilly valleys are prone to floods. Heavy rains and storms result in severe flooding, or trigger landslides that have an enormous impact on property, structures and lives. On the other hand, during the dry season, Nepal is prone to fires and wildfires. In summary, due to a combination of rough topography, steep slopes, active seismic zone, and intense impact of the monsoon rains, this fragile environment has been vulnerable to hazards and disasters.

The earthquakes of 1934, 1980, 1988, and 2015 and the floods of 1993, 2008, 1913, 2014, and 2017 are the most devastating disasters, which not only caused heavy loss to human lives and physical properties but also adversely

affected the development process of the country as a whole. The lessons of the 1988 earthquake and 2015 Gorkha Earthquake, 1993 flood and landslide, 2008 Koshi floods, and 2013 floods and landslide in the Far Western Region, 2014 flood and landslide in the Mid-Western Region, and 2017 floods and landslides in the Eastern and Central Region have brought about a shift of attitude on the part of planners, government, donor agencies, NGOs, and INGOs towards the need for a coordinated disaster preparedness and response mechanism (MoHA, 2018). Before the Gorkha Earthquake, Nepal did not face any critical diplomatic situation during disaster time.

An assessment of multiple hazards in Nepal between 1971 and 2018 (Table presented in Annex III), fires are a frequently occurring disaster followed by flooding, landsides and epidemics. However even though the occurrence of an earthquake is comparatively low, the damage, lives lost and impact are the greatest amongst all types of disasters. It is also observed that floods and epidemics occur frequently in Nepal and impact a large population. Avalanches and snowstorms are the least accounted type of disaster and affect only a small population.

# 3.7 Political history of Nepal

Nepal (or Federal Democratic Republic of Nepal) was formerly a kingdom. Nepal as a country is said to be in existence since time immemorial (reference to the Mahabharata epic). Although Nepal is known as an ancient, independent state in historical accounts, its borders were clearly demarcated only after the Sugauli Treaty following the Anglo-Nepal war (1814-1816). Following the Sugauli Treaty, Nepal also embarked on setting up formal diplomatic relations with the United Kingdom (British Raj).

From 1846, though the Shah Kings remained on the throne, the Rana prime ministers gained effective and autocratic political power. The Rana regime was brought down in 1951 (after 104 years) and was replaced by parliamentary democracy (Whelpton, 2005; Ray, 2007). However, the first elected government (of the Nepali Congress) was dissolved by the king, who banned the political parties and seized absolute power in 1960. After a brief period of direct rule, the king introduced a partyless and centralized Panchayat system (Khadga, 1986). The Panchayat system and absolute monarchy were abolished by the 1990 People's Movement (Jana Andolan I), and constitutional monarchy and multiparty democracy were reintroduced. However, the democratic instability persisted even after the constitutional reforms of 1990. The fierce competition for political leverage led to factionalism between and with the political parties. The political instability would be reflected from the fact that 12 governments ruled consecutively in Nepal in small time frames from 1991 to 2002 (Einsiedel, Malone & Pradhan, 2012, p 18).

The poor performance of Nepal's democracy in the 1990s played a significant role in the rise, wide acceptance and pervasive radicalisation of the Communist Party of Nepal-Maoist (CPN-M) (Beck, et al, 2019: p.6) to abolish the "feudal system"

and transition to a republic. An armed rebellion against the government began in 1996 and then escalated. In 2005, the king took absolute power and intensified military action against the Maoists. Retaliating against the king's takeover, a group of parliamentary parties, called the Seven-Party Alliance (SPA), signed a 12-point Memorandum of Understanding with the Maoists, pledging a democratic movement against the "autocratic monarchy". The decadelong armed conflict ended with the abolishment of the monarchy following the Compressive Peace Agreement between the SPA and CPN-M and the second People's Movement in 2006 (Jana Andolan II) (The Carter Center, 2013; p 4; Thapa 2017; p.16).

The end of the armed conflict had a significant impact on Nepal's political landscape, as it set into motion the transition to an inclusive and democratic constitution and abolishment of the monarchy. But the insurgency also had a diffusive impact on the country, primarily on the historically marginalized groups, for ethnic autonomy, decentralization and inclusion and more equal representation in politics and governmental institutions as essential jus ad bellum (Ramsbotham & Thapa, 2017), pushing the country towards federalism. Federalism associated with devolution of power and political representation of the marginalized groups (Suhkre, 2014). The continued competition for political leverage among the political parties and incorporation of federalism in the constitution complicated the negotiations for drafting a new constitution, resulting in net-zero transaction. Overall, Nepal has a history of unstable and tumultuous government systems, which at times have exposed the fragility of the state, making it vulnerable to interventions by external powers.

# 3.8 Geopolitics and foreign policy of Nepal

A historical contextualization of the strategic interest of foreign states in Nepal is necessary for disaster relief efforts in the aftermath of the earthquake. Prior to analyzing the usage of disaster relief as a strategic tool in diplomacy, the pre-existing conditions need to be extrapolated (Chand, 2017). This section includes the Sino-indo interaction in Nepal, influence of western powers and development aid. The link to the impact on disaster management in Nepal and geopolitics and Nepal's foreign policy will be elaborated in the analysis section.

Nepal is strategically located between two competitors and emerging powers of the world, India and China. In comparison to the two neighboring nations, Nepal is a weak state. But Jaiswal (2014) notes that even a slightest of stir in Nepal would have a spillover effect on both the countries. India's independence from British gave rise to new geopolitical realities. Nepal sharing linguistic, cultural and religious ties since ancient times with India also had 'special relations'. On the contrary, the Himalayas served as a geographic demarcation that limited Nepal's relation with China. The early foreign policy of Nepal in the 1950-1960s was predominately marked with an inclination toward India, making Nepal virtually India-locked due to the geographic permissiveness that fostered strong trade and societal ties between the two states (Chand, 2017). India also intervened politically by providing refuge to the Nepali Congress leaders during the Panchayat system. The predominance of India in Nepal's security increased after both Nepal and India signed the 1950s Treaty of Peace and Friendship, with Nepal being obliged to purchase arms either from India or having to pass through Indian Territory in the case of preapproved third-party purchase. This treaty was prompted, as Nepal feared the expansionism of the People's Republic of China, which annexed Tibet, a buffer state.

The rivalry between India and China started after the Sino-India war in 1962 and border tension, which still has not been resolved. There has been more confrontations on the border of these two nations. Nepal has been acting as a buffer state for both the nations. India shares an open border with Nepal, which India believes could pose a threat to its security, while China is also concerned about Nepal being used by external forces to challenge its strategic interest. Chinese security analysts have argued that the US used Nepali territory to start a Khampa operation and other anti-China activities (Wolfe, 2006; Jaiswal, 2014) in the Tibetan Autonomous Region (TAR) of China. This security issue has become a major determinant of Chinese foreign policy towards Nepal. The proximity of China provides Nepal an alternative conduit to balance the overwhelming Indian influence in the nation (Chand, 2017). In the recent years, China's geopolitical interest in Nepal has been more visible and prominent through geo-economic projects, such as the railway project, dams, airport and other infrastructure.

Besides, the presence of Sino-Indo interaction in Nepal, the Western countries also kept an active presence in Nepal during the Cold War, when India had aligned with the Soviet Union. The West viewed Nepal as a "view tower" in the Himalayas. INGOs are said to represent the geopolitical interest of the West in Nepal. The development aid industry and bilateral relationship mobilized by the West have been an effective method to insert foreign political interest in the region (Poudel & Le Billon, 2018). Josse (2016) notes that regional tension in Nepal is exacerbated due to observed merger of Western and Indian geopolitical interests in Nepal through projects countering, containing or encircling China. Nepal is considered to be one of key pieces in the Sino-Indian competition for influence, power, hegemony and profits. This strategic location has leveraged Nepal to increase its negotiation power in trade, investment, and resource flow.

Nepal being a weaker state between the two powerful rival states, the strategic option of balancing and bandwagoning ran the greater risk of inviting the great powers to interfere in its internal affairs (Adhikari, 2012; p. 84; Adhikari, 2018). Adhikari (2012) notes that 'neutrality' provides maximal advantage for a weak buffer state like Nepal by offering moral cushion to a buffer state such as Nepal and allowing it to exist by claiming depolitical engagement. Nepal was able to achieve 'neutrality' or 'equidistance' by declaring itself a Zone of Peace in 1975 (Sharma Poudel, 2019). The Zone of Peace proposal focused on peace, non-alignment, and peaceful coexistence. Nepal's foreign policy is based on 'neutrality' as it is founded on the "Charter of the United Nations, non-alignment, principles of Panchasheel, international law and norms of world peace, taking into consideration the overall interest of the nation" (The Constitution of Nepal, 2015, Clause 51 (m(1)).

A disaster of a large or mega scale is beyond the coping capacity of Nepal, due to lack of strong critical infrastructure such as roads and communication structures, which were also weakened by the decade-long conflict and political instability. The weak state structure provides powerful states to intervene and direct the disaster-affected nation to work in their interest.

# 3.9 Policy processes: The legislative and policy context of DRR in Nepal

In order to establish a semblance command and control by the government at the time of disaster, it is important not to allow excessive involvement of the international community. Strong documentation of a plan, polices, comprehensive framework for (international) response, and strategic plan of action for disaster management would reinforce a strong presence of national governance and reduce excess involvement of the international community. Understanding that Nepal is a disaster-prone nation, the national and local government of Nepal, with the help from various intergovernmental organizations and donor organizations, have been actively preparing for disaster management. A comprehensive plan of action for disaster response, relief, and recovery proved useful during the 2015 Gorkha Earthquake.

Disasters in Nepal used to be managed on an ad-hoc basis and attended to as and when they occurred. In 1982, the Natural Disaster Relief Act (also known as the Natural Calamities Act) was ratified, leading to the establishment of Central, Regional, District and Local Level Natural Disaster Relief Committees, as well as a system for allocating relief funds (MoHA, 1982). The Act also set out clear organizational responsibilities, giving the Ministry of Home Affairs (hereafter the Home Ministry) responsibility for the formulation of national policies and their implementation; preparedness and mitigation activities; immediate rescue and relief work; data collection and dissemination; and distribution of disaster relief funds (Pradhan, 2007). This Act has been replaced by the Disaster Risk Reduction and Management Act, 2017.

In 1996, the government produced the National Action Plan for Disaster Risk Management (MoHA, 1996) in accordance with the International Decade of Natural Disaster Reduction. This plan deals with different stages of a disaster (pre, during, and post) and was, in theory, supported by the 1999 Local Self Governance Act, which advocated devolution of responsibility to the lower levels of the politico-administrative hierarchy. However, without guidance or specific funds provided to the local government, this had little impact (Pradhan, 2007).

In 2005, the HFA provided the much-

needed stimulus for change. In 2006, two separate initiatives were initiated: the Disaster Management Policy and Act and the National Strategy for Disaster Risk Management (hereafter the National Strategy). Both initiatives reflect to varying degrees the wider paradigm shift from relief and response toward DRR, and propose new institutional structures to facilitate this shift, recognizing that while it is appropriate for the Home Ministry to continue to manage response and recovery efforts in the country (as it commands the police), its capacity for dealing with DRR is limited.

As part of the formulation of the national strategy, a meeting was held on February 26, 2007 that brought together 136 representatives from the government, non-government and international organizations. The National Strategy clearly arose from a thoroughly consultative and participatory process. It was intended to "facilitate the fulfilment of the commitments made by Nepal through various international conventions and forums towards DRR" (NSDRM, 2008: iv), particularly the HFA by putting forth "suggestions regarding institutional reorganization and development and strategic improvement in the existing policy and legal environment" (NSDRM, 2008: iv). Subsequently, the National Risk Reduction Consortium (NRRC) was formed in 2009 to support the implementation of certain priority aspects of the government's NSDRM. The NRRC was intended to help the government achieve the HFA goals by 2015. Initially its political system and institutions were focused on recovery from conflict.

With the adoption of the constitution, the Sendai Framework and experience from the 2015 earthquake, Nepal has reformed the DRR practices, policies and strategies. The Constitution of Nepal (2015) has spelled out in its Directive Principles, Policies and Obligations of the State (Clause 51) about disaster management to build advance warning, preparedness, rescue, relief, and rehabilitation to mitigate the risks from natural disasters. The constitution has given a list of concurrent powers of the federal, provincial, and local level focusing on early preparedness for, rescue, relief, and rehabilitation from natural and human-made calamities for disaster management. In the same way, absolute power has been given to the local level, according to schedule-8 of the new constitution. The policies, plans, and strategies related to disaster management provide guidelines to national and international bodies on how to coordinate and collaborate when a disaster occurs

#### 3.9.1. Periodic Plans

Disaster management is a development issue, which is realized by the policy makers of the country. Disaster management, for the first time, was clearly included in the Tenth Plan (2002-2007) of the government. Chapter 17 emphasized irrigation and water induced disaster control whereas chapter 22 deals with population, environment, and natural and human induced disaster management. Both chapters gave priority to policy formulation, strengthening the institutional mechanism, risk assessment, information collection, and dissemination regarding disaster management. Both

chapters also focused on low costs disaster resilience construction practices (NPC, 2002).

Similarly, the Three Year Interim Plan (2007/08-2009/10) devoted a separate chapter (chapter 26) on natural disaster management. This plan highlighted the formulation of policy, strengthening of the institutional mechanism, early warning system, coordinated approach for DRR, and connecting disaster management with climate change. The programs of preparedness for effective response and recovery, mapping of risk and hazard zone, and enhancement of involvement of local bodies were also listed (NPC, 2007).

The disaster management goal of the Twelfth Three Year Plan (2010/11-2012/13) was to achieve the goal of Hyogo Framework for Action by 2015. The long-term goal of the plan was to develop a disaster resilient Nepal. Moreover, mainstreaming disaster risk management, institutional and legal reform, and preparedness for better response are the strategies of this plan (NPC, 2010).

The Thirteenth Plan (2013/14-2015/16) directly spelled out disaster management. This plan aims to bring disaster management into the mainstream of the development process in order to reduce its effects on the human population. Therefore, the plan made three strategies to cope with disaster: i) develop appropriate legal institutions for effective disaster management, ii) strengthen relations of private/local community with NGOs and INGOs for disaster management, and iii) develop early

preparedness for a disaster event. This plan also focuses on a preparedness plan against a disaster event, which ultimately helps to reduce human causalities (NPC, 2013).

The Fourteenth Three Year Plan (2016/17-2018/19) has set its disaster management goal in chapter 6 under the section of disaster management, environment, and climate change. The plan aims to reduce human, physical, economic, cultural, and ecological losses due to disasters. It has made strategies for different types of disasters management, such as, earthquakes, floods, landslides, epidemics, and others, focusing on different phases of a disaster management cycle, such as, preparedness, response, rehabilitation, and mitigation. It has also emphasized on the governance of disaster management at the national, regional and local levels (NPC, 2017).

The current Fifteenth Five Year Plan Approach Paper (2019/20-2023/2024) has included disaster risk reduction and management under chapter 10. The plan aims to reduce physical, economic, social, cultural, and environmental loss from natural or non-natural calamities by strengthening infrastructure and institutions for disaster, preparedness, response, rehabilitation, and mitigation. It has also emphasized communal, private investment for capacity building from the local level for disaster risk reduction and management (NPC, 2019).

# 3.10. International Response Mechanism

The first response to a disaster is usually local. The primary responsibility for

coordinating humanitarian assistance required during a disaster rests with national authorities. Every sovereign state has and needs to prepare for a response to major disasters. However, despite being prepared, it may happen that a country needs specialist assistance from other countries when the scale of the disaster exceeds internal capability. Many countries are willing to provide assistance during a disaster. There are numerous international agreements established and organizations founded to make cross-border collaboration in various areas possible, such as providing and receiving assistance in the event of a disaster (Infopunt Veiligheid, 2013). UN General Assembly Resolution 57/150 recognizes the important role of affected countries in streamlining processes to ensure the timely response of responding international teams as well as ensuring the safety of the teams. If international humanitarian assistance is required, the Humanitarian Coordinator (HC) or Resident Coordinator (RC) is responsible for leading and coordinating the efforts of humanitarian organizations (both UN and non-UN) with a view to ensuring that they are principled, timely, effective, and efficient, and contribute to longer-term recovery (OCHA, 2020). In the United Nations, UN Office for the Coordination of Humanitarian Affairs, UN OCHA coordinates preparation and response in the event of a disaster. The main focus of UN OCHA, in collaboration with the affected country, is on coordinating largescale international assistance activities and flow of funds that get going after a disaster.

International humanitarian assistance is led by the UN Resident Coordinator

and Red Cross Movement. Nepal is a member of the United Nations. In the event of a large-scale disaster, the Local Emergency Management Authority (LEMA) is activated. The country assesses the disaster loss and effect. If the disaster is beyond the coping capacity of the nation, the council of ministries announces a state of emergency and appeals for international humanitarian assistance. It is provisioned in the DRRM Act that should internal resources be deemed inadequate to meet the needs of the people during a disaster situation, the government may receive international humanitarian and other assistance. And it further clearly mentions that if the disaster situation comes under control and further international support is not required, the government may declare not to take international assistance as per sub-clause (GoN, 2074).

The UN Resident Coordinator's Office (UNRCO) (OCHA was responsible before the UNRCO) also plays an important role in the coordination of humanitarian assistance with the help of 'cluster' approach. The cluster approach was adopted by the IASC in 2005. A cluster approach has been properly adopted in Nepal since 2009 after the Koshi Flood. The main purpose of this approach is to strengthen system-wide preparedness, technical capacity, and effective coordination to respond to humanitarian emergencies. Large-scale disasters go beyond the capacity of one single organization, and the operation is shared by diverse actors who may have to work together (Cook, Shrestha, and Htet 2016). There are 11 IASC-designated clusters (under the heading of health, logistics, nutrition, protection, shelter,

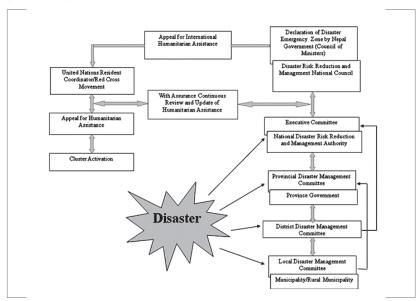


Figure 3: Disaster Response Mechanism for International Assistance in Nepal (NDRF, 2019)

water, sanitation, and hygiene (WASH), camp coordination and camp management, early recovery, education, emergency telecommunications, and food security) at the global level, each led or co-led by a designated UN and/or non UN organization (IOM,2019).

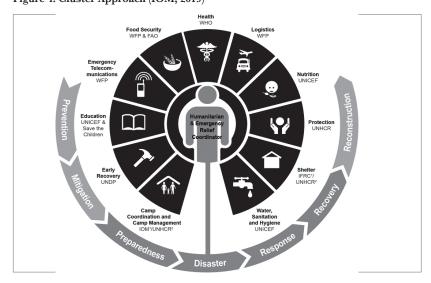


Figure 4: Cluster Approach (IOM, 2019)

Cluster activation at the country level is determined by the Humanitarian Coordinator in close coordination with the Humanitarian Country Team (HCT) and in consultation with the government. At the country level, clusters ensure that the activities of partners are coordinated and harmonized. To the extent possible, clusters mirror national response structures, use terminology that is close or identical to that of the national sectors, and are co-chaired by government representatives. Where required, country-level clusters can be established at the onset of a disaster and may or may not remain following the initial phases of response based on in-country assessment of continued need.

The existing clusters and respective government agency for coordination in the event of a disaster are listed below (NDRF, 2017, unofficial translation)

Name of the Cluster	Government Agency	Supporting Agency
Health	Ministry of Health and Population	WHO
Water, Sanitation and Hygiene	Ministry of Water Supply	UNICEF
Emergency Shelter	Ministry of Urban Development	IFRC/UN HABITAT
Food Security	Ministry of Agriculture and Livestock Development	WFP/FAO
Nutrition	Ministry of Health and Population	UNICEF
Camp Coordination and Camp Management	Ministry of Urban Development	IOM
Protection	Ministry of Women, Children and senior Citizen	UNHCR/UNICEF/ UNFPA
Early Recovery	Ministry of Federal Affairs and General Administration	UNDP
Education	Ministry of Education, Science and Technology	UNICEF/SC
Logistics	Ministry of Home Affairs	WFP
Emergency Communication	Ministry of Communication and Information Technology	WFP

UN OCHA has a coordination structure and a number of specific systems, such as the UN Disaster Assessment and Coordination system (UNDAC). The UNDAC team was established in 1993 and consists of over 230 national emergency managers from more than 80 participating countries, together with the staff from OCHA, international and

regional organizations, including UN agencies. The UNDAC team is part of the international emergency response system for sudden emergencies. It is designed to assist the United Nations and government of a disaster-affected country in meeting international needs for early and qualified information during the first phase of a sudden emergency, as

well as in coordination with incoming international relief at the national level and/or at the site of the emergency. It is capable of deploying at very short notice (24-48 hours) anywhere in the world and is provided free of charge to the disaster-affected country. This system is managed by the Emergency Response Support Branch (ERSB) of the UN Office for the Coordination of Humanitarian Affairs (OCHA) in Geneva.

UN OCHA especially coordinates the deployment of UN classified USAR teams by the UN International Search and Rescue Advisory Group (UN INSARAG) and auxiliary mechanism, such as an On-Site Operations and Coordination Center (OSOCC) (Infoput Veiligheil, 2013). The INSARAG Mandate entails the development of effective international (Urban Search and Rescue) USAR procedures and operational standards, implementation of UN General Assembly Resolution 57/150 of December 22, 2002 on strengthening the effectiveness coordination of USAR assistance, improving cooperation and coordination amongst international USAR teams at disaster sites, promoting activities to improve USAR preparedness in disaster-prone countries, development of standardized guidelines and procedures, and sharing of best practices amongst national and international USAR teams and defining standards for minimum requirements of international USAR teams. During times of disaster, affected and responding countries apply the INSARAG methodology, which ensures USAR teams understand the roles and responsibilities of LEMA and are able to integrate effectively, resulting in a coordinated and efficient rescue effort. The INSARAG Guidelines aim to provide a methodology for the country affected by a sudden onset of a disaster causing large-scale structural collapse as well as international USAR teams responding to the affected country. They also outline the role of the UN assisting the affected countries in onsite coordination. INSARAG activities are designed, as outlined in UN General Assembly Resolution 57/150 of December 16, 2002, to improve emergency preparedness and facilitate capacity building through strengthening the cooperation between international USAR teams and the exchange of information on operational procedures and lessons learned.

The On-Site Operations Coordination (OSOCC) concept developed with the support of OCHA and the International Search and Rescue Advisory Group network. It was designed to assist affected countries in coordinating international search-and-rescue efforts following an earthquake. However, OSOCC's emergency management principles make it a valuable tool in any sudden onset of a disaster involving international relief resources. Over the last decade, the OSOCC concept has been used during numerous disasters, including floods, hurricanes, tsunamis, and complex emergencies.

An OSOCC has been set up to help local authorities in a disaster-affected country to coordinate international relief. Following a disaster, the OSOCC is established as soon as possible by the first arriving international urban search-and-rescue team or the United Nations

Disaster Assessment and Coordination team.

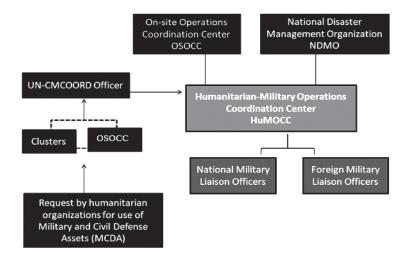
The International Federation of Red Cross and Red Crescent Societies (IFRC) is the coordinating body of all recognized national Red Cross Societies. The IFRC is also based in Geneva and was founded in 1919. The Federation operates outside conflict areas, and assists national associations in the event of major disasters, and supports them in building a strong organization. The Red Cross is presently the very symbol of neutral and impartial assistance to people in need.

The Red Cross Society played an active role in the 2015 earthquake response as there was established and well-functioning cooperation between the Partner National Societies (PNS), the

International Committee of the Red Cross (ICRC), Nepal Red Cross (NRCS), and the IFRC at the country, regional and global level. NRCS volunteers assisted in the distribution of relief items procured by international NGOs and UN agencies. The NRCS was the primary source of relief assistance in many communities affected by the earthquake.

There is an emerging practice in UN Civil-Military Coordination (UN-CMC) globally for the development of a platform to facilitate information sharing, task division and coordination of operational planning between humanitarian and military actors. In the context of natural disasters, the Humanitarian-Military Operational Coordination Concept (HuMOCC) could provide a viable model for the interface between civilian

Figure 5: HuMOCC Operational Structure (adopted from Regional Consultative Group, 2017; p 14)



and military actors. This model needs to then be tailored to the specific context of each natural disaster response.

The HuMOCC is led by the National Disaster Management Organization (NDMO) and supported by UN-CMC officers. It is intended to be complementary the On-Site to Operations Coordination Center (OSOCC), where it is utilized, and the NDMO. The operation of the HuMOCC is in facilitating information flow, and in prioritizing requests for assistance from civilian government and nongovernment actors, to national and foreign military actors. A general model for international disaster coordination, using the HuMOCC platform, is shown below, including the NDMO, a Civil-Military Operations Center (also termed Multinational Military Coordination Center (MNMCC)), and civilian humanitarian actors, including UN agencies, NGOs, and other government agencies. The HuMOCC, led by the NDMO, is set up to provide interface between military and civilian actors, assisted by the military and UN-CMCoord liaison officers.

# 3.10.1. Provision of National Disaster Response Framework (NDRF)

A major disaster can quickly drag the situation into great commotion as it is likely to be followed by numerous uncoordinated activities between poor communication and confusion among the people concerning what to do (Coburn & Spence, 2002). With the objective to act efficiently for emergency response, Nepal has adopted the NDRF, which is the mechanism for inter-organizational

coordination and cooperation, including that with international organizations. The NDRF is designed to ensure effective coordination and implementation of disaster preparedness and response activities by clarifying the roles and responsibilities of government non-government agencies involved in disaster risk management (NDRF, 2013, 2019). The NDRF outlines a detailed timeline for disaster response, listing all the actions that should be carried out during emergency and appointing governmental bodies (Wendelbo et al, 2016). It details the governmental process to request international support and the coordination features for and international disaster national assistance for a large-scale disaster (CFE-DMHA, 2015). The National Disaster Response Framework states that in the event of a large-scale disaster, the UN Humanitarian Coordinator will activate the cluster system of Nepal, while GoN, on the other hand, will nominate the fulltime focal person to the respective cluster to coordinate the response and take the lead, while UN agencies support the governmental leads. The government may request the UN Humanitarian Coordinator, national and international governments, IFRC, regional organizations, donor communities, international national and governmental organizations, political parties, resident and non-resident Nepali citizens, foreign citizens, and other sources for international assistance in terms of cash or services, in the event of a large-scale disaster. The August 2014, floods marked the first activation of the NDRF whereas the 2015 earthquake was the second, but it was the first to engage all humanitarian clusters.

