

BORDER ISSUES AND SECURITY CHALLENGES OF MADHESH PROVINCE

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DECLARATION

I, TEJ BAHADUR JORA, declare that this thesis entitled “**BORDER ISSUES AND SECURITY CHALLENGES OF MADHESH PROVINCE**” submitted to APF Command and Staff College is my own original work unless otherwise indicated or acknowledged in the thesis. The thesis does not contain materials which has not been accepted or submitted for any other degree at the University or other institution. All sources of information have been specifically acknowledged by reference to the Author(s) or institution(s).

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LETTER OF RECOMMENDATION

This thesis entitled **BORDER ISSUES AND SECURITY CHALLENGES OF MADHESH PROVINCE** has been prepared by **Mr. TEJ BAHADUR JORA** under my guidance and supervision. I, hereby, recommend it in partial fulfilment of the requirements for the Degree of Master of Security, development and Peace Studies for final examination.

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LETTER OF APPROVAL

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ABSTRACT

Madhesh Province, Nepal, shares an open border with India, presenting unique geopolitical, economic, socio cultural and security challenges. The porous nature of this border has contributed to issues such as encroachment, cross-border occupations, and economic dependency. While the open border facilitates cultural exchange and trade, it also encourages transnational crimes and security threats.

This study aims to analyse the border issues and security challenges faced by Madhesh Province, focusing on geopolitical tensions, economic vulnerabilities, socio cultural interaction and security threats. It also explores possible mitigation strategies to ensure stability and cooperation between Nepal and India. The study employs a qualitative research design, incorporating primary data collected through key informant interviews (KII), focus group discussions (FGD) and personal interviews. Secondary data analysis were also conducted to identify patterns in border encroachment, economic dependencies, and security risks. Findings indicate that geopolitical issues include border encroachment, cross-border occupations and political influences from Indian counterparts. Economic challenges restrict from revenue leakage, smuggling, and informal trade, impacting formal business operations. Security concerns include transnational crimes such as drug trafficking, human trafficking, and arms smuggling, exacerbated by political interference. Socio-cultural complexities such as cross-border marriages and legal inconsistencies in citizenship and property rights further complicate governance.

Addressing these border issues requires a multi-spectrum approach, including diplomatic negotiations, enhanced border security measures, economic policy reforms and legal interventions. Improving intelligence-based security, infrastructure development, and international cooperation can help mitigate tensions and ensure sustainable peace and security along the Nepal-India border in Madhesh Province.

Keywords: Border security, border issues, security challenges, cross-border trade, revenue leakage.

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LIST OF ABBREVIATIONS AND ACRONYMS

AD	Anno Domini
AI	Artificial Intelligence
APA	American Psychological Association
APF	Armed Police Force
BADP	Border Area Development Program
BOP	Border Outpost
CBOs	Cross Border Occupations
CBSC	Comprehensive Border Security Cooperation
CDO	Chief District Officer
COVID	Corona Viruses Diseases
EU	European Union
FGD	Focused Group Discussion
HCV	Hepatitis C Virus
HIV	Human Immune Deficiency Virus
HQ	Headquarter
ITBBS	Intelligence and Technology Based Border Security
KII	Key Informant Interview
LBPH	Local Binary Pattern Histogram
MOHA	Ministry of Home Affairs
QIP	Quick Impact Program
SEZ	Special Economic Zone
SSB	Sashastra Seema Bal
TBPAS	Trans-boundary Protected Area
USA	United States of America

CHAPTER I

INTRODUCTION

1.1 Background

Nepal is a country, which encompasses a topography that extends from plains to the high Himalayan region. As Nepal's Geographical distribution falls into three categories, they are plain parts called Terai, the hilly regions and the Himalayan regions. The Hilly region covers 68%, the Himalayan region 15% and the Terai region occupies 17%. Approximately 83% of Nepal is mountainous, with the Hills and Great Himalayas in the north housing Mount Everest, the world's highest peak at 8,848.86 meters (Chhetri, 2017). The southern part consists of the Terai plains, which are fertile and humid, supporting agriculture and dense populations (Gajurel, 2021). Nepal exhibits significant elevation differences, with residential areas predominantly located between 1,000 to 2,500 meters. Only 2% of settlements are above 3,000 meters (Asada et al., 2008)

Nepal is landlocked, bordered by India to the south, east, west, and China to the north. This strategic location has historical implications for its territorial boundaries (Shrestha, 2019). Borders can complicate resource access, leading to tensions, particularly in regions where local institutions struggle to manage cross-border mobility and trade (Infante, 2023). Borders can facilitate trade but also create barriers that affect local economies. Although border regions may benefit from cross-border trade, governance and resource allocation challenges (Okano, 2010).

The Nepal-India border extends for approximately 1,880 Kilometers (KM), which is open and porous, lacking natural barriers, which has historically led to various disputes and issues related to boundary markers and encroachments. The border between Nepal and India is open since the treaty of peace and friendship of 1950 A.D. Furthermore, the northern border of Nepal with China is approximately 1439 KM; they are all covered by natural barriers. There are several border issues all along the Indian border and Chinese border of Nepal. Not only have the open borders had border issues but there with the closed and controlled borders (Shrestha, 2013).

The border security of Nepal Article 5 (1) of the Constitution of Nepal 2015 considers Border security as the national interest of Nepal, any conduct and act contrary to national interest are punishable by federal legislature (Constitution of Nepal, 2015). The Indo-Nepal border has been extensively studied, with scholars like Gaige (1975) identifying four main border-related issues such as border demarcation disputes, political terrorists using the open border as hiding place, smuggling of goods, including foreign aid being illegally resold in India and migration and settlement shift between the two countries.

The Madhesh province of Nepal, located in the Terai region, 9661 km², covering about 6.5% of the country's total land area with a population of 6,114,600 (National Statistics Office, 2021). This Province consists of eight districts: Parsa, Bara, Rautahat, Sarlahi, Mahottari, Dhanusa, Siraha and Saptari. This province shares border with the Bihar state of India, which is connected with Paschim Champaran, Purba Champaran, Motihari, Sitamani, Madhubani and Supaul district (Burman et al., 2020).

Although existing studies highlighted the historical and legal aspect of Nepal-India border relations, there is limited research on the specific border issues and security challenges faced by Madhesh Province due to its porous border. The free flow of people across the border has become a significant concern for both countries, as it complicates efforts to monitor and control illegal activities. The border issues and security challenges of the Madhesh province of Nepal-India border include transborder crime, economic disparities and political tensions. Despite the open border policy facilitating movement for military and economic reasons, both countries face significant security threats (Forester, 2014). While some scholars have addressed border issues, but there is insufficient research on how those issue impacting security in Madhesh Province of Nepal.

Given the rising security concerns along the Nepal-India border, especially in Madhesh Province, it is essential to examine smuggling, terrorism, and human trafficking that contribute to security instability (B. K., 2019). Nepal faces several border issues with India, including territorial disputes, cross border occupations and encroachments. These challenges complicate boundary

diplomacy, necessitating a comprehensive approach to secure boundaries and enhance cooperation, while addressing legal norms and international border management practices (Poudyal, 2023a). Furthermore, challenges such as terrorism and illegal arms imports, impacting bilateral relations which necessitate effective border management strategy and cooperation (Baral, 2018a).

Despite the historical, economic and social significance of the Indo-Nepal border, the security challenges faced by Madhesh Province remain underexplored. Understanding these border-related issues and security threats is crucial for policymakers and security forces aiming to regulate cross-border movement while maintaining the benefits of free trade and mobility. Therefore, this study aims to identify and analyse the border issues and security challenges of Madhesh Province along the Nepal-India border.

1.2 Statement of the Problem

The countries of the world have borders with their neighbours. They have the border either with land or sea. The countries of the world are either landlocked, sea-locked or multi-locked but all of them have borders and have border issues there (World Population Review, 2024). The country Nepal is a landlocked country with its border connected to India and China from all sides. India surrounds Nepal from east west and south whereas in the north the country is connected to China (Constitution of Nepal, 2015). Nepal comprises seven provinces. Among seven provinces five provinces have a border connected with both China and India whereas Karnali provinces have only a border connected with China and Madhesh provinces have a border connected with India only. Nepal maintains distinct border policies with its neighbouring countries India and China. The 1950 Indo-Nepal Treaty of Peace and Friendship established an open border between Nepal and India, facilitating the free movement of people and goods. In contrast, Nepal's border with China is controlled, with regulated crossings and increased security measures implemented over the years. The annexation of Tibet and subsequent events have led to China's heightened suspicion of the border region, resulting in stricter controls (Patel, 2017). Different scholars have defined the borders, which are humanly constructs and they are the

physical limit, delineated and demarcated with the concept of them and us. Much of the literature has focussed on Borders have economic, social cultural, environmental, political, defence and security implications.

The border issues of any border have their own important challenges and implications. The Madhesh Province of Nepal, lying along the southern border with India, represents a critical zone of geopolitical, economic, and socio-cultural interaction. This border region has long been a hotspot for numerous security challenges and border-related issues that threaten the stability and harmony of both nations. The border issues that the Nepal - India border arises from the historic times. Mainly the issues between Madhesh province and its border with India consist of geopolitical, social, economic, historical, territorial claim, resource management, treaties, legal aspects, customs inefficiencies and complex procedures, transport cost, trans-border crime, informal trade, socio-cultural similarities, and border closure during pandemics (Bashyal & Bashyal, 2023). These issues not only undermine the security instruments of Madhesh provinces but also drain diplomatic stalemates between Nepal and India.

The complexity of the socio-cultural similarities shared by communities on both sides of the border creates ambiguities in jurisdictional enforcement and governance. Disputes over demarcation and border encroachments further heighten tensions, occasionally leading to localized conflicts that disrupt the lives of border communities. Weak infrastructure and inadequate surveillance mechanisms along the border aggravate these problems, leaving Madhesh Province vulnerable to external threats and internal instability. The above-mentioned issues and problems are highlighted by many scholars, experts and Security professionals. However, the issues of geopolitics, sociocultural and economics and their security challenges in the Madhesh Province border are not discussed yet. Therefore, this study aims to focus on existing border issues and security challenges, emphasising on border disputes, encroachment, and cross-border occupation under the topic of geopolitics, cross-border marriage relation and their participation in socio-cultural relations under socio cultural and seizures of smuggling goods portion compared to the revenue collected at customs points under economic topic.

1.3 Research Questions

The study focused on answering the following questions:

1.3.1 What are the existing border issues between Nepal and India along the Madhesh Province of Nepal?

1.3.2 What are the security challenges of these border issues of the Madhesh Province?

1.3.3 How can the border issues and security challenges of the Madhesh Provinces along the Nepal - India Border be mitigated?

1.4 Objective of the study

The general objectives of the study are to find out the border issues and security challenges of the Madhesh province. For this, the specific objectives of the thesis would be.

1.4.1 To Explore the Geopolitical, economic and socio-cultural issues prevalent along the border of the Madhesh province.

1.4.2 To describe the security challenges of Geopolitical, economic and socio-cultural issues along the Madhesh provinces due to the border issues.

1.4.3 To suggest mitigation measures for border issues that are creating security challenges for Madhesh province.

1.5 Significance of the study

Madhesh Province, sharing a 461.8 km open international border with India, holds significant socio-political, economic, and security implications due to its dynamic trans-border interactions (Ghimire, 2024). This border serves as a critical corridor for trade and transit between the

bordering nations, presenting unique opportunities and challenges. An in-depth examination of these border issues is essential to identify their main causes and provide actionable insights for policymakers in Nepal and India. This study is significant in multiple ways. Firstly, this research aims to bridge knowledge gaps regarding border-related security challenges in Madhesh province. Moreover, it will provide insights for academicians, researchers, and scholars studying border management and security policies, offering new perspectives on governance, trade and social interactions. Secondly, the study helps in formulating bilateral agreements between Nepal and India to improve border security and cooperation, addressing trans-border crime, border issues and disputes, encroachment, and cross-border occupation, including cross-border marriages.

Thirdly, by analyzing border-related security challenges, the study offers practical solutions for strengthening security measures in Madhesh Province. Moreover, it assist border security professionals and law enforcement agencies in formulating effective strategies to combat illegal activities such as smuggling, human trafficking, and arms trade. Fourthly, the research focuses the role of cross-border economic activities and their impact on trade and commerce in Madhesh Province. Strengthening border policies can help to regulate trade ensuring the safety and security of business communities. Moreover, addressing border disputes and fostering harmonious relations help to promote economic development, cultural ties and social integration between the people of Nepal and India.

Finally, this study helps to enhance diplomatic relations by strengthening border security and improving bilateral cooperation. Furthermore, the study provides a framework for resolving conflicts through dialogue, fostering regional peace and stability. By addressing critical border issues, this study aims to promote peace, prosperity, and sustainable development in Madhesh Province focusing on existing border issues and security challenges. This finding serves as a valuable resource for policymakers, border management organizations, and security experts working toward effective border management and governance.

1.6 Limitation of the study

The field study is essential for conducting any research, the researcher had selected the Madhesh Province as field for the study, where the people mostly speak Maithali, Bhojpuri and Awadhi, in which researcher did not have command over the Languages and depends upon translator interpretation of interviewee responses. Another limitation is the study focus on Key Informants Interview (KII), Personal Interview and Focus Group Discussion (FGD) only in two districts of Madhesh province and observed the main borders of other district of Madhesh province, which limits the ability to generalize finding of all the districts of Madhesh Province. For the personal interview the participants from Muslim community of the border were not able to receive, only the Hindu participant from the border who marry from the cross border were taken. The data collected from KII, Personal Interview and FGD conducted only in two districts as sample district were generalized as the issues and security challenges of Madhesh Province as a whole.

REVIEW OF LITERATURE

Literature reviews help researchers avoid redundancy by summarizing existing knowledge and situating new studies within a coherent framework, which highlights areas lacking sufficient research, guiding the formulation of research questions and hypotheses (Pandey, 2024). This chapter includes the concept of border, border security, border issues, and security challenges. Moreover, the insight of theoretical review such as geo-political, economic and socio-cultural, constructive and risk management theories has been studied for more understanding of border issues and security challenges in Madhesh Province of Nepal bordering with India.

2.1 Border

Borders are human constructs that organize experiences sociologically, psychologically, culturally and geographically, which serve as thresholds and demarcations, defining identities and differentiating spaces, while simultaneously multiplying in complexity amidst globalization and intensified cultural intersections (Martini et al., 2022). Likewise, the concept of border refers to both physical and mental boundaries that shape self-awareness, identity, and social interactions. It plays a crucial role in constructing national, cultural and ethnic identities, influencing how individuals perceive themselves and others (Yavorska, 2022). Moreover, a border is a physical limit imposed by humans, delineating divisions between entities such as nation-states or properties. It transforms abstract lines into social meanings, marking distinctions between "us" and "them," and identifying what is included or excluded (Elbert & Winchok, 2017). Similarly, Ghafur (2018) stated that a border is a strategic area that plays a crucial role in maintaining a country's sovereignty, serving as an interaction zone between globalization and locality and significantly impacting the economic, social, political, cultural, environmental, defence and security aspects of society. Likewise, a border is more than a physical line; it represents a complex interplay of political, emotional and cultural dimensions, often dividing communities with shared bonds and impacting migration, identity and security, particularly in postcolonial contexts (Ranjan, 2018).

In the context of the Nepal-India border Kandel (2020) defines that the Nepal-India border, spanning approximately 1,780 kilometers, is characterized by a unique open-border policy that allows free movement of citizens between the two nations, reflecting their deep-rooted historical, cultural, and economic ties. This relationship, formalized through the 1950 Indo-Nepal Treaty of Peace and Friendship, underscores Nepal's reliance on India for trade and transit, particularly as a landlocked nation seeking economic development

2.2 Border Security

Border security involves measures to regulate and control the movement of people and goods across national borders, ensuring the enforcement of immigration laws, preventing unauthorized entry and facilitating legitimate travel while addressing national security concerns (Seghetti, 2014). In addition, border security refers to measures and structures, such as security barriers, designed to prevent unauthorized crossing of borders by individuals or vehicles. These barriers can allow natural elements like water and wildlife to pass while restricting human and vehicle movement (Henry, 2021). According to, Alperen (2024) border security refers to measures and legislation aimed at protecting a nation's borders from illegal activities, including terrorism and drug smuggling. Key components include the Patriot Act, Homeland Security Act and various strategies addressing border security and counter-narcotics efforts. Similarly, border security refers to the measures and strategies implemented by countries to protect their borders from transnational threats such as human trafficking, smuggling, illegal immigration and terrorism, ensuring the safety of the nation and its border communities (Sa'ad & Huda, 2023). In addition, territorial conflicts, resource management, cross-border mobility, refugee situations, undocumented migration, trade and contraband are all considered border challenges, because local political institutions are closer to the residents and their everyday lives, they are essential in tackling these issues (Infante, 2023).

In the same way, border security is a process that involves managing unauthorized travel or trade across borders, combating crimes and preventing dangerous individuals from entering a country. It includes systems like the Haar-Cascade and Local Binary Pattern Histograms (LBPH)

algorithms for enhanced monitoring and identification (Sharma & Jayapandian, 2023). Whereas Codognet (2022) also stated that border security involves managing and governing borders to address territorial instincts and disputes. It requires understanding shared ownership of borders, fostering win-win situations, and navigating complexities between nations, as exemplified by the India-Bangladesh resolution of border issues.

2.3 Border Issues

Border issues encompass geopolitical, economic and social polarities, influencing trade relations and inciting conflicts, they manifest in fragmented architectural formations and spatial configurations, highlighting the need for discourse in architecture and urbanism to address these complexities in the built environment (Baillie, 2020). In addition, border issues between Indonesia and Malaysia stem from historical conflicts and misperceptions fuelled by mass media and online community discussions. Key disputes include territorial claims over islands and border poles, often exacerbated by negative portrayals and a lack of local perspectives (Irwansyah, 2017). Also, border issues involve disputes over territorial sovereignty, delimitation of seas and management of cross-border flows which require political attention and adherence to international law with various strategies like drawing borders, creating intermediary zones or maintaining the status quo (Okano, 2010).

