Rethinking Climate Diplomacy Gains: Strategic Benefits to Nepal

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Abstract
Nepal is one of the most vulnerable countries in the world when it comes to climate change, which has become a major threat to development and in building disaster-resilient urban and rural communities. The Intergovernmental Panel on Climate Change (IPCC) sixth assessment report of 2021 termed the climate crisis as "Code Red", signifying that climate change is already causing substantial physical, environmental, social, and economic losses, and damages in both developing and developed countries. The impacts of climate change are disproportionate for countries like Nepal, which must bear the brunt of the impacts even though their contribution to making global warming is minimal. However, the politics of developed and the developing countries and changing economic realities of many influential nations complicate multilateral, bilateral, trilateral and regional climate negotiations. Most recent scientific reports suggest that if countries do not take decisive action to reduce greenhouse gas emissions now, the world is going beyond the 2°C rise limit soon and will affect, inter alia, the mountain ecosystem, freshwater system, agriculture, livelihood, and development practices. The impacts of climate change are increasing rapidly in various sectors of Nepali human and natural ecosystems. Therefore, addressing the impacts of it is paramount, and requires mitigation and adaptation measures, which includes efficacious climate diplomacy. Qualitative assessments indicate that Nepal needs to adopt a new approach to climate diplomacy to ethically encourage big economies and the rest of the world to go beyond conventional binary options of relations between the developed and developing countries. Adaptation and mitigation are the best available approaches to addressing climate change vulnerabilities and building resilient communities. Therefore, an interdisciplinary negotiation team would be needed in the diplomatic efforts to articulate priorities and evidence-based impacts and for tapping the international resources – state-of-art-knowledge, finances, and technologies – to assist the country to fight against climate threats.

Keywords: *Climate change, diplomacy, Nepal*

Introduction

Climate change is one of the most burning issues of the 21st century. The IPCC's sixth report (2021) labeled the climate crisis as a "Code Red", suggesting climate change is causing

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substantial physical, environmental, social, and economic stresses in the world, and especially in the developing countries including Nepal. International climate change negotiations for addressing threats of climate change have been underway since the Earth Summit in Rio de Janeiro in 1992 and the establishment of the United Nations Framework Convention on Climate Change (UNFCCC). However, the emissions of global greenhouse gases (GHGs) and their concentrations in the atmosphere have been rapidly increasing and have contributed to heating the world by over 1°C compared to pre-industrial levels. The Convention, the Kyoto Protocol, and the Paris Agreements have made a little contribution in reducing GHGs and the lack of progress has been attributed to the problems in the international system—the structural state-centric framework, procedural problems of negotiations—consensual decision-making approach, and the characteristic problems of climate change and it covers a wide range of issues that influence the roles of states at climate negotiations (Pandey, 2012; Pandey, 2014; Victor, 2011; Downie, 2011; Grubb, 2011; Helm, 2009; Volger, 2011; Also see figure 1 for details).

Nepal is a Party to the UNFCCC and is also one of the most vulnerable countries to anthropogenic climate change in the world. Climate change is becoming the most powerful threat to development outcomes and to efforts of building climate resilient urban and rural communities. The impacts of climate change are disproportionate, and it is the least developed and the developing countries that have to bear the brunt of the escalating impacts even though their contributions towards creating the problem is minimal. Yet, in the state-centric framework of international negotiations, the politics of the developed and the developing countries and changing economic realities of influential nations have been complicating UNFCCC led climate negotiations. Recent climate reports suggest that, if countries take no action soon, the world will go beyond the 2°C limit and affect mountain ecosystem, freshwater system, agriculture, livelihoods, and development practices. Climate impacts have become more visible in all sectors of Nepali socio-economic activities, and addressing them is important and would require both mitigation and adaptation measures. Adaptation and mitigation are the two best available approaches to addressing climate change; however, incorporating these in development practices requires a substantial human capacity, knowledge, technological and economic resources, which are generally beyond the access of Nepal. In this backdrop, we argue that Nepal needs to adopt a reconsidered, sophisticated approach with renewed leadership to climate diplomacy to encourage the developed North and the developing South, the emerging economies, and the rest of the world to go beyond the conventional binary options in the politics of the developed and the developing countries.

Employing qualitative, primarily, secondary data, the first section of the paper briefly introduces the global climate challenges, negotiations issues and the key arguments. The second section focuses on climate change impacts in Nepal. The third section discusses the practice of UNFCCC negotiations and introduces the negotiating blocs. The fourth and the fifth sections focus on Nepal's existing climate diplomacy and approaches for the future followed by the conclusion.