# 4. ANALYSIS AND FINDING

In this section, the accounts and experience of the 2015 earthquake, ranging from the response received by the disaster-affected nation from the international community to the shortcomings in the mechanism and management of the response are discussed. This is followed by changes incorporated in the mechanism to respond to the disaster. An attempt to understand and analyze the intension of the donor party is also included herewith along with the role of foreign affairs in channeling diplomatic action during the disaster.

### 4.1. 2015 Earthquake International Response

On April 25, 2015, at approximately 1156 hours local time (GMT + 5:45), a major earthquake of 7.6 magnitude (MoHA, 2016) stuck central Nepal. It was one of the most severe earthquakes in 80 years. This was followed by a second strong shock of 7.3 magnitude on May 12, 2015. The two consecutive earthquakes affected 39 out 77 districts, 14 of which were severely affected. These quakes claimed the lives of 8,970 people and injured 22,302 (MoHA/ DPNet-Nepal, 2015, p. 14). There were around 379 recorded aftershocks that oscillated between 4.5 magnitude and 6.4 magnitude in the subsequent months, resulting in complete destruction of 7,73,095 houses and partially damaging 254,000, and displacing around 2.8 million people (MoHa, 2016). The postdisaster needs assessment estimated that the total damage inflicted by the earthquake amounted to US\$ \$7billion (Nepal Planning Commission, 2015). The 2015 earthquake was a learning experience for Nepal, not only in terms of disaster management but also in managing international response of a large scale. Located in a disaster-prone area, Nepal is susceptible to disasters of a large or mega scale, which may be beyond the capacity of the country to handle. Being highly dependent on foreign aid for DRRM practice in Nepal (Dahal, 2016), help from the international community is inevitable during the onset of a disaster, in particular during an earthquake of a large scale.

Retrospection of experience the of the 2015 quake leads one to the understanding that the earthquake caused nationwide mass devastation and overwhelmed the national response capacity. As per the protocol, during the disaster, the CNDRC meeting held within hours of the earthquake declared a state of emergency, and at 1600 hours local time on April 25, the government then appealed for international assistance, prioritizing support for 14 most affected districts. Countries around the world, international partners, philanthropic individuals, and organizations, from both within and outside poured in tremendous support for Nepal, both physically and morally. India responded in less than 12 hours, which was the first foreign nation to arrive here. This was quickly followed by other neighboring nations - China, Sri Lanka, Bangladesh, and Bhutan (Cook, Shrestha & Htet, 2016). Those nations which where geographically close to the country were able to reach and respond swiftly upon request.

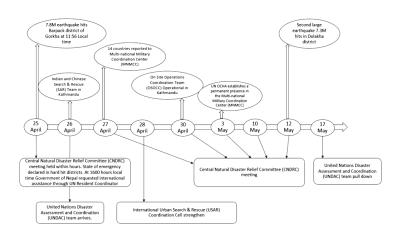


Figure 6: Timeline of 2015 Gorkha Earthquake response (Source: MoHA, 2015 as cited in Shrestha & Pathranarakul, 2018)

In total, 4,521 rescue personnel (19 IEC-classified and 56 non-classified teams) from 34 countries along with 141 canines and 1,400 personnel from 78 medical teams were mobilized for immediate response to rescue and aid the earthquake victims (MoHA, 2016; p 110; Okita & Shaw, 2019). Many more countries provided relief materials, such as medicines, tents, and food to the survivors. Major foreign donors, governments, and actors pledged, committed and disbursed financial support (as grant, loans, aid, donation) to quake- stricken Nepal to "build back better". Bilateral aid in relief materials and financial assistance were received approximately 70 countries worldwide. Some governments acted independently while many participated through United Nations agencies and other international humanitarian organizations like the ICRC, IFRC, Oxfam, World Vision, and CARE

International.

The international actors coordinated with the national and local governments and actors (security forces and civil society) to facilitate and maximize the efficiency of search and rescue and flow of relief materials in the affected regions (MoHA, 2016). Nepal also had drafted and implemented the NDRF in 2013, which outlined a detailed timeline for disaster response and coordination links for national and international response activities. Furthermore, the Nepali Army (NA), whose role was not clearly defined in the NDRF, 2013, took the leadership to coordinate the search and rescue activities of foreign military personnel under the MNMCC (to which 18 countries had reported) on an ad hoc basis to fill in the role the OSOCC, whose arrival was delayed due to the air traffic. The Nepali Army undertook the task as they were many critical resources - people, organizations, leadership, equipment, and skills (Manandhar, Varughese, Howitt, & Kelly, 2017). The strong support from the national and local actors facilitated in the communication and coordination of the response and relief efforts, which included multilateral actors and organizations.

### 4.2. Learning from Disaster Response in Gorkha Earthquake

The NDRF served as a key tool in coordinating the earthquake response and facilitating decisions and instructions from the center to the districts. It also conducted the response very much in line with the international mechanism of humanitarian response, and greatly made response by international organizations visible. Despite the comprehensive framework and good coordination, there were some shortcomings in the management of the disaster response. This study categorizes the lessons from the disaster response to the Gorkha Earthquake into four broad categories of governance, economic diplomacy, disaster capitalism, and geopolitical interest.

### Strengthening Governance System

Despite efforts from all the sectors to improve the DRRM, MoHA (2018) perceives that loss of human lives and property is in increasing trend. Risks due to a disaster are exacerbated by weak governance and weak political will (SIAS, 2016). The insight into the ongoing governance and development challenges of Nepal suggests it is caught in an internal struggle for political stability after almost a decade-long insurgency (1996-2006).

Recent political developments, however, show that Nepal is on a trajectory toward stability and improvement in the living standards, with the promulgation of a new constitution and successful elections. Two years after promulgation constitution, the country held legislative election in 2017, where the Nepal Communist Party (NCP), formed by the merger of the Unified Marxist-Leninist (UML) and Maoist Center, captured almost two-thirds of the parliamentary seats in the election (Bhattarai, 2018). The alliance of the left has played a significant role in bringing stability in the political landscape of Nepal.

However, during the 2015 Gorkha Earthquake, there was transition from a unitary to a federal system of government structure, and the government had been only transitionally functional. Since proper governance and legislative reform processes had slowed, emergency relief, response and rescue were not effective. If there had been a clear line of action and designated local government bodies, many more lives would have been saved. However, the long history of political instability, resulting in weak governance and oppression, marginalization of various groups (based on ethnicity, gender), and absence of inclusive participation bottle-necked the process of drafting the constitution and formation of a stable government for seven years.

Nepal held local elections in 2017, which meant for over 20 years there were no locally elected representatives. Lack of consensus on the federal governance administration structure further delayed the formation of the local governance structure and election process. During

the earthquake, the areas which had some structure of local government and was operable during the disaster had a comparatively more effective response than those areas which lacked them. The absence of locally elected representative had an impact on response effectiveness because when support and aid from the national government, international community and other relief forces arrived at the location, they lacked contextual information and data on the damage inflicted by the quake (Manandhar, et al., 2017). As they were not aware of the area, they also had difficulty in identifying and connecting with well-organized local partners to facilitate response coordination. Had there been locally elected representative and government structure, the communication mobilization of the response from national and international responders might have been more efficient. The elected representative at the local level would have been the focal person for communication, understanding context of the area and identification of suitable local partners for coordination. However, mere presence of local representatives is not sufficient; they should also be equipped with training and knowledge of protocol during a disaster. Access to resources and technical and institutional capacity is equally important for local representatives to effectively take up disaster management (including response) responsibilities.

### Strengthening Critical Infrastructures

Amidst the governmental fragility and post conflict instability, Nepal received overwhelming response from

the international actors for the 2015 earthquake. This revealed problems related to disaster preparedness (Beck, et al, 2019). One of the major drawbacks for Nepal in efficient response outcome was lack of availability of critical infrastructure, such as transportation networks, information technology, power grid, and telecommunication lines. This posed difficulty in logistic management. Wendelbo et al. (2016) from their research deduced that those territories that were affected by war were affected more by the earthquake as they had poorer infrastructure and were out of governmental reach. The availability of infrastructure are important because the NDRF was highly reliant on it, which were to be easily accessible and promptly upgraded to support the emergency response (Wendelbo, et al., 2016; Cook, et al., 2016). Without the critical infrastructure, the response process was delayed. Access to remotely located earthquake-affected area and difficult terrain of Nepal was made further difficult by poor roadways and airway infrastructure.

International actors also faced great difficulty at the Tribhuvan International Airport (TIA) in Kathmandu. Wendelbo, et al., 2016, Cook et al, 2016 have noted that TIA, the only international airport, was crowded due to the air-traffic, which delayed the arrival of response teams and relief materials. In the case of a disaster, the first 72 hours are crucial for response. However, the large influx of support bottlenecked the efficiency of the response process during the 2015 earthquake, where many rescue teams dispatched by foreign states either could not even land in Nepal or reach Nepal

after the Nepali government requested the foreign rescue teams to stay away. One of the delayed arrivals was the OSOCC team, which was responsible for coordinating the MNMCC with the National Emergency Operation Center (NEOC). In the absence of the OSOCC, the Nepali Army took the lead in the coordination task. In the new NDRF (of 2019), the Nepali Army coordinates with the OSOCC.

Good communication infrastructure is important in a large and mega disaster as the demand for information increases exponentially in such a situation. Timely collection, management, processing, and dissemination of reliable information is critical for disaster relief and recovery operation (Molden & Sharma, 2016). During the 2015 earthquake, Nepal saw a huge gap in the demand and supply of information, which was further challenged by the difficult mountainous terrain and absence of locally elected representatives. This raised unclear and inaccurate information, making it difficult to identify and assess the challenges and needs of humanitarian staff and victims respectively (Wendelbo, et al., 2016; Cook, et al., 2016). The earthquake quickly overwhelmed the telecommunication infrastructure. delaying and disrupting the means of communication. There is a need to strengthen critical infrastructure and train human resources for effective logistic management during a disaster.

### Integrated Information System and Arrangements

There were challenges in communication and coordination among various

national and international responding actors. This was also reflected when some teams arrived with unsuitable equipment and resources as they were not aware of the terrain and requirement of Nepal. Consequently, most humanitarian responders arrived with usual relief items such as food, water, blankets, clothes, and WASH goods. They were useful but were not the priority. In the case of the Gorkha Earthquake, over food and water, shelter should have been prioritized. Nepal at the time had food and water locally due to the harvest season. But since majority of the population was displaced due to damage caused to their homes and onset of the monsoon at the time of the disaster, setting up temporary homes should have been the priority for immediate relief.

Similarly, there were very international rescue teams that had any prior knowledge of the country's culture, geography, and situation or needs of the victims, with ready-to-eat meals provided that had beef extracts in a predominately Hindu country. They also worked independently with local organizations or translators in the remote areas, brought unsuitable technology, equipment or method for response and unrequired relief materials, which at times created distrust and a negative image of the response among the victims. Many news reports noted that the response and relief efforts were also disproportionately disbursed, with some areas receiving repeated attention from various actors while other being ignored. The responders, national and international alike, faced backlash from the quake victims for inefficient logistics management, which resulted from communication and coordination gap. Some response efforts were also alleged to have concentrated their effort in those areas that were extensively covered by the media (Wendelbo, et al., 2016).

Seck (2007) notes that media coverage of a disaster is proportionate to the disaster relief, hence the possibility of duplication of relief efforts to be visible in the media cannot be ruled out. Considering these cases, it can be deduced that lack of integrated data and information system and arrangement compromised effective coordination and communication between various national and international responding actors.

## Strengthening Economic Diplomacy

The Nepali government and international aid organizations have been working together to prepare for a disaster by understanding the disaster risks of the country. Various multilateral and intergovernmental organizations had been investing to develop Nepal's resilience prior to the 2015 earthquake. The government with support and guidance from the international community developed disaster management infrastructure (such as Humanitarian Staging Area in TIA in March 2015) with clear procedures, institutions, and role divisions facilitated overcome logistical problems, improved communication with different actors involved, and ability to execute coordinated response to a great extent. Being able to bring multiple partners to support Nepal in rescue, recovery, and rehabilitation can be attributed to Nepal's successful disaster diplomacy. Acharya (2015) notes that the government's

mobilization of international support was more efficient than the UN as the International Conference on Nepal's Reconstruction (ICNR) was able to seek a pledge of \$ 4.1 billion for reconstruction from 24 foreign countries and multilateral lending institutions like the ADB and World Bank, which was 66 percent of the total need assessed but greater than what the government had expected. On the other hand, the UN's appeal to raise \$422 million for emergency operations could raise only about one-third of the estimated amount.

However, international experience shows that there is always a gap between the pledged amount and what is actually provided. Foreign aid must be sanctioned by the donor countries' parliaments and a lot of paperwork between the donor and recipient is involved, which includes agreement on the modality of the funding (Acharya, 2015). This is a cumbersome process. A similar scenario was seen in the case of Nepal as well. As per the Ministry of Finance (MoF), of the initial \$4.1 billion pledged, agreements worth \$3.1 billion were signed, with \$1.6 billion to come in the form of grant and the remaining \$1.5 billion in soft loan (The Kathmandu Post, 2017). Nepal has received \$3.6 billion of the pledged amount after three years (till FY 2017/18). Annex IV in the document contains the detailed account of the fund pledged, committed, and disbursed for post-earthquake reconstruction. largest contributors are China, India, the ADB, and the World Bank in terms of amounts pledged for post-earthquake reconstruction. The EU, Germany, IMF, China, USA and UK have made commitments equal to or greater than

the pledged amounts. It has been over four years, but the Nepali government has been working to realize the remaining pledges (MoF, 2018). The article in The Kathmandu Post (2017) notes that some countries did not sign any agreements to release the amount pledged during the summit, while some countries supported reconstruction work on their own. This might have exposed Nepal's weakness in disaster diplomacy, where the county was not able to maintain the trust of the donors. This weakness of Nepal's disaster diplomacy was also observed in the early relief phase, where donors were reluctant to deposit their pledged aid in the Prime Minister's Relief Fund, which is the official funding channel operated by the government. The "one door policy" for relief distribution endorsed by the government was also not received well by the international community. The donors did not have trust in the government's ability to effectively use the fund and exhibit transparency and accountability. However, over time, the government has been able to translate the pledges into commitments but has not been able to effectively disburse the committed money (Refer to Annex IV).

It also seemed that the government was not able to moderate and manage the logistics. The 'one door policy' was wrongly interpreted by the Government of Nepal. As per the agreement between the experts and government, the one door policy was not to be implemented in the collection of relief fund and relief materials. Rather the policy was to be implemented in the program, i.e., distribution of response activities and relief materials (pre planning and response mapping) so that where would

not been duplication in disaster-related activities (R.C. Neupane, Personal Communication, 2020, May 2). However, the one door policy was not properly implemented in the response. Therefore, this resulted in logistics mismanagement during distribution of relief materials, which was the result of miscommunication and lack of coordination among the involved actors.

### Disaster Capitalism and Geopolitical Interest

The assistance provided during a disaster is guided by the core humanitarian principle. Most of the countries, organizations, and individuals that came to aid disaster-affected Nepal had reflected humanitarian or philanthropic interest. The international community is bound to align its assistance "in the interests of vulnerable people, and with full respect for fundamental humanitarian principles" (IFRC, 2009). This act is referred to as "Humanitarian Diplomacy" as described by the IFRC in "Humanitarian Diplomacy Policy" in 2009. Many governments have also declared and incorporated humanitarian assistance as a part of their foreign policy. However, Maciver (2012) questions the role of politics in disaster-related activities and whether disaster response can be a purely humanitarian action. In pursuit of the ICRC, IFRC, and Medecins San Frontiers (MSF), humanitarian action can be termed as such when its space is free of politics. Maciver (2012) argues that response in a disaster within a political role or motive outside of the victims' interest lies outside the mandate of humanitarian action.

Hence, the vested interest of several organizations and individuals during disaster response should not be ruled out or overlooked. Nepal received request to assist from numerous governments, organizations, and individuals. Some of such requests had to be rejected on various grounds, as they saw disaster response as an opportunity to promote themselves, their political, religious, or professional interest or to be seen doing something (improving their goodwill). Various religious groups and missionaries tried to use the disaster for religious conversion, exposing their intentions other than that of humanitarian underpinning.

The earthquake response also exposed the strategic competition and promotion of political goodwill between India, China and other nations in Nepal (Chand, 2017; Poudel& Le Billon, 2018). India initiated "Operation Maitri" within hours of the earthquake to support Nepal. The response sought to appeal to the societal level ties that the people of the two countries shared, which might have been India's attempt to reset the ties after years of tumultuous relations between the two nations. The relief effort by India was analyzed by Chand (2017) as an opportunity to bolster its position in Nepal and strategic interest to push back Chinese influence through swift and extensive mobilization of relief efforts and pledge of huge amounts of financial aid.

China's disaster response was also framed by the "politics of reengagements" by providing grants, infrastructure development assistance, and many more (Poudel & Le Billon, 2018). The relief efforts also provided the opportunity

strengthen China's 'One Belt. One Road' initiative, which sought to utilize Chinese companies to build infrastructure (Chand, 2017). China's disaster diplomacy and relief operation had geostrategic considerations as well. It was speculated that Nepal rejected Taiwan's offer for assistance for a search and rescue team, as acceptance would have been interpreted as recognition of the island nation's political identity. This would have contradicted Nepal's declared support to the 'One China Policy. Nepal does not have any diplomatic relations with Taiwan and supports China's position on Taiwan as a "renegade province" (Acharya, 2015).

Similarly, the Western countries also provided physical and financial support to Nepal. The European countries' pledge, including that of the bilateral donors and the European Union, totaled \$342 million, most of whom chose to execute their programs through NGOs, which shows either that the donors lacked trust in the government's capacity or they wanted the process to be guided by their interest or objective. The USA also provided assistance to Nepal during the disaster and pledged \$130 million and an additional grant of \$500 million under the Millennium Challenge Cooperation, which is currently facing criticism in Nepal, with warnings that it may undermine the sovereignty and geopolitical strategy of Nepal.

Likewise, there was at times mistrust of the victims towards the response teams during the 2015 Gorkha Earthquake. The food aid provided to the victims by the World Food Programme (WFP) was claimed to be of poor quality, or substandard. The recipients of such aid felt humiliated. On the other hand, WFP was not pleased with the accusation, and labelled it as an attempt by the local media to "tarnish" the WFP's image. In response to the accusation, the director of the Operational Division at the United Nations Office for the Coordination of Humanitarian Affairs warned that if the accusations were not retracted, then the relief materials would be diverted to other crisis-ridden countries (Adhikari, Islam & Haque, 2016; p.12). This statement was widely condemned by other stakeholders. WFP later expressed its commitment to repair the damage done through an apologia (Adhikari, et al., 2016; p. 14). This incident also shows that powerful actors, including multinationals, may seek to benefit from a crisis and push their, products, services and agendas to disaster-affect countries. This may give rise to "disaster capitalism" (Acharya, 2015; p. 50), where people in power (be it a country's leaders or private actors) may manipulate and exploit the crisis when people are emotionally and physically distracted and are not able to launch resistance against manipulation for pushing their exploitative policies and agenda (Kelin, 2007 as cited in Acharya, 2015; p. 50). The hurried consensus on the promulgation of the constitution may also fit this description.

While Nepal was recovering from two massive earthquakes, the country faced a blockade on the southern India-Nepal border. It was due to protests by people of Madhesi ethnicity for not incorporating their demands in the new constitution. Birland (1998) and Bakker and Bridge (2006) argue that a large-scale disaster can foster new forms of collective

action and identity, and generate new opportunities for political legitimacy and unity. These changes would be largely shaped by pre-disaster movements.

After a few months of the earthquake, all the major political parties agreed to move the process of drafting the constitution. It took seven years to promulgate the new constitution, or perhaps it was the earthquake that resulted in putting the process on fast track. Did the disaster really create consensus among the non-consensus political parties? This perception is in line with the argument of Surwnadono & Herningtyas (2016), who suggest that occurrence of a disaster offers factors for cooperation from political opponents and creates peace. However, the sudden consensus among the parties after seven long years raised questions. The political parties were also accused of not utilizing the critical assistance during the vulnerable period, and instead politicizing the disastrous situation. It is plausible that the government saw disaster as an opportunity to exploit the tension for political advantage. Harris, Keen, and Mitchell (2013) noted that the government might try to exploit the disaster and tense situation for political gain.

While the constitution was celebrated for its progressive provisions and rights, it was followed by significant protests by the major social groups (women's group, Madhesi, Tharu and Janajati groups) as they felt excluded. This resulted in violent protests along the southern border of Nepal and obstruction of essential supplies on the India-Nepal border (Pant, 2018). The protest is understood to have been backed by India, which had

been demanding that the Terai region be made a separate provincial state and include provision for naturalized citizens to have the same political rights as others, allowing them to take up key national political positions in Nepal (Poudel & Le Billon, 2018).

The blockade made the lives of the people more difficult, leading to a humanitarian crisis and slowing down the process of recovery and reconstruction. Due to an acute shortage of fuel, hundreds of tons of food materials for the earthquake victims were stuck in the warehouses.

Indo-Nepal relations were negatively affected due to the 'unofficial' blockade. The blockade forced Nepal to seek assistance and long-term investment from China, which skewed the power equation in the region (Pant, 2018). The involvement of India in the blockade gave rise to anti-India sentiments among the general public of Nepal, whereas Sino-Nepal relations improved, opening the border for transportation of basic needs goods.

## 4.4. Institutional Mechanism for DRRM after earthquake

Nepal experienced issues similar to those faced by other developing nations in the wake of a disaster of a large scale, which included but not limited to overwhelming amount of offer of assistance, with some having political and personal interest. Nepal to some extent was prepared for the disaster, as it had been participating in international conferences, trainings, and workshops on disaster risk reduction and management. With consultation support from intergovernmental

organizations (such as UN agencies) and bilateral and multilateral donors, the government was able to prepare a comprehensive policy, act and framework to guide the international community and coordinate in Nepal. However, due to political instability, an unclear governmental structure (Nepal was at the time transitioning to a federal state), and absence of local government and critical infrastructure impeded the full potential of the measures suggested by the policies and framework. It is of utmost importance to strengthen the domestic policy to strengthen the foreign policy and diplomacy, as foreign policy is often referred to as an extension of domestic policy. The clear understanding of actors involved, distinction of responsibilities of involved actors, and coordinated links with both national and international actors would provide effective communication and aid in increasing the efficiency in disaster response.

The 2015 became a "focusing event" for Nepal in facilitating greater awareness and learning within the disaster policy system (Bustanul Fuady & Bisari, 2016). The government has reformed the existing policies on disaster after the experience gained in the earthquake to suit the new federal state of Nepal. This has been discussed in the following section.

In 2017, Nepal adopted the Disaster Risk Reduction and Management Act as the then existing Act (Natural Calamity Relief (NCRA) Act, 1982) did not cover the emerging concept of disaster risk reduction, which is the core focus of the Sendai Framework for Disaster Risk Reduction (SFDRR, 2015-2030) that

Nepal is a signatory to. The new Disaster Management Act incorporates the whole spectrum of disaster cycle management and the diversity of disasters Dahal, 2018). Another important factor for adopting the new Disaster Management Act is declaration of Nepal as a federal state. Nepal was declared as federal state with 7 provinces, 77 districts, and 753 local government units replacing the 5 Regions, 14 zones and 75 districts after the proclamation of Constitution, 2015. With decentralization of governance under the federal state, establishment of proper coordination among the national level, provincial level, and local level agencies for disaster-related activities was required. The Disaster Risk Reduction and Management (DRRM) Act, 2017 has modified the institutional structure for disaster risk management proposed by the National Strategy for Disaster Management, 2009 (Nepal, Khanal & Pangali Sharma, 2018), where the provincial and local level agencies and authorities are also included in disaster-related activities. The disaster management institution works at three levels: national, provincial and local level.

### 4.4.1. Important Changes in Institutional Framework from 1982 Act to 2017 Act

With lessons learnt from the 2015 earthquake, the 1982 Natural Calamity Relief Act was replaced by the Disaster Risk Reduction and Management Act in 2017. The major difference between these Acts are that the previous Act focused on the disaster caused naturally whereas the current Act includes a broader aspect of a disaster. The NCRA, 1982 did not cover the broader spectrum of hazard

mitigation and disaster risk management and categorization of the diversified disasters of Nepal, which require different types of attention. Against this backdrop, this current Disaster Risk Reduction and Management Act has incorporated the whole spectrum of the disaster management cycle (mitigation, preparedness, response, and rehabilitation) and the diversity of disasters (Nepal et al., 2018).

Some other notable changes in the institutional framework for Disaster Reduction and Management in the new DRRM Act, 2017 are introduction of the National Council for DRRM, which is now the supreme body for DRRM. The Central Natural Disaster Relief Committee, chaired by the Ministry of Home Affairs, composed of a subcommittee of relief and treatment, shelter, and rehabilitation has been replaced by an Executive Committee, which is also chaired by the Ministry of Home Affairs but is also composed of an expert committee from various sectors (detailed description in next paragraph). The National Disaster Risk Reduction and Management Authority (NDRRMA) for DRRM has also been introduced under the Ministry of Home Affairs (MoHA), which functions as the secretariat of the Council and Executive Committee. Similarly the Regional, District and Local Natural Relief Committee has been replaced by the Provincial Council from the DRRM and Disaster Management Committee, District Disaster Management Committee under the chairmanship of CDO, and Local Disaster Management committee in municipalities and rural municipalities. The new Act also provides authority from the central government to the province, the district and local levels to draw, implement, and execute a disaster management plan. It also clarifies the role, responsibility, and functions of the security forces, including the Nepali Army. Despite having a central, regional, district and local committee, the responsibilities of disaster-related activities were centralized, but the new institutional set-up, provisioned by this act, has made effort to decentralize the role of disaster management activities, such as preparedness, response, rescue, and relief to the province and district/local level.

### 4.4.2. Roles and Responsibilities of Institutions Involved in Disasterrelated Activities

DRRM Act 2017 has made provision for the establishment of the National Council for Disaster Risk Reduction and Management (NCDRRM), under the chairmanship of the Prime Minister, as the apex policy making and coordinating body for disaster risk reduction and management. It is also responsible for providing direction to the executive committee and national authority, and providing policy guidance to the province and local level. It is the focal institution for management of financial resources for disaster management and evaluation of disaster management activities. It gives directives to the executive committee and center on management of financial resources for disaster management and facilitate where necessary.