Border issues include militarization by Border Patrol, indigenous rights, migrant socio-economic exclusion, environmental impacts from border walls and public health concerns like HIV diffusion. Protests and solidarity movements address these challenges in Arizona and California's border regions (Bletze, 2015), whereas Wain (2012) discusses unresolved border disputes in Southeast Asia, particularly between Thailand and Cambodia, highlighting the potential for conflict despite their dormant status. These disputes are rooted in historical sovereignty issues and can be manipulated for nationalist sentiments. In addition, the border issues encompass territorial control, security, sovereignty, migration, ethnic tensions and the impact of border management policies. They reflect complex social dynamics, ethical concerns and the interplay

between formal state borders and informal social processes in contemporary border studies (Kolossoff & Scott, 2013).

Lanko (2013) analysed border issues between the United States of America (USA) and Canada regarding joint water resource management, highlighting concerns over water diversion from the Great Lakes, the effectiveness of existing treaties, and the need for improved cooperation and unified water pricing policies. Also, the Cross-border issues refer to challenges, decisions and responsibilities that arise when goods or people move across international borders, impacting carriers, shippers, importers and exporters. These issues are crucial for ensuring security and efficient operations at international frontiers (Higginson, 2013). According to Zaria (2022) investigates legal relations in cross-border corporate agreements, focusing on the implications of foreign elements, changes in applicable law and mechanisms to protect parties from adverse effects, including relocation and re-domiciliation of corporations. In addition, the border issues primarily involve customs inefficiencies, complex procedures and transport costs, particularly affecting landlocked countries. These challenges hinder access to global markets, deter foreign direct investment and increase trade costs, necessitating improved trade facilitation for regional economic growth (Brooks & Stone, 2010).

Trans-Boundary Protected Areas (TBPAs) can address border issues by fostering cooperation between neighbouring countries, alleviating tensions and promoting communication among local populations. However, success depends on local involvement and addressing environmental concerns that affect communities on both sides (Pool, 2006). In addition, the border issues between Indonesia and Malaysia involve territorial disputes and social problems in border areas. These issues were addressed through initiatives like the Malindo Social Security Cooperation and Joint Indonesia Malaysia, facilitating annual meetings to resolve disputes and illegal activities (Purnama & Iswardhana, 2022). Whereas Ghimire (2024) highlights that Nepal and India share an open border of approximately 1,780 kilometres where occasional tensions arise, particularly from the Indian side, these issues have not escalated into major conflicts, reflecting the enduring nature of their relationship.

The Nepal-India open border presents various challenges, including border disputes and security threats. Effective border governance is essential to address these issues, emphasizing collaboration between the two nations to manage their unique border dynamics and ensure mutual security (K.C., 2024). In addition, Nepal-India border issues remain unresolved despite constitutional provisions and diplomatic efforts. Key conflicts involve areas like Lipulekh and Limpiyadhura, exacerbated by India's new route to Mansarovar, highlighting challenges in negotiations due to geopolitical dynamics and India's disinterest (Bhattarai, 2021). According to Zaccheo et al. (2023) the border crossing between Nepal and India is common among people who inject drugs, impacting their risk behaviour and health outcomes, particularly concerning HIV and HCV, necessitating cross-border disease surveillance and harm reduction initiatives. However, Nepal's border issues with India primarily involve boundary delineation and unresolved territorial disputes. The study emphasizes the need for effective boundary diplomacy and adherence to international border regimes to address these challenges and secure Nepal's territorial integrity (Poudyal, 2023b). Also, the border issues between Nepal and India include smuggling, lack of specific border laws, socio-cultural similarities encouraging cross-border crime and operational challenges faced by security forces due to the open border status and geographical difficulties in the region (Khatri, 2022).

The Nepal-India border, historically open, faced closures during Corona Virus Disease (COVID-19), with increased security personnel and Border Out Post (BOP), restricted movement affected livelihoods of borderland communities reliant on cross-border activities for daily necessities and employment (Shrestha, 2020). Whereas, the border issues between Nepal and India include disputes and conflicts arising from the open border, which complicates national security, facilitates informal trade, and allows the flow of criminals and refugees, necessitating diplomatic resolution and improved border governance strategies (Pulami, 2023a). However, Nepal's border issues with China primarily involve boundary delineation and management along their shared frontier and need for Nepal to address these challenges within the framework of international border regimes to ensure secure and stable borders (Paudel, 2023). Also, Murton (2017) discusses how new border infrastructures, such as fences and roads, influence commercial and cultural

relationships between Nepal and China, particularly in Mustang, while serving state-making purposes for both nations in managing highland-borderland landscapes.

Mitra et al. (2024) primarily discuss the border dispute between India and Nepal, highlighting Nepal's growing ties with China, including economic influence and a transit protocol. However, it does not specifically address border issues between Nepal and China. Since the Nepal-China border treaty of October 5, 1961, both countries have maintained peace and order along their border. Nepal's commitment to not allowing anti-China activities on its soil further strengthens their bilateral security cooperation (Sharma, 2021). However, Murton (2024) discusses how historical territorial structures and post-colonial border conflicts shape contemporary border issues between Nepal and China, emphasizing the socio-cultural and political-economic implications of transforming colonial frontiers into modern border regimes and their bureaucratic systems. Also, Mehta (2022), highlights the growing Chinese influence in Nepal, particularly at border transit points like Tatopani and Rasuwagadhi and discusses the historical contexts of Nepal's past dominance over Tibet, contrasting it with contemporary Chinese claims of suzerainty over Nepal

2.4 Security Challenges

Security challenges at the Kenya-Somalia border include regional politics, geopolitical conflicts, the presence of refugees and local nepotism, these factors contribute to instability, hinder effective border management and create opportunities for criminal activities and terrorism (Reuben et al., 2022). Whereas, Security challenges at Bangladesh's borders include inadequate Border Outpost placement, bureaucratic inefficiencies, disconnect between Border Guard Bangladesh and local communities, economic hardship driving smuggling and the influx of Rohingya refugees leading to increased criminal activities and armed group control (Husain, 2024). In addition, Security challenges at borders include corruption, porous borders and uncontrolled movement of people, leading to increased trans-border crimes, violence and social instability. These issues hinder effective governance and contribute to the overall insecurity in the Nigeria-Niger Republic border region (Muslim, 2023). Whereas, Gariup and Piskorski (2019)

highlight that security challenges at borders include the increasing complexity of document security, time constraints during checks and the variability in the performance of both human inspectors and automated systems, which can lead to vulnerabilities in document fraud detection. The open border between India and Nepal fosters socio-economic interdependence, enhances cultural ties and facilitates trade. However, it also presents security challenges, necessitating cooperative management to address issues like illegal trade and cross-border crime while maximizing mutual benefits (Kumar, 2013).

Idler (2019) identifies security challenges in borderlands because of weak state governance, creating a low-risk/high-opportunity environment. This "border effect" facilitates violence, crime and governance issues, intensifying insecurity among armed actors and obscuring these problems from state centers. Whereas, Security challenges at borders in the information age include reduced state influence, increased border penetration and the complexity of managing borders effectively. These challenges necessitate enhanced international cooperation and the implementation of integrated border management systems to address emerging threats (Kuprashvili, 2022). The unregulated irregular migration poses significant security challenges at borders, including perceived threats to national stability, increased surveillance and the rise of xenophobia. These challenges complicate crisis preparedness and emergency management, impacting local communities and the safety of migrants (Miller & Chtouris, 2017).

Borders pose security challenges by restricting movement and interaction, potentially harming societal freedom and well-being. They can create territorial frictions, influence national agendas, and complicate diplomatic relations, particularly in the context of geopolitical tensions, such as those between the EU and Russia (Koch, 2019). However, border security challenges have intensified due to globalization and human mobility, leading to increased anxiety surrounding international borders. This shift has resulted in a rise in border-related discourse focused on non-state threats, particularly among wealthier and more democratic states (Simmons & Shaffer, 2019). In addition, Security challenges at Nigeria's borders include inadequate communication, poorly controlled border points, high corruption among security personnel, illegal crossing routes and insufficient personnel and resources, leading to rampant trans-border crimes such as

smuggling, human trafficking and arms trafficking (Osimen et al., 2017). In addition, the border security theories encompass a range of frameworks that analyzes the complexities of managing borders in the context of national and international security. The Comprehensive Border Security Cooperation (CBSC) Model emphasizes the role of state actors in border management while recognizing the contributions of border communities and international entities (Sa'ad & Huda, 2023).

The border security issues between Nepal and India are multidimensional, primarily stemming from the open border regime that facilitates both beneficial exchanges and significant vulnerabilities. This porous border allows for illegal migration, human trafficking and the infiltration of organized crime, including terrorist activities, which pose serious security challenges for Nepal (BK, 2025a). Likewise, Khadka (2024) defines that the influx of illegal migrants, such as the Rohingya, exacerbates these concerns, highlighting the need for effective border management strategies. Additionally, demographic changes, including rural-to-urban migration and cross-border movements, further complicate security governance, as local representatives express varying perceptions of the threats posed by these shifts (Dhungel, 2023). Moreover, the geopolitical landscape, characterized by Nepal's strategic location between India and China, adds another layer of complexity, necessitating comprehensive national security policies to address both internal and external threats effectively (Kunwar, 2024a).

2.5 Theoretical Reviews on Border Issues and Security Challenges

The border issues of the Madhesh province of Nepal with India comprise of many border issues as they exist all over the world with their neighbouring countries. The problem of geopolitical, economic and socio-cultural issues exists between border of Madhesh province of Nepal and India. These issues comprise of security challenges. This study would address the geopolitical, economic and sociocultural issues with the application of the different method of data collection tools. The issues of the geopolitics, economic and socio culture are the dependent variable for the study whereas the encroachment, CBOs, disputes, tans-border crime, smuggling and cross border marriage are the independent variables.

2.5.1 The Geopolitical Theory

Geopolitical theory encompasses a diverse range of perspectives and methodologies that analyze the interplay between geography and political power. It has evolved from traditional frameworks focused on sovereign states competing for dominance to more contemporary approaches that address global challenges such as transnational crime, environmental issues and human rights, necessitating a shift from national to global perspectives (Topalidis et al., 2024a). The theoretical landscape includes various schools of thought, such as neo-classical and critical geopolitics, which explore different dimensions of geopolitical dynamics and the roles of non-state actors (Mizan, 2024).

Geopolitical theory regarding border issues and security challenges has evolved significantly, reflecting the complexities of contemporary international relations. Traditional state-centric approaches are increasingly inadequate, as evidenced by the case of Colombia and Panama, where geographic characteristics necessitate a re-evaluation of border regulation beyond conflictual paradigms (Niño González & Jaramillo Ruiz, 2018). The rise of globalization and transnational threats has shifted focus towards border securitization, highlighting a growing anxiety surrounding non-state violence and criminality, which has become more pronounced since the 1990s (Simmons & Shaffer, 2019). Furthermore, contemporary theories emphasize the biopolitical dimensions of borders, viewing them as mechanisms for managing mobility and population governance, thus complicating the simplistic notion of borders as mere territorial lines (Campesi, 2012). This shift towards a global perspective acknowledges the interplay of human rights and environmental concerns, necessitating a broader understanding of security that transcends traditional geopolitical frameworks (Topalidis et al., 2024b).

2.5.2 Economic and Socio-cultural Theory

Economic and socio-cultural theories provide critical insights into border issues and security challenges, emphasizing the interplay between community welfare and national security. The management of border areas necessitates a shift from traditional security paradigms to a focus on

economic security, as highlighted by the need for cross-border trade development and community empowerment to mitigate vulnerabilities associated with economic dependence (Bangun et al., 2024a). The Indo-Myanmar border exemplifies how historical ties and socio-economic interdependence can complicate security dynamics, particularly in light of recent geopolitical events like the military coup in Myanmar, which have exacerbated local vulnerabilities (Singh, 2023). Additionally, the socio-cultural dynamics in regions such as Kenya's northern border with Ethiopia reveal that familial ties often supersede national identities, complicating border security management and necessitating community cooperation for effective enforcement (Imboywa et al., 2022).

Overall, addressing these multifarious challenges requires a nuanced approach that integrates local perspectives, enhances infrastructure and fosters international collaboration to ensure both security and community welfare (Khan & Shameem, 2024).

2.5.3 Constructive Theory

Constructivist theory offers a nuanced framework for understanding border issues and security challenges by emphasizing the role of ideas, norms and social contexts in shaping international relations. In Central Asia, for instance, constructivism highlights the importance of cultural diversity and historical narratives in resolving border disputes, advocating for dialogue and shared values as pathways to cooperation (Sultonov, 2010). Similarly, in the European Union, business actors influence border security policies through strategic communication and identity construction, demonstrating how economic interests can shape security frameworks (Baird, 2018). In West Africa, a constructivist approach suggests that flexible, culturally sensitive migration governance can enhance transborder security, moving beyond rigid national policies to foster regional cooperation (Iwuoha & Mbaegbu, 2021).

Overall, constructivism posits that security is not merely a material concern but is deeply intertwined with social relationships and collective identities, advocating for collaborative

solutions to border challenges (Fábiàn, 2013). This theory consider border as the socially construct entities that reflect cultural historical and political dynamics.

2.5.4 Risk Management Theory

Risk management theory in the context of border issues and security challenges emphasizes the intricate balance between facilitating legitimate movement and preventing illicit activities. The Theory of Transnationalism highlights the interconnectedness of nations, particularly in regions like West Africa, where porous borders aggravate cross-border crimes such as human trafficking and drug smuggling (Gana et al., 2023). In the U.S, risk management strategies have evolved across administrations, with measures like border walls reflecting a broader trend of securitization in response to perceived threats (Clapton, 2022).

Similarly, India faces significant internal security challenges from cross-border terrorism and illegal migration, prompting the development of a comprehensive border management system, albeit hindered by resource limitations and corruption (Das, 2021a). Furthermore, the need for integrated border management approaches is underscored by the challenges of human mobility, where security measures must coexist with the facilitation of legal crossings (Ferreira, 2019). These perspectives illustrate that effective border management requires a nuanced understanding of both security risks and the socio-political dynamics at play (Scott, 2013).

2.6 Research Gap

Research gaps are areas where existing studies fail to provide comprehensive insights, often due to methodological limitations or insufficient data, they signify opportunities for new research, indicating where significant contributions can be made to a field (Chand, 2023). Ghafur (2018) stated that a border is a strategic area that plays crucial role in maintaining a country's sovereignty, serving as an interaction zone between globalization and locality which significantly impacting economic, social, political, cultural, environmental, defence as security aspects of society where as Ranjan (2018) stated that the border is more than a physical line which represents complex interplay of political, emotional and cultural dimension. Alperen (2024)

stated that the border security refers to measures and legislation aimed at protecting a nation's border from illegal activities. According to Baillie (2020) border issues encompass geopolitical, economic and social polarities, also Irwansyah (2017) stated that territorial and border pillar claims aggravated negativity whereas Higginson (2013) claims that border issues are crucial for ensuring security and efficient operation at international frontiers. The open border between Nepal and India presents security challenges like illegal trade and cross border crime. The major focus of the literatures is the territorial integrity sovereignty and border claims, some literature highlights the deep rooted from history which could be manipulated for national sentiments, also the socio-cultural focus on the border issue highlight that the border is a social constructed entity which defined by the cultural and social dimension. The economic issues of border from the literature highlight the smuggling, human and drug trafficking, arms smuggling and barriers to the free flow of goods, services and people. It is clear from the literature that these kinds of border issues are there everywhere within the bordering countries. Various literature on the topic of border, border security, border issues and security challenges of the international border, but the studies of border issues like border disputes, encroachment, cross-border occupation along Madhesh provinces and their security challenges measures which were not studied in separate topics. The study on particular topics of Madhesh province concerning the economic issues where the seizure of illegal goods by the security forces were not compared with the revenue collected at the customs points. The socio-cultural issues of marriage in Madhesh province of Nepal were not found to be dealt with. Therefore, focusing on this gap, this study deals with the issue of geopolitics, economics and socio-culture issues along the border of the Madhesh province of Nepal and their security challenges. The study tries to address the gap of issues-based compliance with the border issues and security challenges that are prevalent in the border of the Madhesh province.