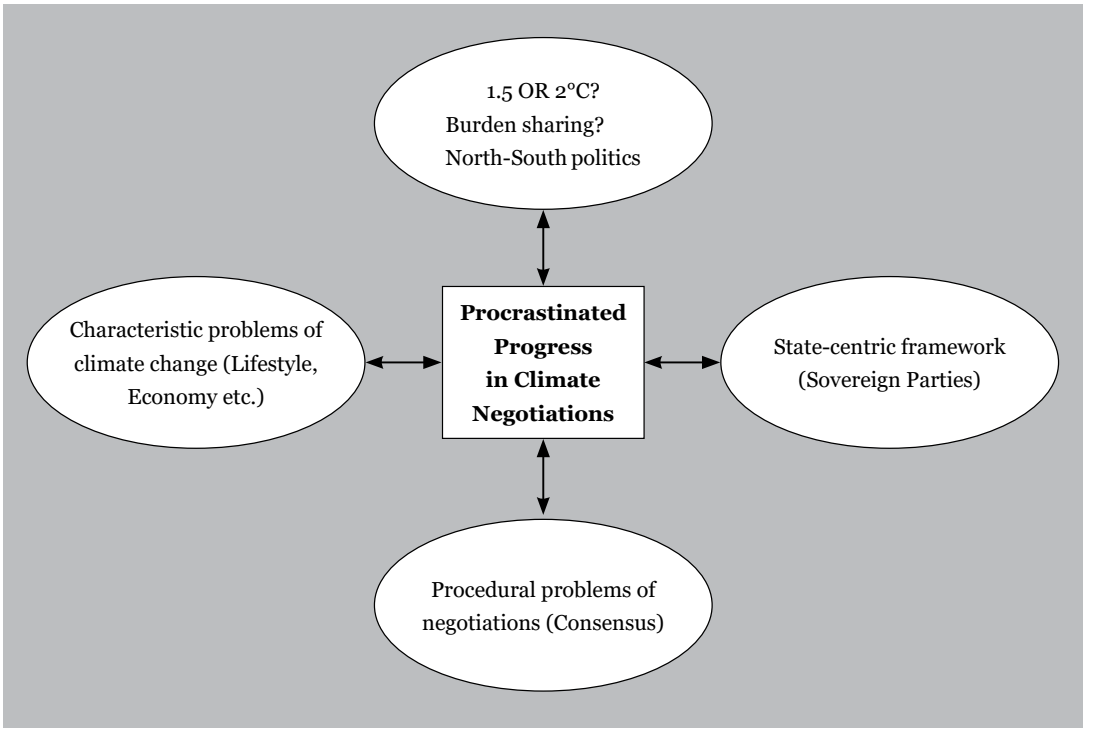

Figure 1: Procrastinated Progress in Climate Change Negotiations.
Source: Adapted from Pandey, 2012; 2014.

Global climate change and its impact on Nepal

The most recent IPCC report (2021) unequivocally says that human influence has warmed the atmosphere, ocean, and land and the rate of warming is unprecedented in at least the last 2000 years. Continued global warming is projected to further intensify the global water cycle, its variability, monsoon precipitation, and severity of wet and dry events. Monsoon precipitation is projected to increase in the mid- to long-term in Asia and Africa, particularly in South Asia and East Asia and West Sahel (IPCC, 2021). Nepal is ranked as the fourth most vulnerable country in the Global Climate Risk Index (CRI) developed by Germanwatch, while it is in the 11th position among the most vulnerable on average from 1998 through 2017 (Eckstein et al., 2019). According to Nepal's third national communication to UNFCCC (2020), the recent projections (based on RCP4.5 and RCP8.5 models) suggest that Nepal will experience temperature rise between 1.730C and 3.690C by the end of the 21st century (MoFE, 2021). The temperature will rise at varied rates in the different the physiographic regions: Tarai between 1.72 0C and 3.690C, Siwalik (up to 3.660C) and High Mountain (up to 3.610C). Seasonally, the post monsoon period and winter will become warmer by 2.50C to 4.50C and 2.10C to 40C. The annual maximum temperature trend will have a growth rate of 0.056°C yr-1 with 99.99 percent significance.

Data from 1971–2007 show that floods affected many people (over 4.6 million) but caused fewer deaths (per event). Cumulatively, however, they caused a significant number of deaths (3,902 people in 1971–2007). Conversely, per event, landslides killed or injured more people (as high as 5,000 per event) but affected fewer people (though still a high number) or 607,091, in the same period (Shrestha 2019). The most common climate-induced hazards – floods (in the plains) and landslides (in the hills) – are associated with the monsoon (June-September). The loss of life and damage to property and infrastructure annually affect the livelihoods of hundreds of thousands of people. The estimated direct costs of current climate variability are equivalent to 1.5–2 percent of GDP per year in Nepal based on 2013 prices (GCAP, 2014).

The shrinking of glaciers in the Himalayas and the formation and expansion of glacial lakes are some of the indicators of global warming. The Rika Samba, Lirung, and Khumbu glaciers are retreating at an alarming rate while the formation of glacial lakes has become relatively common due to the rapid melting of glaciers (UNDP, 2013). Likewise, the Imja, Tsho Rolpa, Thulagi, and Barun glacial lakes are expanding. The increasingly visible glacial shrinking and the formation of lakes have led to several Glacial Lake Outbursts Flood (GLOF) events over the past few decades. The occurrence of GLOF implies that there is indeed some warming happening. It also means that the overall pattern of risks is changing. The pattern of change is also visible in the middle hill hydrological system in the form of declining stream flow and shifting characteristics of precipitation (Dahal et al., 2019).

Nepal's geographic position represents a major portion of the Himalayas and northern belt of the densely populated Gangetic plain. Stretching from the world's highest mountain (Mount Everest -8848.86 m) to the plains at 60 m within a range of 200km, the country has a unique diversity of flora and fauna. This is the context in which the recently released technical summary of the Working Group 1 of the IPCC 6th report (2021) needs to be read. It has projected that climate will further increase the temperature in Asia leading to the melting of permafrost at higher rates. Consequently, increases in permafrost temperature and its thawing have been observed over recent decades (high confidence). Future projections indicate a continuing decline in seasonal snow duration, glacial mass, and permafrost area by mid-century (high confidence). Snow-covered areas and snow volumes will also decrease in most regions of the Hindu Kush Himalaya during the 21st century and snowline elevations will rise (high confidence), and glacier volumes are likely to decline with greater mass loss in higher carbon dioxide (CO2) emissions scenarios. Heavy snowfall is increasing in East Asia and North Asia (medium confidence) but with limited evidence on future changes in hail and snow avalanches.

An analysis of the historical climate data indicates an important deviation in Nepal's climate. This is primarily about the shifting average temperature. According to DHM (2017) analysis of temperature data from 1971 to 2014 reveals significant positive trends both annually and seasonally. This is true for both maximum temperature (0.0020C/yr.) and minimum temperature (0.0560C/yr) as the trends are significantly positive. However, no significant trends have been observed in precipitation. The annual all Nepal maximum temperature trend is significantly positive, while the annual minimum temperature trend is also positive,

but insignificant. Data on intra-annual rainfall and monsoon rainfall for the years 1921-2010 shows a trend from negative to positive deviations (UNDP 2013, pp.19). Likewise, the Department of Hydrology and Meteorology of Nepal revised the average dates of onset and withdrawal of monsoon effectively from 2021, which is an indication of expanded monsoon period by about a week. The revised dates are June 13 and October 2 respectively. Earlier the average dates of onset and withdrawal used to be the June 10 and September 23.