The executive committee under the chairmanship of the Minister of Home Affairs is responsible for submitting national policies and plans to the council for approval. The committee then implements disaster risk reduction, disaster response, and rehabilitation and mitigation-related policies and programs depending upon the limits of the approved policies and plans by the council. The executive committee is responsible for managing the international rescue teams, relief materials, and financial support provided on humanitarian ground after a disaster. The ministry may also form a Committee of Experts with a maximum of five members from different thematic areas, such as geology, environment, disaster management, and infrastructure to formulate policies, plans and programs relating to disaster management and to give suggestions on studies and research on disasters.

The National Disaster Risk Reduction and Management Authority (NDRRMA) is a dedicated agency for disasters, which is under the direct supervision and control of the executive committee. This authority performs as the Secretariat of the Council and Executive Committee. The main responsibility of the authority is to implement the plans, programs, and decisions approved by the council and executive committee. It functions as the resource center for disaster reduction and management. Formation of a search and rescue team at the national, provincial and local level to prepare periodic plans related to disaster management and involve the private sector, NGOs, and local community in the process is assigned to the NDRMA. It also has to mobilize the security forces, search and rescue team, and create awareness about disaster management.

At the provincial level, the Disaster

Management Council is under the chairmanship of the chief minister of the respective provinces. It is the only institution at the provincial level. The Provincial Disaster Management Committee (PDMC) implements the disaster-related medium- and short-term policies, plans, and programs at the province level based on the approved national policies and plans of the council. It is responsible for facilitating and coordinating the preparedness activities of the Local Disaster Management Committee (LDMC).

The District Disaster Management Committee (DDMC) is chaired by the CDO in the district, while the LDMC leads the disaster-related activities at the local level. The primary work of the DDMC is to implement the policies, plan, and programs approved by the council, executive committee and provincial committee. It is responsible for preparing and implementing the

Disaster Response Plan of the district. It is the focal institute for mobilizing the emergency operation center (EOC) of the district and conducting search and rescue works in the affected areas.

The LDMC works at the grass-roots level. It designs and implements the local disaster management plan, allocates budget for disaster reduction, coordinates public and private sector, NGOs, local volunteers, and social mobilizers to conduct disaster management activities. It is responsible for implementing the building codes, standards, and guidelines. The LDMC also establishes a disaster preparedness committee at the ward and community level, disaster management information system and installs an Early Warning System (EWS). It is also responsible for activating the EOC at the local level.

With a dedicated institution and human resources at the local level, it is hoped that in the future there would be improvement

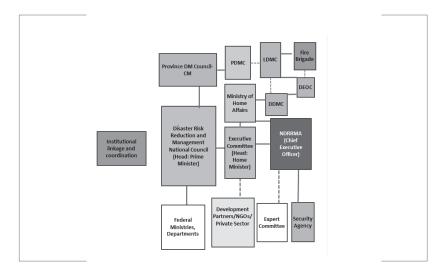


Figure 7: Institutional linkages and coordination as per DRRM Act, 2017

in coordinating disaster activities. However, it is important to update the polices as per the changes in the disaster scenario and international commitments just as it is important to train and build the capacity of institutions, make them well equipped with the necessary technology, infrastructure, and human resources. The country should interact at the international, regional, and sub-regional area to share experience, knowledge, and technology.

### 4.5. Diplomatic Role of Ministry of Foreign Affairs (MoFA) in Disaster Response

The Ministry of Home Affairs (MoHA) is the focal actor, which coordinates all disaster-related activities (mitigation, response, rescue, rehabilitation). The Ministry of Foreign Affairs was one of the subordinates that played an active role in supporting MoHA in coordinating and facilitating the rescue, relief, and reconstruction works of the international community during the 2015 Earthquake (MoHA, 2016), which corresponds to track 1 diplomacy (stateto-state diplomacy). The Central Natural Disaster Relief Committee (CNDRC) formed a Central Command Post (CCP), headed by the Home Secretary, to coordinate between the government and international organizations for relief support and appeal to the international community for assistance (MoHA, 2015). MoFA does not have a designated unit with its ministry. However, it fulfilled its duties by representing itself at the high level in the CCP. In order to coordinate between national and international agencies, MoFA also set up a 24-hour duty station. Consecutively, MoFA also played an active role in coordinating with international forums, such as the United Nations General Assembly (UNGA), foreign embassies and diplomatic missions in Kathmandu and abroad, and informing them about the ongoing rescue and relief operations.

MoFA played a crucial role communicating Nepal's status to the world community, as it helped in obtaining international assistance, and assisted and coordinated with international search and rescue missions at the diplomatic level. MoFA also facilitated in the supply of relief materials collected by the Non-Resident Nepali Association (NRNA), instituted a dedicated telephone line for immediate flow of information, and set up a special web portal (http://www. drrportal.gov.np) containing information on the earthquake (MoHA, 2016). This enabled information to flow to foreign consulates in Nepal and Nepali consulates and diplomatic mission/ communities abroad regarding the situation in the aftermath of the earthquake and the requirement of support based on the scenario or status (for recovery, relief, rehabilitation, or reconstruction) which included a priority list of relief materials with tax reduction on them.

MoFA also played an important role in the International Conference on National Reconstruction (ICNR). The government made provision to open a special account in all the Nepali diplomatic missions abroad to ease the collection of donations for the earthquake periodically and to transfer the money to the Prime Minister's Disaster Relief Fund. MoFA (2015) noted that as of June 1, 2015, Nepal

received Rs 662,061,998.78 in total from the missions abroad. The result indicates that Nepal was successful in its "disaster diplomacy".

government deputed a Joint Working Level Team comprising of Joint Secretary-level representatives from the Ministry of Foreign Affairs, Ministry of Finance, and Ministry of Home Affairs. The team also included representatives from the Department of Customs, Immigration Office, Nepali Army, Nepal Police, and Armed Police Force at the TIA (MoHA, 2015). This team was set up to widen the bottleneck in the airtraffic due to limited capacity of the TIA. MoFA also issued on arrival visa to preapproved foreign personnel dispatched for rescue and relief consignments, and speeded up the flight clearance, customs and immigration procedures. However, the performance of the Nepali customs officials were criticized by humanitarian teams for performing regular inspection routines of relief packages that led to piling up of resources at the airport (Ratcliffe, 2015; Wendelbo, et al., 2016). To defend the action, customs officials shared that all goods had to be inspected as many relief workers arrived without proper documents to enter the country. NDRF (2013) also does not have any procedures or agreements for clearance of customs after a natural disaster. Customs clearance procedure would have been smoother had there been proper communication between the donor and recipient and proper documentation of what the donors were sending as per the requirement of the disaster-affected countries. The miscommunication and lack of coordination between the assisting team and Nepal in materials

sent/received complicated smooth customs clearance.

### 4.6. Upgrading Military-Civilian Coordination

However, an important learning from the 2015 earthquake was the role of the security forces, in particular the Nepali Army, which did not have an active role in the NDRF, 2013. But when all the entities assigned with primary and secondary roles, such as treatment of the injured, construction of temporary shelters for displaced persons, management of relief materials received through international assistance, storage of relief materials, and supply of relief materials could not operate actively as per the National Disaster Response Framework (2013), the Nepali Army (NA) undertook these tasks as they had many critical resources - people, organization, leadership, equipment, skills (Manandhar et. al, 2017). The quick action of the Nepali Army swiftly filled the void and averted further devastation of the situation. Had it taken these actions, the coordination processes and mechanisms for facilitating international assistance in the event of a large-scale disaster might have been jeopardized. During the 2015 earthquake response, Foreign Military Assets (FMAs) from over 20 states were deployed to support the response, prompting activation of a Multi-National Military Coordination Center (MNMCC) coordinate to international military assistance. A Humanitarian-Military Operations Coordination Center, also known as the Joint Command Center (HuMOCC/ ICC), was also activated for the first time in Nepal and coordinated with the Nepali

Army (Flint, 2017, p. 88). The armed forces during the Gorkha Earthquake did not have an active role, they mainly had supporting roles in disaster response. All security forces and other stakeholders have been conducting various seminars, workshops, and exercises for many years. The efficiency of the response would be more if these seminars, workshops, and exercises are coordinated with the civil society. Acknowledging the role of the Nepali Armed Forces (in essence, the Nepali Army) during the disaster, the government alongside civilian actors, including UN agencies and international organizations, are currently working to further develop civil-military coordination processes to implement lessons from the 2015 earthquake response. From the experience learnt from the 2015 quake and enactment of the DRRM Act, 2017, the coordination network between the National Emergency Operation Center (NEOC) and OSOCC, which would be established automatically in an international response, now includes the Nepali Army Crisis Management Center. In the NDRF, 2013, the Nepali Army had a supporting role but undertook the lead in the coordination mechanism where the NDRF, 2013 could not be activated. Due to the prominent role of the Nepali Army during the Gorkha Earthquake, the reformed NDRF, 2019 has been directly included in the Nepali Army in the coordination network.

However, it is important to focus more on civil-military coordination for the promotion and protection of humanitarian principles, avoidance of competition between civilian and military capabilities, minimization of inconsistencies, and pursuant of common goals when suitable (EU, 2020). During the 2015 earthquake, the civilmilitary response was inadequate. Both actors (military and civilian government) created parallel disaster response structures, which Cook et al. (2016) note challenged both the mandate and jurisdiction. One particular incident accounted in their research finding was near mid-air collision/ mishap in Nepali air space. This was because the air traffic control was covered by both the Civil Aviation Authority of Nepal and a parallel structure of the military side, which gave out conflicting instructions.

It is without dispute that the army has the resources and the ability to effectively mobilize an immediate response during a disaster. However, the military often prefers to adapt disaster responses to their own training and abilities. There is always a possibility of being encroached by neighboring and powerful states in the name of security and humanitarian purpose. They may be interested in deploying their army and intelligence strategically and last for a long duration. Yang Razili Kassim (2009), as cited by Cook et al. (2016), notes that "the militarization of civilian functions in disaster management may raise tensions with international donor agencies and NGOs" (p. 9). Hence, there is a need for clear protocols and procedures on how disaster management responsibilities are eventually and ultimately handed over to civilian authorities (civilian supremacy) through civil-military coordination.

### 5. CONCLUSION

Overall, from the primary and secondary source of information, it can be deduced

that the 2015 earthquake was a learning experience for Nepal not only in terms of disaster management but also in managing international response of a large scale. Understanding that Nepal is located in a disaster-prone area, Nepal might be susceptible to disasters of a large or mega scale, which may be beyond the capacity of the country and will require assistance from the international community. Experience of the 2015 disaster has shown that Nepal cannot mobilize disaster response efficiently. There is also a strong need for the presence of the local government, critical infrastructures, and periodic coordination and collaboration among the actors involved in the disaster response. One of the main issues in the mobilization of the response in 2015 was the large influx of international responders in a short timeframe, which strained the limited existing capacity of institutions and infrastructure. There was also lack of coordination among the national responders and between national and international responders. Most of the responding teams acted independently, which resulted in nonuniform distribution of relief materials, with some areas receiving relief and rehabilitation materials more than once whereas some affected areas were neglected or left unattended. This could have been avoided if the government had implemented a one door policy in the response and relief program. A one door policy suggests that the teams of responders would coordinate with each other and map the geographical area where they would be working to avoid duplication of work. Such a policy would be efficient in the presence of a strong government-approved standard/amount

of materials to be distributed (example: distribution of 30kg of rice for 15 days for a family of 5 members). The country should also manage and communicate clearly on the emergency requirement and relief materials. The country should strengthen its stance on what is required and be able to reject those resources that are not required by the country during a disaster, which would reduce and help manage the incoming response more efficiently. In this regard, it is necessary to develop an international support guideline to address these aspects in detail.

It is understood that a disaster needs to be responded to immediately as it can quickly escalate into a (humanitarian) crisis. Since a disaster impacts the affected disproportionately (some are affected more due to the societal structure, wealth gap), the international community is committed to assist a disaster-affected country based on the humanitarian principle. However, many actors (both national and international) see this as an opportunity to use it to change (generally improve) the existing relationship. During the 2015 earthquake, vested interests of various actors also came forward. The involved actors, government, and general public should work together to promote transparency and accountability while working in disaster response, and identify the vested interests of the responders. At times, the media also plays a key role in focusing attention on the impact of a disaster and update the scenario and needs of the disaster-affected population. However, it also attracts opportunistic responders who wanted publicity for their work. The media at times were also found to have created misinformation

regarding the scenario by sensationalizing the disaster and focusing mainly on the destruction. The earthquake was devastating; however, it was not on a scale interpreted by the media. Such errors should be rectified in the future to prevent wrong or misinformation. Misinformation might affect the relief activities, responding with unrequired equipment, human resources and relief materials. Media plays an important role as it is powerful enough to attract humanitarian responders to assist at the time of a disaster, however, it can also at times aggravate the situation, create misunderstandings and spread misinformation, jeopardizing both the diplomatic (example WFP) and response efforts.

It has been evident through the experience of 2015 that presence of comprehensive documentation of a Response Framework facilitated in coordinating the international response; it incorporated international commitment as well as national interest and security. However, the response framework was only partially activated due to lack of preparedness in coordination and mainly because of limited capacity or lack of required infrastructure, required resources, federal constitution, and incomplete or unclear transition to a federal state, with vacancy of the local government in various areas. The Gorkha earthquake may have been the event that catalyzed the assembly of the new constitution, directing the country towards a Federal Democratic Republic. From the learning experience of the 2015 earthquake, adoption of the Sendai Framework for disaster management, promulgation of the new constitution

and changes in the government structure, Nepal has reformed the existing disaster management policies and tried to adapt them to the federal structure. One of the notable changes was the enactment of the DRRM Act, 2017, which replaced Nepal's existing institutional setup for disaster management - the Natural Calamity Relief Act, 1982. With the enactment of the DRRM Act, 2017, the NDRF 2013 will be dismissed. It will be replaced by NDRF 2019, which is yet to be approved by the Executive Committee (unofficial translation of NRRF, 2019). NDRF 2019 is being reformed to suit the present federal structure of Nepal and assigning an appropriate line of command and decentralizing the role of disaster management among within the Federal, Provincial and Local Government at the time of response. However, there is a need to improve the capacity of human resource, infrastructure, and technology efficiently mobilize international response during a disaster. This is possible to a great extent through sharing of experiences, knowledge, and technology with other countries.

Nepal took some good initiatives to respond to and manage the assistance from international community, such as promptly activating the NDRF framework and activating the cluster system for effective collaboration between the national and international actors. However, this study offers some insight into the limitations of Nepal's capacity to respond to large-scale disasters and manage international response. Had there been reliable and identified state institutions, systems and proper infrastructure, it would have maximized

the coordination and communication between the various stakeholders responding to the emergency, which would have consequently increased trust between the donor and recipient, minimized the confusion amongst national and international responders, and duplication of work.

In light of the weakness/limitations, the following recommendations are made to improve large-scale international response for disasters in the future. Foremost, there is a need of serious political commitment to disaster risk reduction. Foremost, understanding that Nepal is situated in a disasterprone area, the government should focus primarily on disaster mitigation and preparedness through budgetary support. If the capacity of disaster management is increased, the country in the future might limit the requirement of foreign assistance. Nepal does not have a specialized unified SAR team. The SAR activities are conducted by the security forces that are of medium to light SAR level. Besides the security forces, it would be beneficial to have specialized SAR within the boundary with equipment suitable for the Nepali terrain.

Software preparedness (training, capacity building) for disaster management conducted by various development partners proved helpful during the 2015 earthquake. However, Nepal lacked hardware preparedness (equipment, technologies, devices) during response. Hence, there is a need to invest in hardware preparedness and training of human resources to use such equipment. In case the country is not able to purchase all the required equipment and technologies, a guideline or protocol

should be made to share the equipment with other international responding teams. This should be supported with routine training with international team for coordination and communication. Nepal received large numbers and a range of USAR team, IEC classified (heavy, medium, light) and non-classified teams against the plea for assistance. However, many were not properly equipped due to insufficient knowledge about the situation and terrain of Nepal. The number of non-classified teams was in greater number compared to IEC classified. The arrival of IEC classified teams was greatly delayed due to the air traffic and airport custom rules. Delay in arrival of the USAR team greatly narrows the success of their operation. The air traffic and airport custom rules also delayed arrival and management of relief materials.

Considering this, Nepal should formulate customs rules for a disaster/ emergency while not undermining the national security, for which all the human resource should be trained to deal with such an emergency. There should also be an integrated information system for timely and reliable information regarding the situation and need of the affected population for all responding actors, in order to give time for responding to strategize their response and relief materials. There is a need for set up the criteria indicating what categories of USAR are required depending upon the scale of the disaster, things/ food materials that are not accepted/illegal in Nepal.

Similarly, with support from MoFA, comprehensive guidelines for

immigration during the disaster process should be drafted in order to manage international response so that valuable response time is not compromised at the airport/ immigration. The required human resource should be adequately trained to implement and facilitate the immigration guideline during a disaster. While the bottleneck to some extent must be widened through planning of a tentative air route. Nepal has only one international airport. But after the earthquake, construction of two more international airports are in progress. It might lessen the air traffic in a similar disaster scenario, provided that the airway infrastructure is intact despite the scale of a disaster. Lying in a geopolitically sensitive area, Nepal should not only consider its national security but also the security of its neighboring nations during international response. A preplanned tentative air route would also strengthen Nepal's command and control of coordination of the response without affecting its diplomatic relations.

Nepal also needs to show serious political commitment in disaster risk reduction, and incorporate disaster risk reduction in the development process, such as implementation of building codes. Nepal has building codes; however, they have never been strongly implemented. Had the building codes been applied, the large-scale destruction of houses and infrastructure could have been averted. It was also observed in the 2015 earthquake, the efficiency of the response faced bottlenecks due limited capacity or insufficient critical infrastructure and absence of local government. Following the elections at the local level, the government is now present even in the

rural areas. The prime focus should be on development and access to basic infrastructure (roads, schools, hospitals) and training of government officials at all the levels in disaster risk reduction and management, which would facilitate responders (national and international) to be more efficient. During the 2015 earthquake, the Humanitarian Staging Area at the TIA helped to lessen the challenges of logistic management of international response. However, the Humanitarian Stating Area should not be centralized in Kathmandu. With the federal government structure in place, it should also be decentralized. The MoHA, with the development partners, should study and locate feasible areas for Humanitarian Staging Areas at the provincial level. The cluster coordinator partners and emergency responders from other bilateral or multilateral organizations and foreign governments should meet periodically and go through drills to identify and improve their respective practical limitations. In the case of the 2015 earthquake, a large number of international and national non-government organizations were working to meet their organizational objective and target, which at times duplicated the response and relief efforts. Often times, the efforts of the government were also overshadowed by large response (in quantity) by non-state actors, which resulted in low trust in the government's capability among the general public. These fragmented efforts of non-state actors should be streamlined with the government's national plan.

Finally, the government needs to be cautious while accepting humanitarian support from international donor communities in cash or service during a large- scale disaster and should maintain neutrality while receiving support according to the national legal provisions. A strong mechanism is required under the lead of the Ministry of Foreign Affairs to support the national council and executive committee for international dealings as per the principles of Nepal's

foreign policy. All the financial support received during a disaster should be reflected in the national accounts. All the expenditures, whether carried out by the government or donor partners for disaster management, should be submitted to the government, and there ought to be transparency in the mobilization of financial support.

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# Unleashing Nepal's Soft Power and Nation Branding Strategy

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### 1. INTRODUCTION

A prevalent trend in today's global affairs is the individual nation-states' concern over their power and influence (Raimzhanova, 2015). This is especially significant in light of the growing geopolitical tensions, as well as the diffusion of power among global actors. The world is undergoing a critical transformation with the nations facing serious health and socio-economic problems. It is necessary to understand the development of the world, and it will be a good idea to update knowledge about the current international power politics. India and China are Nepal's immediate neighbors, which are giants in terms of land area, population, and economics. Both these countries are emerging powers in world politics and also are competitive with each other. Similarly, they have strong military and economic power and are equipped with soft power capabilities to influence the world. China is mainly focusing on the One Belt One Road (OBOR) initiative and the philosophical doctrine of Confucius. India is trying to influence the world through soft powers like being the largest democracy, Bollywood movies, and diverse cultures. In this context, Nepal needs to identify its soft power capabilities and influence other countries through soft power and nation branding.

Historically, soft power has been used by many countries. In 1990, Joseph Nye's book "Bound to Lead: The Changing Nature of American Power" the concept of soft power for the first time, and gained conceptual quality. Nowadays, soft power has become a popular word among diplomats, political leaders, academicians, and students of international relations and other disciplines as well. They frequently use the terminology in their speeches and writings. Nye (1990) said, "When one country gets other countries to want what it wants might be called co-optive or soft power in contrast with hard or command power of ordering others to do what it wants". To understand soft power, one has to understand the concept of power first. The powerful countries always try to influence and want their presence all over the world. They can make their presence powerful and visible in the international arena only with power whether it is hard, military, or economic, soft, or smart power. Power projection became part of international politics that can be pursued in any form of power. Most of the Western countries have liberal political systems and a flourishing economy, so they have been able to attract people from the rest of the world. They often use foreign policy instruments, such as cultural diplomacy, educational assistance programs, and financial aid to promote their soft power in the international arena.

### 1.1 Power

Many scholars have been studying different dimensions of power since early 1960. In discussing power, it is important to note whose power they are referring to. For instance, Arendt (2014) defined power, not as the property of an individual, but rather argued that it belongs to a group and remains in existence only so long as the group keeps together. Similarly, Dahl (1961) focused on the coercive influence of power, but as a reaction, whereas some scholars started to search for additional levels and faces of power. Bachrach & Baratz (1962) and Lukes (2005) identified the second face of power, which is agenda-setting. Lukes (2005), while warning about the other dimensions of power, also suggested examining power in a broader way to include powers that are difficult to observe or measure, including agenda setting and belief changing outcomes.

Everyone depends on power and eloquently talks about it, but their understanding might be different. Just as farmers and meteorologists try to forecast the weather, political leaders and analysts try to describe and predict changes in power relationships. Power is also like love, easier to experience to define or measure, but no less real for that (Nye, 2004a). The ability to get others to do what they otherwise would not do is power (Dahl, 1957). Echoing this classical definition, power is generally understood as the ability to influence or affect others to obtain the outcomes one

wants (Nye, 2008, 2017). Historically, it has been viewed in essentially tangible terms, such as military or economic (Wagner, 2005). This was especially the case for neorealist theorists like Kenneth Waltz, who underscored the significance of economic and military capabilities while ranking states according to their power capabilities (Waltz, 1979).

Nepal is a medium-sized country and 46th among the most populous countries of the world; however, it looks small on the atlas as it lies between two giant and populous countries, China and India. Centrally located in the Himalayan range, the country is well known for its highest peaks though the flatlands in the south is below 60m above sea level. This marked altitudinal gradient in a short latitudinal distance and horizontal space of less than 200 km gives Nepal an extremely wide range of climates. This geographic setting in the cross-road of two bio-geographic realms, Palearctic and Pleotropic, has bestowed the country with a unique phytogeographical state, often mentioned as 'rich biodiversity' (Bhuju et al., 2018).

Nepal has an age-old history of technological innovations. The advances manifest mainly in the arts, architectural design, food and beverages, and herbal use. Some of them were appreciated across the border; one good example is the White Dagoba Temple in Beijing designed by Araniko (1244-1306), a legendary multifarious Nepali talent in the 13th century. The UNESCO cultural heritage sites in the Kathmandu Valley are also preserved examples of such technologies. However, due to the internal political squabble that changed

the state's priority, these technologies could not flourish beyond the 18th century, which coincided with the industrial revolution in the West (Bhuju et al. 2018).

When Nepal opened up to the outside world in 1950, modern science and technology had already advanced to nuclear and space technology, while information technology and the green revolution were just waiting to happen. It simply meant the country had already missed the opportunity to participate in the discourse of modern science that unraveled mysteries of the universe and matters, evolution, and many others (Bhuju et al. 2018). A few of our technological innovations could thrive due to their market value or day-to-day needs.

### 1.2 Hard power

The oldest form of power is hard power, which is connected to the idea of an anarchic internal system, where countries do not recognize any superior authority and thus have to focus on power politics. Hard power is defined as an ability to reach one's goals through coercive actions or threats, the so-called 'carrots' and 'sticks' of international politics. Hard power has been measured by the following criteria: population size, territory, geography, natural resources, military force, and economic strength. While talking about Nepal's hard power in terms of population size, it ranks 46th and in term of area, 95th, according to world meter. The Nepali Army has been ranked 122th in the Global Firepower (GFP) as mentioned by the Military Strength 2020 report.

### 1.3 Economic Power

Economic power can be defined as the ability to control or influence the behavior of others through the deliberate and politically motivated use of economic assets. National economic power implies that a government is in a position to use, offer, or withhold such assets even when they are in private hands. Economic strength is the second form of political power (Cox & Carr, 2001). Economic development, trade, and finance can be a foundation of a country's political supremacy, making it less dependent on other countries and better prepared for war. Economic power can be applied through the export of capital and in the form of the control of foreign markets. Economic and military instruments of power were used for the same purposes and cannot be isolated from each other (Cox & Carr, 2001).

Nepal's economic freedom score is 54.2, making its economy the 139th freest in the 2020 Index. Its overall score has increased by 0.4 points with improvements in the scores for labor freedom and government integrity. Similarly, Nepal is ranked 34th among 42 countries in the Asia-Pacific region, and its overall score is well below the regional and world averages. The Nepali economy has been mostly unfree for a quarter of a century. Economic growth, on the other hand, has been trending upward, led by a rebound in private consumption and continued strength in investment (Heritage Foundation, 2020).

### 1.4 Soft power

In the 21st century, soft power has become a vital element in foreign policy for all countries. There is no authentic definition that can define such a wide concept of soft power. However, Nye describes soft power in the context of the USA as its ability to influence global affairs without coercion by relying on the attraction of its norms and success. Stanley Hoffmann explained soft power as not the power to coerce browbeat and bribe but the power to attract, to persuade, to influence through wisdom, example, and attractiveness.

Soft power rests on the ability to shape the preferences of others, without the use of force, coercion, or violence, but through intangible assets such as an attractive personality, culture, political values, institutions, and policies that are seen as legitimate or having moral authority (Nye, 2008). Further, soft power is the use of positive attraction and persuasion to achieve foreign policy objectives. Soft power shuns the traditional foreign policy tools of carrot and stick, seeking instead to achieve influence by building networks, communicating compelling narratives, establishing international rules, and drawing on the resources that make a country naturally attractive to the world.