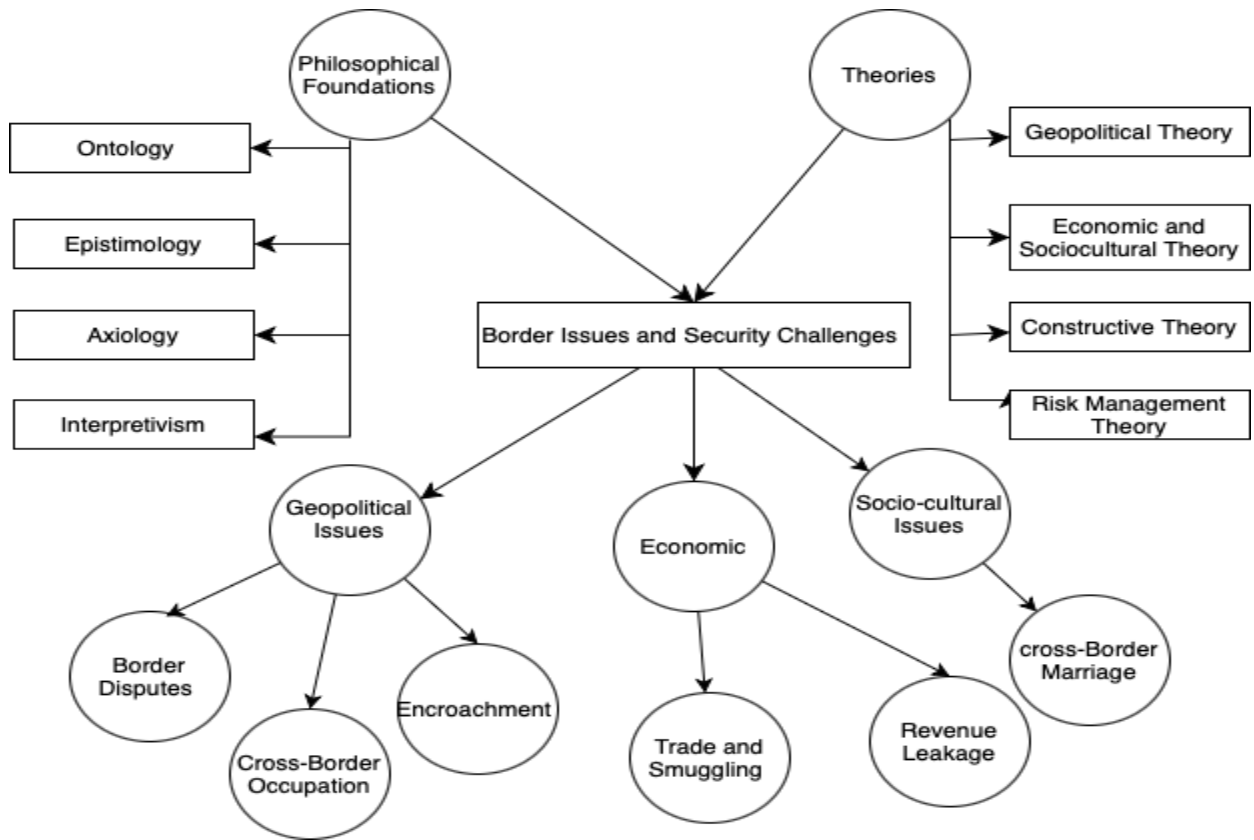
2.7 Conceptual Frameworks of Research

The conceptual framework is a tool that connects various components of the research process, including literature review, methodology and study design providing a coherent structure for the study which articulating the rationale, justifying the design and describing the analytical lens

(Kulesa et al., 2024). Moreover, the philosophical foundation provides the necessary context for the conceptual framework, ensuring that the research is not only methodologically sound but also philosophically coherent. This coherence is essential for the research to contribute meaningfully to academic conversations and to ensure that empirical findings can inform theoretical advancements without conflicting with the study's foundational philosophical assumptions (Brydges & Batt, 2023).

Figure 2.1

The Conceptual Framework



Source: Researcher, 2025

Figure 2.1 shows the conceptual framework of the study. The conceptual framework comprises of the border issues and security challenges as the title of the thesis, which deals with the

geopolitical, economic and sociocultural issues and their security challenges which revolves around border issues and security challenges. The geopolitical issues of the border are dealt with the border disputes, cross-border occupation and border encroachment through the construction of infrastructures by the persons residing along the border and government agencies. The geopolitics is the dependent variable whereas border disputes, cross-border occupation and border encroachment are the independent variables for the study. Likewise, the economic issues of the border are the dependent variable in which the revenues collected at the border and seizure of the goods by the security agencies are the independent variables for the study of the economics issues. The socio-cultural issue is the dependent variable whereas the cross-border marriage is the independent variables for the study.

These issues are deeply connected with philosophical foundations such as: ontology examines the nature of border issues, including the existence of disputes, cross border occupation, economic activities, socio cultural interaction and security concerns. Likewise, epistemology focuses on how knowledge about border conflicts is constructed, including the study of trade, smuggling, cross border marriage and encroachment. Axiology explores value systems and ethical considerations, such as the consequence of border disputes, CBO's, encroachment, economic consequences of revenue leakage and the cultural significance of cross-border marriages.

The research philosophy guiding this study aligns with interpretivism, as indicated in Figure 2.1. This approach is appropriate because the study focuses on understanding social realities such as cross-border marriages, trade activities and socio-political conflicts. Moreover, it relies on qualitative insights to interpret how border communities and policymakers perceive security challenges. It connects with epistemology, i.e. how knowledge is acquired about border issues and axiology i.e. how values influence governance and decision-making.

RESEARCH METHODOLOGY

This chapter includes the constructivism as philosophical foundation which consist interpretivism as paradigm, ontology, epistemology and axiology along with research design, population, sampling and study area. Moreover, the primary and secondary data collection methods are presented and data processing, analysis and presentations are extensively explained.

3.1 Philosophical Foundations of the Study

Philosophical foundations serve as the backbone of any research, guiding the approach to understanding reality, acquiring knowledge and interpreting findings. The research on border issues and security challenges in Madhesh Province, Nepal, is grounded in constructivist ontology, qualitative epistemology and an interpretivist paradigm. These frameworks provide a nuanced understanding of how borders are not just physical demarcations but socially constructed and dynamically evolving spaces shaped by political, economic and cultural interactions. This paper explores the study's ontological, epistemological and interpretivist underpinnings, demonstrating how these perspectives inform the methodology and analytical approach.

3.1.1 Research Paradigm: Interpretivism

Interpretivism is a research paradigm that focuses on understanding meaning, social interactions and subjective experiences (Bradnock, 2020)). It assumes that reality is constructed through social processes, cultural norms and human interpretation rather than being an objective fact. The Nepal-India border region is a complex space shaped by history, culture and policy. The study employs interpretivism to analyze how different actors—governments, security forces and local communities perceive and navigate border-related challenges (Ullah & Kumpoh, 2018). Key aspects of interpretivism in the study include narrative analysis that explores how government policies and local histories shape perceptions of border security (Singh & Siddiq, 2023). Likewise, themes were coded using NVivo software which Identify patterns in qualitative

data from interviews and focus groups. Similarly, exploring multiple perspectives that recognise the border issues are not single-faceted problems but complex socio-political constructs (Kaw, 2010). While positivist approaches rely on quantitative metrics like border patrol efficiency or crime rates, interpretivism emphasises lived experiences. A positivist might measure border security by the number of arrests made. Whereas an interpretivist would explore how people perceive border security—whether they feel safe or threatened. This paradigm allows the study to capture the richness of human experiences and socio-cultural dynamics at the Nepal-India border, offering a holistic view of security challenges (Kelly, 2020).

3.1.2 Ontology

Ontology is the study of what constitutes reality and existence. It addresses whether reality is objective and independent of human perception (realism) or socially constructed through human experiences and interactions (constructivism) (Mohsin et al., 2024). The research adopts a constructivist ontological stance, emphasizing that borders are not merely physical markers but are socially and politically constructed entities. The borders are not fixed or naturally occurring but are shaped by historical, political, and cultural contexts (M D et al., 2023). Unlike the positivist approach, which treats borders as absolute physical realities, this study views them as fluid and contested spaces, influenced by policy decisions, socio-economic conditions and international relations (Aryal & Pulami, 2024).

For example, in the Nepal-India border region, historical treaties and agreements, such as the 1950 Indo-Nepal Treaty of Peace and Friendship, have contributed to the open border system, allowing unrestricted movement between the two countries (Bhatnagar & Ahmed, 2021). However, geopolitical shifts, economic disparities and socio-cultural ties continuously redefine how this border is understood and managed. This supports the constructivist view that reality is not fixed but shaped by human perception and historical contingencies (Hussain & Jamali, 2019). The study highlights that border-related issues such as disputes, encroachments and illegal cross-border activities are not just territorial problems but socially constructed conflicts that evolve over time (Avis, 2020). These disputes arise from political narratives, economic

dependencies and historical territorial claims reflecting the subjective and fluid nature of borders (Khan et al., 2025).

3.1.3 Epistemology

Epistemology concerns how knowledge is acquired, validated and understood. This research follows a qualitative epistemological approach, which prioritizes subjective experiences, perceptions and meanings over objective measurement (Ball et al., 2019). The study rejects the positivist reliance on quantitative data and experimental methods, instead employing descriptive explanatory qualitative research methods to explore the causes and effects of border issues and security challenges (Qureshi & Khan, 2024). To understand these complex dynamics, the research relies on primary data sources, including KII with security personnel, policymakers, and local residents, FGD with border communities and Personal Interviews to gather diverse perspectives on border disputes and security concerns (Tripathi & Chaturvedi, 2020). This aligns with constructivist epistemology, which asserts that knowledge is context-dependent and shaped by human interactions and interpretations (Dan & Pandey, 2024). Unlike positivist research, which seeks universal truths through measurable variables, this study acknowledges that border issues are inherently subjective. Security challenges are perceived differently by various stakeholders: what security forces view as illegal migration; local residents may see as a cultural norm. Economic issues such as smuggling are interpreted differently: government authorities view them as threats to national security, whereas border traders see them as economic survival mechanisms (Reddy, 2012). By employing qualitative epistemology, the study captures these context-specific variations, providing a more comprehensive and nuanced understanding of security challenges of Madhesh Province.

In conclusion, the research on border issues and security challenges of Madhesh Provinces is deeply rooted in constructivist ontology, qualitative epistemology and an interpretivist paradigm. By recognising that borders are social constructs, the study moves beyond traditional territorial definitions and explores the historical, cultural and economic factors shaping border dynamics. Through qualitative methods and interpretive inquiry, the research captures the complex realities

of border governance, security concerns and socio-economic interdependencies. This approach provides policymakers, security agencies and researchers with a more refined and contextually relevant understanding of Nepal's border security landscape.

3.1.4 Axiology

Axiology, the branch of philosophy concerned with values and ethics, plays a crucial role in shaping the ethical considerations, biases and societal implications of research. It influences the way researchers approach knowledge production, guiding decisions on what is considered valuable and meaningful within a study. In the context of border issues and security challenges in Madhesh Province, Nepal, axiology ensures that the research remains socially responsible, ethically sound and inclusive of diverse perspectives. Given the sensitive nature of border security, this study prioritizes ethical considerations, such as obtaining informed consent, maintaining confidentiality and ensuring that participants' voices are represented without political or social bias (Creswell & Poth, 2017). Since borders are not just physical demarcations but also socio-political constructs, values shape how researchers interpret and present their findings (Guba & Lincoln, 1994). The study rejects positivist objectivity, recognising that cultural, historical, and political narratives influence perceptions of border security and governance (Denzin & Lincoln, 2011). Moreover, axiology ensures that policy recommendations derived from the research are contextually relevant, addressing real-life challenges faced by border communities while avoiding solutions that may reinforce existing inequalities or marginalisation (Patton, 2014). By incorporating axiological principles, the study acknowledges the importance of values in shaping knowledge, ensuring that research findings contribute meaningfully to policy, governance and the broader socio-political discourse surrounding border security.

3.2 Research Design

This study tried to explain and describe the border issues and security challenges of the Madhesh province, where as it explains the cause-and-effect relation of the border issues and their security challenges along the Madhesh province border with India. Furthermore, it has dealt with the

geopolitical, economic and socio-cultural as the border issues and their security challenges as the impacts based on descriptive explanatory qualitative research design. Explanatory research design is a methodological approach used to investigate causal relationships between variables, providing insights into underlying mechanisms that drive specific phenomena (Saunders et al., 2019). Furthermore, explanatory research seeks to answer "why" and "how" questions by testing hypotheses and establishing cause-and-effect relationships. This design is commonly used in social sciences, business research and behavioural studies to refine theories and provide empirical validation (Bhattacharjee, 2012).

Moreover, descriptive research design is a systematic method used to describe characteristics, behaviours or phenomena within a population or subject of study without manipulating variables. It primarily focuses on "what" rather than "why," making it useful for gathering detailed information and identifying patterns (Babbie, 2020). Researchers employ methods such as surveys, observations, and case studies to collect qualitative and quantitative data, allowing them to establish trends and relationships (Creswell & Creswell, 2017). Therefore, this study has employed descriptive explanatory research design to establish relationships between border issues and its security challenges. Moreover, the study has adopted KII, FGD and interviews to explore existing issues and phenomena of Nepal and India border specifically in Madhesh Province Nepal.

Qualitative research is especially fitted for studying the people, phenomena, experiences and the expectations that exist in the society. Moreover, a qualitative methodology was employed because it is considered most appropriate for exploring the perceptions and experiences of individuals (Auerbach & Silverstein, 2003; Yin, 2017). Moreover, the qualitative approach was used to provide a comprehensive overview and detailed analysis of the Border issues and security challenges of the Madhesh provinces. Dornyei (2007) explains that qualitative research “focuses on describing, understanding and clarifying a human experience and therefore qualitative studies are directed at describing the aspects that make up an idiosyncratic experience rather than determining the most likely or mean experience, within a group.” This design explores an in-depth examination of the border issues and security challenges of Madhesh

province. By employing a descriptive explanatory qualitative approach, the border issues and security challenges are systematically explored.

3.3 Source of Data

According to Gregory and Koesten (2022), common sources for discovering data include search engines, data portals, academic literature, and social connections, which facilitate access to a wide range of information. This study has employed both primary and secondary data.

3.3.1 Primary Data Sources

The primary data were collected from the local people, border guarding professionals, custom offices, district administration offices and representatives of the local level of Madhesh Province of Nepal. Moreover, data from the immigration section of MOHA, Survey Department, APF, Nepal border and security division were taken utilizing KII, Personal interviews and FGD. open-ended questions were asked to the interviewee to collect primary data. The format of the KII, Personal Interview and FGD is shown in Appendix (A), Appendix (B) and Appendix (C).

Table 3.1

Demographic Profile of Primary Data

SN.	Data Collection	Male	Female	Total
1.	KII	3		3
2.	FGD	2		2
3.	Personal Interview	23	5	28
	Total			33

Source: Field Survey, 2025

The table 3.1 shows that the demographic profile of the primary data collected during the field work. They are collected through the KII, FGD, and Personal Interview. They are selected purposively and conveniently. The KII are taken from the diverse sector who are working in the border for more than 2 years. FGD is conducted at two places one at the Parsa and another at the Mahottari the participants were the local people who married cross border, representatives of the

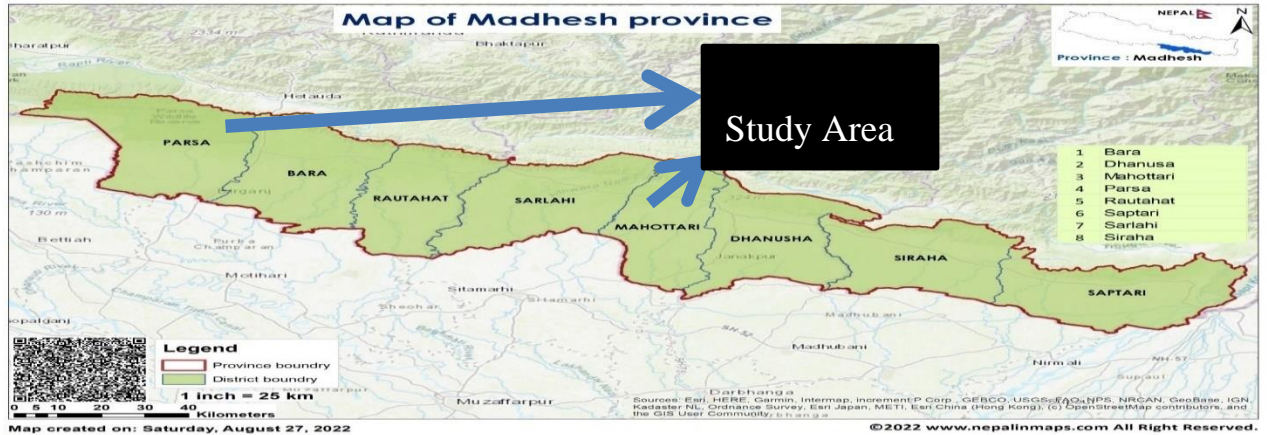
local level of the wards connected to the border with India. The personnel interview total were conducted at Parsa and Mahottari are the participants from bureaucrats of administration offices, custom offices, participants of border security forces, representatives of the local level, local people and local people including those married cross border, out of 28 participants the 5 female persons were there as participants who married to Madhesh Province of Nepal from India.

3.3.2 Secondary Data Sources

For the completion of the research paper, the secondary data were collected through online sources such as published books, journal articles, and academic papers. Moreover, data from APF, Nepal Headquarters, APF, Nepal Number 2 Chinnamasta Brigade Headquarters Mahottari, customs offices, Border and immigration section, Ministry of Home Affairs (MoHA) and Survey department were employed for the study.

3.4 Area of Study

For the research, the study area refers to the specific geographical, social, or thematic domain where the research is conducted. It defines the boundaries within which data is collected and analysed. The selection of a study area is crucial, as it influences the generalizability and relevance of research findings (Kumar, 2018). This study encompasses the Madhesh province as a whole. The Eight districts of Madhesh provinces are considered as the population of the study area. The study mainly focused on the border issues and security challenges that are prevalent all along the Madhesh province border, which shares a border with the Bihar provinces of India. Moreover, the border guarding professionals and other stakeholders such as district administration, customs, local people, especially the ones who marry across the border and representatives of the border areas that are responsible for managing the border and border issues have been taken as study area of this research. Furthermore, the two districts of Madhesh Province, Parsa and Mahottari as the samples of the study. Along with this, the researcher had selected the border and immigration administration Section of the MOHA, Kathmandu, Survey Department, Minbhawan Kathmandu, Border security Division APF, Nepal headquarters as the study area.

Figure 3.1*Area of Study of Research*

Source: Nepal in Maps: Know Nepal through MAPS, (2023)

The Figures 3.2 shows the field of the study where study area comprises of the 8 districts of the Madhesh Provinces as the populations or universe for the study. The district marked by the arrow is the representative samples or samples size for the study.

3.5 Sampling Techniques

Sampling is the process of selecting a subset of individuals from a larger population to represent that population accurately and the advantages of sampling is faster data collection and lower cost from fewer subject (Slater & Hasson, 2024). For the completion of the study, the universe or population were Eight (8) districts of Madhesh province bordering with India, whereas the Parsa and Mahottari districts were taken as samples for the study.

Purposive and convenient sampling were used for more understanding of the border issues and its security Challenges from the participants of APF, Nepal, participants from Custom offices of Parsa and Mahottari, the participants from district administrative offices, representatives from

the MOHA, representatives from the Survey department and representative from APF, Nepal border security Division, local people and representatives of the local people located along the border of Madhesh Province with India. Purposive sampling involves deliberately choosing individuals who meet particular characteristics relevant to the study's objectives, allowing researchers to focus on specific subpopulations, such as those with rare traits or experiences (Nyimbili & Nyimbili, 2024). Likewise, convenience sampling selects participants from readily available sources, which can lead to biases and limit the generalizability of findings to the broader population (Andrade, 2021).