The DHM (2017) study also analyzed the annual precipitation for the period 1971 to 2014. The findings revealed a significant negative trend in the High-Himalayan region only during the pre-months. In other seasons, precipitation trends were insignificant in all physiographic regions. Some extreme precipitation trends were also observed. For example, number of rainy days was increasing significantly mainly in the northwestern districts. Likewise, very wet days and extremely wet days were decreasing significantly, mainly in the northern districts. Consecutively dry days were decreasing significantly, mainly in the northwestern districts of Lumbini and Karnali provinces.

Various studies (MoE, 2010, NCVST 2009, Baidya and Karmacharya, 2007) have consistently reported the main driving factors and the general characteristics of Nepal's climate variability and the changing characteristics of climate hazards through key indicators. These include extreme temperature, intense rainfall, floods, landslides, droughts, and GLOFs. But past weather data remains patchy. For example, the temperature data used in the analysis by Practical Action Nepal Office (2009) relied on only 44 weather stations located mostly in the middle mountain region since many stations had not recorded data continuously for a sufficiently long period. Indeed, continuous data is only available for a few decades making it difficult to discern current climate trends with certainty. In addition, there is no data available for the Himalayan region. There is also no national data available on snow and glacier mass balance and not having local data and its analysis can be of little help to effectively address climate change concerns.

Climate Change as a barrier to SDG targets: Agriculture and food security

Nepal's agriculture and water resources are among the sectors most vulnerable to climate change (Ministry of Environment 2010; Pandey, 2012; Also see figure 2 for details). Crop productivity is projected to decline significantly in midterm scenarios mainly due to rise of mean temperatures and changes in precipitation leading to frequent pest infestations and loss of soil moistures (MOFA, 2021). The agriculture sector is highly exposed to climate change anomalies for the lack of access to basic infrastructures including regulated irrigation, pest control, fertilizers, technicians, and advanced technologies for plantation and harvesting. Climate change policy (2019) and other major policy documents recognize that agriculture sector as being most vulnerable to climate change and requiring urgent and immediate investments. This is closely linked to food security as well because over 90 percent of poor households in the communities depend on subsistence agriculture for primary employment and livelihoods (UNDP, 2013 pp. 10). The report said:

Only 15 percent of agricultural products are traded, and rest of the produces are consumed at homes. Over 70 percent of the crop area depends on rains brought about by the summer monsoon (June-September with 80 percent of the total rainfall), which is a major cropping season in the country. Attempts at prioritizing the sector to increase rural incomes, reduce poverty, and ensure food and nutrition security are met with problems like low agricultural productivity due to lack of access to reliable irrigation. The total value of crops exposed to climate sensitivity amounts to around US$ 1.5 billion of which annual loss of US$ 75 million was caused by droughts compared to US$ 4 million caused by other hazards. Annual losses of crops during extreme droughts led to food deficits of 400,000 tons resulting in the rise of food prices of up to 300 percent in various locations. These reductions in food products led to increase in food prices, thus, affected most of the population (mainly) m the poor households who were subsequently forced to cope with risks by reducing food consumption, selling productive assets, migrating due to distress, among others.

Climate change is emerging as the major barrier for achieving the national targets of the Sustainable Development Goals (SDGs) mainly due to the additional financial burden as revealed in the study undertaken by the National Planning Commission (NPC, 2018). The study estimated annual investment requirements for achieving the targets of poverty reduction to be between NRs. 76.7 billion to NRs. 211 billion. Likewise, the investment needs to stand between NRs. 77.2 billion to NRs. 141 billion per year for agricultural development, NRs. 56.3 billion to NRs. 220.1 billion per year for the health-sector, NRs. 138.8 billion to NRs. 493.4 billion per year for education and NRs. 100.5 billion to NRs. 37 billion for the clean water and sanitation sector. Further, the SDG targets of affordable and clean energy and Nepal's efforts at of hydropower generation will be affected by extreme climatic changes (Pandey, 2020). The average investment requirement for climate change adaptation and mitigation would be NRs. 21.1 billion per year. More than 50 percent of the climate investment would go for climate proofing of infrastructure projects while the average investment requirement for the entire SDG period is NRs. 2,024.8 billion per year. As a percentage of GDP, the annual average investment requirements is 48 percent. The average financing gap is NRs. 585 billion per year for the entire SDG period from 2016 to 2030. With respect to GDP, annual financing gap on average is 12.8 percent of GDP.

A clean environment that minimizes diseases, supports pollination of crops, and provides forest products are some other ecosystem services that are vital for communities, and loss or degradation of this natural capital can have serious repercussions on human well-being and economic and social stability. Nepal's terrestrial forest ecosystems are also home to vulnerable wildlife such as tiger, Asian elephant, greater one-horned rhinoceros, clouded leopard, snow leopard, wild dog, and hornbills that require extensive spatial areas to support their ecological and behavioral requirements; species that are illtreated because of the propensity for conflict with people; the habitat specialist species such as red panda, musk deer and several other less charismatic species of flora and fauna; and point endemics with very small range distributions whose habitat can be completely lost from forest loss

and degradation. Importantly, ecosystem degradation also affects ecosystem function of biological communities and ecological services that also support human communities (Thapa et al., 2015). The livelihoods, lives, and local and national economic investments in the Himalaya are also strongly dependent on sustained provision of water. Conservation and restoration of degraded forests, lands and biodiversity has been a national development goal after Nepal committed to maintain at least 40 percent of land under forest cover. Nepal's forest ecosystem and biodiversity have been facing climate change impacts in the forms of forest fires, diseases, fragmentation, conversion, and degradation but remain essential for conserving water and other vital ecosystem services of the region that supports millions of people. Since these ecosystems and forests form an integral part of the Himalayan terrestrial ecoregions, they are of great concern to Nepal's neighbors as well.