Soft power is based on three sources, cultural, political values, and foreign policies. Here culture means the places where it is attractive to others, and political values can be defined as when they live up to them at home and abroad, and foreign policy means when they are seen as legitimate and having moral authority (Nye, 2004a). Countries include universal values and their policies encompass norms and values that others share. As a result, there is a high chance of obtaining

the desired outcomes because of the relationships of attraction. According to Nye, American soft power is beyond military and economic power (Günek, 2018; Nye, 2004a). Political values are a source of soft power. Political power is more significant than military and economic power in attracting economic aid and achieving peacemaking. A soft power tool is attracted by globalization and information technology. Information technology supports globalization and makes people's life easy. In today's world, volunteering and intercultural exchanges are also a soft power (Wagner, 2014).

In the modern world, countries and their people are connected by diverse social, cultural, and political relationships. Soft power is an important means for a country like Nepal to connect with the rest of the world where governments are competing for attention and influence. Soft power influences people through its multiple assets like culture, natural beauty, and education, and it helps to connect people from a different world. With the changing dynamics of powers, developed countries are making a huge investment in boosting their soft power. Hence, soft power is important for Nepal to become powerful, a country with unique geopolitical, geo-economic, and geo-cultural importance. Soft power can influence people through its assets like culture, tourism, values, and languages. In the 21st century world, soft power does not limit itself only to influencing countries, it also plays a vital role in the economic development of the country.

### 1.4 Smart power

In modern history, smart power is a new

type of power. After the emergence of soft power, lately smart power is another popular term in international relations and world politics. Smart power is a combination of hard and soft power. Günek (2018) defined smart power as the third type of power generated by the effective use of soft and hard power elements. Similarly, Pallaver (2011) added on the definition that smart power can be applied generally in a certain sense, which is another ideal type of power. It can be considered an attempt to apply rational method results in a winning strategy. Smart power is a concept more suited to the expression of public opinion than for the academic world (Pallaver, 2011). Hence, it can be said that intelligent power is used to create a winning strategy.

The growing interest in smart power reflects two contemporary trends, one structural and long-term, the other shortterm and conjectural, driven mainly by the policies of the current administration (Wilson, 2008). The rise of smart power applications is also related to the positioning of the new world as a smarter, more digital, and virtual community. The Center for Strategic and International Studies (CSIS) published the intelligent power series in 2007. CISS has been developed as a three-dimensional strategy for the US Department of Foreign Affairs. This strategy is based on defense, diplomacy, and internet technology. It suggests public relations, digital diplomacy, physical, and virtual communication (Sonenshine, 2015).

Nepal has also exercised smart power, lately by issuing a new political map. The new political map in May 2020 by the Nepal government shows that Nepal is no less a powerful country in the world. Smart diplomacy and smart foreign policy are equally important in the modern-day to deal at the country-to-country level. The country should use modern technology and ideas as smart power to influence the international community.

### 1.5 Nation Branding

Country branding refers to the process of making a unique presentation that attracts the target audience with the cultural diversity and richness of a country (Günek, 2018). Nation branding incorporates many elements along with the national identity of the country, and some of the original and positive aspects of countries are their nation brand values. Further, Wallace and Chernatony (2008) has added, in nation branding, it has three major objectives, which are to boost exports, stimulate inward investment, and attract tourists. Nation branding can increase currency stability; help restore international credibility and investor confidence; reverse international rating downgrades; increase international political influence; stimulate stronger partnerships; international enhance nation-building (by nourishing confidence, pride, harmony, ambition, national resolve).

Countries' comparative advantage is one of national branding. In a globalized world, countries must manage and control their branding if they are to compete effectively with other countries. Nation branding concerns the application of branding and marketing communications techniques to reshape

the international opinion of a country. Nation branding is a cross-cultural communication process that very much resembles the advertising process: awareness –attraction– preference. The crucial question is what messages are sent under what circumstances, who receives them, and how the messages are interpreted (Fan, 2008).

Nepal needs to brand its Nepali culture, natural beauty, heritage, herbs, and the rare wild animals that can mesmerize the global influence. The branding of Nepali products provides the opportunity to significantly strengthen its trading links and economic development. In recent vears, some of the institutional brands that have helped Nepal be known in the international community are Mount Everest, the Buddha, Gorkha Army, Nepal UN Peace Keeping Force, and Nepal Airlines. Similarly, some individual success stories have also helped Nepal be known globally through their brand. Examples are Apa Sherpa and other summiteers. Everest CNN Anuradha Koirala and Pushpa Basnet, Magsaysay awardees Mahesh Chandra Regmi, Bharat Dutta Koirala, Sanduk Ruit, Mahabir Pun, and fashion designer Prabal Gurung.

# 2. STATEMENT OF THE PROBLEM

In the modern world, it is necessary to be a powerful country to influence the world. Powerful, whether through hard or soft power, only then can the country have a strong and positive image in the world. Nepal must identify the soft power tools that will make us powerful in this world. Nepal covers 0.3 and 0.03 percentage of the land in Asia and the world respectively, and it needs to be strong and powerful for the dignity of the people living in Nepal and in a foreign land. Nepal's hard power is not strong. The military force of Nepal is small, and the economy depends on other countries. But to become a powerful country, hard power alone does not matter. Switzerland and Singapore are powerful in soft power.

Similarly, Nepal lacks branding of its products and goods in the international market. Branding plays a vital role in spreading a positive image of the country and products. Even when a product is rich and of high quality, it needs to be branded with a national image. Despite its rich natural resources and cultural heritage, due to lack of branding, we have failed to influence the international community and failed to share the truth and facts with the world. For example, India falsely advertises that the Buddha was born in India. Therefore, research is important to fill the gap in Nepal's soft power and nation branding strategy. Likewise, the result of the research will help in formulating foreign policy and strategies.

Soft power plays a vital role in determining the relationship between countries in international politics. Hard power is not an option for a medium-sized country like Nepal, which lacks economic and military capabilities. To meet the national foreign policy objectives, soft power is the best option. Chaulagain (2014) adds that the only viable option that small nations can pursue against their large neighbors is to adopt an efficient and effective model of diplomacy, which can function

as a shield in the absence of hard power. Formulating and enacting a soft power strategy, therefore, can be a practical option for Nepal to convey its national identity to the international community. Therefore, this research aims to find out the soft power of Nepal and how we can be powerful through its use in our foreign policy and strategies. The research will employ qualitative approaches to gather both primary and secondary data.

What could be the potential soft powers of Nepal to enhance its global image? Can the existing enterprises and endowed resources, such mountaineering, religious and cultural heritage, Buddhism, technology like intra-ocular lens by Dr. Sanduk Ruit, yak cheese, yasargumba, and community forest management be projected as the soft powers of Nepal? What resources can Nepal brand as its soft power and how can it utilize them to attract or influence other nations and their people? This study mulls over these questions and reviews the trend and status of the soft powers in the context of Nepal and its resources, and explores and identifies the areas and/or items of its soft power for nation branding. It will also analyze the soft power and international relations in strengthening the national economy of Nepal.

# 3. RELEVANCE OF THE RESEARCH

Nepal does not possess the hard power to influence regional and global politics or economy. In modern geopolitics context, where Nepal finds difficulty in negotiating with and/or influence the powerful countries, soft power could be an alternative way. Smart diplomacy and the use of soft power could be powerful means for Nepal to enhance its positive image and meet its interest better in the international arena. The comparative advantage that Nepal has, especially in the areas of natural diversity and cultural resources, could be picked up for development as its soft power.

Nepal's natural diversity is awesome. It has eight of the 14 Eight Thousanders, including Mount Everest. Likewise, Nepal, with its 125 ethnic groups, is rich in culture and traditions. Since ancient times, Nepal has been enriched by the dynamic cultures of different races, ethnicities, and people. Historically, Nepal has successfully established itself as a land of multi-lingual and multi-cultural people. Most of the nations like Nepal depend on their cultural influence at the international level. Thus, the country should brand its cultural and natural resources to influence the international community. However, due to a paucity of resources and weak infrastructure, Nepal has not been able to maintain its cultural influence in the world.

In today's world, soft power not only influences other nations but also helps boost the economy by branding products for export. With the help of soft power, many countries influence others and balance the power of the country in the world. The economic powers, such as the USA and several European countries and emerging economic powers, such as China and India, are influencing many countries through their hard power as well as soft power. While the USA is implementing the Millennium

Challenge Corporation (MMC), China is implementing the One Belt One Road (OBOR) initiative. Similarly, India is building its influence through economic and cultural activities, including Bollywood movies.

In such a global context, Nepal needs to identify its soft powers and brand them to overcome the influences of other countries and to influence the rest of the countries or to make a balance of the influences. Not to exaggerate, Nepal has a lot of potential soft powers that can influence not only South Asia but also the world. However, it needs a wise selection of the resources and uniquely brand them.

### 4. LITERATURE REVIEW

An abundance of literature is available on soft power in the library, the internet, and bookshops. However, there is a paucity of literature and research studies on soft power in the context of Nepal. The available literature on Nepal's soft power is mostly free writings of some scholars published in the newspapers. Over 100 published relevant materials were collected, including those on Nepal. A brief review is made here.

### 4.1 Concept of Soft Power

According to Weber (1947), power is the ability of a person to introduce and implement his/her own idea/decision against the other, which is also termed as a zero-sum game that is derived from the qualities, resources, and capabilities of one subject. Martin holds a different view from Weber's explanation of power and makes a comparison between the

attributes of the actors. There has a long history of soft power, much before Nye coined the term.

Lukes (2005) argued on the third face of power, which is one of the main roots of soft power. Similarly, Bachrach and Baratz (1962) also explain power as the ability to set an agenda. Again, Lukes (2005) adds more on the power definition as illustrating the ability of an actor A to get B to do something B would not otherwise do.

Another root of soft power can be traced in (Cox & Carr, 2001) definition as well. He has divided power into three categories: military power, economic power, and power over opinion. The attributes of hard power are military and economic. Soft power is also based on cultural resources that are tangible and relative. Soft power is based on the central assumption "to get others to want what you want" (Nye, 2004b). This remains untested, and it is not clear how this can be achieved in reality. Soft power is still power, and wielding is a menacing word.

The concept of soft power has been widely used among international experts, academics, and politicians. Most of the countries are applying soft power in their foreign policies. The UK Parliament (2013) established a committee and invited academics to the parliament to understand what soft power is and what the UK's soft power assets were. Likewise, the Turkish President and his spokesperson Ibrahim Kalin also wrote an article in 2011 on soft power and public diplomacy in Turkey (Kalin, 2011).

Additionally, Portland measures the Global Soft Power Index of the top 30 countries. In this line, "Sagarmatha Sambad", a gathering of global leaders in Nepal proposed by the Ministry of Foreign Affairs, can be seen as Nepal's soft power foreign policies. The

proposed International Conference of Mayors in Kathmandu could also be such an event to highlight Nepal's soft power (The Himalayan Times, 2020). Both the conferences, however, have been postponed due to the COVID-19 pandemic.

### 5.2 Elements of Soft Power

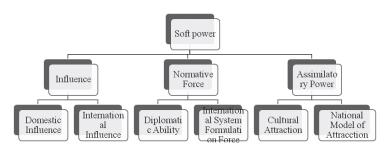


Fig1. The composition and the evaluation index of soft power

Source: (Xuejun et al., 2017)

The three important elements of power are assimilatory power, normative force, and influence, which are connected and influence each other. Universal culture and assimilation power of the national model are conducive to the establishment of the normative capacity in the international system and diplomatic ability. The construction of the normative force forms a great influence on the domestic and foreign countries. The strong influence also has a positive impact on the assimilation power and normative force. Culture, national model, international system, diplomatic capacity, domestic situation, scientific and technological information, international media, and national image are the eight-core elements of national soft power, and the representative index

to assess the soft power of a country. The three elements and eight indicators of soft power together constitute the national soft power index system (Hu, 2010).

There are two types of influences – domestic and international influence. National image and international media are the first point of international influence. The national image is the analysis and review of the international society to the country. The sources of domestic influence depend on the situation and innovation of new technology, information technology, good governance, and transparency.

It is necessary for a country to set up its prestige, to build a positive image of the county, and to make its own identity on the international platform. A strong economy is equally important to create a positive national image in the international arena for influence. The stronger the national economy and positive image, the higher the influencing power in the international community. There is an inherent relationship between the international media and soft power. International media play a vital role in building and producing national soft power. International media not only build a positive image of the country but also forms a channel for spreading the elements of soft power. International media offers the country opportunities to transmit information that is beneficial to itself and creates a powerful influence on other countries.

Normative power is the ability to establish another country's willingness to accept your country's wishes. If a country can establish international norms that are acceptable to the international community, it is more likely for the country to understand its national interests in the international society. There are two aspects of normative force, which are the international system and diplomatic ability. It will be easy for a country to influence political and economic progress with the establishment of international norms, values, and international organizations. Soft power can affect others' preferences, and countries can make the behavior of other countries consistent with their national interests and values. The diplomatic capacity of a country is directly related to the normative force of the state in international society.

Assimilatory power refers to the country's willingness to follow the principles of other countries, to allow the other party to influence, recognize, accept and follow, or even become part of the other's values and culture, transforming into their behavior, manners, or codes of conduct. The source of assimilatory power is the cultural and national development model. The difference in culture, norms, and values between the home country and the host country is formed by the different history, culture, language, business practices, and other aspects, which will have a great impact on the performance of direct investment.

The national development model can be classified into economic development and political model. Successful development policy, innovation, strategies, economic model help to influence other countries. A sustainable and economically successful development generate model will opportunities for other countries to follow. A stable government and political system will lead to economic growth and development and get to the bottom of complicated problems in the development process.

Scholars argue that soft power is effective but it reinforces and interferes with hard power sometimes, and soft power does not depend on hard power (Nye, 2004a). On the other hand, however, Schneider (2005) believes that if you spend more money on utilizing soft power, it will be more effective and efficient. Some scholars explain soft power as a new power that is more influential in the modern world of information technology where less hard power is used (Chong, 2007). Günek (2018)

explains education is an important soft power tool. For instance, the USA and Western countries use higher education as an effective soft power element. The Cold War was fought with a combination of hard and soft power. Academic and cultural exchanges between the United States and the former Soviet Union, starting in the 1950s, played a significant role in enhancing American soft power. From 1958 to 1988, over 50,000 Russians visited the United States as part of formal exchange programs (Nye, 2006). Scholarship programs such as DAAD (Germany), Fulbright (USA), Monbukagaksho (Japan), Erasmus (EU), Chevening (UK), Confucius (China), and Colombo Plan (India) are some examples of educational soft power tools. According to Nye, information technology and democratization play a vital role in political and organizational leadership in modern societies. Leaders should have intelligence for success in politics. Political skill should combine hard, soft, and smart power for inspiration and transactional style (Nye, 2006).

As with other sectors or terms, soft power is also measured and ranked among the countries in the world. The Institute for Government and the media company Monocle in 2010 first published the soft power composite index. Earlier, it was calculated for 26 countries, taking five sub-indices, i.e., culture, diplomacy, education, business/innovation, and government. The index combined a range of statistical metrics and subjective panel scores to measure the soft power. In the year 2016/17, the list was calculated using around 50 factors that indicate the use of soft power, including the number

of cultural missions (primarily language schools), Olympic medals, the quality of a country's architecture, and business brands (Clory, 2010).

In the year 2015, Soft Power 30 was published by the media company, Portland 2015. Indicators like the quality of a country's political institutions, the extent of their cultural appeal, the strength of their diplomatic network, the global reputation of their higher education system, the attractiveness of their economic model, and a country's digital engagement with the world were used for ranking. Nye argues that soft power is more than influence, since influence can also rest on the hard power of threats or payments. Soft power is more than just persuasion or the ability to move people by argument, though that is an essential part of it. It is also the ability to attract, and attraction often leads to acquiescence (Elcano, 2015).

## 5.3 Hard Power as Foreign Policy

Some scholars advocated the use of hard power as a foreign policy. This attitude has developed from the perceived belligerence of North Korea on its nuclear program issue and the rise of ISIS in the Middle East. Cohen (2017) presented a case for the indispensable role of hard power in American foreign policy based on the critical role of the US in international affairs. Cohen explained that given the burgeoning military strength of China, Russia's conquest of Crimea and eastern Ukraine, nuclear threats from North Korea and Iran, and the spread of ISIS, global peace is threatened, which calls for an active role of the US. In this situation, the Trump administration's priority to defense spending over diplomacy and foreign aid was reflected in its budget proposal that was described as the hard power budget (Mercia, 2017). Nossel (2017) notes that the president has tended to view the U.S. role in international affairs almost entirely through a military lens. For instance, military generals were appointed to head the Department of Defense, the National Security Council, and the Department of Homeland Security.

Nossel (2017) states about the dangers of the major focus on military power. Trump's tunnel-vision foreign policy, centered on the military, will leave other elements of the U.S. foreign policy toolbox idle while incurring significant expenses and risks for troops pressured to become the solution to all of America's foreign policy challenges (Nossel, 2017). Echoing Nossel's viewpoint, Herpen (2016) notes that then-Secretary of State Hillary Clinton had expressed concern over America's lack of proactive communication of its values through "government-backed media". quotes Clinton, "We are engaged in an information war, and we are losing that war". Interestingly, the recent discourse on soft power includes propaganda and information warfare as well as hegemony, as the following discussion reveals.

Despite their overt demonstration of hard power in their foreign policies, such as Russia's annexation of the Crimea and China's "muscle-flexing" in the South China Sea, countries like China and Russia are simultaneously pushing for soft power. For the Russian leadership, soft power is tied to information war, which

is distinct from the original meaning intended by Joseph Nye, who contended that civil society rather than government plays a crucial role in building a nation's soft power. In contrast, Herpen (2016) talks about the 'propaganda' machine of the Putin administration in projecting Russia's soft power and outlines its following elements: allocation of "unprecedented generous budgets" efforts; "profound propaganda modernization of the propaganda machinery"; psychological know-how in conducting information warfare; and use of the "relative openness of the Western media world for the Russian propaganda offensive". In China, Beijing University established a research center in 2014 to strengthen the country's soft power. Cai Wu, China's Culture Minister, stated at the inaugural ceremony, "Cultural soft power is beginning to offer strong support for the rise of China. The country must enhance its cultural strength to dominate the global contest for soft power" (Newcenter, 2014). It is apparent that for China, soft power (apart from military and economic spheres) is another domain of "contest" for global stature.

#### 5.4 Nepali Context

In the Nepali context, historically, the root of Nepal's soft power begins with Araniko's uplifting cultural diplomacy of Nepal through art. Nepali art is famous in China through Araniko, a multifarious talent of the 13th century, who went to China and popularized Nepali architecture and education (Joshi, 1987; Bhuju, 2004). His great works helped strengthen the diplomatic relationship between Nepal and China and also spread the knowledge of Nepali arts and

crafts to Japan and Korea in later years.

Earlier, Princess Bhrikuti had added flavor to the relationship between Nepal and Tibet. Dhungel (1999) states that in the 7th century, Lichhavi Princess Bhrikuti married Tibetan Emperor Srong Btsan Gampo. This act of Bhrikuti created a flexible environment for Nepal to promote its art and culture all over Tibet. Moreover, she played an important role in spreading Buddhism all over Tibet. Likewise, majority of Chinese and Tibetan records show that Nepal and Tibet were bound culturally through the royal wedding of Princess Bhrikuti and Prince Srong Btsan Gampo. In short, marriage also became an important strategy of soft power to promote Nepali culture in Tibet and China.

the modern age, science and technology, knowledge, innovation, culture, and business have been Nepal's soft power. Literature and language are also elements of soft power. Nepalispeaking people live all over the world today. India has a huge population of Nepali-speaking people. Similarly, Bhutan, Myanmar, and Australia also have a large Nepali-speaking population. Many universities and educational institutions in the world teach the Nepali language. We can understand the importance of a culture with the help of views given by the protagonist as well as the antagonist of that literary writing, which is a product of the society and culture where that writer was brought up. Nepal is regarded as a great literary platform and literary figures due to its attractive nature.

Currently, Nepali literature has spread in

countries with a sizeable Nepali-speaking population. Ever since the founding of Nepal, Nepali literature has played an enormous role to promoting Nepali culture all over the world. But Nepal has not been successful in promoting international relations to the desired level through literary figures and literature of other languages.

After the visit of popular Nepali litterateurs like poets, essayists, and novelists in 1961 to India, Nepali literature started to create its separate brand. Nepali literature was internationally accepted as a separate world of literature than that of Sanskrit. Nepali literature was popularized in many parts of India like Sikkim. "Blue Mimosa", a tragic Nepali novel written by Parijat, was the first novel to popularize Nepali sociocultural traditions in the world. This novel described the Nepali socio-cultural milieu in such an emotional and critical way that the Japanese film industry made a movie based on this novel, which was released in late 2012 all over Japan.

Literature deals with language and populations. If we have a large number of the population speaking any language, it will be easier for literature and culture to flourish. Nepali literature has been one of the greatest tools for Nepal to popularize its core culture. Literature and culture have mutual relations. Literature helps popularize culture in the world in a positive way, and culture sets the background of any literature.

#### 5.5 Nation Branding

Anholt (1998) sees nation branding as a reliable and comprehensive national brand strategy that determines the most realistic, competitive, and compelling strategic vision for a country and ensures that this vision is supported, reinforced, and enriched by every act of communication between the country and the rest of the world. In this context, nation branding is related to the application of branding and marketing communications techniques to reshape the international outlook of a country. Further, nation branding can be interpreted as a cross-cultural communication process. It resembles the advertising process, awareness, attraction, and preference. Nation branding holds the key to winning this global "beauty contest". There is no substitute for consciously developing a nation's brand (Olins, 2005). With economic development, the country must brand and spread positive images. In 2008, China started to brand its nation through the Beijing Olympics and Shanghai World Expo 2010. The rise of China's soft power along with its economic power and military power has been greeted differently. While the developing countries welcome China's influence (Pew, 2007), many in the West see it as a threat (Nye, 2005).

Nation branding and soft power move in a parallel direction. For soft power, nation branding is an important factor. A nation branding campaign will build a positive image among international audiences, so it will be easy to enhance a country's soft power. Detailed research and study of soft power are necessary for the smooth implementation and promotion of nation branding effectively.

Nation branding emphasizes place

branding through destination marketing. In the Nepali context, Visit Nepal 1998 or Visit Nepal 2020 (unfortunately, it was cancelled due to the COVID-19 pandemic). On the other hand, it is focused on political or diplomatic relations. For example, the US State Department has an under-secretary for public diplomacy with a mission of "turning around the anti-American sentiment in the world" (Fan, 2008a). Further, Fan (2008b) lists three components in nation branding, which are economic, political, and cultural branding. These three brands are intertwined and need to work in synergy to achieve the same goal of promoting a nation's image. Fan (2016) stated that nation branding is a relatively new area for academic research. There is still a lack of vision as to what the concept is and whether a nation can be branded at all (Aldersey-Williams, 1996; Gudjonsson, 2005). Besides, it is another term for a country of origin effect or place marketing (Kotler & Gertner, 2002). We need to solve many problems to transform soft power from a potential source into real power. It is necessary to address such issues by the government influence other nations. competitiveness of the cultural industry and the necessary media infrastructure provide the stage for the nation branding show. Fan (2008a) explained with most of the things made in China, the country has a huge trade surplus with many countries. However, China suffers a big cultural deficit in terms of cultural exports. While we are great in cultural resources, we are not strong in cultural industries. Two countries in this power relationship should get mutual benefits, otherwise such a relationship won't last. A country needs to know how to set limits to its power, as suggested by Niebuhr. He warns of the perils of American power and believes that US security lies in "reducing our power to a minimum". It would be interesting to find out whether a country can achieve its objective without using any power or using minimum power.

With enormous soft power in the form of global brands, multinational companies can play a key role in promoting a nation's image. In the absence of a coherent nation branding campaign, corporate brands can in fact act as the ambassador for a country's image in the world, and are a tangible manifestation of a country's soft power. In many cases they are seen as the de facto brand of a nation, i.e., they are the nation's brand. A Japanese prime minister is quoted as saying that Sony and Matsushita (Panasonic) are the left and right faces of Japan (Fan, 2008b). Such brands emerge from the stability and success of the country's political and economic institutions, the foundation of its hard power and consequently contributing to nation branding in aggregate. A good cultural product and several successful global brands are vital in creating a long-lasting impact on nation branding. Soft power and nation branding are two closely linked concepts. Nation branding concerns how a nation as a whole presents and represents itself to other nations (Anholt, 2006). Compared with Nye's notion of soft power through public diplomacy, nation branding provides a more focused, culturally unbiased, and more useful approach to creating international influence.

Soft power not only influences but also

brings foreign investment and growth in national income. Changhong and Wen (2011) explained factors like national image, native culture, control of international rules, and influence on international organizations also have a significant impact on international investment. Like Coca-Cola on behalf of the United States, Nokia on behalf of Finland, Volkswagen on behalf of Germany, and Samsung on behalf of South Korea, these transnational corporations are the extension of the national economy and politics. A positive national image and complying with international rules will appeal to a foreign country, promote national identity, cultural identity, and derive a "corporate identity", which will benefit the enterprise investment. Along with soft power, branding plays a vital role in the booming of enterprises. So, Gilmore (2002) states that in a competitive and globalized world, countries should promote and manage their branding to compete with the rest. Active repositioning of a country through branding can give a country a competitive advantage over other countries and bring the benefits of tourism and foreign investment.

The country's soft power is difficult to be perceived and measured, but it means a lot to the success of the investment as well as the cooperation and coprosperity between domestic enterprises and overseas enterprises. In some ways, compared with hard power, soft power is more difficult to improve. It takes long-term accumulation and cultivation to create a national soft power in politics, diplomacy, culture, and national image to facilitate international investment activities. Therefore, it is necessary to

study the influence of national soft power on international investment.

### 6. RESEARCH METHODOLOGY

This research study adopted combination of three methods descriptive, analytical, and qualitative to analyze the gathered information in addressing the set objectives. The work is primarily based on the content analysis of the secondary sources of data and key informant interviews. This research study requires a detailed description of "soft power" and an explanation of its importance in diplomacy as this is a new field of study in Nepal's international relations. Moreover, countries Nepal with lots of natural resources, multicultural values, and ethics have to prioritize this field of study as one of the major tools to develop the nation's economic, socio-cultural, and political relations with other nations. A brief description of the methods is as follows.

To identify the potential soft power of Nepal, an extensive literature review has been carried out. Potential opportunities relevant to soft power in the context of Nepal have been assessed. For this assessment, official data, relevant documents, and studies published by the government, regional and international organizations, and other relevant institutions have been reviewed. Besides, relevant past and existing policies have also be reviewed along with their relevance, effectiveness, impact, sustainability.