For the study KII, FGD and personal interviews were taken to address the geopolitics, socio-cultural and economic issues with the non-probability purposive and convenient sampling technique. The sampling profile of primary data are as follows:

Table 3.2

Sampling Profile of Primary Data

S.N.	Districts	Parsa	Mahottari	Others	Total
1.	KII	0	0	3	3
2.	FGD	1	1	0	2
3.	Personal Interview	16	12	0	28
	Total	17	13	3	33

Source: Field Survey, 2025

Table number 3.2 shows that the KII taken from the representatives of the different sectors like border security division of the APF, Nepal Headquarters, representatives of the border and immigration section, MOHA and representatives of the survey department. FGD were conducted at Parsa and Mahottari, the participants were the local representatives, local people and person who marry cross border for their constructive opinions, individuals' perception and group

dynamics responses. The personal interviews were conducted from the bureaucrats, security professional, who worked in the border for more than 2 years, representative of the local level and local people included person married cross border.

3.6 Data processing, Analysis and Presentations

The study on "Border issues and security challenges of Madhesh province" involves systematically processing, analyzing and interpreting data to understand the Border issues and security challenges. The primary data were collected from fieldwork through KII, FGD and personal interviews. A qualitative descriptive explanatory method was employed for the interpretation and analysis of the key border issues like geopolitical, economic and socio-cultural and their security challenges that were collected using primary and secondary sources. The interpretation of these results has helped in finding, drawing conclusions and addressing the research problem or research questions, which would help improve peace, security, stability and prosperity in both the communities along the Madhesh provinces. Moreover, this study has employed thematic analysis to identify key themes related to the border issues and security challenges of Madhesh province. NVivo 12 software was used to facilitate the coding process and organize qualitative data collected from personal interviews, KII, FGD, policy documents, and secondary data. The data analysis process followed the six-phase thematic analysis framework. The data were familiarized with transcripts from KII, FGD and Personal Interviews which were reviewed multiple times. Significant statements were coded in to NVivo nodes by generating the initial codes. The related codes were grouped in to broader categories for searching of the themes. The themes were reviewed to ensures consistency and relevancy by refining them. The themes were defined and named based on the patterns in the data (Braun & Clarke, 2006).

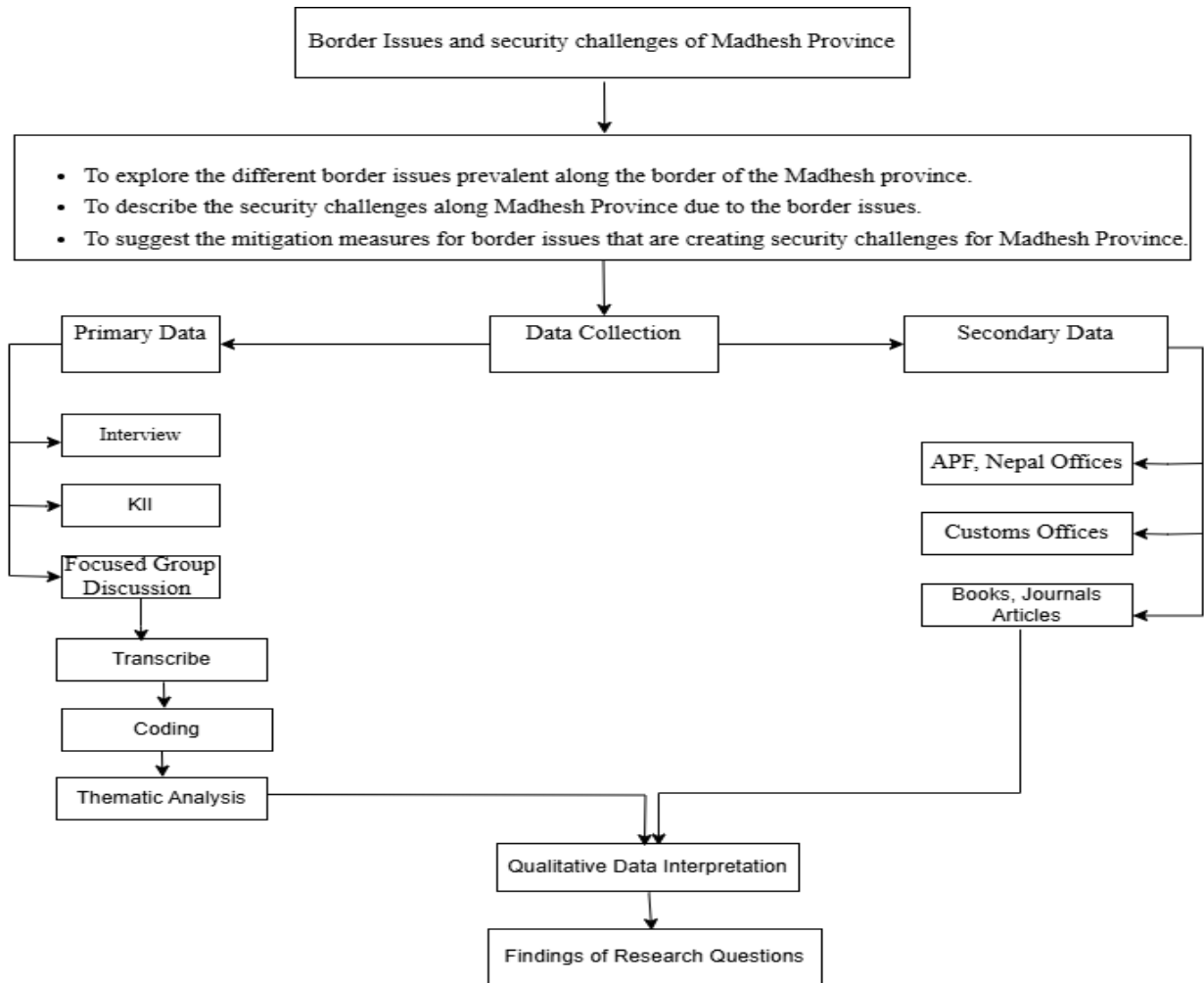
3.7 Summary of the Research Design

The study has employed an explanatory and descriptive research design for the topic of border issues and security challenges of the Madhesh provinces. The study has adopted primary and

secondary data collection methods. The methodological framework of the study of the research is as follows:

Figure 3.2

Methodological Framework of the Study



Source: Researcher, 2025

3.8 Ethical Consideration

Ethical considerations in research are paramount across various disciplines, emphasizing principles such as autonomy, beneficence, justice, and non-maleficence. In communication research, ethical frameworks guide the treatment of human participants, ensuring that their rights and well-being are prioritized (Phelps, 2025). Furthermore, Mestre-Martínez (2024) states that the researchers must prioritize informed consent, ensuring that participants fully understand the research and its implications, while also maintaining privacy and confidentiality throughout the process. While conducting this research, the consent was taken from the respondents. Moreover, the integrity of the data had been truly maintained and respected. The sources and literary work of the scholar have been highly credited and given full due respect. The sources, which seem critical that the researcher found during the research, had not been disclosed to the unwanted and unauthorized persons and organizations.

In this research paper, the citations and references had been prepared by using the Mendeley as an Artificial intelligence (AI) application, and all the discussion and conclusions drawn had been analysed without being biased or prejudiced to certain issues and literature that had followed as literature. The responses of the key informants and focus group discussion were highly kept protected and their integrity is highly respected and maintained the secrecy of the respondents. The research had been completed on the Guidelines of the American Psychological Association (APA) 7th edition.

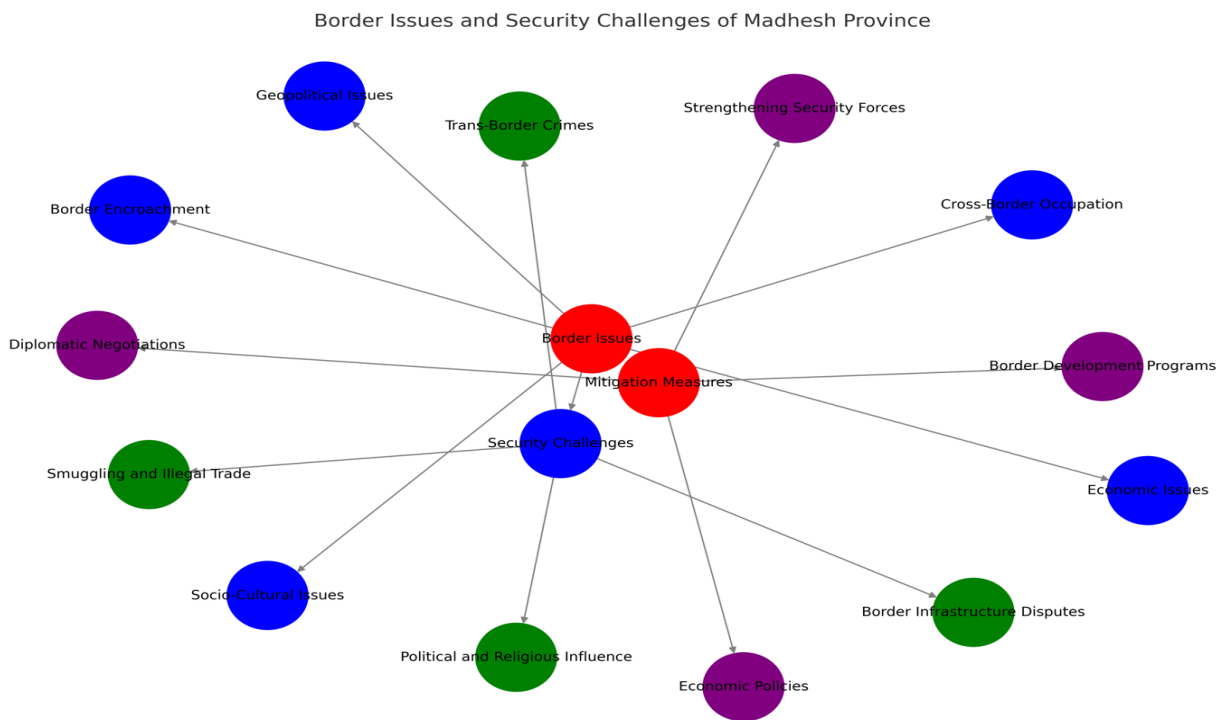
FINDING AND DISCUSSION

This chapter has discussed the Primary and secondary data collected for the study. The primary data collected from KII, FGD, personnel interviews are discussed and analyzed by generating key themes for the thematic analysis using NVivo 12 software. Based on the themes, this chapter has discussed about the border issues, security challenges and mitigation measures in Madhesh Province.

4.1 Themes for Thematic Analysis of Border Issues

Figure 4.1

Thematic Structure of Border Issues and Security Challenges of Madhesh Province



Source: NVivo 12 Software, 2025

The Figure 4.1 clearly visualize the Geopolitical, economic and socio-cultural as the Border issues. The border disputes, cross border occupation, encroachment, political and religious influence, smuggling and Transborder crime as the security challenges whereas the Border development programs, increasing strength of security forces, diplomatic negotiation and economic policies as the mitigation measures. The main three themes such as border issues, security challenges and mitigation measures and their sub-themes are discussed as below:

4.2 Geopolitical Issues

Geography still counts, it counts in a strategic and military sense, a political sense and culturally defined territorial sense and it counts in terms of the spatial distribution of resources of resources, peoples and Physical system (Baral & Pyakurel, 2015) . The cultural imagination of the border is that, it is the space in between in which transnationalism collides with geopolitical cooperation and contestation (Konrad & Szary, 2022). The Participants from the APF, Nepal Parsa stated about border issues of Madhesh Province that:

There are so many issues such as political, religious, Cross Border Occupations (CBO), border encroachment, border disputes, and cultural influence, which are considered geopolitical issues; sometimes religious disputes and emotional manipulation during the election can be seen (S1, Interview, 2081-09-22).

This statement stated that there exist several issues on the border of Madhesh provinces that range from political to religious tension, the main geopolitical issue is the influence during the elections and the disputes over the religion over one place impacts the result in other places. The geopolitical issues range from political influence to emotional manipulation in the results of the elections. The participants from the district administrative office, Parsa stated about border construction that:

The geopolitical issues in the border are the construction of the embankments, high dams and roads along the border which are frequent along the Madhesh province border.

Another geopolitical issue is the construction project by the Chinese in the proximity of the Indian border, where Indian sides have commented on the increasing activities of the Chinese (C2, interview, 2081-09-27).

From this statement it shows that the issues of the constructions of the dams, embankments, roads and the Chinese construction project inside the territory of Nepal near to Indian border seem to be major geopolitical issues. The constructions on the Indian side affect the Nepali side during the monsoon season. The Indian security and bureaucracy became suspicious of the presence of the Chinese, even in the construction projects and equipment with Chinese marks.

The officer as the key informant of the Ministry of Home Affairs (MOHA), Nepal stated about criminal activities in the border “There is an open border where trans-border crimes, border encroachment, cross border occupation are considered as the geopolitical border issues (M1, interview, 2081-10-1)”. The officer as a key informant from APF, Nepal headquarters (S3) of Border Security Division stated about political influence on the border that:

The political influence of Bihar's ruling parties on Madhesh-based political parties can be analyzed through their support, which often stems from shared ideological ties and mutual benefits. Madhesh-based political parties tend to align with political parties from Bihar of India for support, as they feel deprived of their expected rights by Nepal's federal republic government. These alliances are primarily driven by political gain. Bihar and central Indian parties also accommodate Madhesh based Political parties to leverage their influence when necessary (S3, interview, 2081-10-01).

The Participants from the APF, Nepal of the Mahottari (S2) identifies some of the border issues as geopolitical issues of the border of Madhesh provinces as:

The Issues of masjids and madrasahs in the border area of Madhesh Province are raised from the Indian side, the leaving of the Pahadi or Hilly people from Madhesh provinces where the cultural exchange and modernization left backwards due to homogeneity of the

inhabitants left there. The religious issues in Nepal were closely observed by the Indian side. The dual citizenship of the people living on the border is another geopolitical issue, as mentioned (S2, interview, 2081-09-27).

During the personal interview with the female participants, the participants were asked about whether they knew any border issues.

The participants from the Parsa district responded that they don't know about the border issues, whereas the participants from Mahottari responded that they knew border issues as it is an open border, unregulated, trans-border crime occurs where there is free movement of people all along the border (Interview, 2081-09-24 and 27).

The primary data shows that Madhesh Province is facing multiple geopolitical border issues, including political and religious tensions and cross-border occupations, with election time manipulation being a key concern. Likewise, infrastructure projects such as embankments, dams, and roads near the border create disputes, especially with Indian authorities who express suspicion over Chinese involvement. Religious institutions like madrasas and masjids in border areas are points of controversy, while concerns over dual citizenship and the migration of hill communities also contribute to geopolitical tensions. The open and unregulated border allows for trans-border crimes, encroachment, and disputes over territorial control. Moreover, local perspectives vary, with some residents unaware of border issues while other recognizes the challenges posed by free movement and lack of regulation.

4.2.1 Border Encroachment and Cross-Border Occupation

Historical events often shape border disputes, as seen in the Nepal-India border management case, where river boundary issues have led to significant encroachments and disputes (Baral, 2018a). Moreover, Lutterbeck (2023) stated that the power differential between countries significantly influences border control practices, for example, in the context of the European

Union (EU), stronger nations often extend their border enforcement into weaker neighbouring states, leading to various forms of encroachment.

The participant from the district administrative office, Parsa stated about border encroachment that:

Border encroachment issues between Nepal and India, in Madhesh province, are not so serious, but there exists the real issue of no man's land occupation by the local settlers for their daily activities which leads to claims of encroachment in which delays action on these issues could create future problems (C1, interview, 2081-09-23).

According to participants from APF, Nepal Parsa

In Thori Rural Municipality, Nepal is blamed by India for encroaching 80 to 100 cm of no man's land due to fencing meant to protect wildlife. Additionally, the differences exist in the data of cross-border occupation, the border security agencies from Nepal and India working to standardize information on encroachments and infrastructure in Border Outposts (BOPs)(S1, interview, 2081-09-23).

From the above two participants, the issues are not so serious, but the settlement is proximate to the no man's land where the future chances of encroachment lead to disputes in the border like the issues of a few centimetres of the Land encroachment raised by the Indian sides due to fencing in the border to protect crops from wildlife.

The key informants from the survey department of Nepal stated about border demarcation and protocols that:

The main border issue between Nepal and India lies in the lack of proper legal demarcation and protocols. The border length, encroachment, disputes and cross-border occupation as border issues arise due to the adoption of fluid and fixed boundary principles. The fixed boundary principle adopted after 2045 B.S. brings more issues

along the border of Madhesh province. This lack of border protocol raises concerns about the exact border length of districts or region. Furthermore, the border issues along Nepal-India are yet to be solved due to the lack of the legal demarcation and protocol yet to be signed. The adoption of the fixed boundary principle from the Fluid boundary raises the issues of encroachment, cross-border occupation and confusion on the actual length of the international border along Nepal and India. The absence of border protocols brought problems with the actual border length. The border disputes of the Chapkaiya Parsa is due to the adoption of the Fixed boundary principle from the fluid boundary after 2045 B.S. The strip map prepared by the joint team of both countries shows the land on which the people of Nepal possess the land certificate since the land survey of 2021 B.S. falls in the no man's land and the land towards the Indian territory. (D1, interview, 2081-10-01).

Table 4.1

Disputes in Parsa District

District /Local Level	Encroachment, CBOs and disputes	Remarks
Birgunj Metropolitan city	the area claimed by the Local people as they posses their land Certificate.	Border Disputes
Birgunj Metropolitan city	From the long time people from both the side used land as habitation and farming.	Encroachments
Bindabasini Ru. Municipality	encroachment of land from both the sides as houses and farming	
Pakaha Mainapur, Parsa	Encroachment by the people of both sides for houses and farming	
Chippar mai Ru. Mu.	encroachment by huts and farming.	
Jagananthpur Ru Mu.	Encroachment for houses and farmings	
Bahadurmai Rural Municipality	encroachment from indian sides for hoouses and farming.	