Climate Change Negotiations and Negotiating Blocs

International climate change negotiations began some 25 years ago. The main intergovernmental negotiating body on global climate change is the United Nations Framework Convention on Climate Change (UNFCCC), an entity tasked with supporting the global response to the threat of climate change. It was established in 1992 within the United Nations. The UNFCCC had 197 state parties as of writing. Since 1992, the UNFCCC

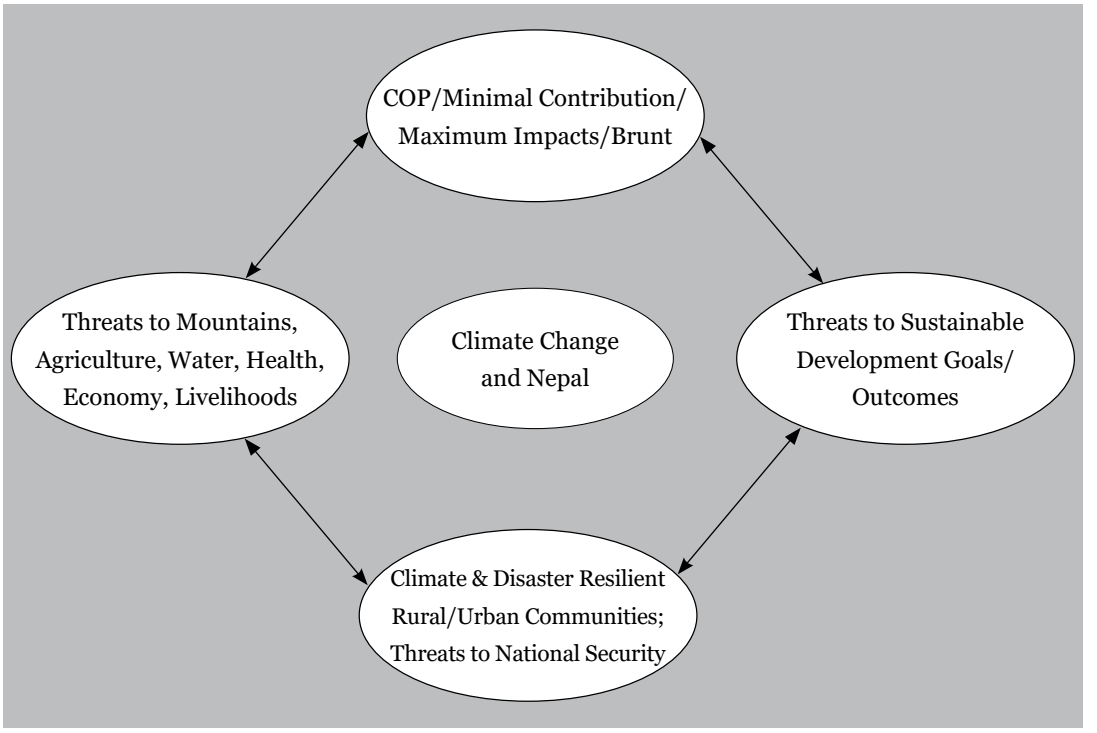

Figure 2. Climate Change Impacts on Nepal.
Source: Adapted from Pandey, 2012.

negotiation process has focused on long-term measures to address climate change to stabilize atmospheric GHG concentrations at a level that would help avoid catastrophic global warming consequences. The major agreements through the UNFCCC include the Convention itself in 1992; the Kyoto Protocol in 1997; and the Paris Agreement in 2015. The primary goal of the Paris Agreement is to contain the global average temperature at 1.5°C to 2°C above pre-industrial levels (the reference period is 1850-1900). The ultimate objective of most climate agreements is to stabilize GHG concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system, within a time frame that would allow ecosystems to adapt naturally and enable sustainable development.

The UNFCCC organizes and supports between two to four negotiating sessions each year. The most important and largest session is the Conference of the Parties (COP), which is held annually in different locations around the globe and is attended by around 25000 participants on average (UNFCCC, N.D.). All the Parties of COP participate in the climate summit individually but negotiate through various negotiating blocs, and some negotiate only on behalf of their own countries. The key negotiating blocs are generally classified as the developed and the developing countries, but there also are different blocs between and within the developed and the developing country groups as shown in the table below:

Table 1: Key negotiating blocs at the international climate change negotiations

Negotiating Blocs	Temperature Limit	Treaty Status	Burden Sharing
Umbrella Group 10 Countries	2°C	All-Inclusive	Developed & Developing Countries as per individual capabilities
European Union 27 Countries	1.5°C to 2°C	All-Inclusive	Developed & Developing Countries as per individual capabilities
G-77/China 130 Countries	1.5°C to 2°C	Developed Countries	Historical Responsibility of Developed Countries
AOSIS 43 Countries	1.5°C	Developed Countries	Historical Responsibility of Developed Countries
LDC 46 Countries	1.5°C	Developed Countries	Historical Responsibility of Developed Countries
AU 54 Countries	1.5°C	Developed Countries	Historical Responsibility of Developed Countries
EIG 6 Countries	1.5°C to 2°C	Developed Countries	Historical Responsibility of Developed Countries

Source: Adapted from Pandey, 2014.

Table 1 shows that there are seven key negotiating blocs at the UNFCCC. Countries like the United States of America (USA), Canada, Australia, New Zealand, Iceland, Israel, Japan, Kazakhstan, Norway, the Russian Federation, Ukraine, and Belarus have grouped to identify themselves as the umbrella group. The European Union has 27 countries, 43 countries in the Alliance of Small Island Countries (AOSIS), 54 countries under African Union (AU) bloc and the Environmental Integrity Group (EIG) of non-aligned countries including Switzerland, South Korea, Mexico, Liechtenstein, Monaco, and Georgia. One of the most interesting groups is called Group of 77/ China (G-77/China), which includes over 130 countries and Parties from AU, AOSIS, LDCs, as

well as the emerging economies of the 21st century. G-77/China includes emerging economies like China, India, Brazil, South Korea, and Mexico and countries like Bhutan, Maldives, and Nepal.