Key informant interviews provide deeper insight and understanding of the lived experiences, opinions, and perspectives of the key players making decisions that potentially limit access to unstructured play. Those interviewed were experts in their respective fields with senior decisionmaking responsibility. A total of eight key informant interviews were conducted. The semi-structured questionnaire is prepared based on a different sector. There were representations different sectors, namely: Tourism, cultural and religious heritage, natural resources, local products, and knowledge and innovation. Because of restrictions on movement due to the COVID-19 pandemic, the questionnaires were sent through email, and all the interviewees (experts) replied via email. Conversations were also done by telephone. Table 1 presents the list of the experts, details are in the annex.

Table 1: List of the Participants in Key Information Interviews

SN	Name	Affiliation	Remarks
1	Amatya, Om Charan	Heritage Entrepreneur and Promoter, Himalaya Aroma Products	<ul><li>» Pashupatinath</li><li>» Janakpurdham</li></ul>
2	Barua, Harendra	Senior advisor at the Japanese Embassy	» Himalayan tourism » Lumbini
3	Chaudhary, Ram P	Professor of Botany, Tribhuvan University	<ul><li>» Marpha Brandy</li><li>» Medicinal herbs</li></ul>

4	Chitrakar, Anil	Social Entrepreneur/ Himalayan Climate Initiative	» »	Young population Nepal's unique geographical location between two emerging economies India and China
5	Dixit, Ajaya Mani	Advisor, ISET Nepal	» »	Dhunge-dhara (stone-spout), Farmers managed systems and the way we manage them and their resilience
6	Parigi, Gian Battista	President, Committee for International Cooperation, University of Pavia Italy	» » »	Geography People Culture and religion
7	KC, Shyam	R&D Director, Asian Institute of Diplomacy and International Affairs	»	Promoting Ayurvedic teachings and medicines
8	Sharma, Shakhar	Former Ambassador to the USA/Former Vice-chair of Nepal Planning Commission	» »	Natural heritage and beauty People
9	Shrestha, Kamal Krishna	Professor of Chemistry, Tribhuvan University	» »	Traditional medicine Himalayan range

#### 6.1 Data Analysis

Qualitative data analysis conducted. Oualitative data refers to non-numeric information such as interview transcripts, notes, video, and audio recordings, images, and text documents. Here, I have conducted key informant interviews and research on secondary data. Qualitative approaches are incredibly diverse, complex, and nuanced (Holloway & Todres, 2003), and thematic analysis should be seen as a foundational method for qualitative analysis. It is the first qualitative method of analysis that researchers should learn, as it provides the core skills that will be useful for conducting many other forms of qualitative analysis.

Thematic analysis is a poorly demarcated, rarely-acknowledged, yet widely-used qualitative analytic method. In this paper, I argue that it

offers an accessible and theoretically-flexible approach to analyzing qualitative data. Firstly, it outlines what thematic analysis is, locating it in relation to other qualitative analytic methods that search for themes or patterns, and about different epistemological positions. Similarly, SWOT analysis is conducted between five thematic areas.

## 7. LIMITATIONS OF RESEARCH

The study of soft power is a new area in Nepal. Thus, there is limited literature for review and discussion. The study is mainly based on key informant interviews with experts, available literature, and secondary data. The potential areas are identified based on literature review and perception.

## 8. RESULTS AND DISCUSSION

The objective of the research is to identify the potential soft power of Nepal. Soft power is listed based on key informant interviews, secondary sources, and literature review. These soft powers of Nepal can influence the international community through foreign policies and strategies. Nepal's soft power can not only influence the international community but also has the ability to bring foreign investment and growth and development of the national economy. The listed soft powers can help in Nepal's economic growth and bring Nepal fame and name in the world. Shyam KC explains that, primarily, soft power is considered as the means of success in global politics, with

its ability to influence and attract others without coercion. Given its asymmetrical relations in the international power structure, Nepal must build its strength on soft power to achieve foreign policy objectives. Geographically, Nepal lies between India and China that are strong in economic and military power. The findings below are from key informant interviews (KII), literature review, and secondary sources, which have the potential to be Nepal's soft power and help to foster the Nepali economy and bring foreign investment to Nepal. Five thematic areas were identified for listing the potential soft powers of Nepal, viz. 1) Local products, 2) Natural resources, 3) Religious and cultural heritage, 4) Knowledge and innovation, and 5)

Superlative items (Table 2)

Table 2: List of potential soft powers of Nepal

Local Products	Natural Resources	Religious and Cultural Heritage	Knowledge and Innovation	Superlatives Items
Yak cheese	Caterpillar fungus (Yarshagumba)	Lumbini	Intra-Ocular Lens	Jumlimarshi (High altitude rice up to 3000 masl)
Hard cheese	Medicinal herbs and essential oils	Mountaineering and trekking	Chandra Nighantu	Sagarmatha (Mt. Everest) (Highest altitude)
Orthodox tea	Jatamansi (Nardostachysjatamansi)	Bungee jumping	Tripitak	Kali Gandaki gorge, the deepest gorge
Royal curd,	Panchaunle (Dactylorhizahatagirea)	Pashupatinath	Indigenous knowledge and technology	Tilicho Lake, high altitude lake
Honey		Muktinath		Throrong-La Pass, high altitude pass

Lentils	Janakpurdham	Langtang National Park
Nepali paper and paper product	Bhaktapur Dubar Square	Nepali potato cultivated >4500m asl
Hand- knotted woolen carpet	Kathmandu Dubar Square	Nepal army UN peacekeeping
	Patan Durbar Square	Gurkha army

## 8.1 Local Products (Food and Woolen)

The local products of Nepal have the potential of being soft powers that can influence the international community. For example, yak cheese made from Himalayan nak milk, royal curd (Juju-dhau), and orthodox tea grown in the mountainous regions of Nepal have world-class taste and could influence food habits. The branding of these products can earn foreign exchange and boost the country's economy. Nation branding will help increase currency reserves and also restore international investor confidence.

 $\textbf{Table 3: Potential items/areas of local products} \ (\textbf{food and woolen}) \ \textbf{as the soft powers of Nepal}$ 

SN	Name	Significances	Reference
1	Royal curd (Juju dhau)	The most delicious yogurt in Nepal     Prepared in clay-pot     Product since ancient time in Bhaktapur	Khadka & Lama, 2020
2	Sweet beer (Thon/ Chhyang)	» Prepared with use of rice or millet or barley	Singhuber et al., 2009
3	Woolen carpet	» Hand-knotted woolen carpet using domesticated mountain sheep wool	
4	Yak cheese	<ul> <li>Prepared from yak (nak) milk</li> <li>Nepal is known as the first Asian country to produce Western-style cheese from nak milk</li> </ul>	Jian Zhang et al., 2020
5	Hard Cheese/ Chhurpi	<ul><li>» Hard cheese</li><li>» Food for pet</li></ul>	Rai et al., 2016
6	Honey	» Nepali honey contains a rare substance called grayanotoxin from rhododendron flowers	Nassibou et al., 2020

7	Lentils	» Highly nutritious legumes with proteins, minerals, vitamins, phytochemicals, and fibers	Joshi et al., 2017
8	Orthodox tea	» Made from leaves of tea plants (Camellia sinensis) grown in Nepal	Mohan, 2013
9	Nepali paper and product	<ul> <li>» Made from lokta (Daphne)</li> <li>» Lokta grows at 2000m to 3500m in Nepal forest</li> </ul>	ICT, 2017
10	Ginger	» Nepal is one of the largest ginger producers in the world	Chapagain et al., 2018

#### **Royal Curd**

Royal Curd could be one of Nepal's unique soft powers with product branding. The skill of making king curd is unique, and its taste is delicious and different from other curds. If the Nepal government helps enterprises or businesspersons to set up a restaurant serving king curd, it will help to spread a positive message of the nation and help the Nepali economy to grow. Juju Dhau is a sweetened custard-like yogurt that comes from Bhaktapur, Nepal, and an important component of all feasts and celebrations.

Juju Dhau means "Royal Yogurt" in the Newari language. While cow's milk is used to make regular yogurt, fresh buffalo milk is traditionally used for Juju Dhau, resulting in a richer taste and texture. To make Juju Dhau, the milk is boiled, sweetened, mixed with culture, and poured into a decorative, natural red clay pot called Kataaro. It is then placed in a warm area, on a bed of paddy husks (the papery covering of rice grains), covered with another Kataaro on top, and wrapped in several thick cotton blankets to maintain a warm temperature while the yogurt sets. Because the clay pots are



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slowly evaporates, leaving a delicious, thick, smooth, and creamy yogurt. It is then transported and sold in the market in the same clay pots. It is often said that a visit to Bhaktapur is not complete without sampling a bowl of Juju Dhau.

#### **Woolen Carpet**

Nepali hand-knotted woolen carpets rank 1st in terms of overseas exports as stated by the Ministry of Industries, Commerce, and Supplies. The art of carpet weaving is an old tradition of Nepal, especially in the mountainous region of the country. Radi, Pakhi, Bakkhu, Darhi are well-known products produced in this region. The marketing of those products is confined only to the domestic market. The development of an export-quality carpet got initiated

with the influx of Tibetan refugees in the early sixties. The year 1960 can be regarded as the historic year for the commercial production of carpets in the kingdom of Nepal. In 1962, Nepal cheese from the domesticated yak. Yak milk (actually "Dri" milk -- female Yak are called "dri" in Tibet; "nak" in Nepal) has good fat content for cheese of about 7 per cent (milk from cows range from





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launched the commercial shipment of carpets with a sample consignment to Zurich, Switzerland.

Nepali carpets are made of the highest quality wool imported from Tibet, New Zealand, and Britain. These carpets are available both in natural dyes and synthetic dyes with 60, 80, and 100 knots per square inch density. Specialized manufacturers may make even 120 knots per square inch or more. Nepali carpets comes in various sizes. Nepali handknotted woolen carpets are famous for their unique qualities like texture, color combination, resiliency, strength, and durability. Designs are large and bold on a single dominant background. These carpets can be used either on the floor or hung on the walls.

#### Yak Cheese

It is an opportunity for Nepal to introduce yak cheese on a wide scale in Western market. Nepal produces western-style 3% to 4%), though a single Dri will only produce as much milk as a goat. Yak cheese was three times higher in omega-3 fatty acids than cheddar cheese. In particular, yak cheese is rich in alphalinolenic acid (ALA), a type of omega-3 fatty acid also found in flaxseeds and other plants. Yak cheese is considered healthy to consume as it provides calcium that our body requires.

#### **Hard Cheese**

The hard cheese very famous in Nepal is locally called chhurpi, which is made from the milk of naks (female yaks) or cows and chauris (a hybrid of yak and local hill cow). It is very rich in protein. Hard cheese is a famous food for domestic animals in western countries. The article published in Online-khabar stated that Nepal exported US\$ 7 million (800 million rupees) worth of hard cheese to the USA and Europe in 2017/18, according to the Trade and Export Promotion Centre.

Hard cheese can be sold in the rest of the world through product branding. Hard cheese is used in Western countries for different purposes. It is used as animal food, especially for dogs. In the Western world, hard cheese is also known as dog chew. Nation branding of the product will promote a positive image of the country in the international market. As a result, it will help to influence the international community.

Trade Integration Strategy (NTIS) 2016 and is no longer a "priority product". The main challenges for the honey sector in Nepal remain quality issues. Nepali honey cannot be directly exported to the European markets, because quality requirements are not met although there is a high demand for honey in the European mark. So nation branding is important to export this product, helping it to compete in the international market and create a positive image.





#### Honey

Honey, one of Nepal's growing export products, is used in the food industry and in the pharmaceutical sector. Most cosmetic manufactures use this ingredient in soaps and shampoo. The key export markets for Nepali honey are China, Malaysia, and India. In fiscal year (FY) 2015/16, Nepal's honey production was approximately 3,500 metric tons. The official export quantity in 2015/16 was, however, just 6 tons. It is estimated that in the honey sector, a major proportion of the exports is happening via the informal channels - not reflected in official statistics. Honey is listed as "other export potential sector" in the Nepal

#### **Pulses**

Lentils represent 60 per cent of the national production of pulses and 90 per cent of pulse exports. The national production of lentils is in the range of 140,000 to 160,000 MT per year since 2000. Lentils are produced in all the 75 districts of Nepal, except the two trans-Himalayan districts of Manang and Mustang. Commercial production, however, is concentrated in the Terai because of the favorable climate and soil conditions prevailing in that area (Deve, n.d.). As lentils grow all over Nepal and are produced in high quantity, branding them is important for exporting them.

Lentils are primarily cultivated in the

Terai region of Nepal in rotation with cereals based on the level of residual soil moisture after harvesting rice. The usual production cycle starts in mid-October or November when it is planted and ends in March or April when it is harvested. Nepal has been exporting varieties of lentils, such as Maas, Mugi, Mung, Musuro, and Rahar. The most common variety grown in Nepal is Masoor. Nepal produced 254,308 tons of lentils on 206,969 hectares of land in 2016/17. The volume of production has



been increasing over the last 10 years. Majority of the farmers growing lentils in Nepal are smallholders, who cultivate only around 0.2 ha of land. Majority of domestic lentil production is consumed within Nepal.(MICS, 2019).

Nepal Trade Integration Strategy (NTIS) 2016 has also identified lentils as one of the potential export commodities of Nepal. Nepal exported lentils worth Rs 1.01 billion in fiscal year 2017/18 (MICS, 2019). Nepal exports both whole and split lentils. Lentils are grown in the Terai, inner Terai, and mid-hills of the country. The cultivation of lentils has been increasing because of their promising potentiality at home and abroad. Among other pulses, Nepali

lentils have greater demand in the international market. Bangladesh, Singapore, Sri Lanka, Germany, Korea, UK, Indonesia are their major markets.

#### Orthodox Tea

Nepali traditional tea is in high demand in the international market. It is highly beneficial for health and the environment. Taste is the reason for the high demand. Nepal produces a variety of high-quality teas that cater to the varied needs of global customers. Quality tea is sold at €100 per kg in foreign markets.

There are 131 tea industries in 14 districts of the country. According to statistics prepared by the Central Bureau of Statistics and Nepal Tea and Coffee Development Board, these industries produce around 19 million kilograms of tea annually. Of this, 11 per cent is organic tea. The major export markets of Nepali tea are Germany, Japan, France, Italy, Hong Kong, UK, Switzerland, Australia, Netherlands, and the US. Medicated and herbal tea of Nepal has been very popular in these markets.

Similarly coffee is another potential export product of Nepal. Coffee is cultivated in some pocket areas of the middle part of Nepal, such as Gulmi, Palpa, Syangja, Lalitpur, and Kavre districts. A conducive agro-climatic environment for coffee has encouraged the farmers to take up coffee cultivation. It can be cultivated on barren and steep lands. It is a highly valued commercial crop having promising market potential at home and abroad. Overseas markets prefer roasted coffee beans rather than instant ones. Japan and the Netherlands are the main export markets for Nepali



coffee.

### Ginger

Ginger (Zingiberofficinale) is known as 'Aduwa' or 'Suntha' in Nepal. It is a flowering plant, which belongs to the Zingiberaceae family. It is cultivated in tropical and subtropical parts of the world, including Nepal. Ginger plants can grow to a height of 60-90 cm. The ginger plant bears narrow green leaves and yellow flowers. Ginger is grown from the root of the plant called 'rhizome'. In Nepal, Ginger plantation is usually done in February/March during the premonsoon season.

Ginger is rich in different vitamins, magnesium, potassium, silicon, iron, zinc, calcium, and sodium. It is used in cooking for its strong and spicy aroma, which produces a sweet flavor. In Nepal, two varieties of ginger, namely Nasse and Bosse, are cultivated. Nasse (with fiber) is of industrial quality and hence is used for medicines. Bosse (with less fiber), on the other hand, is preferred fresh and is regarded to be of premium quality.

Ginger farming is one of the main sources of cash income for the small farmers of the mid-hills of Nepal. The net income of farmers involved in ginger cultivation is significantly higher than that of competing crops (paddy, maize, wheat, and fresh vegetables). The value of ginger export has been increasing over the years and doubled in the last decade.

It is estimated that almost 400,000 farmers are involved in ginger farming in Nepal. The production of ginger is around 284,000 tons in Nepal with a production area of 23,826 hectares of land. The major ginger-producing districts in terms of production volume are Ilam, Salyan, Palpa, Nawalparasi, Morang, Doti, Kailali, Tanahu, Surkhet, Sindhupalchok, Syangja, Makwanpur, Sindhuli, and Kaski. Mostly ginger is export in India. In 2017/18, ginger worth Rs 772 million was exported to India. Therefore, it is necessary to brand ginger so that it can be exported to countries other than India.

Nepal is the fourth largest ginger producer in the world. Ginger is among the 12 priority export products listed by NTTS. Exported ginger, however,



fetches a low price. So, the government should set up laboratories to improve the quality of the product and export it beyond India.

#### Nepali Cuisine

There are different kinds of cuisines based on ethnicity, soil, and climate, given Nepal's cultural diversity and geography. Nepali cuisine combines a range of ingredients, techniques, and characteristics from its neighboring countries with its gastronomic history. Nepali Spices are famous in Western countries. Nepali spices have seen an



increased demand more recently as Nepali cuisine and culture are becoming popular globally and even being mainstreamed in many countries.

There are many ethnic groups and communities in Nepal, and this multitude of influences is reflected in the country's cuisine. Nepali dishes are generally healthier than most other South Asian cuisines, relying less on the use of fats and more on chunky vegetables, lean meats, pickled ingredients, and salads. Common ingredients found across Nepali cuisine include lentils, tomatoes, cumin, coriander, chilies, peppers, garlic, and mustard oil. Nepali cuisine has grown in familiarity and popularity as the Nepali community has grown in most

cities of the world and with an increase in Nepali restaurants globally. Nepali food like Dal-bhat, Newari food, Thakali food and momos, is immensely popular.

## Nepali paper and paper products

Nepali paper and paper products are very famous in overseas market. Nepali paper is made from Lokta, or Dayshing (Daphne spp.) plants. The unique feature of Nepali paper is its moth resistance quality. Besides Nepali paper, varieties of products made from it, like postcards, writing pads, notebooks, woodblock prints, calendars, gift wraps, and lampshades are exported from Nepal. The major markets are the USA, Japan, Canada, and European countries.

Nepali paper is prepared from the bark of the evergreen shrub, Daphne (Daphne bholua and Daphne papyracea), a nontimber forest product. It is an evergreen



e: (Bashyal, 2017)

erect shrub with an average height of 1-3 meters and is abundant in the forests of Nepal. According to the Department of Forest, it is available on 2,910,848 hectares of forests spread over 55 districts of Nepal, of which 25 districts, in particular,

have plenty of it. The total stock of the bark of Daphne species in Nepal has been estimated at 110,481 metric tons, which can support sustainable paper production of over 950 metric tons a year. Currently, there are over 500 lokta producers in Nepal employing around 50,000 workers, especially women. Lokta paper and paper products are key export commodities and make a significant contribution to the country's economy, especially the rural economy.

So it is necessary to brand the local

product. Just as Samsung is the face of Korea and Sony of Japan. Nepal's local product should be the face of Nepal to help recognize Nepal and Nepalis abroad. With branding, Nepal could invite foreign investment and an opportunity for the economy to grow. These local products using Nepali authentic skills and technology have the potential to compete in the international market.

#### 8.2 Natural Resources

Nepal has unique and enormous diversity of flora and fauna within a relatively small geographical area due to variations in the topography, altitude, and climate. Despite being a small country, it possesses around 7,000 species of vascular plants with 2,000 species of medicinal plants (Shrestha and Shrestha,

1999). Baral and Kurmi (2006) have compiled and described 1,792 medicinal plants. According to Bhattarai and Ghimire (2006), 49 percent of the traded medicinal plants are herbs, 29 percent trees, 14 percent shrubs, and 8 percent climbers. So, Nepal is a veritable treasure trove of medicinal plants (Phoboo et al., 2008).

Table 4: Potential items/areas of natural resources as the soft power of Nepal

SN	Name	Significances	Reference
1	Yasargumba	Useful to increase memory and immune system     Improves liver functioning and cures hepatitis B	(Ghanshyam & Manvitha, 2017)
2	Water resources	» Economically viable potential to put in place over 40,000 MW	(Sahukhal & Bajracharya, 2019)
3	Medicinal herbs	1,600 to 1,900 species of plants are commonly used in traditional medicine practices     Traditional medicine knowledge	(Bhandari et al., 2008)
4	Essential oils	Made from different plants     and herbs	

5	Jatamansi/Spikenard	»	Ayurveda and Unani systems of medical treatment	(Airi et al., 2000)
6	Panchaule (Dactylorhizahatagirea)	»	The juice extracted from the tuber is used as a tonic and also used for the treatment of pyorrhea	(Rana et al., 2020)

#### Yasargumba

Yasargumba (Ophiocordyceps sinensis) is a rare and unique organism that grows in the meadows above 3,500 meters (11,483 feet) in the Himalayan region. Its life cycle is that of half-plant (fungi) and half insect (caterpillar). There are various types of medicinal plants found in Nepal, but the popularity of yarsagumba is simply overwhelming. For the last couple of years, the trade of varsagumba has been increasing. Yarsagumba is the remedy for headache, toothache, or any other disease. And not only that, it is also believed to be a cure for sexual impotency, equivalent to being a Himalayan herbal Viagra. In addition, Professor Kamal Krishna says the caterpillar fungus could certainly be an attractive soft power, provided adequate research is carried out to show the uniqueness of Nepali Yarsagumba, or ophiocordyceps sinensis, compared to those found in Tibet, North-East India, Bhutan, and China.

According to a news article published in "The diplomat", yasargumba harvesters get the equivalent of about \$18 per gram (a single dried specimen weighs less than half a gram). In the international market, the value of yasargumba is \$100 per gram. The global market value has been assessed at between \$5 and \$11 billion. Nepal is the second largest supplier to



ource: (Himalaya, 2019)

the global market after Tibet, although much of the trade still occurs secretly. The government collected about Rs 5.1 million in taxes (roughly \$52,000) from the industry in 2011/12.

### Medicinal Herbs and Essential Oils

Nepal produces and exports medicinal herbs and essential oils. Medicinal and aromatic plants are widely found in the Himalayan range. These plants are being used for traditional healing purposes. Ayurvedic drugs are made directly from these medicinal herbs. The essential oils extracted from different medicinal plants are widely used as raw materials for producing various consumer products, such as cosmetics, perfumery and medicines. Various plant-based essential oils are produced and exported from Nepal. Citronella oil, Palmarosa oil, Sugandha Kokila, lemongrass oil, lichen extract are some prominent essential oils and extracts which are commonly produced. The major export market for these products is Germany, Japan, Pakistan, Italy, France, the USA, UAE, UK, Switzerland, and Sweden. Further, Harendra Barua, senior advisor at the Japanese Embassy, said that that medicinal herbs of Nepal were its soft power, during the key informant interview.

The export of essential oils from Nepal is still small. From 2010 to 2015, the export of essential oils rose by a CAGR of 11percent from US \$974 to \$1,626 thousand, and in volume, exports rose from 21 to 37 tonnes. The USA has become the largest destination (by value), followed by France, Belgium, Germany, UK, and Canada, while exports to India dropped by 30 percent. The best opportunities for MAPs and oils from Nepal are in the three following key segments: premium flavor (natural health food and organic food), premium BPC (Beauty and Personal Care) products, and pharmaceutical (herbal traditional medicines).

The following medicinal herbs are exported to the USA, France, Germany, India: timur (Zanthoxylum armatum), mentha (Arvensis, cornmint), asparagus, cinnamon (Cinnamomum tamala), (Diploknema butternut butyracea), spikenard (Nardostachys chamomile (Matricaria jatamansi), chamomilla), soapnut (Sapindus mukurosi), (Gaultheria wintergreen fragrantissima), anthopogan (Rhododendron anthopogon), and (Zingiberofficinale). ginger Others are citronella, palmarosa, lemongrass, valerian (Valeriana officinalis), turmeric (Curcuma longa), large cardamom,









ource : (Mandal, 2019)

sweet flag (Acorus calamus), and yarsagumba (Ophiocordyceps sinensis).

## Jatamansi (Nardostachys jatamansi)

India, Europe, and the United States. Nardostachys jatamansi is a flowering plant of the honeysuckle family that grows in the Himalayas of Nepal. The plant grows 10-50 cm (4-20 in) in height and has pink, bell-shaped flowers. It is found at an altitude of 3,000-5,000 m (9,800-16,400 ft). Rhizomes (underground stems) can be crushed and distilled into an intensely aromatic amber-colored essential oil, which is a very thick inconsistency. Nard oil is used as a perfume, an incense, a sedative, and an herbal medicine said to fight insomnia, birth difficulties, and other minor ailments. It has almost no use in manufactured products in the domestic market, and India has remained its prime market that currently accounts for over 70 percent of the total exports from Nepal. The plant is used as a tonic and to treat several illnesses, such as headache, high altitude sickness, fever, epilepsy, insomnia, indigestion, dysentery, diuretics, measles, diseases, and ulcers. It is used in Ayurvedic and Amchi medicines as well as in modern herbal preparations.

Jatamansi oil has a high value in perfumery and is used as an aromatic adjunct in the preparation of medicinal oils and cosmetic products. In the beauty industry, jatamansi oil has been used in products like deodorants, perfumes, anti-aging creams, soaps, air fresheners, incense, hand and body lotions, body wash, and color cosmetics by many leading cosmetic industries



at the international level. It is used in commercial preparations as a laxative, carminative, antispasmodic, stimulant, antiseptic, and diuretic. Nepali medicinal and aromatic plants (MAPs) have been traded for centuries, and the demand will continue to rise because of the global expansion of the herbal market. Nepal can utilize this opportunity by initiating commercial cultivation of native species and trade them in the international market as Himalayan brand products. Nepal is rich in natural resources, and the global demand is high especially in natural resources, such as herbs, from the high mountain regions and the Himalaya.

## Panchaule/ Dactylorhiza hatagirea

Panchaule (Dactylorhiza hatagirea ) is a species of orchids generally found growing in the Himalayas region, at altitudes of 2,800–4,000 meters (9,200–13,100 ft). The name 'Panchaule' (meaning 5-fingered hand) arises from its root resembling the fingers of a hand with around 3-5 fingers. It is an erect perennial herb with long flowering stems.



The plant is well known for its medicinal value. The root has a sweet taste. Its collection and sale are strictly prohibited but can be found easily around Nepal. It costs around Rs 10,000-15,000 per kilo as of 2015. The juice extracted from the tuber is used as a tonic and also used for the treatment of pyorrhea (inflammation of the gum and teeth). Root paste is externally applied as a poultice on cuts and wounds, and the extract is given for intestinal disorders. The term Hatta Haddi is probably coined because it is used for treating bone fractures.