Source: APF, Nepal NO. 13 Battalion HQ Parsa and computed by researcher, 2025

Table 4.1 shows that there are no more serious disputes along the border of Madhesh Province, whereas in contrast to the list of issues shows some minor border encroachments by the people residing along the border with the construction of infrastructures and used the land cross-border cultivating claiming their own land whereas they possess land certificates, too. It can be seen the border disputes along the border in the Birgunj Metropolitan city-1 Chapkaiya. The dispute along the Chapkaiya is due to the adoption of the boundary principle; the people of Chapkaiya possess

the land certificate by the survey of 2021 B.S, when the fluid boundary principle raised issues of border disputes. The strip map shows the border pillars that fall inside the territory where Nepali people possess land certificates.

The participants of the focused group discussion at the Birgunj Metropolitan-1 Sirsiya stated about land disputes that:

There is no dispute among peoples but only they have disputes regarding pillars at the border where the Nepali people possess the land owner certificate. They also stated that there are no serious border disputes and issues among border people on both side regarding border (FGD, 2081-09-24).

Table 4.2

The Border Disputes and Issues in the Mahottari District

Local Level	Detail of the Disputes or Area of disputes	Remarks
Manara Sisawa municipality	Houses, huts building for commercial use	
Jaleswor Municipaity	Roads, bridge, Houses	
Samsi Rural municipality	Temples	

Source: APF, Nepal No. 09 Battalion HQ Mahottari and computed by researcher, 2025

Table 4.2 shows that there are minor issues of the construction of small houses and cattle tie stalls in the no man's land on the border of Manara Sisawa Municipality. Some infrastructures like roads, houses and bridges are constructed along the border of Jaleswor Municipality, whereas there is the construction of religious temples along the border of Samsi Rural Municipality.

It shows that there are various disputes in Mahottari District, Nepal, which highlight issues at the local level. The disputes are primarily related to houses and huts being used for commercial purposes, which could involve Jaleswor Municipality. The conflicts involve roads, bridges, and houses, whereas, in Samsi Rural Municipality, there are concerns over land use, like the legitimacy of utilizing residential or temporary structures for business activities. Moreover, it

faces disputes over temple construction. The main disputes in Mahottari District are land usage and infrastructure development.

Table 4.3

Cross Border Occupation by Public and Government Agencies

Sides	Houses and Huts				Farming				Other Infrastructure				Total CBOs
	Nepal	India	Both	Total	Nepal	India	both	total	Nepal	India	Both	Total	
Public	113	86	19	218	163	116	136	415	6	7	2	15	648
Government	0	0	0	0	0	0	0	0	0	5	0	5	5

Source: APF, Nepal Headquarter and computed by researcher, 2025

Table 4.3 shows that the borders are being encroached by both public and government agencies. Public encroachment by the construction of houses/huts and other infrastructures along the border where people of the border encroach on the no-man's land. It is also found that the government side of India constructed infrastructure by encroaching no-man's land at five places along the border of the Madhesh Provinces. It was also found that the people from both sides occupied their land on either side, where they used the land for cultivation as they claimed they possessed the land ownership certificate. There are altogether of 648 places used by the public on both sides as constructing houses, huts, and other infrastructure along with cultivation of the farming land. The government and the public both have encroached on the no man's land. There is a cross-border occupation, construction of the infrastructure and government infrastructure along the border from the Indian Side.

Table 4.4*No-Man's Land Encroachment Details of Madhesh Province*

Details	Infrastructure Built	Cultivated Places	Culvert/Embankment/Road Infrastructure	Total
Nepal Sides	113	162	6	281
Indian Sides	86	116	7	209
Both Sides	19	137	2	158
Govt. Agency India	0	0	5	5
Total	218	415	20	653
Border Disputes	Only at the place of Birgunj Metropolitan city 1 Chhapkaiya			

Source: APF, Nepal No.2 Brigade HQ, Mahottari and computed by researcher, 2025

Table 4.4 shows that there exists the border encroachment by constructing infrastructure at 281 places by both countries either from one side or from both sides. The encroachment also comprises of the construction of the culvert, embankment and roads unilaterally or from both sides at 20 places in the border of the Madhesh Provinces, whereas the people of both sides cultivated at about 415 places across the border, which we call the cross-border occupations.

The key informants, Participants of the focused group discussion and personnel interview all stressed that there exists the border encroachment, cultivation of the land and farming as the border issues along the border of Madhesh province. According to key informants S3 of the APF, Nepal Headquarters stated about cross-border occupations “There are not any significant issues of cross-border occupations in the Mahesh Province. However, in some cases, the issues of cross-border occupation/holdings have been traced out because of unexpected issues (S3, Interview, 2081-09-24)”. There are border issues that exists along the Parsa districts of Madhesh provinces but the respondents due to his accountability and not willing to enter in the controversy stated there are not significant CBOs, whereas the CBOs are there as they have been due to local peoples using them as domestic purpose and due to the change in adoption of the border principle.

Another, participants from APF, Nepal Parsa (B1) focused of cross-border occupation that “The construction of houses, construction of religious infrastructures, missing of border pillars, and local people possessing land certificates but obstructed by the security force, are some of the issues of cross-border occupation and encroachments (B1, interview, 2081-09-24)”.

Here the houses are constructed in the no man’s land, somewhere the temples or religious infrastructures constructed in the no man’s land, missing of the pillars due to floods and human activity and change in the principles of border demarcation leads the local being abandoned from using their certified lands. Whereas the participant from APF, Nepal Mahottari (S2) stated about the border encroachment and disputes as:

There is no border encroachment after the establishment of APF, Nepal but the prevalence of the cross-border occupation, Cattle tie stall in no man’s land, small huts by poor people since long time but these minor issues in future may geopolitically impact on international relation (S2, Interview, 2081-109-27).

It is found from primary and secondary data that border encroachment in Madhesh Province is mainly due to local settlers using no man’s land for daily activities, which may lead to future disputes. While minor encroachments occur, such as fencing for wildlife protection, a lack of legal border demarcation and protocols contributes to ongoing issues. Cross-border occupation includes farming, house construction, and infrastructure development by both public and government agencies, with Indian authorities constructing structures in no man’s land. Disputes arise in areas like Birgunj Metropolitan due to differing boundary principles and missing border pillars. Though currently minor, these issues could impact Nepal-India relations in the future.

4.3 Economic Issues

A paradigm shifts from traditional to economic security, recognizing economic dependence as a potential national vulnerability, despite challenges like geographic remoteness and economic inequality, border regions are vital for economic growth through cross-border trade development

and community empowerment (Bangun et al., 2024b). The economic dependency is a crux issues in the border where the people of the border survive on the goods being purchased on the nearby market to India (C1, interview, 2081-09-23).

According to a participant from customs office Parsa about revenue leakage “Informal trade routes enhance the leakage of revenue along the border which reduces the revenue collection which is the main source of national income for countries like Nepal is the revenue which is generated at the customs points (R1, interview, 2081-09-24)”. Key informants from APF, Nepal Headquarters stated about the open border that:

Madhesh Province is considered as the “grain store” of Nepal and its main productions are paddy, sugar cane, wheat, vegetables and so on. The major entry/exit point along the Madhesh province facilitates the trade and transaction with India due to open border (S3, interview, 2081-10-01).

Moreover, the participants from one of the customs officers of Parsa stated about border trade that:

In Nepal, more than half of the population lives in the Terai and out of 70% of the population living in the Terai border area, 40 % of the active population lives in the border affinity. Knowingly or unknowingly, people believe that the goods in the Indian market are cheaper than in Nepal. The efforts of the Nepal government are not sufficient to address the sustainable issues of the economy of the local people. Further, the open border and people who live on the border are involved in transporting goods from Nepal to India and vice versa just for daily living, not for earnings, especially the daily goods used are allowed by the customs for domestic purposes (R1, interview, 2081-09-25).

The population density of the Terai region found high as compared to the hills and mountains of Nepal. There is a concept among the people that the goods available in the Indian market are cheaper as they are in the border city of Nepal, being an open border and leverage of customs on

domestic and personal use goods, the local people on this leverage utilized to trade goods in the Nepali market taking little profits. The participant from district administrative office, Parsa stated about the concept of border people that:

Border people think of easy money and involve smuggling of goods and contraband for the survival of basic needs. The local-level culture of entrepreneurship, promoting investment and hard work or labour of the people declined. Economic crime at the local level includes easy earning of money which makes them think why to do hard labour, which creates challenges to the national economy as the human resource involved in this illegal and shortcut way bring a lack of Competent human resource in the future and also create revenue loss and economic crimes (C1, interview, 2081-09-23).

The Participants of the FGD at Pokharvinda of Mahottari district depict about cross-border movement that:

They consider the Indian market as the main market for daily goods and goods are also cheaper there and easily available. They also go for medical treatment, for labour work and shops, Hatiya or temporary stall market, meeting their relatives in the neighbouring border community (FGD, 2081-09-27).

The FGD at Birgunj metropolitan-1 Sirsiya stated more on cross-border movement that “generally, people frequently go to the other sides of the border area for daily household goods. They sometimes go to India for work, whereas the Indian people come to sell goods in small cart pulls, or cycles (FGD, 2081-09-24).”

Both primary and secondary data show that the shift from traditional to economic security highlights economic dependence as a national vulnerability, especially in Nepal’s border regions, where people rely on Indian markets for daily goods. Informal trade routes cause revenue leakage, impacting national income. The open border in Madhesh facilitates trade but also encourages smuggling and economic crime, reducing local entrepreneurship. Many border

residents prefer easy earnings through cross-border trade rather than labour-intensive work, affecting long-term economic stability. Cross-border movement is common for shopping, medical treatment, and labour, reinforcing economic ties with India.

4.3.1 The Role of Security Forces

Security forces like Armed Police Force, Nepal contribute significantly to border security, which is essential for effective revenue collection. By controlling trans-border crimes, they promote good governance and ensure compliance with tax regulations (Aryal, 2022) whereas In Poland, the Customs and Tax Service, alongside the Border Guard, plays a vital role in protecting the state border and ensuring customs compliance, which directly impacts revenue collection (Drysch, 2024).

Table 4.5

Portion of the Seizure of Goods by the Security Forces

Fiscal year	Parsa	Mahottari	Total
079/80	162946191	11194767	
080/81	190908340	147057913	
081/82	109389455	45564738	6 months.

Source: Collected from custom Offices and computed by researcher, 2025

Table 4.5 shows the portion of the illegal goods seized by the security agencies in the two fiscal years, whereas the data of the fiscal year 2081/82 is of six months of seizure. The data shows that the seizure at the Parsa custom is higher than the Mahottari custom. The seizure is almost half of the seizure at the Parsa custom.

The participants from the customs office Parsa stated about the seizure that

The Presence of security forces in the border area is not sufficient, they are deployed in the less numbers which is not completely able to control all the illegal activities along the border. The needs of advanced logistics and technology vehicles are essential to the security forces so that they can perform as expected, despite their lack they are playing a role in mitigating the smuggling activities of the local traders through the portion of the seizure of the goods by the security forces are negligible in comparison to the revenue collection in the border points (R1, interview, 2081-09-24).

Table 4.6

Collection of the Revenue at Customs Offices

Fiscal year	Parsa	Mahottari	Remarks
079/80	56,051,812,400	28,17,340,000	
080/81	11,868,447,000	32,59,875,000	
081/82	80076893000	17,84,127,814	6 months

Source: Collected from custom offices and computed by researcher, 2025

Table 4.6 shows the amount of revenue that is generated at the customs points in Parsa and Mahottari respectively. The revenue that is collected at the customs point Parsa is higher than that at the Mahottari district as Parsa consists of the Dry ports and it is one the major trading customs points of Nepal. The participants from the customs office of Mahottari further added that:

The security personnel along the border are making efforts to control financial crimes such as smuggling, Hundi, and informal trade, but their light presence increases the risk of these illegal activities, which contributes to revenue leakage. Key informants from the Mahottari customs office highlighted those differences in prices between Nepal and India drive people to engage in smuggling, such as alcohol, which is banned in India but sold cheaply in Nepal. The open border status fosters quick, illegal money-making activities,

leading people to avoid formal sectors like education, agriculture, and entrepreneurship (R2, Interview, 2081-09-26).

According to the participants from the customs company of the APF, Nepal Parsa stated about the illegal cross-border activity that:

The proximity to the neighbour at the border becomes an easy and shortcut way to earn, less effort and expenditure on earnings, so they think of more earning of profit with less labour and capital investments. This sort of activity creates unemployment, a threat to internal security and ultimately to national security. He further stated that cross-border trade in legal ways supports revenue collection and strengthens the national economy (B1, interview, 2081-09-25).

The participants district administration Mahottari stated about customs and rates that:

The conceptual idea of prices of commodities that are available at a cheap cost in the Indian market, even if the price is low in Nepal increases the flow of people for daily goods in the nearby market increases, further stated that the issues of the price gap should be addressed through making the similarities in price by harmonising the customs rate for the essential daily goods in Nepal at customs points by reducing the customs rate and make it in time relevant (C2, interview, 2081-09-27).

It is found from the study that security forces, including Armed Police Force, Nepal play a crucial role in border security and revenue collection by mitigating smuggling and illegal trade. Secondary data shows that seizures of illegal goods have been increasing yearly which is contributing to revenue collection. Limited deployment and lack of advanced logistics are found which are hindering security effectiveness, leading to continued financial crimes like smuggling and hundi. The open border and price differences between Nepal and India encourage illegal trade, impacting formal economic sectors. Addressing these issues requires policy reforms, including harmonizing customs rates and strengthening security measures.

4.4 Socio-Cultural Issues

Paudel et al., (2018) stated that India and Nepal have shared intense people-to-people relations for a very long time as geographical factors have been reinforced by religious, cultural and ethnic affinities between the inhabitants of the Terai region and their counterparts across the border. As close neighbours, India and Nepal share a unique relationship of friendship and cooperation characterized by open borders and deep-rooted people-to-people contacts of kinship and culture. Most of the key informants stated that they live in the border area where same caste creeds and religion of the people living in the proximity of the border where they have the same culture, language, religious practices and system of the marriage. The Key Informants also stated that being at the border they have better opportunities for economic activities and employments.

The Participants of the focus group discussion at Birgunj Metropolitan-1 Sirsiya stated that:

There are no any disputes on the socio culture issues and celebration, local people don't want to regulate border because they dependent upon nearby border market and people of the both the countries have many socio-cultural issues similar to each other and there is a relation of matrimonial on either sides of the country (FGD1, 2081-09-24).

The representatives from the APF, Nepal Headquarter (S3) stated about culture and religion that “The border of Madhesh Province is connected with Bihar State of India and the language considered as the mutual means of communications. Likewise, the religion is same and the cultural tradition are same as well (S3, interview, 2081-10-01).”

The social harmony that is shown by the local people by supporting sports activities like cricket match during the international tournament, the people of bordering communities on both sides unanimously support the Indian cricket team also communities on both the sides take parts in the local level sports competition at border on either sides. Furthermore, the representative from APF, Nepal Headquarters (S3) stressed on culture that:

The relations of “Roti n Beti” has influence the Madhesh Province because the marriage and food cultures are same as well as intimate relations between two communities since long time. These are some traditional concepts but the relations of political, socio-culture and economic relations is the mirror of people-to-people connection are increasing as before (S3, interview, 2081-10-01).

According to the participants from District Administrative Office Parsa (C1) about dowry culture “The system of dowry among the border communities where some of the social issues of crime appears as a serious issue, the lack in the opportunities of investigation in the cross-border crime is another issue that appears in the communities of the border (C1, interview,2081-09-23).”

Form KII and personal interviews it is found that Nepal and India share deep-rooted socio-cultural ties, reinforced by a common language, religion, and traditions, particularly in the Madhesh Province and Bihar region. Moreover, it is found that border communities engage in cross-border marriages and economic activities, fostering strong people-to-people connections. Social harmony is evident in shared cultural celebrations, sports participation, and mutual support for events like cricket tournaments. Despite these ties, issues like dowry-related crimes persist, with limited cross-border legal enforcement. On conclusion the open border sustains cultural and economic interdependence, shaping the daily lives of people on both sides.

4.4.1 Cultures and Marriage

Different reports show that thousands of Nepali girls migrate to India, and Indian girls enter to Nepal getting married (Paudel et al., 2018). To understand cultures and marriage, few questions had been asked to stakeholders. The participants of the focus group discussion at Sirsiya 1 of Birjung stated about culture that:

They have the same culture, ethnicity composition and religion as of their counterparts’ neighbors to India where they also celebrate same sorts of marriage pattern and style and respect each other’s religion, culture and language which makes them easier in

establishing the matrimonial relationship with the people of the border communities (FGD1, 2081-09-24).

The participants from district Administrative Offices, Customs Offices and security agencies stressed on the culture of marriage that:

The culture of marriage in both countries have the practice of giving and receiving dowry and enjoying facilities from the respective government. There is homogeneity in the caste composition where they established their marital relationship with the population on the other sides. The married person getting citizenship by the laws of the countries after marriage is like a culture between the cross-border people which promotes cross-border marriage. The culture of marriage is common as they have the similar composition of lifestyle, religious practices and behaviours (FGD1, interview 2081-09-24).

Moreover, the participants from the Parsa stated that “Marrying a cross-borders is choice and decision of their parents (FGD, Personal interview, 2081-09-24)”. The participants of the focus group discussion at Mahottari district in Pokharvinda stated cross-border marriage that:

They have good relations with the bordering communities, and ethnic and cultural similarities. So, we have good marriage relations but these days the reduction in number of marriages due to decade-long conflict in Nepal. The presence of armed group in Nepal at mean time somehow disturbed the cross-border marriage. Sometimes APF, Nepal and Shasastra Seema Bal’s (SSB) presence in the border obstruct our flow of dowry goods, seek justification of goods, strict controls of the goods at the border points. There is provision of the vehicle entry only from limited points. For example, in the border of Pokharvinda we need to travel 64 kilometers on 4 wheels to travel 2 km distance from border which creates somehow difficulties in the cross-border marriage. There is a positive relation among the citizen of the both side where we often take part in socio-cultural activities on both sides (FGD2, 2081-09-26).