The G-77/China established itself as a powerful international negotiating bloc in 1964, demanding a New International Economic Order within the UN and this group continues even though it has more than 130 members with heterogeneous political and economic realities. The term 'Global South' to capture all developing and the least developed countries has always been politically and economically heterogeneous (Hochstetler, 2012). Although diversity exists, there is also a common set of concerns that the G-77/China represents in global negotiations; they also have common concerns based on structural divisions rooted in different historical experiences and material realities of the Global North and South (Miller, 1995; Roberts and Parks, 2007). While Najam (2005) and Williams (2005) have argued that the South's collective action was based less on objective facts than on members' willingness to adopt a collective identity, Williams (2005, pp. 57) has argued that "the construction of a North-South divide is an integral part of the bargaining process".

Climate change negotiations have been underway for three decades since 1990 but have become better known to have been "ossified", "gridlocked" and "limited", producing little meaningful results so far to arrest global temperature rise and to address climate change (Depledge, 2006; Dimitrov, 2010; Victor, 2011; Pandey, 2014b; Pandey, 2015b). The negotiations have often also been locked due to disagreements between the developed North and the developing South connected to the North-South politics of development; burden-sharing of mitigation and adaptation cost based on the core principles of common but differentiated responsibilities (CBDR), and historical responsibility. However, neither the global North nor the South is homogeneous, and therefore, the basic North-South binary framework is no longer useful for understanding global climate change governance (Hochstetler, 2012; Pandey, 2014b). The coalition formed during the Copenhagen and post-Copenhagen negotiations, changing economic realities of emerging economies and steady rise of global temperature already over 1°C have demanded the need to redefine the conservative "developed North" and "developing South" binary opposition into a more mosaic spectrum of heterogeneity within the developed and the developing countries (Pandey, 2014b).

G-77 has been an institutional manifestation of a decolonized collective identity in many international settings including global climate change negotiations for their "poverty of influence" and the "imagined community of the powerless and vulnerable" (Najam, 2005; Williams, 2005; Barnett, 2008). This marginalized and vulnerable sensitivity of developing countries is associated with "development-sovereignty nexus" and limited positive influence they have on substantive outcomes of international negotiations in the state-centric framework of the intergovernmental setting. Alongside new manifestations of South-South cooperation such as BASIC (Brazil, South Africa, India, and China) and BRICS (Brazil, Russia, India, China, and South Africa), the emerging powerhouses in the international community of countries, have firmly maintained the state-centric framework of sovereignty, the right to development and pursuance of economic interests, consistently

arguing that they must take billions of people out of poverty without changing much of their business-as-usual development journey. The Copenhagen Accord of COP-15 in 2009 and follow-up agreements including the Paris Agreement of 2015 were in the interests of these new coalitions and the USA. Although the formal negotiations were held to produce each of these Accords or Agreements, the ultimate products resulted from closed-door negotiations among the emerging economies and the USA. The provisions from a legally binding treaty with specific targets from the developed countries to keep the temperature below 1.5°C, from the EU, the AU, the AOSIS and G-77/China have disappeared from the final agreements—be it the Copenhagen Accord or the Paris Agreement, rendering them effectively toothless.

Nepal's climate diplomacy

Climate change is posing complex challenges to achieving the SDGs in Nepal. As discussed above, climate change scenarios project that the temperature of South Asia including Nepal will further rise, resulting in a considerable retreat of glaciers, overflowing of rivers for a certain period, and a gradual shortage of clean water supplies (IPCC, 2021; Pandey, 2015a). Floods and landslides from erratic precipitation, have been significant causes of loss of life, and damages to property (Lal et al., 2011; Pandey, 2012). Climate change has not only been an environmental issue but is a major concern owing to its relationship with multiple disasters including erratic rainfalls, floods, glacial outbursts, landslides, droughts, the reemergence of eradicated diseases; insecurities related to food, water, critical infrastructures, and the imbalance between environment, economy, and equity. While the impacts of climate change on Nepal are irreparable, its global GHG emissions contribution is negligible. Nepal has been engaged in international climate change negotiations since the establishment of the UNDFCCC had submitted its Initial National Communication in 2004 (GoN, 2011). The second National Communication was submitted in 2014 and the third National Communication in 2019. Nepal also submitted its first Nationally Determined Contributions (NDCs) as an integral aspect of the Paris Agreement in 2016 and the second NDC in December 2020. As Nepal is also one of the Parties to the UNFCCC, it pursues and supports efforts to limit global temperature rise within the limit of 2°C leading to 1.5°C above pre-industrial age (GoN, 2016). The NDC document of Nepal (2016) adds that Nepal believes that the cumulative impacts of NDCs submitted to the UNFCCC would greatly contribute to limiting temperature rise to safe levels and towards making this planet livable.

Nepal aligns with the G-77/China and the LDCs during negotiations. The South Asian Association for Regional Cooperation (SAARC) is another heterogeneous multilateral forum through which Nepal positions in climate change negotiations. In COP-15 at Copenhagen, the SAARC had tabled its common position that said,

… given the historically high levels of GHG emissions, to which South Asia made an insignificant contribution, adherence to the principle of common but differentiated responsibilities is critical in combating climate change following the principles and provisions of the Convention and its Kyoto Protocol. (SAARC/UNEP, 2009, p. v)

As discussed above, G-77/China has more heterogeneity than homogeneity. This bloc comprises the emerging giant economies such as China and India, and Nepal has been sandwiched between them in climate change negotiations and other complex geopolitical realities. China is the world's most populous and the third-largest country in terms of land area. Its population is approximately 47 times larger and its land area is 65 times that of Nepal. India is the world's second-most populous country, which is 45 times larger in terms of population and 22 times the land area of Nepal. China and India's share in world GDP adjusted for Purchasing Power Parity (PPP) is 18.78 percent and 7.19 percent, respectively while Nepal's share is only 0.09% (Statista, 2021a, b, c). Both, China and India are members of BRICS and BASIC, a group of major emitters and emerging economies, and belong to the Like Minded Developing Countries (LMDC)—a negotiating block of developing countries comprising emerging economies and oil producing countries, the first and third major energy consumers in the world, respectively and their need for energy continues to rise (Statista, 2020; Pandey, 2015a).