## 8.3 Religious and Cultural Heritage

The religious and cultural heritage of a country can easily influence the international community. Nepal is rich in religious and cultural heritage. The cultural heritage of Nepal has evolved over the centuries. This multi-dimensional heritage encompasses the diversities of Nepal's ethnic, tribal, and social groups, and it manifests in music and dance; art and craft; folklore and folktales.

Table 5: Potential items/areas of tourism (religious and cultural heritage) as the soft power of Nepal  $\,$ 

SN	Name	Significances	Reference
1	Lumbini	» Birthplace of Buddha	Rhys-Davids, 2012
2	Mountaineering and trekking	» Adventurous trekking	Sherpa et al., 2019
3	Bungee jumping	» Adventurous tourism	
4	Pashupatinath	» Hindu religious site	Nyaupane, 2019
5	Muktinath	» Religious place of Hindus and Buddhists	Poudel, 2000
6	Janakpurdham	Birthplace of Sita     The ancient capital city of Mithila	Mishra, 1996
7	Bhaktapur Dubar Square	Museum of medieval art and architecture     Ancient palace     Many intricately carved doors, windows	Woodhatch, 2000
8	Kathmandu Dubar Square	The ancient palace of Nepal built in Malla period     Many intricately carved doors, windows	Majupuria, 1993
9	Patan Dubar Square	» Oldest palace of Kathmandu     Valley with unique architecture     » Ancient palace     » Many intricately carved doors,     windows	Pradhan, n.d.

Nepal Sumpada Sangha (Nepal Heritage Society) has compiled an inventory of 1,262 significant architectural and archeological sites in Nepal outside the Kathmandu Valley (MOFA). Through the key informant interview (KII) and literature, the following are Nepal's soft power under religious and cultural heritage.

Nepal is rich in natural resources and cultural heritage. The mountainous north holds more than eight of the world's Eight Thousanders, including the highest mountain, Everest. Since ancient times, Nepal has been dramatically influenced by the dynamic culture of different races, ethnicity, and people. A country with strong global influence is more effective in attracting tourists, garnering

investments, exporting products, drawing in talented workers, and getting one's way in foreign policies. Professor Kama Krishna and Harendra Barua consider tourism as the soft power of Nepal.

Nepali tourism is predominantly nature and culture-based, a supply based tourism. It is naturally labor-intensive and adventure-based. In the case of Nepal, the direct contribution of travel and tourism to GDP in 2016 was 3.6 percent and is forecast to rise by 6.8 percent in 2017 (WTTC, 2017). This figure is a reflection of the economic activities of hotels, travel agents, airlines, and other passenger transportation services excluding commuter services. It includes the activities of the restaurant and leisure industries directly supported by tourists (WTTC, 2016). The total contribution from the tourism sector is recorded at (including broader effects from investment, the supply chain, and induced income impacts) 7.5 percent of GDP in 2016 and grew by 7.6 percent of GDP in 2017 (WTTC, 2017).

Besides such a lion's share contribution to the national GDP, the tourism sector generates a large amount of direct and indirect jobs in Nepal. The tourism sector generated 427,000 jobs directly in 2016 (2.9% of total employment), and it grew by 6.0 percent in 2017 to 452,500 (2.9% of total employment). These jobs are due to employment by hotels, travel agents, airlines, and other passenger transportation services (excluding commuter services). It also includes, for example, the activities of the restaurant and leisure industries that directly cater to tourists (WTTC, 2017). The total contribution of travel and tourism to

employment (including broader effects from investment, the supply chain, and induced income impacts) was 945,000 jobs in 2016 (6.4% of total employment). It increased by 5.4 percent in 2017, which is 996,000 jobs; a significant contribution to the Nepali economy (WTTC, 2017).

## Lumbini, the Birthplace of Buddha

Buddhist tourism can appeal to a large number of faith-inspired travelers. Branding Nepal as the Buddha's birthplace would help to counter the persisting misinformation that Buddha was born in India. Faith-based tourism has emerged as a significant niche today. The World Tourism Organization says that over 300 million tourists visit religious sites annually. Asia, home to 99 percent of the world's 450-480 million Buddhists, serves as an example of the resurgence of faith-based tourism. The current official slogan "Naturally Nepal-Once Is Not Enough" reinforces the image of the country as an ecotourism hub. Incorporating Buddhist tourism into the overall nation-branding campaign would appeal to a large number of faith-inspired travelers. Professor Kamal Krishna adds that tourism in Nepal could be further enhanced if we can be successful in building the Gautam Buddha International airport to attract Buddhist tourists, who can be encouraged to visit Boudhanath too in Kathmandu. Similarly, Anil Chitrakar added Lumbini Airport needs to be branded as the Gateway to all Buddhist sites. Harendra Barua, also added that Lumbini is the soft power of Nepal. Likewise, Dr. Shankar Sharma also agrees that Buddha (Buddhism) is the soft



power of Nepal.

Lumbini is uniquely positioned to become the most important Buddhist holy land just like Jerusalem and Mecca for Christians and Moslems. On his deathbed, Buddha himself had urged his followers to make the pilgrimage to the four holy places associated with his life and teachings, and Lumbini, his birthplace, was the first among them. The other sites in that "holy tetrad" of pilgrimage include Bodh Gaya, where he attained enlightenment; Sarnath, where he gave his first sermon; and Kushinagar, where he attained parinirvana.

In 2017, tourist arrivals in Nepal reached nearly a million, earning US\$ 643 million. The government's target is to bring 2.5 million tourists by 2025. Years of political conflict, the slow pace of infrastructure development, natural disasters, including the 2015 earthquake, lack of an effective promotional strategy, among others, impair tourism's prospects.

#### Pashupatinath

Nepal is home to diverse cultures and various religious faiths, such as Hinduism and Buddhism, which have a plethora of travel options when it comes to religious trip destinations. Hinduism is followed by more than a billion people in the world, and most of them would love to visit the land of Pashupatinath, not to forget the importance of Janakpurdham and Muktinath. A large number of Hindus from India travel to Nepal to visit Pashupatinath and Muktinath. Nepal should look forward to attracting Indian tourists for its economic empowerment.

The Pashupatinath Temple, one of the main Hindu religious sites located in Kathmandu, attracts many pilgrims and tourists. Similarly, other Hindu pilgrimage sites include the temple complex in Swargadwari located in Pyuthan district, Lake Gosainkunda near Dhunche, the temples at Devghat, Manakamana Temple in Gorkha district, and Maha Mrityunjaya Shivasan in Palpa district, where the biggest metallic idol of Lord Shiva is located. Likewise Janakpur, the birthplace of Lord Sita, the historic Mithila city to experience the Terai culture of southern Nepal, and a



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visit to the grand Ram Janaki Temple at the city center that draws allusion to the famous Hindu epic Ramayan, are other religious places. Janakpur is the holy site on the route of parikarma, a holy circle which is carried out by devout Hindus together with Ayodhya, Kashi, and Brij in India.

Professor Shrestha further explains that we can attract Hindu tourists to visit Janakpur too and a course package tour of Pashupatinath Temple and Muktinath can be put into a viable plan.

#### Muktinath

Muktinath is a Vishnu temple, sacred to both Hindus and Buddhists. It is located in Muktinath Valley at the foot of the Thorong La mountain pass in Mustang, Nepal. It is one of the world's highest temples (altitude 3,800 m). The site is close to the village of Ranipauwa, which is sometimes mistakenly called Muktinath. The sacred power of Muktinath is



eulogized in ancient and Puranic mythologies. The spiritual magnetism of Muktinath is associated with the shaligram (a fossil stone), miraculous cures, and supernatural beings. There the devotees experience god's blessings, purity and inner peace. This temple is considered to be the 106th among the available 108 Divya Desam (premium temples) considered sacred by the Sri Vaishnava sect. Indian Prime Minister

Narendra Modi visited Muktinath in 2018, which prompted many Indians to go a pilgrimage to Muktinath.

#### Janakpurdham

A famous pilgrimage is Janakpurdham, which is mentioned in the Hindu mythology Ramayana. Janakpurdham is the birthplace of Janaki or Sita, daughter of King Janak, who married Lord Ram after he broke the divine bow of Shiva at a tournament organized by King Janak. Every year thousands of Indian nationals visit Janakpur to commemorate



e: Priinn. Unsplash

the wedding ceremony of Lord Ram and Sita. The place has the potential to draw Hindus from around the world. In 2019, Indian Premier Modi visited Janakpurdham, which helped to promote the place in India.

Janakpurdham was the capital of King Janak's ancient Mithila Kingdom during the Treta Yug, nearly 12,000 years ago. The name Janakpurdham is composed of three words, Janak, Pur, and Dham, which stand for father, village, and renowned place respectively. Named after the sage King Janak, Janakpurdham, however, also encompasses Mithilanchal, or the

Mithila region. Balmiki's epic Ramayan on Aryan culture and Ramcharitmanas Tulsidas authenticate this (Mishra, 1996).

### Durbar Square of Kathmandu Valley

The three durbar squares of the Kathmandu Valley are the living museums of medieval art and architecture, which have a high reputation in the international community. Kathmandu Durbar Square is also known as Hanuman Dhoka Square, which is the major attraction in the Kathmandu Valley. It was the seat of the Royal palace during the Malla period and also at the beginning of the Shah dynasty. Most of the cultural centers of Nepal are concentrated around the Kathmandu Valley; among those cultural sites, the important one is the Hanuman-Dhoka Durbar square.

Patan Durbar Square is the oldest among the three cities of the Kathmandu Valley. It is best known for its artistic heritage. It is one of the oldest Buddhist cities in the world. The city is situated on a plateau across the Bagmati River. The city is surrounded by four stupas at the four corners of Patan. These stupas are said to have been built by the Indian Emperor, Ashoka.

Bhaktapur Durbar Square is a city of medieval art and architecture with many sculptures, woodcarvings, and colossal pagoda temples dedicated to different gods and goddesses. It is a conglomeration of pagoda and shikhara-style temples grouped around a 55-window palace of brick and wood. The square is one of the most charming architectural showpieces of the valley as it highlights the ancient arts of Nepal. Pottery and weaving are its major traditional industries.



ce: Hotel Shankher





e: Aditta Shah Tinsulash

## 8.4 Knowledge and Innovation

Table 6: Potential items/areas of knowledge and innovation as the soft power of Nepal

SN	Name	Significances	Reference
1	Intra-ocular lens (Dr. Ruit Technology)	» First Nepali doctor to use IOL in cataract surgery	Ruit et al., 1999
2	Chandra Nighantu	Compilation of plant and animal products with a description of their medicinal uses     The compilation was done by scholars before the arrival of modern technology of typing and printing during the time of Chandra Shamsher	Koirala & Khaniya, 2009
3	Tripitaka	» Buddhist Scriptures were written in the first century.	Meghaprasara, 2013
4	Indigenous knowledge		Joshi et al., 2017

### Intra-ocular lens, Dr. Sanduk Ruit Technology

Dr. Sanduk Ruit was the first Nepali doctor to perform cataract surgery with intraocular lens implants and the first to pioneer a method for delivering high-quality microsurgical procedures in remote eye camps. Dr. Ruit and Prof. Fred Hollows devised a strategy to use small-incision cataract surgery (SICS) in the developing world at the community



level, through the use of low-cost IOLs. Dr. Ruit was the first Nepali doctor to use IOLs in cataract surgery. He brought these techniques to Nepal, where he met with some resistance to this new technology. Professor Kamal Krishna agrees that Dr. Sanduk Ruit's technology is Nepal's soft power, adding Dr. Ruit is the pride of Nepal. His chief role in establishing Tilganga Ophthalmology Center and manufacturing one of the best IOLs at an affordable price are laudable. Shyam KC argues that Dr. Ruit, who has restored eyesight in thousands of people around the world, has contributed tremendously to promoting the national image of Nepal in the international arena. Nepal's IOLs are now being exported to more than 60 countries.

#### Chandra Nighantu

Nighantu is a Sanskrit word meaning a particular glossary, a compilation. Chandra Nighantu is a compilation of plants and animal products, with descriptions and their medicinal uses. This compilation was done during the time of Prime Minister Chandra Shamsher. This compilation was done by the scholars before the arrival of modern technology of typing and printing. Now we have the technology, cameras, computers, paper, and the press, which have made things more lively. This compilation is more vivid than anything we can imagine. We can appreciate ancient calligraphy, drawings, grammar, science, culture, etc.

#### **Tripitaka**

Tripitaka is a Sanskrit word meaning Three Baskets. It is the traditional term used by Buddhist traditions to describe their various canons of Scriptures. The expression 'Three Baskets' originally referred to three receptacles containing the scrolls on which the Buddhist Scriptures were originally preserved. Hence, the Tripitaka traditionally contains three "baskets" of teachings: a Sūtra Piṭaka, a Vinaya Piṭaka, and an Abhidharma Pitaka. The Tripitaka was composed between about 550 BC and about the start of the Common Era, likely written down for the first time in the 1st century BC.

### 8.5 Superlative Items

Table 7: Potential items and areas of superlatives as the soft power of Nepal

SN	Name	Significances
1	Jumli Marshi, high altitude rice	» Grow at 3000 m asl
2	Mt. Everest	» The highest mountain in the world 8,848 m
3	Kali Gandaki gorge	» Deepest Gorge on earth 5570 m
4	Tilicho lake	» Highest altitude lake 4919 m
5	Throrong-La Pass	» The highest pass on earth lying elevation of 5416 m
6	Langtang National Park	» Located in highest altitude National park 1500m to 7234 m
7	Nepali Potato	» Grow at 4,700 m

#### Jumli Marshi

Jumli Marshi is an indigenous rice variety of Nepal. Jumli Marshi is an atypical variety of rice, known for its reddish color, comparatively sweet taste, and high nutritional value. Jumli Marshi rice is recognized as the most cold-tolerant landrace grown at the highest altitude (3050 m) in the world. There is a belief that Jumli Marshi absorbs ghee (butter-fat) and milk easily and makes rice pudding smooth and tasty, However, Jumli Marshi is at risk of becoming extinct from Jumla mainly because rice-growing land is being converted into buildings and other purposes, farmers switching to other businesses, and leaving agriculture



land fallow. This is high altitude rice, and its origin, as well as nutritional status, has not been documented adequately (Joshi et al., 2017).

This is the only variety of rice that is grown in Jumla. This variety is very susceptible to blast disease, resulting in massive yield loss since the last some years. Jumli Marshi rice is highly valued in Nepal because of its unique adaptation, taste, and cultural values. Intra landrace diversity, unique indigenous rice culture, and production system along with many socio-economical associations with Jumli Marshi rice indicate the very long history of cultivation of Jumli Marshi rice in Jumla district. The government should focus on its branding and marketing. The branding of such an authentic product is important not only for earning foreign exchange but also to influence the international market with a local product of Nepal.

#### Sagarmatha (Mt Everest)

Mount Everest is already a brand of Nepal. Mount Everest (known in Nepal as Sagarmatha), at 8,848 meters, is the highest peak in the world. Mount Everest was named after Sir George Everest in 1865. It is located in Solukhumbu district. Climbing Everest is the dream of most people, which requires you to be physically and mentally prepared. Climbers generally spend weeks acclimatizing their body to the high altitude.

The weather conditions are extreme on Mount Everest. During January, which is the coldest month of the year, the temperature reaches as low as -76 °F (-60°C). The temperature never rises above freezing. It is always very hard to predict the weather on Mount Everest. In addition to the dangerously cold temperatures, the wind and negligence also present dangers to the climbers. High winds often carry sand and bits of stone, in addition to snow and ice, during storms. Even unexpected storms have been known to bring as much as 10 feet (3m) of snow.

#### Kali Gandaki Gorge

Another superlative of Nepal is Kali Gandaki gorge, a major attraction of



ce : (Viator, n.d.)

m deep, separating two major peaks, Annapurna (8091m) and Dhaulagiri (8167m. With the raging river of the Kaligandaki whistling, the gorge makes the trek one of the thrilling walks for travelers during the Annapurna Circuit Trek.

Tilicho Lake is recognized as the highest natural lake in the world, which is situated at an altitude of 4,919 m. The lake lies in Manang district of Nepal. The lake lies at the foothill of Tilicho Peak, and the trek to the lake can be an exciting extended trip of the Annapurna Circuit Trek.

#### Thorong La Pass

Thorong La Pass, the highest pass on earth, is the prime attraction of the Annapurna Circuit Trek, lying at an elevation of 5416 m. The pass separates the Marsyangdi and Kali Gandaki Valleys, and from the top of the pass, the views of both of these valleys along with the panorama of Himalayan peaks in and across Nepal are mesmerizing.

#### **Langtang National Park**

The Langtang National Park lies in Rasuwa, Nuwakot, and Sindhupalchok districts of Nepal. With an area of 1710 square kilometers, the national park extends from an elevation of approximately 1500m to 7234m. The park consists of animals like the red panda, wild boar, Himalayan black bear, snow leopard along with 350 different species of birds, which are the prime highlights of the Langtang Valley Trek.

These superlatives are the soft power

of Nepal. These superlatives support the country to be known in the world. When it comes to mountains, Nepal is first in everyone's mind. The branding of these superlative can attract tourists and influence as well.

## Nepal Army UN Peacekeeping Force

Nepal has made remarkable contributions to UN peacekeeping operations, which has improved Nepal's international image. Since 1958, Nepali peacekeepers have been ubiquitous in UN peacekeeping. Over a half-century, the participation of the Nepali Army in UN peace support covered 43 UN missions, in which over 1,31,788 personnel have participated.

Besides peacekeeping, the Nepali army in these operations has also contributed significantly through the provision of niche capabilities, such as engineers, medical teams, and Special Forces



ure : (United Nation Peacekeeping, n.d.)

contingents. The dedication and devotion of the Nepali army peacekeeping force are widely acclaimed and appreciated. The Nepali Army has always accepted challenges and participated in the most difficult operations. This has taken a heavy toll on its personnel, and to date, 68 personnel have made the ultimate sacrifice at the altar of world peace and another 66 have been disabled.

The Nepali Army's peacekeeping participation was part and parcel of Nepal's effort to pursue its foreign policy goals. The UN has provided an important forum for smaller countries like Nepal to pursue their national interests and exercise foreign policy with dignity and sovereignty. It has also provided small countries with moral and physical security from aggression, interference, and encroachment.

#### Gorkha regiments

The Gurkhas have been part of the British Army for 200 years. "Better to die than be a coward" is the motto of the

world-famous Nepali Gurkha soldiers, who are an integral part of the British Army. Shankar Sharma argues that the simplicity and hard work of the Gurkhas have been appreciated widely.

The Gurkha regiment is another tool of Nepal's soft power, where Nepal can influence countries like India and the United Kingdom. A proper strategy is necessary to influence the two countries through the Gurkha regiments. The Gurkha regiment comprising soldiers of Nepali nationality recruited in the British Army, Indian Army, with a Gurkha reserve unit in Singapore and Brunei. The Indian Army recruits about 1,300 Gurkha youth every year, while the UK selects more than 200 people for its army and Singapore Police. There are 39 battalions serving in 7 Gorkha regiments in the Indian Army.



# $8.6~\mathrm{SWOT}$ Analysis of Potential Areas of Soft Power of Nepal

Table 8: Swot analysis of potential areas of soft power of Nepal

Items/areas	Strength	Weakness	Opportunity	Threats
Tourism	Natural beauty     Adventurous     sport     Rich in cultural     and religious     heritage     Nepal     geographical     location     Nepal consists     of diversified     culture and     with changeable     climate	Nepal consists     of only one     international     airport      Lack of     infrastructure,     illiteracy,     poverty      High pollution     level      Lack of facilities     in remote areas      Lack of health     facilities      Lack of     marketing	Poverty     alleviation     regarding     tourism as     national policy     Sharing a     positive image     of the country     Creating a good     environment for     infrastructural     development     Creation of job     opportunities	Pollution     More     competition     Fluctuations in     the arrival of     international     tourists
Local products	» Traditional knowledge and experience » Local and authentic product » Rich and high- quality product	» Lack of branding » Lack of investment » Lack of research	Potential for research     Can earn foreign exchange     Job creation     Branding niche market     Explore the local skill and technology	Lack of policy     No human     resources with     an academic     degree in local     product     Never tested     in a scientific     laboratory
Natural resources	Nepal is rich     in biodiversity     especially in     medicinal herbs      High demand in     the international     market for Nepal     herbs      Rising demand     for Ayurvedic     medicines and     other uses	Illegally trafficking of Medicinal herbs     Lack of research and research institute	Potential to     export with     branding      Potential for     research,     development/     training      Channelize     resources into     medicine      Research area     for international     student and     expert	» Lack of patient registration     » Security problem     » Loss of traditional knowledge of medicinal herbs due to lack of documentation     » High price fluctuation

Knowledge/ innovation	Nepali have skill and experience to innovate new product or theory     Creativity and innovation     Entrepreneurship     Quality and Reputation	Lack of platform     Lack of marketing     Lack of Budget     Lack of Brand     Research Gap     Leadership and management issue	» Growth potential     » Innovation and technology development     » Inspire others to develop and innovate	Competition     Lack of patient registration     Lack of research and development in a particular field
Superlatives	Winique in the world     The comparative advantage of superlatives	» Lack of     marketing     » Lack of research     » Lack of     investment	» Influence and Attract tourist » Can earn foreign exchange	» Other countries can claim your superlatives if the country is weak.

Strength: Nepal's strength is its rich cultural and religious heritage and natural resources. Similarly, Nepal is diverse in its geographical layout, which consists of the Himalayan region, hills, and Terai region. The highest point is Mount Everest (superlative), which is a brand and soft power of Nepal. The traditional knowledge in terms of Ayurvedic and medicinal herbs found in Nepal is the soft power of the country. Jumli Marshi, Kaligandaki Gorge are other superlatives of Nepal that can be used as a brand of Nepal to influence the world. Local products like Juju Dhau, hard cheese, and yak cheese are the strengths of Nepal that have the potential to influence the taste of the international community. Yasargumba, essential oils, jatamansi, panch aule are the assets of Nepal that can be used in medicine and cosmetics. Branding these herbs can increase exports globally.

**Weakness:** There is a lack of research and development in the different potential sectors of Nepal's soft power. The tourism sector lacks infrastructure and branding. Likewise, local products lack investment and research. Illegal trafficking of medicinal herbs and lack of research in natural resources are weaknesses. Jumli Marshi needs more marketing and advertisement. Similarly, Nepali potatoes found in the Khumbu region at an altitude of 4700 meters need more marketing and branding.

Opportunity: It is the best opportunity to channelize this sector as the potential soft power of Nepal and to alleviate poverty. Branding local products and resources of Nepal will help to increase job creation. Soft power does not only influence but also bring lots of opportunities for the country, from economic growth to infrastructure development.

**Threats:** The main threat to these potential soft powers is a lack of knowledge on how to use them as soft power. In the tourism sector, there is a lot of competition. There is only one international airport in Nepal, so many tourists cannot come at once to Nepal. Similarly, lack of patent registration of indigenous knowledge and innovation is

another problem in branding. Government policy should encourage experts toward innovation. India has been advertising that the Buddha was born there. The country should be able to communicate Nepal's superlatives effectively to the world.

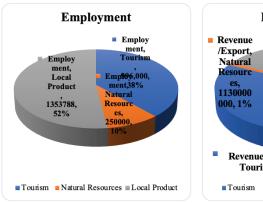
# 8.7 Economic analysis of potential sectors of soft power of Nepal

Table 9 Economic analysis of potential sectors of soft power of Nepal

Sector								
	Subsector	Employment (Numbers)	Revenue/Export (NPR)	Countries				
Tourism	Mountaineering and trekking/ religious and culture/others	996,000 (WTTC, 2017)	811,257,46 000	103				
Natural Resources	Medicinal and aromatic plants	250000	1,130,000,000	12				
	Honey	5700	6,800,000	3				
	Handicraft	916,852	5,210,000,000	11				
	Handmade paper and product	Includes in Handicraft	577,800,000	6				
	Felt product	Includes in Handicraft	1.570,000,000	4				
Local	Large cardamom	22000	4,840,000,000	4				
Products	Tea	9236	3,250,000,000	7				
	Ginger	400,000	772,000,000	1				
	Sub total	1353788	16,226,600,000	36				

Source: (MICS, 2019)

Fig 2 Status of employment and revenue/export from potential soft power of Nepal





Soft power not only influences but will also bring foreign investment and help in the growth on national income. Soft power branding plays a vital role in creating enterprises and jobs in the country. Data show that the tourism sector provides 82 percent revenue in comparison to the remaining sectors. Local products provides 52 percent of employment compared to the other sectors.

The branding of tourism, natural resources, and local products influence more countries and increase export. People from a total of 103 countries travel to Nepal for mountaineering and trekking or pilgrimage purposes. The tourism sector not only brings revenue but also employs 1 million people. Likewise, another 1 million people are employed in local product enterprises. The export of medicinal and aromatic plants provide more than 200,000 jobs in Nepal. Job apart, more than 100 companies are engaged in processing medicinal and aromatic plants. Based on the above data, the government can prioritize the weak sector and invest in it so that the country can influence positively in the international community.

## Table 10: Diplomatic relations of Nepal with foreign nations

### 8.8 Diplomatic Relations

Soft power assets include the nation's exportable goods, tourist destinations, economic strength, lifestyle, and culture. Nepali products, culture, and destinations should reflect the country's image and reputation in the international market and community. The export of such goods should help establish a trade relationship between two countries. Trade and diplomacy have gone hand in hand since the earliest civilizations (Edens, 1992).

To date, Nepal has diplomatic relations with 168 countries (MoFA, 2020). Nepal established its first diplomatic relation with the UK in 1816, and recently with Ghana, an African nation, in September 2019. Thus, Nepal has the potential to influence 168 countries in the world. As discussed earlier, soft power not only exerts influence but also opens opportunities to bring foreign investment into the country and increase its export. Nepal has had a strong trade relationship with India and China since ancient times. In the new era, the country's major trade partners are Japan, the USA, Germany, and Turkey. Apart from the trade relationship, a large number of tourists from these countries visit Nepal every year. These products could help Nepal strengthen diplomatic relations through economic cooperation or vice-versa.