The participants of the FGD at Birgunj metropolitan city 1 Sirsiya stated about border relations that:

Being the cordial relation among the border communities, we have everything culturally and religiously identical but our system of celebration is quite different in some cases like in marriage the orchestra in India is legal whereas it is not allowed in the territory of the Nepal. So, the marriage ceremony sometimes gets disturbs in cross-border relations (FGD1, 2081-09-24).

The participants from the district administrative office (C2) stated about cross-border marriage that:

The marriage as a culture between two countries is a continuation from the ancient times which cannot be changed at once which does not have impact on the social relation among the both countries. Also, the border people have the similarity in the language, culture, worship and family structures having their ancestral family ties to the people on both sides, make them compels to have a culture of marriage in the cross border (C2, interview, 2081-09-27).

During the personal interview with the person marrying cross the border, the participants from the Parsa and Mahottari replied that they marry cross-border because of their parents decided on their marriage. Also, the participants who marry cross-border stated that they have found cultural similarities among the communities of the border in Madhesh Province of Nepal and India.

4.5 Security Challenges in Border of Madhesh Province Nepal and India

The security challenges along the Madhesh province border between Nepal and India are multifaceted, primarily stemming from the open border regime that facilitates both beneficial exchanges and criminal activities. While the open border promotes socio-economic integration and cultural exchanges, it simultaneously allows for the infiltration of terrorists, smugglers, and organized crime networks, which pose significant threats to national security (BK, 2025b). The

geopolitical dynamics, including border disputes and the strategic importance of borderland communities, further complicate security efforts, as these communities can either support state initiatives or become conduits for illicit activities (Bhatta, 2024). Therefore, the border between Madhesh Province Nepal and India has many challenges which are discussed as follows:

4.5.1 Geopolitical Issues and Security Challenges

The border encroachment and cross-border occupation pose significant security challenges for Nepal, aggravating tensions with India (Koirala, 2022a). The key informants (S3) from APF, Nepal stated about the security risks that “The geopolitical disputes along the Madhesh Province border contribute to security risks in the region because the border issues directly concern with soil and sovereignty (S3, interview, 2081-10-01).” According to participants from the District Administrative Office, Parsa (C1) about security challenges on border that:

The main security challenges of the Border issues along Madhesh Province are the cross-border crime which includes drugs, social crime, small arms, and influence during election. The geopolitical issues along the Madhesh provinces may invoke more if it is not timely addressed, if it is addressed, it provides opportunities, these geopolitical issues are double edge swords to the security which is considered as the, major security challenges. The long border length of the Madesh Provinces with number of unofficial entry points may create the security challenged of the crime, encroachment and construction of the infrastructure along the border (C1, interview, 2081-09-23).

In this matters the long border along the Madhesh province has confronted with the many issues of crimes both organized and trans-border crime. The problem of encroachment, construction of the infrastructure and cross border occupation is common security challenges along the border of Madhesh Province. The participant from the district administrative office Parsa (C1) further stated about criminal activities that “Criminal activities, cross-border crime handling, drug trafficking, weapon smuggling, and influence in the election on both sides as the major security challenges (C1, interview, 2081-09-23).” These issues are found prevalent that the security

agencies along the borders seize and arrest the criminals daily who are involved in these activities. Also, the informants from the APF, Nepal Headquarter (S3) stated about border issues that:

The open border between Nepal and India creates security challenges, including illegal infiltration, crime, and refugee movement. Border encroachments and disputes complicate security efforts. The proximity of the border, with limited security personnels, fosters criminal activities, often linked to political connections, making law enforcement difficult. Issues like smuggling, money laundering, human trafficking, and drug and weapon trade are prevalent. Additionally, poverty, unemployment, low education, and lack of resources further intensify the border security challenges (S3, interview, 2081-10-01).

During the interview, the respondents from Parsa District stated that they didn't find any security challenges along the border, whereas respondents from Mahottari districts found out that there exist security challenges along the border and were not able to explain what types of security challenges. The participants from the APF, Nepal Parsa (S1) stated more on security challenges that:

There exist many security challenges along the border like drug trafficking and its control, religious confrontation, smuggling of liquors which is banned in Bihar provinces of India and human trafficking are the main security challenges in the Madhesh province of Nepal (S1, interview, 2081-09-23).

Another, participants from APF, Nepal, Parsa (S1) stated about the real field experiences in the border where that:

The chances of confrontation of security personnel and local smugglers, especially local widows and single women who used to be the daily carriers for their survival. The female carrier who used to carry the goods of the local dealer on a wage basis was confronted

against the security personnel also the presence of many informal routes provides no check of the personnel entering and exiting from the border and no surveillance of the types of the people crossing on either side, the informal crossing points has no record of the persons, the person using these informal routes may have ill intent (S1, interview, 2081-09-23).

The Participants from the district administrative offices Mahottari (C2) highlighted on the security challenges:

The open border for a long time provided both challenges and opportunities where the border is used as a crime hiding place further added that an inappropriate amount of no man's land in the border is the challenge, whereas the leakage of revenue and criminal activities are the security challenges (C2, interview, 2081-09-27).

The key informants from APF, Nepal Headquarters (S3) stated about smugglers and criminal groups that:

Local people might be used by the smugglers and criminal groups for the sake of their monetary benefits, which may engage Local people in criminal activities and ultimately impact to the security of local people and Madhesh province which creates national security threats (S3, interview, 2081-10-01).

According participant from APF, Nepal Parsa deployed in the Custom Company stated about security challenges that:

Political influence, religious divide, change in culture due to cultural and proximal influence, weakening of the national unity, territorial integrity and sovereignty, the Influence in election, influence in decision making, internal security and national security are the security challenges along the border of Madhesh Province (B1, interview, 2081-09-24).

In response to the informal border crossing, the informants from the APF, Nepal Parsa stated that “The crimes of smuggling and no records of entry and exit, which encourage criminal activities, lower the morale of security forces and trust of security forces, which pose significant challenges to security (B1, interview, 2081-09-24)”.

In regards to the security challenges during the field visit it is observed that the female carrier from the border jump and hold the neck of the security person who was there to seize the illegal goods passing towards the Nepal side, this challenge of the attack over male security person by female carrier is due to the lack of female officer deployed in the border. The informant from the APF, Nepal purposed border security company Parsa (B1) stated security challenges that:

There are numerous security challenges which seem not serious but may create serious security challenges. The people making disguised appearances like third gender, appearances in saints, are involved in crimes across the border. With the ban on alcohol in Bihar of India, the smugglers of liquor, attacks on security personnel, and even killing by shooting or vehicle accidents are new trends of security challenges. The very common but serious issues of people reciting Jay Hind instead of Jay Nepal by local inhabitants are micro security challenges. The Nepali people easily get adhar cards in India so that they can buy or purchase property in the Indian territory, the influence of the border people even the people far away from the border like the haldi system in Brahamin and Chhetri community, rakhi in Nepal which is not the rituals of Nepali Hindu Followers is the geopolitical security challenges (B1, interview, 2081-09-24).

It is found from KII and personal interview that border encroachment, cross-border crimes, and political influence pose significant security challenges along Nepal’s Madhesh Province. Issues such as smuggling, drug trafficking, human trafficking, and illegal trade are prevalent due to the open border and lack of strict surveillance. Criminal groups exploit local people for illicit activities, weakening national security and territorial integrity. Moreover, the absence of proper records at informal crossing points further exacerbates security risks. Addressing these

challenges requires strengthened border security, enhanced law enforcement, and policy reforms to regulate cross-border activities effectively.

4.5.2 Economic Issues and Security Challenges

security has become a central economic factor, particularly after geopolitical instability like the Russian invasion of Ukraine, influencing investment and market stability, necessitating reforms in Germany's and Europe's security strategies to address hybrid threats and fiscal pressures (Hüther & Iglesias, 2024). The participant from the Custom office Parsa (R1) stated that

custom is the points which has two perspectives as Collection of the Revenues and Facilitation of the trade. In developed countries, trade facilitation comes at first whereas in second revenue collection, issues of public health, and restriction by the laws, related to security issues control those goods comes. Nepal's economy is based on the import and revenue-based system so our first priority is the revenue collections. So, we wish to align everything in through the customs points that is imports and exports. Coordinated efforts of every stakeholder and align every point through customs points help to increase the total revenues of the country (R1, interview, 2081-09-24).

Whereas the participants from customs office Mahottari (R2) stated about security challenges on the economy that:

The smuggling of goods from another side due to the differences in the price of the commodity which increases the smuggling activities that contribute to the decrease in the local legal trade and business which impacts on the local traders bearing the loss in the legal business and ultimately creates the security challenges through economy. Furthermore. The economic issues of the border create a loss of revenue collections and reduce formal economic activities which increases the informal economy. Obviously, this will contribute to national economic losses and impact on national developments, which is an economic security challenge to the country, while security forces are addressing

these issues, more personnel and technological interventions are necessary to better control smuggling and cross-border informal trade, which could enhance the country's economic activities. Motivation among border personnel is also crucial to tackling economic challenges (R2, interview, 2081-09-26).

The participants from the Customs Security Company Parsa (B1) further stated about issues of the border that “These economic issues could have an impact on the national economy through reduction in the tax or revenue, this also on the formal economy and helps to displace the genuine vendors and entrepreneurship creates economic security challenges (B1, interview, 2081-09-24).”

Whereas, the participants from the District Administrative Office Parsa (C1) stated with an example of Lumbini Province of Nepal that “The Rupandehi district consists of only two legal points but many informal crossing points where people with mala fide intentions may misuse it and these multiple informal transit routes may be harmful to formal trade (C1, interview, 2081-09-23).”

From the above two statements, informal crossing at the border reduces the formal trade and revenue collection at the border. The smuggling may derail the national economy and legal vendors. The participants from APF, Nepal Parsa (S1) stated on illegal trade that:

The People like widows and disguised as saints, used to carry goods at number of times in front of the security personnel in the name of domestic purposes later on they traded it to the local dealers. Moreover, informal crossing points along the border, create economic security challenges (S1, interview, 2081-09-23).

From primary and secondary data, it is found that economic security challenges at Nepal's borders restrict from smuggling, informal trade, and revenue leakage, undermining formal economic activities. The prioritization of revenue collection over trade facilitation focuses Nepal's dependence on imports, necessitating stricter border controls. Informal crossing points

and price differences between Nepal and India encourage illicit trade, affecting local businesses and national development. So, strengthening border security through increased personnel, technology, and coordinated efforts is essential to curb economic crimes. Addressing these issues will enhance national revenue, support legal trade, and contribute to long-term economic stability.

4.5.3 Sociocultural Issues and Security Challenges

The security challenges faced by cross-border marriages, including immigration status, cultural differences, and language barriers, which can increase vulnerability to domestic violence. Economic dependence further exacerbates these risks, leading to feelings of loneliness, loss of identity, and discrimination (Md Said & Kaka, 2023). Where the cross-border marriages often face legal hurdles regarding their recognition, especially within the European Union where the lack of a unified legal framework complicates the recognition of marital status across borders, affecting the rights to free movement and family life (Marino & Carrascosa González, 2024).

The participants from the district administrative office Parsa (C1) stated about gender-based violence that “Gender-based violence like other side people living in the country, marry girls and from them, the child born and left away being out of contact this is like a mental rape or sexual violence (C1, Interview, 2081-09-23).”

Due to the open border there is a free movement of the people across the border, the people from both the sides were found to be misusing the peculiarity of the border and culture. The tendency creates the psychological impacts on the female abandoned by the male of either sides. The participants of the focused Group discussion in the Birgunj Metropolitan-1 Sirsiya stated on the cross-border marriage that:

There are many challenges in cross-border marriages where consider the time of customs points open is limited. So, even in the marriage, when they come late need to be stopped at the border, so for these cases customs points or barrage should be open 24 hours and

the issues of vehicle entry failure and time they have to stop at the border if they don't have good relation with the border forces of both the countries during the marriage ceremony creating a problem where Indian people think are reluctant marrying Nepali girls, most of the time they used Indian vehicle where Nepali side imposed custom taxes and limits on travel duration and distances (FGD1, 2081-09-24).

The participants from the district administration office Parsa (C1) stated about social crime that “The social crime in which they marry girls when there is a misunderstanding or conceive of a baby, left by beating and assault and stay out of contact (C1, interview, 2081-09-23).” The participants of the focused group discussion at Birgunj Metropolitan-1 Sirsiya accepted about border problems and challenges that:

There is problems and challenges to citizenship to those who marry by elopement to Nepal and whose husband died with the wife possessing a marriage certificate, the widow claims property they file cases in the courts and courts decide in favours where the widow is legally receiving property right from the husband parental property but the government denied citizenship to the widow. So Indian girls don't want to marry Nepali boys, whereas the Nepali girls immediately get Adhar Cards to them where they can enjoy all the privileges as Indian nationals get (FGD1, 2081-09-24).

The issues or security challenges of cross-border marriage are still prevalent in the communities on both sides of the country. These security challenges of the communities are recurrent issues in the border communities not only in one country but a common security challenges in both the countries. The participants of the focused group discussion at Birgunj Metropolitan-1 Sirsiya stressed on border infrastructure that “The need for uniform infrastructure on both sides of the border, which should not disturb the normal lifestyle of the people of the border community and also stressed that the presence of the APF, Nepal and SSB where the issues of peace and tranquillity is present along the border area (FGD1, 2081-09-24)”. The participants of the focused group discussion of Pokharvinda of Mahottari stated about security challenges of marriage that:

The border community stressed the main security challenges of marriage as socio-culture issues are the legal issues in the registration of the marriage, divorce, citizenship, domestic violence, communication gap and human trafficking. The challenges of marrying a cross-border are immigration, dual education system, trust building, adjustment to a new environment, communication gap, decision of the parents and dowry system (FGD2, 2081-09-26).

The participants from the District Administrative Office Parsa (C1) stated about security challenges of marrying a cross border that:

The security challenges of marrying a cross border include child marriage, polygamy, gender-based violence or domestic violence and absconding after marrying by elopement while they conceive a baby which kept the female isolated one this creates a situation of mental rape the female which is found as a recurrent problem or challenges in the cross-border marriage (C1, interview, 2081-09-23).

The participants from the APF, Nepal Purposed border Security Company, Parsa (B 1) stated - about domestic violence that

The youth elopements along with illegal and illegitimate affairs and domestic violence are other challenges that need to be curbed by security. The participants furthermore stated that “The influences on the dress where people wear kurta instead of Daura surreal in Nepali cultural ceremony are some minor but meaning very critical challenges in security in the future (B1, interview, 2081-09-24).

It is found from KII, FGD and interviews that cross-border marriages face security and legal challenges, including immigration issues, citizenship rights, and domestic violence. Economic dependence and cultural differences increase vulnerabilities, leading to abandonment and gender-based violence. Social crimes like polygamy and child marriage are prevalent, leaving many women isolated. Restricted movement and differing legal frameworks complicate marital

rights. Therefore, addressing these issues requires legal reforms, stronger border coordination, and better protections for vulnerable individuals.

4.5.4 Challenges to Security Agencies

The key informants from APF, Nepal headquarters (S3) identified the following crimes and activities as security challenges:

Cross-border Crime, Organized Crimes, Issues of goods smuggling, Use of women, children and differently-abled in smuggling, Human trafficking, the issues of narcotics drugs trafficking, issues of No man's land and border pillar issues, flooding, Inundation and other Disasters, illegal Infiltration, money Laundering as major challenges to the security force that need to be solve to make country secure from Geopolitical, economic and socio-cultural threats (S3, interview,2081-10-01).

The participants from the APF, Nepal proposed border Security Company, Parsa (B 1) stated about challenges of the security agencies that “The lack of human resources, logistics, training, technology intervention, lack of intelligence, and allegations, despite performing duties, are the sole challenges of the security agencies (B1, interview,2081-09-24)”. The participants from the APF, Nepal Mahottari (S2) identify the following as the additional challenges to the security forces “Leakage control of revenues, criminal shelter in another country, missing of border pillar, problems of logistics/training (S2, interview, 2081-09-27)”.

It is found that the security personnel who are deployed in the border lack knowledge of the language which creates linguistic challenges in performing a tour of the duty. The lack in the incentives to those deployed at the border is challenges to the Security forces in bringing honesty and dignity to remain free from the financial influences. The lightly number of securities personnel along the border and their legal jurisdiction are other challenges to the security forces. For the intelligence sharing and arrest of criminals from the Indian Territory one needs to depends upon the Indian border guarding security forces Sashastra Seema Bal (SSB). The key

informants from the Ministry of Home Affairs stated about infrastructures of the security forces at border that:

The infrastructures of the security forces at the border and their limited human resource strength with the responsibility of the larger length of border protections. The interviewee stated that the border security forces or agencies deployed there must be equipped with the resources, strength and infrastructures as logistics (Interview, MOHA, 2081-10-01).

4.6 Mitigation Measures

Das (2021b) highlighted the need for enhanced resource allocation and cooperation with neighbouring countries. Hercegová & Chernova (2021) stated that the need for economic and political solutions to mitigate border issues, emphasizing cross-border cooperation, trade liberalization, and the integration of migration management within international law to enhance regional development and address socio-cultural challenges effectively. The border issues are only mitigated with the efficient allocation of the logistic resources to the border guarding forces, custom offices and continued counterparts' cooperation. The determined political will of the neighbours is pre requisite to solve and mitigate the border issues.

4.6.1 Mitigation Measures for Geopolitical Issues

The border issues according to the participation from the district administrative office Parsa (C1) suggest mitigation measure of geopolitical issues that the issues would be solved and mitigated with the following three types of the methods.