The goal of emerging economies of BRICS and BASIC, which include both China and India, at UNFCCC are to ensure that they have "equitable access to development" and "poverty alleviation over emissions reductions" (Pandey, 2014a; Pandey, 2015a). They argue for upholding the principles of equity, common but differentiated responsibility, and historical responsibility. All negotiating blocs, G-77-China, AU, AOSIS and LDCs, contend for support from the developed North through channeling of climate finance, transfer of low or zero-carbon technologies, payment of loss and damages, and transfer of other capacity-building components to the developing countries along with more stringent quantified mitigation targets for the developed countries (SAARC/UNEP, 2009; Masters, 2014). While the developed countries have often clubbed together to effectively "kill the Kyoto mission", to renege their emission reduction commitments etc., the G-77/China's emphasis on equality and partnership is also rhetorical given its diverse membership, economic strength and overall capability.

Yet, the emerging economies like China and India firmly bargain based on equity particularly based on national per capita income and per capita emissions, and they always ignore the per capita gaps between the emerging economies and other developing and the least developed countries exposing the challenge of upholding horizontal and South-South equity. One comparison can provide an explanation: China and India are global powers as well as warehouses, have entirely export-driven economies, possess the second and fourth standing military capability in the world and the GDP per capita of US$ 10500 [2020] and USD 1900 [2020], respectively. In contrast, Nepal a country sandwiched between the two is an entirely import driven economy, 119th in terms of global military standing and with a GDP per capita of US$ 1155 [2020] (The World Bank, 2020). The information above illustrates how different these three countries are in terms of their GDP per capita, military standing, energy needs, energy consumption, production houses, GHGs emissions, and the share of the global economy yet they are grouped together and have been negotiating following the state-centric framework, while manipulating the developed North versus the developing South politics. As result Nepal has not been able to identify, consider and articulate its national interests and pursue smart diplomacy with creative solutions, with sound negotiations tactics within G-77/China, LDCs and beyond.

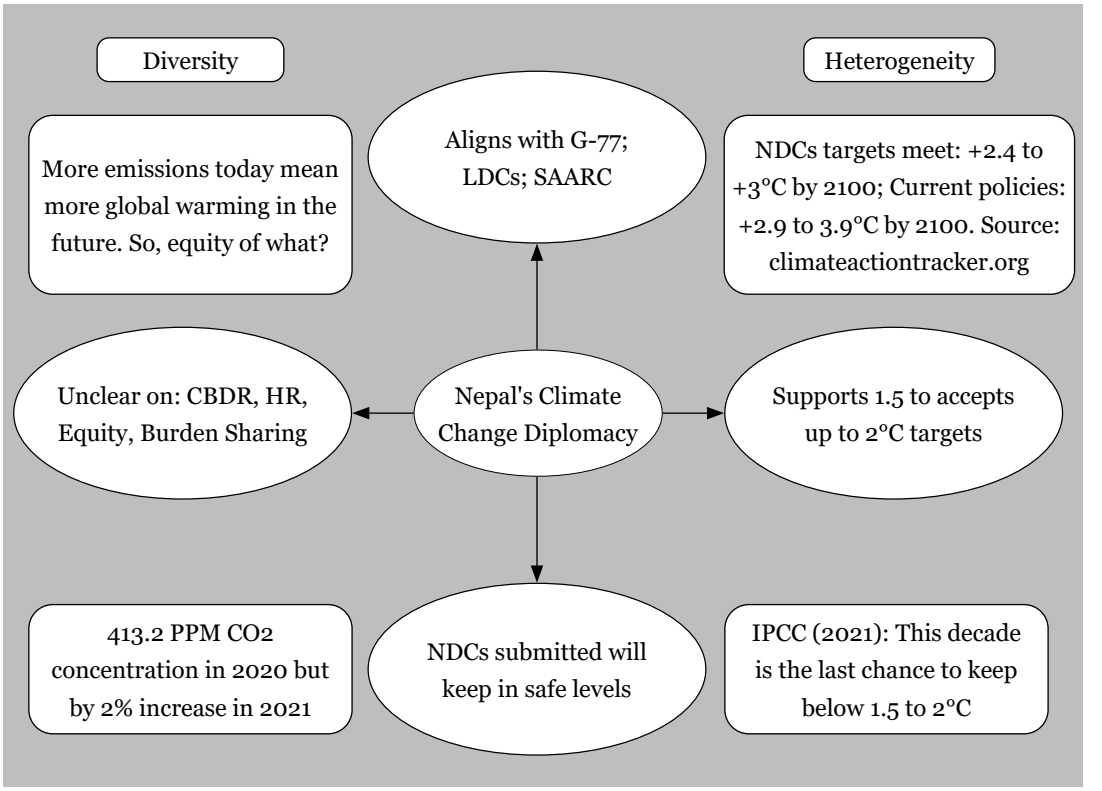

Figure 3: Nepal's Climate Diplomacy.

Reconsidered climate diplomacy for Nepal

Karl Hood, the former chairman of AOSIS criticized the roles of both the developed North and the developing South, especially emphasizing the roles of major emitters, and asked, "Must we accept our annihilation? While they [emerging economies emphasis on China and India] develop, we die. Why should we accept this?"(Also cited in Pandey, 2015a).[3] This is a powerful analysis, suggesting that the small island states are facing multiple hazards and an existential threat, and the argument sounds like a veiled criticism of the negotiating positions of India and China for their argument in climate negotiations that the developed North needs to cut GHG emissions while they must be given more space and time to develop (Dodd, 2012). After 23 years of negotiations, the Paris Agreement was adopted by 196 Parties at COP-21 on 12 December 2015, and it entered into force on 4 November 2016. The Paris Agreement was intended to be a milestone in multilateral climate change negotiations as it brought all nations on board to make ambitious efforts to combat climate change by limiting global warming below 2°C and if possible, at 1.5°C compared to pre-industrial levels (UNFCCC, 2015). However, the Climate Action Tracker (2021) shows that most targets and actions taken so far remain highly or critically insufficient to address climate change, and meeting the goals of the Paris

[3] See GCI, "COP-17-A Comment on the Outcome and the Perception on It.