SN	Country	Year	Import (USD '000) 2019	Export (USD '000) 2019	Tourists (Number) 2019	Export product of Nepal and Human resources
1	United Kingdom	1816	15.26 million	7.88 million	61,144	<ul><li>» Carpet</li><li>» Garment</li><li>» Gorkha</li><li>Regiment</li></ul>

2	USA	1947	149 million	93.62 million	93,218	» » »	Carpet Pet food Felt
3	Japan	1956	8.9 million	61.67 million	30,534	» »	Carpet Garment
4	India	1947	7401 million	627.74 million	254,150	» »	Pam oil Gorkha regiment Human resources
5	China	1955	1846 million	17.24 million	169,543	» »	Handicraft Statuettes of base metal Carpet
6	France	1949	72.36 million	11.43 million	30,646	» »	Carpet Garment
7	Germany	1958	63.85 million	26.94 million	36.641	» »	Carpet Garment
8	Qatar	1977	5.18 million	0.260 million		» »	Carpet Human resources
9	Malaysia	1960	94.36 million	1.57 million	21,329	» »	Tobacco Human Resources
10	Russia	1956	18.45 million	1.69 million	10,372	» » »	Carpet Tea Hides and skin
11	Switzerland	1959	91. 63 million	3.73 million	8.112	» » »	Carpet Garment Coffee
12	Sri Lanka	1957	2.41 million	0.008 million	55,869	»	Spectacle lenses of glass
13	Austria	1959	4.72 million	1.86 million	4,864	» »	Carpet Garment
14	Italy	1959	38.34 million	8.57 million	15,676	» » »	Carpet Garment Hides and skin
15	Poland	1959	30.81 million	0.30 million		» »	Felt Garment

16	Australia	1960	60.28 million	6.02 million	38,972	» »	Carpet Uncooked pasta Felt
17	Pakistan	1960	23.91 million	0.23 million	4,923	» »	Intraocular lens Gum, turpentine oil
18	Netherlands	1960	14.38 million	3.67 million	15,032	» » »	Felt Carpet Garment
19	Sweden	1960	4.18 million	1.07 million	3,911	» »	Felt Garment
20	Hungary	1961	0.82 million	0.4 million		» »	Garment Sculptures
21	Belgium	1963	22.77 million	2.08 million	6762	» » »	Carpet Essential oil Garment
22	Turkey	1962	52.51 million	22.95 million		»	Yarn
23	Canada	1965	120.43 million	7. 13 million	17,102	» » »	Carpet Pet food Felt
24	Chile	1962	1.21 million	0.008 million		» »	Musical instruments Felt
25	Denmark	1967	3.66 million	2.84 million	4,596	»	Garment
26	Bulgaria	1968	0.8 million	0.006 million		» »	Carpet Musical instrument
27	Spain	1968	6.89 million	2.65 million	19,057	» »	Cotton sacks Garment
28	Romania	1968	7.10 million	0.013 million		» »	Cotton sacks Garment
29	Bangladesh	1972	49.56 million	11.53 million	25,849	» »	Lentils Medicinal plants
30	Norway	1973	1.39 million	1.61 million	3,385	» »	Garment Felt
31	Republic of Korea	1974	79.19 million	2.29 million	29,680	» » »	Wigs Felt Yarsagumba

32	Finland	1974	3.31 million	0.62 million	4,000	» »	Garment Carpet
33	Mexico	1975	4.52 million	0.21 million		» »	Carpet Hides and skin
34	Luxembourg	1975	0.2 million	0.0006 million		»	Carpet
35	Portugal	1976	0.6 million	0.3 million		»	Garment
36	Brazil	1976	35.88 million	0.26 million		» » »	Carpet Soyabean oil Garment
37	Bhutan	1983	11.95 million	0.32 million	10,923 (2017)	» »	Iron/steel Aluminium
38	UAE	1977	241 million	3 million		» »	Machinery Human resources
39	Estonia	1992	0.007 million	0.008 million		» »	Handicraft Garment
40	Latvia	1992	0.24 million	0.05 million		» »	Carpets Garment
41	Ukraine	1993	83.84 million	0.16 million		» »	Felt Silver articles Jewelries
42	Czech Republic	1994	8 million	0.8 million		» »	Tea Garment
43	Slovakia Republic	1994	0.22 million	0.09 million		» »	Metal Cotton sack
44	South Africa	1994	92.05 million	0.6 million		»	Spectacle lenses of glass Carpet
45	Slovenia	1997	0.37 million	0.16 million		»	Garment
46	Lithuania	2005	0.94 million	0.018 million		» »	Carpet Garment
47	Monaco	2012	0.006 million	0.042 million		»	Carpet
48	Saudi Arabia	1977	74 million	0.1 million		» »	Uncooked pasta Carpet
49	Kuwait	1972	0.8 million	0.2 million		» »	Carpet Garment

Source (MoFA, 2020 & TEPC 2020)

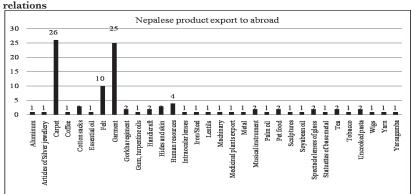


Fig 3 Nepali product export and human resources to countries with diplomatic

Of the 32 export items, carpets and garments are the most important export items of Nepal (Fig. 3). In 2017/18, Nepal exported 530,418 sq. meters of carpets worth Rs. 7.08 billion to 27 countries. The USA alone imported 45 percent of total carpet exports (MICS, 2019). MICS (2019) mentions that Nepali hand-knotted carpet ranks 1st in its overseas export. It has been exported to more than 40 countries. Germany is the 2nd largest market for Nepali carpets. The next export item is garments. In 2017/18, Nepal exported readymade garments worth Rs 5.97 billion to 25 countries. Garment items included coats, jackets, T-shirts, shirts, trousers, jumpers, blouses, skirts, and embroidered slacks. Manufacturing garments is a labor-intensive job, and this sector has been generating huge employment in the country. Likewise, Nepali felt was exported to 10 different countries. Thus, Nepal can utilize these products to enhance diplomatic relations, or soft power.

Nepal Trade Integration Strategy (NTIS) has identified nine goods and three services as priority export potentials of the

country (NTIS 2016). This identification is made based on export performance and inclusive and sustainable development parameters. The list of these nine goods includes large cardamom, ginger, tea, medicinal and aromatic plants (maps), all fabrics, textiles, yarns and ropes, leather, footwear, chyangra (mountain goat) pashmina, and knotted carpets. NTIS (2016) has also identified 12 other export potential goods, which include hydroelectricity, fabricated steel and metals, coffee, fruit and vegetable juices, honey, instant noodles, lentils, paper products, readymade garments, semi-precious stones, silver jewelry, and wool products (MICS, 2019).

major Human resources make contribution in the economic and development activities of many countries. Since 2008, the Department of Foreign Employment has issued over 4 million labor approvals to Nepali workers (MOLES, 2020). According to the International Organization of Migration (IOM), 400,000 Nepali are working in Qatar and 300,000 Nepali in Saudi Arabia (IOM, 2014). According to the Embassy of Malaysia, there are 400,000 Nepalis working in Malaysia. This workforce brought a total of US\$ 8.79 billion in remittances in 2018/19 (MLESS, 2020). Most importantly, these human resources can build Nepal's image and influence foreign countries through their hard work, sincerity, and behavior.

The Gorkha regiments have had a long positive influence in the UK and the Indian military. The Gurkha service in the British Army started in 1815, which is continuing till date spanning over more than two hundred years. There are 28,000 Nepalis in the Indian Gorkha regiment, and every year 2,000 Nepalis join the regiment (India Today, 2020). Rose (2016) demonstrated that a country's exports are greater if it is perceived by the importer to be exerting more positive world influence. The country should focus on branding local products and introduce them to the global market with massive marketing.

A huge number of religious and cultural tourists visit Nepal from India, Sri Lanka, and other Asian countries. In the year 2019, 254,150 Indian nationals visited Nepal. Religious sites such as Pashupatinath and Lumbini have been a great attraction for people from India, Sri Lanka, Myanmar, Japan, and Thailand. In 2019, Nepal had 55,869 visitors from Sri Lanka and 30,534 from Japan, and Lumbini was in the itinerary of most of them. Similarly, in the same year, Nepal had 169,543 Chinese, 93,218 American, and 61,144 British tourists. Similarly, mountaineering and trekking influence those who enjoy adventure tourism.

Nepali people living abroad can influence the international community

with positive image and behavior. At times, Nepali migrant workers have displayed their sincerity and hardworking nature, garnering praise and demand. In recent years, the government has initiated multilevel migration-related reform efforts at the bilateral, regional, and global levels. By integrating this invaluable workforce in international relations and cooperation, Nepal can present labor migration as a soft power of the country.

#### 9. DISCUSSION

Due to internal problems, unstable situations, poor economy, political dramatic change in social landscapes, and effect of outdated stereotypes, many countries in the world do not have a positive image. Despite the advancement of technology, the rapid development of the internet, and global travel, still there is a huge gap between countries in understanding each other. Due to lack of brand awareness, a country like Nepal is unsuccessful in promoting its products in the international market despite the many quality products it possesses. Many developing countries lack financial resources and knowledge to turn their potential into reality.

Nepal is gifted with natural resources and a diverse cultural heritage. There are eight Himalayan peaks towering more than 8,000 m, including Mount Everest (Sagarmatha). A huge number of tourists come to Nepal each year for trekking or to climb a mountain. Nepal is the best destination for adventure lovers and mountaineers from all over the world. Many mountain sports or on snow could be organized in Nepal if the government

builds the infrastructure and provides health facilities and insurance.

Since ancient times, Nepal has been greatly influenced by the dynamic culture of different races, ethnicity, and people. Historically, Nepal has successfully established itself as a land of multi-lingual and multi-cultural people. A country like Nepal should focus more on soft power to strengthen its influence and strength at the international level. But due to an unstable government and weak infrastructure, Nepal has not been able to maintain its cultural influence all over the world. This harms the financial condition of Nepal.

Nepal can influence foreign visitors through tourism as a tool of soft power. Some 1.7 million tourists visited Nepal in 2019, and 1.52 million in 2018. Tourism not only influences people, it also brings foreign money to the country and creates jobs. Mountain tourism is one of the influential sectors of adventure tourism. Around 1,792 mountain peaks exist in Nepal, of which 1,310 are above 6,000 meters. So far, 326 peaks have been opened for climbing (TAAN, 2008). Nepal's tourism sector generated Rs 240.7 billion in revenue and supported more than 1.05 million jobs directly and indirectly in 2018, according to the annual World Travel and Tourism Council research report.

Similarly, Lumbini is uniquely positioned to become the most important Buddhist holy land just like Jerusalem and Mecca for Muslims. Nepal could be a destination for the 535 million people who follow Buddhism. Om Charan Shrestha says that Lumbini could consolidate both

the government-to-government and people-to-people relations with countries like China, Japan, Korea, Thailand, Sri Lanka, Myanmar, and Vietnam, and make our points further stronger in the international arena. Needless to say, such relations can bring about political stability and economic prosperity in and around Nepal. Likewise, the presence of Janaki Mandir and Pashupatinath in Nepal has helped to ease tensions between India and Nepal.

Nepali cuisine is another potential soft power tool which can attract people and earn foreign exchange at the local level. It is said that if you are keen to know a place, then you must first learn about its popular cuisines and taste the unique recipes. The growth of the Nepali population in Western countries and the opening of Nepali restaurants in Europe, the USA, Australia, Japan, and other parts of the world can help to influence Nepali cuisine. Royal curd of Bhaktapur and Nepali momo are already famous among foreign tourists visiting Nepal. Movies could be another soft power tool, in which the government needs to invest more.

Nepal can brand yak cheese and export it to Europe and the USA. Similarly, hard cheese is popular in the USA and is used as dog chew. Nepal produces large quantities of lentils, orthodox tea, honey, and essential oils and exports them to other countries. The government should focus on branding these products and build export. These products can also influence people and the policies of other countries towards Nepal. Nepali paper and paper products are famous in foreign countries, which are used as gifts.

Similarly Nepali hand-knotted woolen carpets are famous in other countries. The government should brand these products and use them as a soft power tool to influence the foreign policies of countries toward Nepal. The unique architecture of Kathmandu, Bhaktapur, and Patan Durbar Squares could be a brand in itself, which could be used as a soft power tool in international architecture and engineering.

With the rapid growth of globalization, people are influenced by soft power rather than hard power. For example, India has been promoting its "Bollywood" movies all over the world. For this, credit goes to its effective policy and effective diplomatic strategy. Peoples of different nations are ready to learn the Hindi language only to see and understand Bollywood movies. Similarly, China is focusing more on its soft power than on hard power. It has started promoting its language and culture by organizing Chinese language learning programs in different parts of the world as part of its cultural diplomacy.

Nepal is one of these nations with diverse cultures and languages. Cultural events, exchange programs, broadcasting, or teaching a country's language and promoting the study of a country's culture and society are often seen as a tool of soft power. However, these activities do not produce soft power directly. What they can do is promote understanding, positive images, and propagate myths in favor of the source country (Vuving, 2009). Thus, research is important to meet the national objective of the country "Prosperous Nepal and Happy Nepali". The study and research on Nepal's soft power can play a crucial role in its economic growth bring foreign investment in expanding industrialization and unlimited opportunities for enterprises.

Governments should support and need to tell the story of their nation to the target international audience, not in simplistic propaganda, but with subtlety and sensitivity (Pilon, 2005). This practice has been termed as country branding of a nation (Anholt, 1998; Wally Olins, 2002). Countries have practiced nation branding for ages. For example, the French in the 17th century went to great lengths in remolding their country's image abroad than other European countries, and they put enormous efforts in managing their country's reputation, seeing it as one of the principal sources of a nation's power (Melissen, 2005).

#### 10. CONCLUSION

The brand of a country is a crucial tool of soft power that plays an important role in influencing the world and bringing foreign investment and increasing business. Nepal is endowed with several potential areas or items of soft power that can attract and influence the world. Its cultural and natural resources are unique, which have been attracting an increasing number of tourists, but Nepal has yet to utilize them fully. Also, many international scholars, students, and researchers can find virgin areas of studies and research.

The government should include soft power in developing foreign policies and strategies. In today's world, many countries have innovated and developed tools and strategies that will make them able to compete globally. The study has identified and prepared a list of some potential local products covering both natural as well as socio-cultural resources. There are also individuals who have helped give Nepal a positive image.

Soft power not only helps the world to know Nepal, but also supports the country through employment generation and economic growth. Nepali handmade paper, hand-knotted woolen carpets, and pulses are products having high demand. With the help of such products, Nepal can influence other countries in trade deals and develop our foreign policy strategies accordingly. Nepal can introduce several of its items, such as Juju Dhau (Royal curd) to the rest of the world with nation branding, as the USA has done with

KFC, McDonald, and Coca Cola. This, however, needs collaboration among the government, enterprises, and technical experts.

Nation branding is a relatively new topic. The brand values and soft powers of countries are closely interlinked with each other, and directly affect each other. Countries with high brand value also have effective soft power at the same time. Similarly, soft power is a form of power based on a country's cultural resources. It is intangible, relative, context-based, and controlled largely by non-state actors. The relevance and ultimate effectiveness of soft power depend on the perception and response of its target audience. For Nepal, its soft power remains untested, and it is not clear how this can be achieved in reality.

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#### Prosperity through Hydropower Trade: A Metanarrative Study

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#### 1. INTRODUCTION

In late 2019, news began to spin out in the national newspapers about Nepal Electricity Authority (NEA) urging households to use more electricity so that excess electricity being produced could be properly utilized. The government is preparing to attract Nepali households to use electricity-based cooking stoves through incentives and reducing taxes on such equipment. The Ministry of Energy, Water Resources and Irrigation directed the NEA to provide 20 percent discount on electricity bills on up to 150 units for domestic consumers to promote the use of induction stoves worth around Rs 1 billion. Meanwhile, a high-level committee of the government decided to waive 15 percent customs duty on the import of induction stoves. Minister for Energy, Water Resources and Irrigation Barsha Man Pun appealed to the people to use induction stoves in their kitchens and was quoted as saying, "We need to import LP gas from India, while electricity is our own production. If local production is used, the money will remain in the country and will contribute to reduce the trade deficit" (Republica, 2020).

Looking at Nepal's vast potential to generate hydropower electricity, the day will come when Nepal will be ready to export hydropower electricity especially to the South Asian region. It is estimated that Nepal has the economically viable potential generate over 40,000 megawatts (MW) of hydropower (Bhushal, 2016). If the potential is realized, it could easily meet Nepal's suppressed demand and create a surplus that could be exported to neighbouring countries in South Asia. Currently, Nepal's installed capacity is 968 MW and is almost exclusively hydropower, with two thermal plants accounting for 6 percent of installed capacity (Nepal Electricity Authority, 2017). Investments in new plants and repairs of damaged infrastructure have gradually improved electricity supply in Nepal, and in the last year, major urban centres experienced their first 24-hour periods without load shedding since the earthquake. Continued development of 3.8 GW of planned hydropower projects could eliminate the remaining load shedding in the coming years, allowing Nepal to become a net exporter. Also with many hydropower schemes in the pipeline, Nepal may soon have surplus energy at certain times of the year, which makes hydropower electricity trading imperative.

#### Statement of the Problem

Hydropower plays a particularly important role in Nepal's economic future

because of the scale of its potential. The current peak load electricity demand is around 1,500 MW which is expected to increase to 2,379 MW by 2022 and 4,280 MW by 2030 in a business-as-usual scenario (Nepal Electricity Authority, 2015). Hydropower projects currently under construction are expected to add 3,000 MW by 2020 (Subedi, 2017), and soon Nepal will be able to become an energy surplus country. Since Nepal may not be able to absorb the available hydropower potential domestically, export markets and transmission access to the export market are needed. Therefore, regional or sub regional electricity trade is necessary to exploit the surplus hydropower potential in South Asia. The historic signing of the Nepal-India energy Joint Steering Committee agreement to build the new Butwal-Gorakhpur 400KV crossborder transmission line opens up the possibility for Nepal to export surplus power to regional markets like India and Bangladesh from various hydro power projects.

Assuming surplus energy for trade purpose, a question arises whether Nepal can sell its surplus energy in the region. Will the neighboring states, especially India and Bangladesh, buy Nepal's surplus hydropower energy? These questions, though has been tried to be answered on technical and economic aspects, researchers have yet to systematically explore it from multiple theoretical frameworks. Using such theoretical framework lenses to study these questions can help understand the hidden complexity existing in trade Nepal's surplus hydropower.

#### Significance of the Study

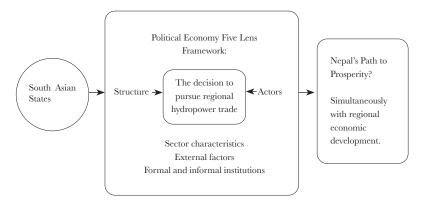
Many studies have been conducted to understand the possibility of hydropower trade in South Asia region. These studies are both qualitative and quantitative in nature and stem from various economic models. However, a gap exists in the literature when considering these studies with various philosophical lenses, such as political economy theory and game theory. Despite having numerous literature affirmatively stating that Nepal can sell its hydropower energy owing to its vast hydropower potential, it has only been in the past one decade that the study has shifted to the question about how Nepal can sell its surplus hydropower energy.

As of this writing, no systematic reviews comprehensively were located to examine the research involving multiple philosophical frameworks regarding hydropower trading by Nepal. This study will begin to bridge the gap in the literature by systematically reviewing available studies on Nepal's potential to export its surplus energy and help in understanding the facilitation of hydropower trade in South Asia, and how Nepal can take part in this trade. This study will also try to seek the linkage and relationship between regional trade and regional economic development. The research will, therefore, address that gap in strategic implementation of trading in surplus hydropower energy of Nepal and its link to regional economic development.

## 2. CONCEPTUAL FRAMEWORK

#### 2.1 Political Economy from Five Lens Framework

This framework simply tries to analyze the study objectives by exploring whether the bilateral or multilateral trade in hydropower will help Nepal's economy to



prosper and South Asian regional economic development as a whole. This framework also seeks to answer how political economic theory from the five lens framework will affect Nepal's path to prosperity and regional economic development if the South Asian states pursue the decision to trade in hydropower. Conversely, it also tries to seek an answer to how Nepal can use this theory to pursue hydropower trade in South Asia.

Is it possible for Nepal to sell its surplus electricity? What are the challenges and opportunities while trading in surplus electricity? How will the hydropower trade contribute to Nepal's role in regional economic development? While such questions are being raised by development planners, economists, scholars, and academicians, this study systematically reviews existing literature exploring Nepal's potential to sell its surplus energy beyond the borders, specifically in South Asia region,

facilitating hydropower trade in the region, and its contribution to regional economic development. The aim of this study is to assess possibility of selling Nepal's surplus hydropower electricity to South Asia, and explore challenges and opportunities of trading in surplus hydropower electricity, and concurrently appraise the contribution of hydropower trade in regional economic development.

#### 3. METHODS

### Systematic Review of the Literature

A systematic review of regional hydropower trade in South Asia was conducted as a means to thoroughly examine the research and literature to date. According to Petticrew and Roberts (2006), a systematic review comprehensively identifies, appraises, and synthesizes all the relevant studies on a given topic. A systematic review is particularly pertinent to research in which there is uncertainty about the outcome

of the effectiveness of an intervention. Petticrew and Roberts (2006) discuss seven steps for a systematic review. These steps are (1) clearly define the research question or hypothesis; (2) determine the types of studies needed to carry out the study; (3) perform a comprehensive literature search needed to locate the studies; (4) screen the studies located and assess if they meet the inclusionary criteria or if they require further analysis; (5) critically appraise the studies that will be included in the systematic review; (6) synthesize the studies and assess for homogeneity; and (7) disseminate the outcome of the review.

This systematic review has been mostly written in accordance with the recommended protocol set forth by the Campbell Collaboration (2001). The Campbell Collaboration systematic review protocol is considered to be the most widely-used and recognized protocol for systematic reviews in the social sciences (Cooper & Hedges, 2009). The Campbell Collaboration protocol (2001) requires a cover sheet, background for their view, objectives of the review, methods, criteria for inclusion and exclusion of studies in the review, search strategy for identification of relevant studies, description of methods used in the component studies, criteria for determination of independent findings, details of study coding categories, statistical procedures, and conventions, treatment of qualitative research, timeframe, plans for updating the review, acknowledgments, statement concerning conflict of interest, references, and tables.

#### Criteria for Inclusion and Exclusion of Studies in the

#### Review

According to study selection criteria, the researcher independently assessed the abstracts and titles of articles retrieved by the electronic, hand searches, and other resources for eligibility, according to the inclusion or exclusion criteria. In instances where it was difficult to make a selection decision on the basis of the title and abstract alone, the researcher retrieved the full article for screening. The following criteria were used to determine whether a study would be included in the review for purposes of effects that hydropower trade will bring for Nepal and region.

#### 1) Types of Studies:

The systematic review included both quantitative and qualitative methodology as the studies for analysis, which included various methods such as dynamic optimization technique, production cost model, SWOT-AHP-TOWS approach. Both quantitative and qualitative design studies were analyzed separately from each other and not merged for the whole analysis. Single-group case studies were reviewed and discussed to help provide explanations for positive or negative outcomes, as well as provide a basis for future research (Littell et al., 2008). Due to limited resources, this review is limited to articles written in English.

#### 2) Types of outcomes measures:

This review includes studies that measure the benefits of hydropower trade to Nepal and South Asian region. Outcome measures include the cost and selling feasibility, current and future obstacles faced by Nepal, and evidence

of cross-border trade contributing to the economic development of the region. The researcher has included findings related to outcomes in the narrative summary. The researcher also reported results associated with differential effects, adverse or unforeseen effects, implementation details, and effects on Nepal through cross-border hydropower trade in the narrative summary when available. Studies with insufficient information were included in the review but excluded from the analysis (Lipsey & Wilson, 2001).

Where possible, the study included descriptions of the regional setting to provide context for study results. We identified qualitative companion studies to help in this regard. Of particular interest were social, political, economic, and geographic factors that might impact the cross-border electricity trade, as well as any other interventions that have impacts on economic prosperity.

#### 3. Geographical context:

This review included South Asian countries, which under current feasibility can have cross-border hydropower trade, that is, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Maldives was excluded from the study as under the current situation there is no feasible technology to trade in hydropower across the ocean.

#### 4. Timeframe:

In the context of including studies regarding the economic and technical benefits, studies that were conducted from January 2010 to May 2020 were included in the review. This was done

because the data available in the studies before 2010 were mostly irrelevant with respect to the changing times. However, studies of cross-border trade with political economic and game theory lens that were published before 2010 were included for the review.

## Details of study coding categories

Coding took place for all studies meeting the inclusionary criteria. The coding instrument included categories concerning all relevant bibliographic information, the studies' design, the studies' intervention criteria, the studies' inclusionary and exclusionary criteria, type(s) of study, geographical region examined, statistical methods employed, and all outcome data (Lipsey & Wilson, 2001). In addition, unique information about the study was also included.

#### Search Strategy for Identification of Relevant Studies

#### Literature search.

It is important in systematic reviews that the literature search be approached systematically in an effort to exhaust both published and unpublished research. According to Lipsey and Wilson (2001), the exclusion of searching and including will likely lead to an upward bias in effect sizes. An exhaustive search for studies and research were searched using a combination of the keywords "hydropower", "hydropower trade in South Asia", "South Asia", "regional economic development", "Nepal hydropower", and "hydropower trade".

#### Conducting and Documenting the Search and Selection Process

A detailed search account of data collection procedures and storage of records was maintained to keep track of all searches, including (1) Time periods searched; (2) Databases utilized; (3) search engines searched; (4) number of hits; (5) amount of time searching; and (6) key words used.

### Search methods for identification of studies

The researcher undertook electronic searches in scientific databases and hand searched citation lists, recent relevant journal index lists, websites, and publications from relevant conferences and scientific meetings. The researcher contacted key expert informants in this area.

#### Electronic searches

As the literature describes this topic in a very heterogeneous manner, the search process was iterative to ensure that the researcher achieved a balance between recall and precision. Following electronic database were used to search for relevant literatures.

- » ProQuest
- » JSTOR
- » ResearchGate
- » Academia
- » ScienceDirect
- » IEEE Access
- » Munich Personal RePEc Archive
- » Taylor & Francis Online

#### Hand searching.

The following journals were hand-

searched as they were likely to contain information relevant to the hydropower trade in South Asia region.

- » Energy Research & Social Science
- » Energy Policy
- » Water International
- » Energy Strategy Review
- » The Electricity Journal
- » Asia-Pacific Development Journal
- » South Asia Economic Journal
- » Eurasian Geography and Economics
- » Asian Affairs
- » Strategic Analysis
- Journal of Natural Resources and Development
- » International Journal of Water Resources Development

#### Internet searching.

To locate additional unpublished studies not identified through the procedures described above, we carried out an Internet search using key words and prominent author searches. We reviewed 13 pages of hits for each key word or author search in googlescholar.com and google.com.

We also searched the following websites, institutions, and portals for relevant grey literature.

- » The World Bank
- » Asian Development Bank
- » The Asia Foundation
- » Nepal Electricity Authority
- » United Nations Economic and Social Commission for Asia and the Pacific
- » National Renewable Energy Laboratory (NREL)
- » National Planning Commission
- » SAARC

- » Observer Research Foundation
- » South Asia Regional Initiative for Energy Integration (SARI/EI)
- » Observer Research Foundation

#### Reference lists.

Reference lists of studies found relevant for this review as well as related studies and systematic review were examined for sources of further relevant data.