- a) Locally coercive: Citizenship and Identity card checks at the border can control illegal entry from third country.
- b) Negotiation and dialogue: this method is the most convenient as there are different levels of the mechanism, they can negotiate in order to solve the issues.

- c) Nationalization: if the issues are not solved through the negotiation and dialogue, they must be nationalized for creating pressure to solve in time, which need the determined and committed leadership.

The informants from the district administration office Parsa (C1) stated about mitigate the problems of border issues that:

The Internal strength (Deployment), Training of the border guarding security forces, virtual security system, and enhance diplomacy may mitigate the problems of border issues. The counterparts' strong relations help to resolves the border issues through strengthening diplomatic relations and people to people contact which remains effectives in resolving the border issues and security challenges (C1, personal interview, 2081-09-23).

The geopolitical issues would be mitigated through negotiation and dialogue with the local counterparts by using local-level paradigm to solve the disputes or conflicts. Enhancing historical background, social cohesion, capacity, People to people contacts and multi-track diplomacy. Nationalization means internationalization, the border issues which are not solved through trilateral negotiation and understanding these issues must be raised in the international forums.

According participants from APF, Nepal Parsa (S1) border encroachment:

The issues of the border encroachment are solved through the coordination meeting and through this coordination meeting, local security forces on both sides solve the issues on their Jurisdiction. If the issues are not solved, the issues are forwarded to their higher authority for resolution. The people-to-people relations and conduct of health camps, Border Area Development Programme (BADP), Quick Impact Programme (QIP) and assistance during disaster cross-border response are the mechanisms to unite border

people in solving the border issues which help to mitigate the border issues and security challenges (S1, interview, 2081-09-23).

The security challenges can be mitigated by deploying the security forces in adequate amount with sufficient technology, proper intelligence collection, welfare agreements, show of the force along the border and the interaction of local people on the both sides. The security force presence would be useful in mitigating geopolitical issues by strengthening security forces through training, introduction of modern technology, sufficient budget allocation to border guarding forces and providing resources. Participants from the District Administrative Office, Mahottari (C2) explained about mitigating security challenges that “The regular meeting of the counterparts, awareness and sensitization program and the involvement of the local level monitoring and effective implementation of the policies help mitigate the security challenges (C2, interview, 2081-09-27)”. The border issues of the Madhesh Provinces could be resolved with the application of the following means and methods. They are as follows:

Intelligence and Technology Based Border Security (ITBBS), BADP, restrictions and subsidies to the areas within one km from border like Warehouse, border road and trails, border coordination officer/attaché in India and China, BOPs as per requirement, managing cross border occupation, diplomatic resolution of border disputes, declaration of border sensitive area, deployment of border security forces, Use of technological devices, border intelligence mechanism, coordination with counterparts, bilateral mechanism for the pertinent border issues, inter-agencies coordination, strict control of borders, crimes (S3, interview, 2081-10-01).

The participants from the proposed border Security Company Parsa (B1) stated about mitigating border issues that:

Through educating the border people, sanitizing with legal provisions, suitable training to security officials, providing proper logistics, introducing technology and effective coordination with counterparts through regular meetings and discussion helps to mitigate

the border issues. Also, the issues would be mitigated through proper understanding of the issues or problems, proper policy and guidelines, empowering border agencies, build diplomatic relations both at people and counterpart's levels to help mitigate any issues disputes, etc. (B1, interview, 2081-09-24).

The participants from the APF, Nepal Mahottari (S2) suggested about resolving border issues:

To mitigate the border issues and resolve them by their available mechanism as counterparts meeting in every three months, settled through the Local authority with security teams of both sides, If not settled both the parties forward to their concerned higher Command and Survey division (S2, interview, 2081-09-24).

The participants from the APF, Nepal Mahottari (S2) stated more on same issues that:

The border issues and disputes along the border be mitigated with the application of the following means and ways "Continuous coordination and counterparts meeting, Awareness, Security teams monitoring, Counterparts meeting and relation, People's participation, Technology interventions (S2, interview, 2081-09-27).

The key informants from the Survey Department of Nepal stated to mitigate geopolitical issues that:

For the mitigation of the geopolitical issues of the border, they have tried to solve those issues with the preparation of the strip maps along the border of Nepal except Susta and Kalapani in addition they play the roles of supporting technically in the delineation and demarcation of the border (D, interview, 2081-10-01).

key informants from the Survey Departments talked about the protocols where they stated that:

The issue must be signed before talking about the border management where the political commitments of the leadership on the both sides is needed in order to address the existing

border issues of disputes, encroachment and cross border occupations (D1, interview,2081-10-01).

It is found from the key informants and participants that mitigating geopolitical issues along Nepal's borders requires a combination of security deployment, diplomatic engagement, and technological advancements. Strategies include regular coordination meetings, intelligence-based border security, and strengthening people-to-people relations. It is also found that legal provisions, policy implementation, and cross-border development programs further aid in resolving disputes. Survey departments play a key role in delineating borders, while political commitment is crucial for sustainable solutions. Therefore, a comprehensive approach combining security, diplomacy, and community engagement is essential to address border challenges effectively.

4.6.2 Mitigation Measures for Economic Issues

For mitigation, the first and foremost thing is awareness among the people, the border people are to be connected to the productivity, proper implementation of the existing laws and appropriate deployment of the security forces especially, border guarding forces. Counterpart coordination helps in control of illegal goods, management of the open border, and fencing for control would be effective in controlling border illegal activities. By developing effective measures to protect national economic interests and highlighting innovations and strategies to ensure economic equilibrium and security(Polovenko et al., 2024).

According to the participants from APF, Nepal proposed border security company, Parsa for mitigation of the economic security challenges that “The deployment of security forces with the legal authority, creation of the digital wall or virtual security and regulating border, enhance the collection of the revenue with the integrity of the stakeholders at the border (B1, interview, 2081-09-24)”. According to the participants from Customs Office Parsa the role of the counterparts is:

Counter parts relation plays the role in mitigating the economic security challenges through facilitation of border trade, controlling of smuggled goods and promoting legal imports and exports, facilitation of goods which are in halt at each other's border points and documentation (eg. Prepare a document which is feasible to both the sides in terms of facilitation of the customs procedures, Nepalese customs check shipping lines from third country and India whereas Indian customs check to our pragyapan patra), and also mitigate the issue by sharing of the information on both side of the illegal trade either from Nepal to India and India to Nepal from third country (R1, interview, 2081-09-24).

The participants from APF, Nepal purposed border security company Parsa stated that for mitigating economic security challenges “requires public awareness, strict law enforcement and effective deployment of border security forces, also by strengthening counterpart coordination helps regulate trade, prevent smuggling and enhance revenue collection (B1, Interview, 2081-09-24)”. Whereas digital security measures, stakeholder integrity and information sharing between Nepal and India are essential for maintaining economic stability (S1, Interview, 208`-09-23)”.

4.6.3 Mitigation Measure for Socio-cultural Issues

Cross-border marriages often face legal hurdles due to differing national laws. Marriages conducted in one country may not be recognized in another, Indonesian women marrying Malaysian men in Thailand, where such marriages are not legally recognized in Indonesia and Malaysia (Kalsum & Akbarizan, 2024) Also, in Nepal the legal challenges of marriage registration, recognition of academic documents in education are facing as common challenges. To mitigate this challenge, both Nepal and India should work towards harmonizing legal frameworks, ensuring that marriages conducted across borders are recognized in both countries. This includes establishing formal channels for marriage registration, particularly for those who may face difficulties in official documentation due to elopement or informal marriages. Clear guidelines should be set up for issuing marriage certificates, property rights for widows, and citizenship rights for children born of such marriage. Special provisions should be made for cases of domestic violence and abandonment, providing support for women and children who

may be left vulnerable in such situations. The concerns around the operation of border checkpoints and the limited hours of customs points create logistical challenges for families involved in cross-border marriages. As noted by the participants in the focused group discussions it is found about border issues that:

Opening customs points and border crossings 24/7 could help alleviate some of the pressure and avoid delays during the marriage process. Additionally, coordinated efforts between Nepali and Indian authorities can ease the travel and transportation issues faced by families using vehicles from one country to another. This would ensure that marriages can proceed smoothly without the disruption caused by bureaucratic delays, which could lead to misunderstandings or even tensions between border communities (FGD1, 2081-09-24).

Addressing cultural differences and misconceptions between Nepali and Indian border communities is key to reducing socio-cultural tensions. The participant from APF, Nepal Parsa stated that “Public education campaigns should be launched to raise awareness about the shared cultural values and the legal frameworks that protect the rights of individuals in cross-border marriages (S1, interview, 2081-09-23)”. Whereas the participants from the district administration office Parsa stated

these campaigns should focus on addressing issues such as gender-based violence, domestic abuse and the risks of human trafficking, all of which have been identified as significant concerns. Schools and community centres could host workshops and discussions that focus on creating trust and understanding between the two communities, with an emphasis on equality and respect for women's rights Cross-border marriages can sometimes be exploited for human trafficking, particularly when vulnerable individuals are lured into these relationships (C1, interview, 2081-09-23)”.

To mitigate this risk, both Nepal and India should increase efforts to monitor and regulate marriages, particularly in border areas. Strengthening border security measures to prevent human trafficking and providing support services for victims of trafficking, such as shelters, legal aid,

and psychological counselling, is essential. Additionally, raising awareness among local communities about the dangers of human trafficking and ensuring that security forces are trained to recognize and respond to such incidents can be vital in preventing exploitation. The participants from district administration office Mahottari stated that:

Economic dependence on spouses in cross-border marriages often increases vulnerability to domestic violence and exploitation. To counter this, both countries should establish support systems for individuals in cross-border marriages, including financial assistance, skills training, and access to healthcare. Programs focused on improving women's independence and decision-making power within these marriages would help in mitigating risks related to economic dependence (C2, interview, 2081-09-24).

Furthermore, “community-based organizations can play a crucial role in offering support to women and children affected by cross-border marriages, helping them integrate into the local community and ensuring their social protection (S2, Interview, 2081-09-27).

Gender-based violence and social discrimination are recurring challenges identified in the cross-border marriage context. Gender sensitivity programs should be developed to address the social norms and stereotypes that perpetuate such violence and discrimination. These programs should be aimed at both men and women and focus on the importance of mutual respect, consent, and marriage equality. Additionally, law enforcement and security forces should be trained to handle cases of domestic violence, ensuring that there is a robust mechanism in place for reporting and responding to such incidents.

The presence of border security forces such as the APF, Nepal and the SSB, a collaborative approach to security management is crucial. These forces can be trained in conflict resolution and cultural sensitivity to address cross-border marriage-related disputes and prevent violence. Joint security teams should be deployed to ensure peace and order at the border, especially during marriage ceremonies, to avoid misunderstandings and ensure that both sides respect each other's traditions and legal systems. Establishing a formal grievance redress mechanism for border communities can also be beneficial in resolving disputes before they escalate.

Citizenship and property rights are critical issues for women in cross-border marriages, particularly for widows or those whose spouses have abandoned them (FGD1,2081-09-24). Both countries should engage in dialogue to address these challenges and explore ways to streamline the process of granting citizenship and property rights to individuals in cross-border marriages. This may include easing citizenship laws for foreign spouses and ensuring that the legal rights of both Nepali and Indian citizens are respected equally, regardless of marital status.

By implementing these mitigation measures, it is possible to reduce the socio-cultural and security challenges faced by individuals in cross-border marriages. Such an approach would foster a safer, more inclusive environment for border communities while promoting respect for legal rights and cultural diversity.

It is found from participants of interview and focus group discussion and secondary data that mitigating socio-cultural challenges in cross-border marriages requires harmonizing legal frameworks, improving border infrastructure, and enhancing awareness of gender equality and human trafficking. Strengthening support systems for vulnerable individuals and training security forces in conflict resolution can help prevent exploitation and violence. A collaborative approach between Nepal and India is essential to ensure legal protection, social integration, and security for affected communities.

4.7 Discussion

The findings of this study show the geopolitical, economic, socio-cultural and security-related challenges along the Nepal-India border, particularly in Madhesh Province. In this the qualitative data were analysed by using NVivo-assisted thematic analysis, systematically presenting the geopolitical, economic and sociocultural issues leading to the identification of three major themes: border issues, security challenges and mitigation measures. In this the issues of geopolitics, economic and socio culture are discussed.

4.7.1 Geopolitical Issues

By analysing border disputes, cross-border political influences, and infrastructure-related tensions between Nepal and India align closely with geopolitical theory which showed that the disputes are longstanding and multidimensional. As reviewed in the literature review, geopolitical theory analyses the power struggle between nations over territorial control, cross-border engagements, and strategic policies (Topalidis et al., 2024a). this study supports this by showing how unresolved disputes in Kalapani, Lipulekh, and Susta have created diplomatic tensions, reinforcing the idea that borders are not just physical demarcation but strategic and political constructs. Likewise, Mizan (2024) argues the neo-classical and critical geopolitics approaches, which explain how geopolitical rivalries, like those between India and China, impact Nepal's strategic position, mirroring the findings of this study. that Nepal's strategic location between India and China adds complexity to these issues, as Nepal must balance its foreign relations with both regional powers.

The infrastructure development projects undertaken by India along the border, including road construction, dams, and irrigation projects, have been perceived by Nepal as unilateral moves that undermine its territorial sovereignty. According to Baral and Pyakurel (2015), such actions contribute to mistrust and deepen geopolitical sensitivities. Moreover, it is also found that the increasing influence of Chinese projects near the Indian border in Nepal has created tensions. The growing Chinese presence along Nepal's border with India has led to concerns from the Indian side. Furthermore, the presence of religious institutions such as madrasas and masjids in border areas has raised concerns, particularly among Indian authorities. Gajurel (2019) notes that India's security concerns regarding these institutions stem from fears of radicalisation, although there is limited empirical evidence to support such claims.

The influence of Indian or Bihar's ruling political parties over Madheshi political parties in Nepal found as another geopolitical issue. This dynamic of cross-border political manipulation is emblematic of the larger geopolitical game, where external actors play a pivotal role in shaping local political landscapes for strategic benefits. Additionally, Pulami (2023) emphasize that the growing influence of local political actors on border management has resulted in a fragmented

approach to addressing disputes. These geopolitical issues necessitate diplomatic engagement and policy coordination to foster sustainable solutions. The finding of this study align with the literary works as discussed above also the finding of the study shows that the politics based on the Madhesh province of Nepal is directly or indirectly influenced by the politics in the Bihar.

4.7.2 Economic Issues

Trade dependency, smuggling, informal trade, and economic imbalance as major concerns along the Nepal-India border, which aligns with economic and sociocultural theories that emphasise that border regions often function as zones of economic interdependence rather than just security checkpoints (Bangun et al., 2024b). The Nepal-India open border has historically facilitated trade, contributing to economic interdependence between the two countries. However, while the open border encourages economic opportunities, it also poses challenges such as revenue leakage, informal trade, and smuggling. It is found from the study that the economic dependency of border communities on daily goods from neighbouring country India which has been an issue since the Treaty of Peace and Friendship 1950, contributes to a variety of economic security challenges, including informal trade, smuggling, and leakage of revenue. Acharya (2025) points out the same as found from a study that the informal economy along the border thrives due to weak regulatory oversight and the price disparities between Nepal and India. Many residents of Madhesh Province rely on Indian markets for essential goods, leading to a decline in local entrepreneurship and domestic production capacity.

Moreover, it is found that the ease of access to Indian markets for Nepalese traders often results in trade imbalances, as Nepal's exports remain limited while imports from India dominate, which is also highlighted by (Paudel, 2023). The findings confirm that the population living along the Madhesh Province Border of Nepal with India is highly dependent on cross-border trade for daily survival. Additionally, the prevalence of illegal trade, including the smuggling of fuel, consumer goods, pharmaceuticals and their trading undermines Nepal's revenue collection mechanisms. Pulami (2023) argues that the unregulated nature of cross-border trade weakens Nepal's economic autonomy and makes it difficult for local businesses to compete.

In the absence of effective surveillance through the use of modern equipment and customs control, this informal market is incentivized by individuals seeking quick profits, often bypassing legitimate economic activities. This reliance on informal trade undermines formal sectors like agriculture, entrepreneurship, and industry, as people prioritize short-term monetary gain over long-term sustainable economic activities.

To address these challenges, the study found that there is a need to reduce price disparities between Nepal and India to encourage domestic consumption and reduce cross-border trade for cheaper goods, increase personnel, invest in advanced technology, and improve logistics to enhance border control and revenue collection. Aryal and Pulami (2023) suggest the establishment of Special Economic Zones (SEZs) near border towns to facilitate regulated trade and create employment opportunities. Koirala (2022) further recommends the implementation of digital trade facilitation measures, such as electronic invoicing and border monitoring systems, to enhance transparency and curb illegal trade activities.

4.7.3 Socio-Cultural Issues

The findings indicate that Nepal and India share deep-rooted cultural, linguistic and social ties, particularly in the border regions where intermarriages and shared religious traditions are common. These findings align with constructivist theory, which argues that borders are not just territorial but are shaped by historical narratives, identity formations and social interactions (Sultonov, 2010). However, these strong people-to-people connections also bring challenges related to legal recognition, citizenship, and gender-related issues. Shaikh (2024) explores how cross-border marriages have led to legal complications, particularly for women who face difficulties in acquiring citizenship due to Nepal's restrictive nationality laws.

Furthermore, the findings on dowry, child marriage, and legal hurdles in cross-border marriages connect with constructivist views on legal harmonisation, as seen in the studies on West African border regions (Iwuoha & Mbaegbu, 2021). Whereas Suwedy (2006) emphasises the need for bilateral agreements to address cross-border marriage and citizenship issues, ensuring that

individuals engaged in cross-border relationships receive legal protection and social security benefits.