Agreement (For details, see www.climateactiontracker.org) . While the IPCC report of 2021 on climate science has reinforced the absolute urgency of climate action, it has yet again clearly demonstrated the concerns of feasibility and urgency of climate mitigation actions to reduce GHG emissions as these continue to lag far behind of what is needed in all countries and sectors. Climate finance to aid action in developing countries is falling short and even countries with strong targets are mostly not on track to meet them and most have failed to bring forward stronger commitments for 2030, which reinforces the Code Red status of climate change threats (Climate Action Tracker, 2021). Clearly, more ambitious targets and real actions to achieve the targets are needed to keep the world below 1.5°C.

International climate change negotiations have been full of complexities because it involves diverse actors from across the globe and has more than seven negotiating blocs with common and distinct interests to understand, interpret and manipulate existing climate principles. The existing climate policies relating to "historical responsibility", "polluters pay", "capability to address", "country-wise emissions", and "per-capita emissions" have created more complexities relating to who is shouldering responsibility and financial burdens and who is not. Addressing climate change requires deep and drastic changes in global economic systems, which affect the positions of emerging economies. Losses and benefits of continued mining of dirty fuel to oil producing countries and potential benefits of climate change (temperature rise) to many countries, including Russia, have further gridlocked actions against climate change (Pandey, 2015b). Given this background, Nepal would need to comprehend and critically analyze the positions of negotiating blocs and the rapidly increasing global GHG emissions, rising temperature and their effects on Nepal's natural and human ecosystem, and multifaceted interests and sensitivities of climate actors and arrive at a position that would be in the national interest.

Ever since climate change negotiations began, Nepal has always limited itself in the bandwagons of G-77/China and LDCs and supported the politics of the South in the North-South positioning. While these blocs are pertinent components of climate politics and negotiations and contributed towards establishing the international environmental discourses and burden sharing frameworks, Nepal needs to engage with them but also move beyond for furtherance of its national climate interests. For this it needs to demonstrate how global temperature rise will affect the Himalayan range, water towers and the lives, livelihoods and natural systems if the climate politics and negotiations continue in the business-as-usual mode. The receding snows and glacial lake outbursts – and its impact, i.e., too much or too little water – are major concerns of Nepal. One recent examples of too much water was experienced in 2021, when Nepal experienced multiple floods during the monsoon in the high altitudes that devastated the Melamchi Bazar and damaged the largest drinking water supply project in the country. Further, due to the incessant, intensive, and concentrated precipitation the same year 2021, many districts – Myagdi, Rupandehi, Dang, Darchula, Sindhuli, Nawalparasi East, Nawalparasi West, Kanchanpur, Kailali, Udaipur, and Mahottari – were badly affected by floods and landslides.

Similarly, heavy unseasonal, post-monsoon rainfall in Nepal that started on 17 October 2021 was something unknown in the past and beyond the experience-based knowledge of farmers and of science. This caused irreparable losses (including human casualties), damage to property (inclusive of roads, bridges, hydropower stations and other physical infrastructure) and substantial impacts on agriculture (damage to land and crop yields) across the country, particularly in Sudurpaschim, and Karnali Provinces and also in Provinces 1 and 2 (UNORC, 2021). Such disasters cannot simply be attributed to a single factor but had resulted from multiple anthropogenic and climatic factors and processes (ICIMOD, 2021). These highly erratic rainfall of 2021 and the associated losses were aligned with the IPCC conclusion that human-induced climate change is the primary driver of heavy precipitation, landslides, floods, water induced disasters and frequent droughts. The effects of climate change will pose economic, social, political, and cultural predicaments and disrupt successful implementation of the SDGs. Climate related disasters directly and indirectly affect all 17 SDGs as they not only cause direct losses (for example, of physical infrastructure, public and private property, human lives, damages to environmental and cultural assets) but also indirect losses, including reduced productive capital investments for sustainable prosperity (for example, reduced investments in human capital, and research and development). In this climate-uncertain future, Nepal can pursue its climate diplomacy employing strategies shown in Figure 4 for pursuing its national interests.

The approaches to climate diplomacy include:

1. Adopt multiple negotiation approaches -- multilateral, trilateral and bilateral – to pursue Nepal's national interests relating to climate change. Strengthen New York, Beijing, New Delhi, Geneva, and Brussels embassies and pursue mature climate diplomacy for mutual benefits. Take leadership role by hosting COPs and other negotiation platforms.
2. Promote climate change as a transboundary global problem that requires global actions but prioritize how its disproportionately effects, demanding differentiated, localized 'place matters' responses.
3. Showcase climate induced anthropogenic climate disasters such as, inter alia, melting of snow, impacts on agricultural productivity, and floods that have displaced families, led to deaths, and have caused irreparable damages to development initiatives, or take an evidence-based climate diplomacy approach.
4. Demonstrate how Nepal has been suffering from "too much water" and how it could suffer in a situation of "too little water" arising from anthropogenic climate change induced rapid snow melt and its effects on human-social-natural ecosystems, leading to national insecurity.
5. Invest, design, and implement short-term, medium-term, and long-term actions against climate vulnerability to build climate resilient communities.
6. Articulate losses and damages and those likely in future with clear evidence to convince the international community of the need to promote global mitigation responses and to channel major funding, state-of-art-knowledge, and technology for climate insurance, adaptation, and mitigation.
7. Encourage the developed countries, including the emerging large economies, to shoulder the burden of addressing anthropogenic climate change, and making capabili-