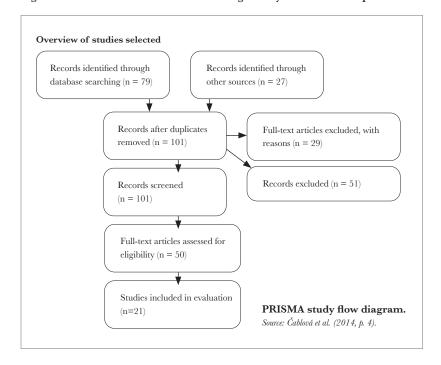
#### Personal contacts.

Lipsey and Wilson (2001) recommend that professional associations and professionals in the field of study be contacted as potential sources of fugitive data. In accordance with those recommendations, the study supervisor and Institute of Foreign Affairs were contacted for published and unpublished work and for assistance in locating research conducted internationally.

#### 4. RESULTS

The electronic databases searches yielded 79 potentially relevant documents, and we found 27 additional documents via other search methods. Five studies were removed as they were duplicated. We reviewed the titles and abstracts of 101 documents to determine potential relevance, excluding 51 due to irrelevance to the review. We obtained and reviewed 50 full-text documents and formally excluded 29 papers whose quality appraisal was not satisfactory. Twenty one studies met all eligibility criteria and were included in the review.

Figure 1 illustrates the flow of studies through the systematic review process.



#### **Selected Studies Summary**

s.n.	Title	Author, Year	Location	Sample	Method	Methodology
1	Energy Management in South Asia	Abbas et al., 2018	South Asia	NA	Desk Based Study	Quantitative
2	A Review on the Collaboration of Power Utilisation in South Asia	Alam et al., 2019	South Asia	NA	Desk Based Study	Quantitative
3	Cross border electricity trade for Nepal: a SWOT-AHP analysis of barriers and opportunities based on stakeholders' perception	Dhakal et al., 2019	Nepal	37 interview	SWOT-AHP approach	Mixed
4	Energy Cooperation in South Asia: Prospects and Challenges	Ahmed et al., 2011	South Asia	NA	Desk Based Study	Mixed
5	Potential for Power Trade in Western Part of South Asia: Techno- Economic Rationale	Kharbanda & Panda, 2016	India, Pakistan, and Afghanistan	NA	Desk Based Study	Quantitative
6	Cross-Border Energy Trade between Nepal and India: Assessment of Trading Opportunities	McBennett et al., 2019	Nepal, India, and Bangladesh	NA	Production Cost Model	Quantitative
7	The Price of Power: The political economy of electricity trade and hydropower in eastern South Asia	Pillai & Prasai, 2018	BBIN	NA	Desk Based Study	Mixed
8	Regional electricity trade for hydropower development in South Asia	Timilsina, 2018	South Asia except Maldives	NA	Mixed method, optimization model	Quantitative
9	Cross-Border Power Trading in South Asia: A Techno Economic Rationale	Wijayatunga et al., 2015	South Asia except Maldives	500 samples of distribution of outcomes	Monte Carlo simulation and linear program based dispatch optimization	Quantitative
10	Barriers to regional cooperation for grid integration of large- scale renewable energy in Eastern South Asia	Dhakal, 2018	BBIN	NA	Desk Based Study	Quantitative

			I	I		
11	A Review and Exploration of the Status, Context and Political Economy of Power Sector Reforms in Sub-Saharan Africa, South Asia and Latin America	Eberhard & Godinho, 2017	Sub-Saharan Africa, South Asia and Latin America	NA	Desk Based Study	Mixed
12	An assessment of opportunities and challenges for cross- border electricity trade for Bangladesh using SWOT-AHP approach	Haque et al., 2020	Bangladesh	44 interviews	Systematic qualitative analysis (SWOT- AHP)	Mixed
13	Water and hydropower cooperation in BBIN countries: policies and way forward	Haran, 2018	BBIN	NA	Desk Based Study	Mixed
14	Regional cooperation on energy in South Asia: Unravelling the political challenges in implementing transnational pipelines and electricity grids	Huda & McDonald, 2016	Bangladesh, Nepal, Pakistan and India	45 interviews	Extensive Literature Review and Interviews	Qualitative
15	India's Economic Opportunities and Energy Security: Analysing Prospects Within SAARC and Beyond	Juhos, 2015	India	NA	Desk Based Study	Quantitative
16	BBIN Initiatives: Options for Cross- Border Power Exchange	Lama, 2016	BBIN	NA	Desk Based Study	Quantitative
17	The promotion of regional integration of electricity markets: Lessons for developing countries	Oseni & Pollitt, 2016	Europe & Africa	4 case studies	Case study	Mixed
18	Electricity cooperation in South Asia: Barriers to cross-border trade	Singh et al., 2018	South Asia	NA	Desk Based Study	Quantitative
19	An Analysis of the Barriers to Cross Border Trade in Hydroelectricity in the Himalayas	Strahorn, 2016	BBIN	NA	Desk Based Study	Mixed
20	Hydropower-based collaboration in South Asia: The case of India and Bhutan	Tortajada & Saklani, 2018	India & Bhutan	NA	Case study	Quantitative
21	Electricity trade and cooperation in the BBIN region: lessons from global experience	Vaidya et al., 2019	BBIN	4 case studies	Case study	Qualitative

#### Study design

Of the 21 studies included, 3 (Oseni & Pollitt, 2016; Vaidya et al., 2019; Tortajada & Saklani, 2018) were case studies of various power pools existing in the world, 12 (Abbas et al., 2018; Alam et al., 2019; Ahmed et al., 2011; Kharbanda & Panda, 2016; Pillai & Prasai, 2018; Dhakal, 2018; Eberhard & Godinho, 2017; Haran, 2018; Juhos, 2015; Lama, 2016; Singh et al., 2018; Strahorn, 2016) were desk-based studies, including document review, technical and economic review and literature review, 3 (Timilsina, 2018; Wijayatunga et al., 2015; McBennett et al., 2019) were based on modelling techniques, including optimization model, Monte simulation and linear program-based dispatch optimization, and Production Cost Model. Two studies (Dhakal et al., 2019; Haque et al., 2020) were based on SWOT-AHP model analyzing qualitative data from SWOT and quantitating the qualitative data, whereas 1 study (Huda & McDonald, 2016) was based on extensive literature review and interviews.

#### Location of studies

Study locations include either whole of the South Asia region or some part or countries of the region. Four studies (Abbas et al., 2018; Alam et al., 2019; Ahmed et al., 2011; Singh et al., 2018) covered the whole South Asia region, two studies (Timilsina, 2018; Wijayatunga et al., 2015) covered the whole South Asia region except the Maldives, citing infrastructural infeasibility for hydropower transmission line, and six studies (Pillai & Prasai, 2018; Dhakal, 2018; Haran, 2018; Lama, 2016; Strahorn, 2016; Vaidya et al., 2019)

covered the BBIN region only. One study each (Haque et al., 2020; Juhos, 2015; Dhakal et al., 2019) covered Bangladesh, India, and Nepal individually. Huda & McDonald, 2016 covered Bangladesh, Nepal, Pakistan, and India, whereas Tortajada & Saklani, 2018 studied India and Bhutan only. Similarly, Kharbanda & Panda, 2016 studied India, Pakistan, and Afghanistan, and McBennett et al., 2019 studied Nepal, India, and Bangladesh. Similarly, one study each (Oseni & Pollitt, 2016; Eberhard & Godinho, 2017) covered Europe and Africa, and Sub-Saharan Africa, South Asia, and Latin America.

#### Sampling

All of the included studies, except Oseni & Pollitt, 2016, involved either one country or part of the South Asia region. Of these studies, three used interviews as one or the whole tool for data collection. Haque et al., 2020 and Dhakal et al., 2019 have a sample size of 44 and 37 interviews with non-probability method and applied purposive expert sampling, followed by snowball sampling. Similarly, Huda & McDonald, 2016 have a sample size of 45 interviews, followed by extensive literature review. Three studies used the case study method where Vaidya et al., 2019 and Oseni & Pollitt, 2016 used four cases for the paper, while Tortajada & Saklani, 2018 used one case study.

Similarly, one study (Wijayatunga et al., 2015) has 500 samples of distribution of outcomes for Monte Carlo simulation and linear program based dispatch optimization method. The remaining 14 studies (Eberhard & Godinho, 2017;

Strahorn, 2016; Abbas et al., 2018; Alam et al., 2019; Ahmed et al., 2011; Dhakal, 2018; Lama, 2016; Singh et al., 2018; Timilsina, 2018; Pillai & Prasai, 2018; Haran, 2018; Juhos, 2015; Kharbanda & Panda, 2016; McBennett et al., 2019) did not provide specific information about the context of their interventions.

#### Overview of intervention types

Abbas et al., 2018 evaluated the Energy Management (EnM) in the South Asia region and presented EnM trends by assessing the regional energy mix and distributed generation strategy plans. Alam et al., 2019 reviewed the current power generation capacity of all eight nations of South Asia and explored regional collaboration in power utilization. Dhakal et al., 2019 studied the internal and external factors for CBET, Nepal's strengths opportunities that could capitalized, factors that are currently important, and possible strategies to seize the opportunity and mitigate the threats. Ahmed et al., 2011 explored the scope of the SAARC member states to create strong regional cooperation by observing examples of successful regional cooperation in other parts of the world and monitoring the benefits of such cooperation. Kharbanda & Panda, 2016 complements the increasing acceptance of CBET in the South Asian region for sustainable development of the power sector. McBennett et al., 2019 explored potential CBET from an operations perspective among India, Nepal, Bangladesh, and Bhutan by examining the technical and economic impacts of trade on both the systems in 2022. Pillai & Prasai, 2018 described the

general evolution of regional electricity markets and the BBIN market's current place in that trajectory, then framed the geopolitical context in which this market is evolving. Timilsina, 2018 examined the importance of enhancing cross-border transmission interconnections and regional electricity trade to promote hydropower in the South Asia region, and it quantified the potential of hydropower development and trade under alternative scenarios.

Wijayatunga et al., 2015 studied the economic and reliability benefits of electricity trading among the countries in South Asia encompassing the sub region containing Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Dhakal, 2018 gives detailed insights into barriers of hydropower trade to set out where research must be focused to complement ongoing efforts.

Eberhard & Godinho, 2017 explored the role of political economy in driving, constraining or otherwise influencing power sector reform. Haque et al., 2020 identified barriers and opportunities for electricity trading for Bangladesh, focusing on the stakeholders' perceptions. Haran, 2018 explored the current water and power situation, potential for cooperation among BBIN countries, and policy steps needed to strengthen cooperation in these areas for the benefit of the people of these countries. Huda & McDonald, 2016 focused on political impediments with a view to creating a systematic categorization of the issue in order to address the abstract nature of much of its literature. Juhos, 2015 looked to see if the South Asian Association for Regional Co-operation (SAARC) framework agreement could provide the basis and open up new opportunities for inter- and subregional energy co-operation in Asia. It also looked if the strategic allies in the extended neighbourhood, including Iran, Russia, or Japan and the United States, could indirectly help India to balance the increasing Chinese influence in its immediate neighbourhood. Lama, 2016 described the potential of energy trading within BBIN. Oseni & Pollitt, 2016 studied how to promote regional cooperation in power trade. Singh et al., 2018 identified the relevant regional and national scale barriers and held discussion on how to overcome them. Strahorn, 2016 looked inside the neglected barriers to cross-border electricity trade in the Himalayas. Tortajada & Saklani, 2018 focused on the long-term trans-boundary energy collaboration between India and Bhutan and the benefits for India in terms of diversification of energy sources and overall energy security. Vaidya et al., 2019 analyzed critically the experience of these other regions in terms of regional cooperation around electricity and power trade, and to see if there are pertinent lessons for the BBIN region.

## Overview of outcome measures

Included studies examined a host of variables and associations with the possibility of regional hydropower trade, including regional electricity trade in technical and economic terms (Abbas et al., 2018; Alam et al., 2019; Kharbanda & Panda, 2016; McBennett et al., 2019; Timilsina, 2018; Wijayatunga et al., 2015; Lama, 2016; Oseni & Pollitt, 2016; Tortajada & Saklani, 2018; Vaidya et

al., 2019), challenges and opportunities (Dhakal et al., 2019; Ahmed et al., 2011; Dhakal, 2018; Haque et al., 2020; Singh et al., 2018), political economy challenges (Pillai & Prasai, 2018; Eberhard & Godinho, 2017; Huda & McDonald, 2016; Haran, 2018; Juhos, 2015; Strahorn, 2016).

Because of the variety of outcomes across studies, quantitative synthesis proved difficult; not only were the measures themselves different across studies, but the differences in study design made it nearly impossible to meaningfully pool effect sizes. We provide a narrative synthesis on the major outcomes as they overlapped among studies. Because of the paucity of evidence that we could quantitatively synthesize, subgroup analysis was not possible.

A meta-synthesis (also referred to as meta-ethnography; Noblit & Hare (1988) and qualitative meta-analysis; Schreiber, Crooks & Stern, 1997) would be appropriate when a review aims to integrate qualitative research. The aim of a meta-synthesis is to synthesize qualitative studies on a particular topic in order to locate key themes, concepts, or theories that provide novel or more powerful explanations for the phenomenon under review (Thorne, Jensen, Kearney, Noblit & Sandelowski, 2004).

#### 5. DISCUSSION

## 5.1 Barriers to regional cooperation on hydropower trade

Removing barriers to regional power

trade will be a complex task that, based on experience elsewhere in the world, could take many years. SIEPAC (the Central American Electrical Interconnection System) project took 23 years to complete after its initial feasibility study. The GMS region took over two decades to arrive at the current stage (Singh et al., 2015), but GMS still has difficulties in moving beyond bilateral trade in an effective manner, while projects such as the LTMS (Lao-Thailand-Malaysia-Singapore) are under discussion. The Association of South East Asian Nations (ASEAN) Power Grid has a good work program, and regional power utilities are meeting regularly. Some of the key transmission interconnections have been identified and are being developed and upgraded to facilitate regional power trade, but there is a long way to go toward integration itself.

This review has revealed the multidimensional nature of the barriers to regional cooperation on power trade and grid integration in Eastern South Asia. Some of these barriers are regional in nature and include geopolitics, standardization, coordination, and risks and uncertainties, while others are country-driven and emerge internally. Barriers can also be viewed as being either supply- or demand-side, but understanding them in totality is essential since many factors are intertwined.

The region is at a very early stage of cooperation; this fact must be taken into consideration when discussing any barriers. We must, therefore, look at barriers at two levels:

Barriers to upscaling bilateral trade in the immediate term; Barriers to building trade at a regional level involving more than two countries (i.e., Nepal, India, Bhutan, Bangladesh, and Myanmar) in the longer term.

Timilsina et al. (2015), Singh et al. (2015; 2018), and Singh (2013) have all identified the major barriers in South Asia as being the limited cross-border transmission links, bottlenecks in the domestic energy infrastructure, poor operational efficiency, poor financial performance and creditworthiness of the utilities in the countries, absence of a competitive power market, institutional constraints, and, most importantly, the long-standing political disputes and oppositional mind sets between countries. This section summarizes these barriers in further detail.

## 5.2 Lack of political will and trust

The most debated and cited barrier to regional electricity cooperation in South Asia is geopolitical, i.e., historical animosity leading to a lack of trust (Singh et al., 2018; Tortajada and Saklani, 2018). The fact that SAARC is not functioning well is evidence of this mistrust. SAARC is adversely affected by the animosity between India and Pakistan.

In Eastern South Asia, however, the level of trust can be seen as relatively better than in South Asia as a whole – although primarily on an ad-hoc, issue-specific basis. Only Bhutan–India relations are conducive for water deals; in Nepal, any water and power deal with India creates a political bombshell and causes emotions to run high due to suspicion

and past water treaties with India that are perceived to have been unfair.

Estimates of the benefits of cooperation and a transparent evaluation of potential win-win deals are essential for policymakers. Trust building, dialogue, and engagements at various stakeholder levels across countries (research communities, investors, project developers, market operators, utilities, policymakers and regulators, etc.), backed by evidence-based information could help.

The market and the private sector have the leverage to push policies that are conducive for cooperation if they see prospects, and, therefore, they must be engaged. The Bangladesh–India power deals are prompted by the acute shortage of power in Bangladesh, that country's lack of primary energy resources, expensive local electricity costs, and the country's need for power to feed its consistently high GDP growth rate. It is supported by a relatively stable government and a moderate political party in power that has warm relations with India.

Internal political instability is also a strong barrier to regional electricity cooperation (Singh et al., 2015). Nepal-India electricity cooperation is partly plagued by past political instability in Nepal. The absence of necessary political will remains a key barrier in the region (ECA, 2010). ECA (2010) and Singh et al. (2015 and 2018) cite key possible factors for this as including historical distrust between countries, internal politics in countries, benefit-sharing complexities, and inability to

operationalize past agreements.

# 5.3 Information barriers: scale of benefits, lack of trusted independent sources of information

Another key barrier to regional cooperation on power in the region is the lack of research and research expertise to evaluate the benefits and costs, as well as the diverse aspects of analysis that can help build trust. The modelling studies that do exist are largely limited to optimisation-based energy system models and some economic models that address the direct cost, pollution, and energy security benefits.

Existing studies fail to address other key factors:

- Indirect and other larger economywide and social benefits (due to improved energy access) are generally not considered.
- ii. Upstream and downstream benefits from cooperation on multi-purpose hydro dams, such as flood control and irrigation, are not studied; nor are the potential trade-offs, such as displacement of people, biomass loss, and especially deforestation.
- Efficiencies due to economies of scale and risks in benefits estimations are rarely modelled.
- iv. Further lacking are spatial or locational modelling analyses, which are necessary for considering transmission infrastructure in the integrated cost-benefit analyses as well as benefit-sharing discussions.
- Fiscal issues (debt or trade surpluses) associated with benefits or tradeoff and investment needs are not

- modelled at all.
- vi. There could be additional political benefits of increased infrastructure connectivity which have also not been sufficiently studied.
- vii. The likelihood of the benefits proposed in the current literature materializing remains murky and needs clarity, as does the distribution of these benefits across space and across agents in either bilateral or regional electricity cooperation.

Eastern South Asia lacks an independent think-tank, not aligned to any government, which can generate evidence-based analysis of the costs and benefits of power trade, and which can provide independent policy advocacy. Furthermore, a lack of negotiation skills persists in the region, especially in small nations such as Nepal and Bhutan. The SAARC Energy Centre could have been such a forum, but SAARC mechanisms are not functioning effectively.

A particularly glaring gap in the current analyses is an understanding of the potential positive and negative implications of the rapidly declining cost of renewables (especially solar PV and onshore wind) and storage technologies for regional electricity trade. The cost of utility-scale solar PV has fallen by 73% in the period 2010-2017. Recent auctions have resulted in onshore wind power levelled cost of electricity (LCOE) as low as \$0.03/kWh. By 2020, all the renewable power generation technologies currently in commercial use are likely to fall within the fossil fuelfired cost range (IRENA, 2018). The density and cost of power storage are also expected to improve. This will have implications for the power trade, not only for supply and trade volume but also for regulation, dispatching, and transmission infrastructure.

#### 5.4 Insufficient and nonoperational regional mechanisms

Electricity cooperation under SAARC, BBIN, and the Bay of Bengal Initiative Multi-Sectorial Technical Economic Cooperation has not gathered sufficient pace for various reasons. As a result, no regional agencies are actively supporting regional cooperation, except modest initiatives, such as USAID's SARI in South Asia. Regional institutional arrangements are necessary to facilitate electricity cooperation (Pollitt and Oseni, 2014). As was touched on above, SAARC has not been functional. The lack of a regionally mandated institution hurts South Asia. Strong mechanisms are needed, especially for the discussion on regulation and the involvement of regulatory agencies to shape the legal and regulatory framework (World Bank, 2008).

One key task in regional cooperation is to ensure non-discriminatory access to the grid. While the SAME Framework Agreement in 2014 involved such provisions, the agreed framework has not moved forward. In a regional setting, a regional governance mechanism, such as an independent service operator or regional transmission organisation, is needed. At this moment, bilateral trade happens through state-owned nodal agencies, and such an arrangement limits the entry of participants (Singh et al., 2015). In policy forums, stakeholders in

Nepal have repeatedly emphasised that a guaranteed open access grid with India is critical for building confidence in Nepal to develop export-oriented hydropower projects.

## 5.5 Inadequate cross-border transmission infrastructure and technical issues

Inadequate cross-border transmission capacities hinder large-scale electricity trade in Eastern South Asia. Earlier discussions in this report have covered the state of transmission infrastructure. The pace of developing such infrastructure is slow, and sufficient cross-border transmission capacities are a must.

Experiences from successful electricity cooperation initiatives, such as the aforementioned SAPP and also the West Africa Power Pool, have shown that large loss in potential wheeling revenues and limited volume of trade occurred due to limited transmission capacities (Oseni and Pollitt, 2016). These issues further affected market integration in those regions.

If Bhutan and Nepal develop exportoriented hydroelectricity too quickly, without the matching transmission infrastructure, reaching the Indian and Bangladeshi markets will not be possible, and power will be lost. Moreover, barriers also emerge due to the lack of local transmission infrastructure inside countries.

Further, harmonisation of grid codes, grid operating procedures, and standards are key requirements for the safe and reliable operation of grids in cross-border power trade. Such codes cut

across different countries and take time to harmonize and need to move step by step. SARI (2016c) proposed a set of Framework Grid Code Guidelines for South Asian cross-border integration, and these might be useful for further discussion in this area in the region, but more dialogue and discussion are needed.

# 5.6 Inadequate installed capacity and financial resources, and unconducive market structures

Further barriers relating to the availability of power, insufficient financial resources, and non-conducive market structures for trade and investment are all intertwined. While Eastern South Asia holds great potential for trade, there is currently a lack of adequate installed capacity for export. Bhutan's hydropower is being developed on a piecemeal basis, and mostly by India. Bhutan is also concerned about foreign debt. Nepal is struggling to meet domestic demand due to slow hydropower development and political and social conflicts inside the country (although the country is expected to be politically stable going forward). India itself has power shortages, and may face limitations in supplying more power to Bangladesh. Thus far, not more than 1,000 MW of power trade has been discussed with Bangladesh. India's supply to Myanmar is also small. To develop the electricity market, the installed capacity in the region must be scaled up.

Export-oriented large hydropower development will require substantial financial resources and, likely, FDI for Nepal and Bhutan. The draft trilateral MOU between Bangladesh,

India, and Bhutan (yet to be finalised) to invest in Bhutan could be one type of arrangement in the region, but the limited role of the private sector and overreliance on a government-to-government arrangement for trade is a limiting factor in the region.

Limitations around investment pertain not only to the generation side, but also to the transmission infrastructure. In ASEAN too, investment in transmission lines is one of the key barriers to regional power trade (Li and Chang, 2015).

The current market structures that persist in the region are unconducive to trade. Without serious efforts to address them, they pose a clear market risk and entail an uncertain return on investment.

As mentioned earlier, the power market structures in Eastern South Asian countries are all different in terms of generation, transmission, distribution, and market structures. While India has some degree of market competition, the single buyer model persists elsewhere in the region. Nepal is vertically integrated (with only some competition on the generation side), Bangladesh is horizontally unbundled, and Bhutan is partially unbundled (Singh et al., 2015). Lack of market clarity and perceived risk impede investment in supporting infrastructure.

Another key barrier to trade is the lack of cost-reflective electricity tariffs (Oseni and Pollitt, 2016). When reasonable trade takes place, subsidies, export/import taxes, and the cost of demandside energy efficiency measures all have an effect. Electricity pricing that reflects

actual costs is a must. However, in a single buyer market, the price is dictated, and unless the market opens to more than two countries, greater volumes of trade may not happen.

The traded electricity price in the region varies, with Bhutan to India being the lowest and India to Nepal and Bangladesh the highest, but these are more government-to-government arrangements than true market operations. Such differences in the market structure, operational arrangements, and tariffs represent a major barrier, especially when there are no meaningful regional coordination mechanisms, and there is no dedicated regional entity.

Power sector reform is itself a complicated process. The prospects for unlocking power trade in Eastern South Asia will partly depend on the extent to which power sector reform can be synchronized across other sectorial reforms in the economy (Nepal and Jamasb, 2012).

## 5.7 Lack of a demonstrated model of regional cooperation

Another final barrier to regional electricity cooperation in Eastern South Asia is the lack of a regionally demonstrated model of electricity cooperation. The successful cooperation between Bhutan and India is unique, rather than being a model (Tortajada and Saklani, 2018). There is a serious lack of a champion project that demonstrates the benefits and provides positive signals to the market to build confidence. Regional conflicts have hindered such a demonstrated model. Even activities outside the electricity sector might help in this regard.

## 6. CONCLUSION & RECOMMENDATION

This report provided an overview of the prevailing situation of regional electricity cooperation in Eastern South Asia. It outlined the opportunities associated with regional power trade, the current state of electricity trade, and the key barriers to further cooperation. A number recommendations can be drawn from this analysis for EEG to help unlock power trade in Eastern South Asia.

The following research projects are proposed that could help address the barriers identified in this report:

- Studies are required that identify and outline steps to reduce tradedistorting inefficient national regulations. Such a study could help promote market-based mechanisms that involve the private sector and facilitate non-discriminatory access to grids and FDI. The current reliance on bilateral power trade and 'government-to-government' measures is not sufficient.
- Research is needed to build a better knowledge base on alternative models of cooperation in the region, the governance of regional electricity cooperation, and the perceptions of stakeholders on barriers and solutions. Studies should draw on best practice in other regions.
- Modelling projects could guide the market and build confidence, particularly around the implications of technology change for regional energy trade, such as the declining

- costs of solar and onshore wind.
- 4. Further research is needed to identify the specific transmission constraints that exist in the region. This research is necessary to inform a regional investment framework and mechanism for generation and transmission infrastructure. FDI and other sources are possible in the region for export-oriented projects, but the region must be very receptive of FDI in the power sector.

In addition to the research projects identified above, the following steps focused on research uptake could help ensure that findings are applied in practice:

- Workshops and training programs are required to build domestic institutional capacity to promote regional electricity cooperation.
- 2. The creation of an independent regional entity to coordinate, advocate for, and harmonize policies, markets, and grids is urgently needed to provide a nonbiased view on the costs and benefits of electricity trade to each country.
- Stakeholders at various levels must engage in cross-border dialogue to build trust between countries. To this end, the role of independent think-tanks and strategic and research institutions is important, as such dialogue must be based on evidence-based analysis.

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