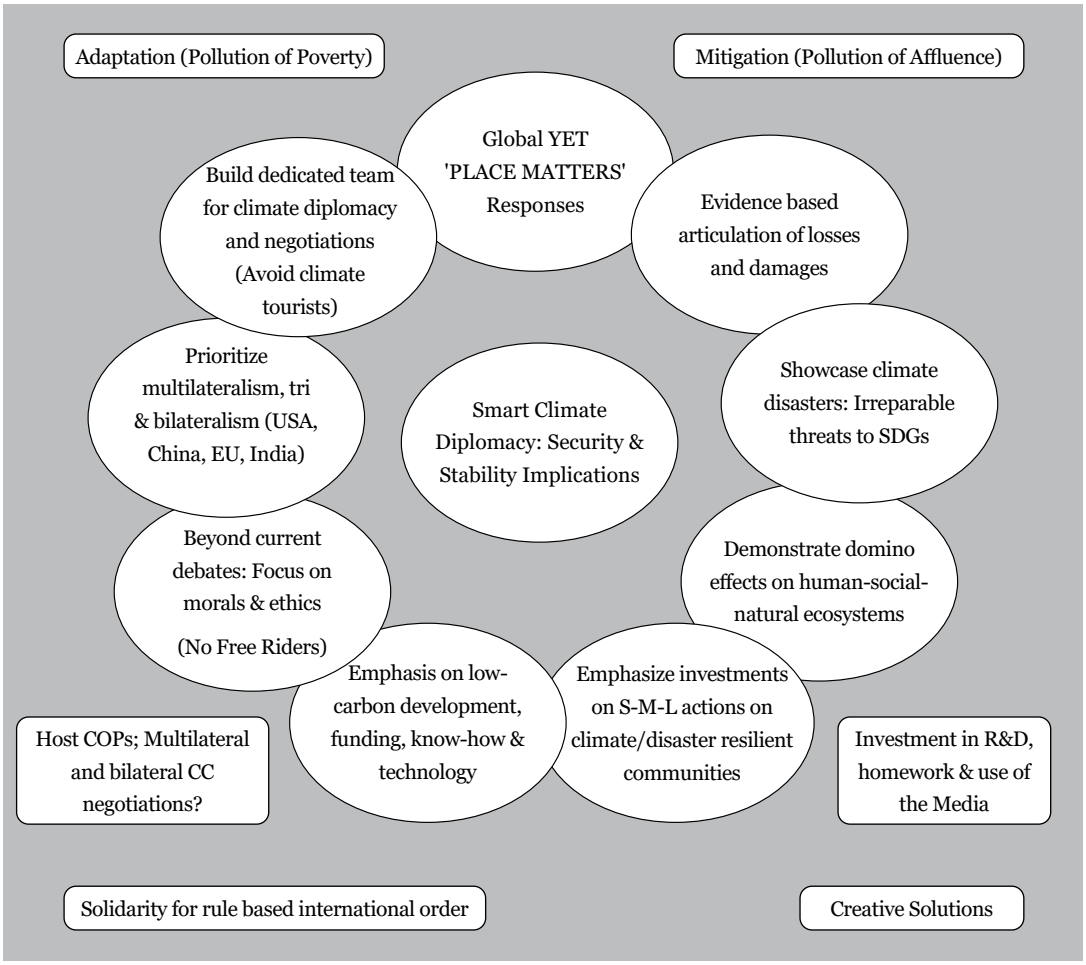

Figure 4: Pathways for smart climate diplomacy for Nepal.
Source: Adapted from Pandey, 2015a.

ty-based contributions.

8. Pursue low-carbon development initiatives and green technologies focusing on hydropower development and regional trade. Provide leadership role in renewable energy production, consumption, and distribution.
9. Establish that Nepal as a mountain region is bearing the brunt of anthropogenic climate change, and therefore, the need to get special attention of its immediate neighbors, regional and global powers to assure provision of technical and financial resources for loss minimization, recovery and building resilient communities.
10. Develop a dedicated team of climate leaders for climate diplomacy and negotiations to encourage the world to take ambitious and achievable actions against climate change, and also for tapping into the highly competitive financial and technological resources desperately needed for achieving the country's goal of sustainable, climate resilient development.

Conclusion

Anthropogenic climate change has today become one of the most pressing challenges of the world. The surface temperature of the world will continue to increase, and warming will exceed beyond 2°C within the 21st century unless deep cuts are made in CO2 and other GHG emissions. Even rapid emission cuts can only reduce the risks but not eliminate the problem. Despite this, "Three degrees of global warming is quite plausible and truly disastrous" (The Economist, 24 July 2021). The negative impacts of global climate change are already affecting Nepal as explained by observed changes in weather patterns, precipitation, droughts, and climate extremes. Three decades of international negotiations have made little progress. The Paris Agreement requires countries to submit their NDCs, yet the latest report of IPCC [2021] and the Climate Tracker [2021] clearly demonstrate that the world has been moving anti-clockwise in terms of reducing GHG emissions and addressing climate change.

The climate change negotiations are complex as they go deep into global economic, political, and social systems. This also allows some countries to be free riders because the loss of global commons is collective, while benefits from their exploitation could be enriching individual countries. This also explains the few achievements that have been made in the negotiations. Nepal is a Party to the climate change Convention, the Kyoto Protocol and the Paris Agreements and it usually aligns with G-77/China, and LDC positions in the negotiations. These highlight per-capita emissions instead of nation-wide emissions and global economic status. While the calculation based on per-capita emissions is important, it does not have to be tallied between the developed North and the emerging economic power and warehouses. Instead, comparisons and contrasts need to be done among and between the least developed, developing, emerging economies and advanced economies because economic power has been constantly changing since 1992.

Nepal needs to rethink a novel and sophisticated approach of climate diplomacy to encourage large economies and the rest of the world not only to use existing climate negotiations platforms and blocs but also go beyond the conventional developed-developing binary option and the associated politics. Showcasing anthropogenic climate induced disasters and the loss and damages they have caused, and credible risk projections for the future need to be the core aspects of Nepal's climate diplomacy. Nepal also needs to assume a leadership role through a dedicated team of experts to articulate its multifaceted interests from, inter alia, protecting the snow on the Himalayas, to water security, to agricultural productivity, to diversified livelihoods options, and to a transition towards a low carbon economy. Articulation of the specific interests of the Himalayan country beyond North South politics is required for building climate and disaster resilient communities. Clearly, adaptation and mitigation are the two best available approaches for addressing climate change. A well-versed, dedicated interdisciplinary team of negotiators for climate diplomacy and global negotiations can provide renewed Nepali leadership in the negotiations and help Nepal to tap into the competitive knowledge, financial and technological resources available for tackling climate vulnerabilities and building climate resilient communities.

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