The concept of "Roti and Beti" illustrates how the intermingling of these cultural ties transcends mere geographic proximity. The mutual respect of traditions and practices creates a fertile ground for cross-border familial and economic interactions. Moreover, cross-border marriages are found an integral part of the socio-cultural life of Madhesh Province. The strong cultural connections between Nepal and India also influence political discourse. Rahman and Akter (2023) noted that identity politics plays a significant role in shaping cross-border relations, as Madhesi communities in Nepal often share ethnic and linguistic ties with people in Bihar and Uttar Pradesh. This shared identity has led to calls for greater political recognition and representation; however, it has also resulted in allegations of external political influence in Nepal's internal affairs.

The study discovered that there is a need to simplify customs and legal processes for cross-border marriages to reduce logistical hurdles. Moreover, promotes cultural exchanges and community engagement to maintain cross-border harmony. To address dowry disputes, develop mechanisms to resolve dowry-related conflicts, and ensure legal protection for women in cross-border marriages. While cultural ties promote harmony, they can also create security concerns. Kumar and Thakur (2024) argue that increased people-to-people interactions must be complemented with regulatory measures to address identity fraud, human trafficking, and illegal migration. A structured legal framework that recognizes cross-border relationships while addressing socio-legal challenges is necessary for ensuring balanced people-to-people relations.

4.7.4 Security Challenges

The security challenges along the Nepal-India border are extensive, ranging from cross-border crimes to issues of illegal migration, organised crime, arms smuggling, and human trafficking. This finding is consistent with risk management theory, which emphasises the challenges of securing porous borders while maintaining economic and social fluidity (Gana et al., 2023). It is noted from the study that the ongoing border disputes in Madhesh directly affect Nepal's

sovereignty and territorial integrity, making them a crucial aspect of the security landscape. Ghimire (2025) highlights how the open border facilitates organised crime, including drug trafficking, arms smuggling, and human trafficking, due to inadequate security infrastructure. The porous nature of the border allows criminals to move freely, making law enforcement efforts challenging.

The study found that political influences and religious divides further complicate border security efforts. Kharel (2024) emphasizes that political parties in both countries sometimes use border issues for electoral gains, creating policy inconsistencies. The absence of proper surveillance at informal border crossings makes it difficult to track individuals entering and exiting the country. Aryal and Pulami (2023) discuss the necessity of integrating advanced border monitoring technologies, such as biometric entry-exit systems, to improve surveillance and reduce illicit activities. Human trafficking remains one of the most pressing security concerns in the region. (Shaikh, 2024) notes that the border areas of Nepal serve as transit points for traffickers exploiting women and children for forced labour and sexual exploitation. Limited coordination between Nepalese and Indian security agencies further exacerbates the issue.

To address security challenges, it is found that there is a need to invest in advanced technology and increase personnel to improve surveillance and control. Improve collaboration between Nepalese and Indian security forces to address cross-border crimes effectively is also a must. Work with local communities to address socio-cultural challenges and promote legal awareness. (Aryal & Pulami, 2023) advocate for cross-border intelligence-sharing initiatives and joint law enforcement operations to mitigate human trafficking and related crimes.

4.7.5 Mitigation Measures

Strengthening socio-cultural ties through programs that foster a shared identity and mutual respect and encouraging both nations to adopt a balanced approach, avoiding interference in each other's domestic politics (Mahar, 2024) Formulating a comprehensive national security policy that addresses both traditional and non-traditional threats, ensuring the protection of Nepal's sovereignty (Kunwar, 2024b)

(a) Geopolitical Issues

By analyzing the mitigation measures for geopolitical issues, it is found that locally, coercive measures such as citizenship and identity card checks at the border can help control illegal entry from third countries. Strengthening border security by deploying adequate personnel and modern technology is also essential. Baral (2018) advocates that enhanced border surveillance, biometric tracking, and intelligence-sharing mechanisms are crucial to preventing unauthorised movements across the Nepal-India border, which is linked with risk management theory. Moreover, as geopolitical theory emphasises, the study found negotiation and dialogue at local and national levels are crucial for resolving disputes, with an emphasis on enhancing historical, social, and cultural ties to foster mutual understanding. If unresolved, border issues should be nationalised to create political pressure for timely resolution and, if necessary, raised in international forums.

To strengthen border security, this study found, involves deploying sufficient forces equipped with advanced technology and intelligence systems, as well as conducting regular coordination meetings between Nepalese and Indian security forces to address jurisdictional issues. Furthermore, community engagement and development initiatives, such as Border Area Development Programmes (BADP) and Quick Impact Programmes (QIP), can foster cross-border cooperation. It is also found to promote people-to-people contact through cultural exchanges, health camps, and disaster response initiatives that can build trust and collaboration. Survey and technical support, including the preparation of strip maps for border delineation (except for disputed areas like Susta and Kalapani), are critical for resolving disputes. However, Shetty (2024) focuses that political commitment from leadership on both sides is essential to address border disputes and encroachments effectively.

(b) Economic Issues

It is found from the study that public awareness campaigns can educate border communities about the negative impacts of informal trade and smuggling, while strict enforcement of existing laws can curb illegal economic activities. Moreover, strengthening border security involves

deploying security forces with legal authority to regulate border crossings and implementing digital or virtual security systems to monitor and control illegal trade. Counterpart coordination was found essential for facilitating cross-border trade by harmonising customs procedures and documentation and sharing information on illegal trade activities between Nepal and India that align economic theory, which supports economic integration and trade facilitation to address informal economies and revenue leakages. Moreover, Gil-Pareja et al. (2019) focused that improving revenue collection requires ensuring stakeholder integrity and reducing corruption at border checkpoints while promoting legal imports and exports can boost the national economy. Infrastructure development, such as building warehouses, border roads, and trails within one kilometre of the border, can facilitate legal trade. Establishing border coordination offices in India and China can also streamline trade processes.

(c) Socio-cultural Issues

Legal harmonisation between Nepal and India was found essential to recognise cross-border marriages and establish formal channels for marriage registration, ensuring property and citizenship rights for affected individuals from the study that constructive theory advocates in literature. Infrastructure and logistical improvements, such as operating customs points and border crossings 24/7, can reduce delays during marriage processes while improving transportation infrastructure can facilitate cross-border movement. Public awareness and education campaigns can address cultural differences and misconceptions with workshops on gender equality, domestic violence, and human trafficking in schools and community centres that align with constructivist arguments. Support systems for vulnerable individuals, including financial assistance, skills training, and healthcare access, can help those in cross-border marriages.

Community-based organizations can provide additional support to women and children affected by these marriages. However, Jason (2023) focused that the security and conflict resolution measures involve training border security forces in conflict resolution and cultural sensitivity, as well as deploying joint security teams to ensure peace and order during cross-border marriage

ceremonies. Moreover, streamlining the process of granting citizenship and property rights to individuals in cross-border marriages is crucial, with equal legal protections for Nepali and Indian citizens in cross-border unions.

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Summary

This chapter presents a summary of the research, focusing on the key issues geopolitical, economic, socio-cultural and their security challenges along the Nepal-India border, particularly in Madhesh Province. In order to answer research questions, four main theories have been used as the foundation for the study: a geopolitical theory, economic and sociocultural theory, constructive theory and risk management theory. Further, the results of this study address the research questions by identifying the existing border issues, security challenges, and potential mitigation strategies for the Nepal-India border along Madhesh Province. The study employed qualitative research methods, drawing insights from KII, FGD, personal interviews, and secondary sources. The findings reveal that border issues are deeply interconnected, requiring a holistic approach that integrates diplomatic negotiations, economic policies, social cohesion, and security measures. These disputes are not just about land but also about political influence and strategic positioning. Nepal, situated between two regional powers, often finds itself navigating the interests of both India and China, adding complexity to its foreign relations.

The construction of infrastructure projects by India along the border, including roads and irrigation systems, has been a point of contention, as they are seen as assertions of territorial dominance. At the same time, the increasing presence of Chinese investments in Nepal's border regions has heightened security concerns for India, further complicating Nepal's diplomatic positioning. Cross-border political affiliations have contributed to tensions, with Madheshi political parties often aligning with Indian interests, making dispute resolution more challenging. Addressing these geopolitical challenges requires stronger diplomatic engagement, policy coordination, and strategic negotiations to maintain long-term stability in border governance.

The economic landscape along the Nepal-India border is characterized by dependency, trade imbalances, and unregulated commerce. The open border policy, while facilitating economic activity, has led to a reliance on Indian markets for daily essentials, which has weakened local

industries in Nepal. Due to price disparities, many border residents choose to buy goods from India rather than support local businesses, reducing economic self-sufficiency. Unregulated trade and widespread smuggling further undermine Nepal's revenue collection, with fuel, pharmaceuticals, and consumer goods frequently crossing the border illegally. The lack of effective customs surveillance allows these informal markets to thrive, creating economic vulnerabilities. To address these concerns, establishing SEZs near border towns could help regulate trade and boost employment. Implementing digital trade facilitation tools, such as electronic invoicing and customs monitoring, would enhance transparency and reduce illegal trade activities. Strengthening border security and trade policies will be key in achieving greater economic stability.

Cultural and social ties between Nepal and India are deeply interconnected, particularly in border regions where intermarriages and shared traditions are common. While these ties strengthen people-to-people relationships, they also present legal and identity-related challenges. One of the most significant issues is the legal complications surrounding cross-border marriages, particularly for women who face difficulties in obtaining citizenship and property rights. Traditional practices such as dowry, child marriage, and gender discrimination further complicate legal protections for women. The overlapping identities of Madhesi communities with Indian populations have also fuelled political and social debates about external influences on Nepal's governance. Simplifying citizenship and marriage registration processes, supports bilateral legal cooperation, and launching public awareness campaigns could help address these socio-cultural challenges. Ensuring that cross-border interactions are legally recognized and socially protected will contribute to long-term stability in the region.

The porous nature of the Nepal-India border makes it a hotspot for criminal activities, including human trafficking, arms smuggling, and illegal migration. Weak border control mechanisms and a lack of intelligence-sharing between Nepalese and Indian authorities have allowed organized crime networks to thrive.

Political instability and religious influences further complicate security efforts, with border-related issues often exploited for electoral gains. The absence of biometric tracking systems and

border surveillance technologies makes monitoring cross-border movements difficult, increasing security risks. Enhancing border security through technology, strengthening law enforcement coordination, and fostering intelligence-sharing initiatives can significantly improve border management. A community-driven approach, involving local populations in security awareness programs, could also help mitigate security threats.

The research findings align with various theoretical perspectives: geopolitical perspectives confirm that border disputes are driven by power dynamics and strategic interests. Likewise, economic theories emphasise that border regions are deeply connected with trade and dependency structures. Constructivist perspectives highlight the social and identity-driven nature of border interactions whereas, risk management approaches support enhanced security measures and law enforcement reforms.

5.2 Conclusion

The Nepal-India border, particularly in Madhesh Province, presents a complex landscape of geopolitical, economic dependencies, socio-cultural interactions, and security challenges. From a geopolitical perspective, the study confirms that border disputes between Nepal and India are driven by power dynamics and strategic interests. The territorial conflicts over areas such as Kalapani, Lipulekh, and Susta have remained unresolved for decades, creating diplomatic tensions. These disputes are not simply about territorial control but are also shaped by strategic calculations regarding infrastructure development, resource management, and regional influence. Nepal's strategic position between two regional powers, India and China, adds another layer of complexity, as it must carefully navigate its diplomatic relations with both countries. Furthermore, infrastructure projects initiated by India, such as road construction and irrigation systems along the border, are perceived by Nepal as unilateral moves that undermine its territorial sovereignty. The study also highlights how cross-border political affiliations, particularly the influence of Indian political parties on Madheshi political groups, have led to increased tensions, making dispute resolution more complicated. These findings align with geopolitical theory, which emphasizes that territorial disputes are often motivated by broader

strategic interests rather than merely the demarcation of physical boundaries. Addressing these challenges requires stronger diplomatic engagement, policy coordination, and structured negotiations to foster long-term stability in border governance.

The study also confirms that the economic landscape along the Nepal-India border is characterized by trade dependencies, informal economies, and revenue leakages. Economic theories suggest that border regions are deeply connected with trade structures and market dependencies, which is evident in Madhesh Province. Due to the open border policy, Nepalese border communities have become highly reliant on Indian markets for daily essentials, weakening local industries and entrepreneurship. The trade imbalance between the two countries has further exacerbated Nepal's economic vulnerabilities, with Nepalese exports remaining limited while Indian imports dominate the market. The study shows that smuggling and unregulated trade, particularly in fuel, pharmaceuticals, and consumer goods, have created revenue losses for Nepal. Weak customs enforcement and the lack of effective surveillance systems allow informal markets to increase, further weaken Nepal's economic sovereignty. Economic theories emphasize that such dependencies can be mitigated through structured trade reforms, improved regulatory oversight, and the establishment of economic zones. This study supports those principles by recommending the implementation of SEZs to regulate border trade, promote employment, and encourage domestic production. Moreover, digital trade facilitation tools, such as electronic invoicing and customs monitoring, could enhance transparency and reduce illegal trade activities. Strengthening border security and economic policies will be essential in ensuring Nepal's economic stability.

The socio-cultural findings of this study align closely with constructivist theory, which argues that border interactions are not just about territorial control but are also shaped by historical narratives, politics and cultural integration. The deep-rooted cultural, linguistic, and social ties between Nepal and India, particularly in Madhesh Province, influence cross-border interactions in significant ways. Cross border marriages between Nepali and Indian citizens are common in border communities, yet they create complex legal and identity-related challenges. Many women face difficulties in obtaining citizenship and property rights due to Nepal's restrictive citizenship

law, leading to legal uncertainties for those in cross-border marriages. Traditional practices such as dowry, child marriage, and gender discrimination persist, making legal protections for women more difficult. These challenges align with constructivist perspectives, which suggest that border conflicts are deeply rooted in cultural identities and social traditions rather than simply being legal or political disputes. The study suggests that simplifying citizenship and marriage registration processes, encouraging bilateral legal cooperation and launching public awareness campaigns can help address these socio-cultural challenges. Ensuring that cross-border interactions are legally recognized and socially protected will contribute to long-term stability in the region.

Security challenges remain one of the most critical aspects of Nepal's border governance. The porous nature of the Nepal-India border makes it a hotspot for transnational crimes, including human trafficking, arms smuggling, and illegal migration. The study finds that weak border control mechanisms and the lack of intelligence-sharing between Nepalese and Indian authorities have allowed organized crime networks to thrive. Political instability and religious divides further complicate security efforts, as border issues are often exploited for electoral gains. Moreover, the absence of biometric tracking systems and border surveillance technologies makes it difficult for law enforcement agencies to monitor illegal activities effectively. These findings align with risk management theory, which supports enhanced security measures and law enforcement reforms to mitigate transnational threats. According to this perspective, porous borders increase the likelihood of criminal activities, necessitating the implementation of technological advancements and intelligence-sharing initiatives. The study suggests that improving border security through biometric entry-exit systems, increasing law enforcement coordination, and fostering intelligence-sharing initiatives could significantly reduce cross-border crime. Engaging local communities in security awareness programs could help prevent trafficking and other illegal activities.

The study's findings align strongly with theoretical perspectives, providing a comprehensive understanding of Nepal-India border challenges. Geopolitical perspectives confirm that border disputes are not just about physical boundaries but are driven by power struggles, diplomatic

complexities, and territorial interests. Economic theories advocate that border regions are deeply tied to trade dependencies and market structures, making economic policies essential in addressing vulnerabilities. Constructivist perspectives emphasise that border interactions are shaped by cultural identities, historical relationships, and social traditions, necessitating legal and policy interventions to protect affected communities. Risk management approaches insist the need for enhanced security infrastructure, intelligence-sharing, and technology-driven enforcement mechanisms to address transnational crime and border threats.

In conclusion, this study suggest that effective border governance is not just about control and enforcement, it requires balancing national security with economic prosperity, social inclusivity, and regional cooperation. Moreover, a well-coordinated bilateral approach and practical policymaking will be essential in ensuring that border regions serve as catalysts for development rather than sources of conflict.

5.3 Recommendations

Based on the key findings of this study, some of the recommendations are proposed to address the geopolitical, economic, socio-cultural and their security challenges along the Nepal-India border, particularly in Madhesh Province.

In order to resolve the border issues that exists between Madhesh province of Nepal and India, strong bond of diplomatic relation is essentials with the appropriate policy coordination. The cooperation and coordination on the issues of the border between Madhesh province of Nepal and India need to be strengthen for the long-term stability of the country. Economic development along the border can be stimulated by establishing SEZs and BADP in border towns and villages of the Madhesh province. SEZs would encourage exports through attracting Foreign direct investment for industrialization, regulate trade and create employment opportunities and create the culture of entrepreneurships. It is also recommended to implement digital trade facilitation tools such as electronic invoicing and customs monitoring to enhance transparency and reduce illegal activities like smuggling. Harmonizing cross-border taxation policies will also minimize revenue leakage and promote fair trade practices. In the socio-cultural domain, it is necessary to

simplify the citizenship and marriage registration processes, especially for individuals in cross-border marriages, ensuring legal protections and property rights. Practice of dowry and child marriage is to be monitored by the both sides for bringing harmony and cordial family ties along cross border. Additionally, public awareness campaigns should be launched to inform citizens about their legal rights, social protections, and the importance of formal registration processes. To guide future policy improvements, it is recommended to conduct comparative studies on border governance models from other regions to identify best practices that could be applied to the Nepal-India border. The nuanced monitoring or scrutiny surveillance is needed to control the revenue leakage from informal routes and customs points which can contribute to national revenue collection. Legal challenges in cross-border marriages should also be examined, to address these issues. The effectiveness of SEZs in promoting exports and reducing dependency on revenue-based economy which also contribute in informal trade that should be evaluated. The deployment of the security forces in sufficient number with the legal authority is recommended in the border area for solving border issues like disputes, cross-border occupation, encroachment, leakage of the revenue etc.

With the implementing these recommendations, Nepal can improve its border governance, foster economic stability, strengthen security measures, and protect the rights of its border communities. The boundary issues between Madhesh Province of Nepal and India, which have historically been sources of geopolitical interest, should be resolved by a concerted strategy that includes policy changes, diplomatic discussions, and community involvement.

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Appendix 'A'

(Refers to Page 27 Para 3.4)

For Key Informants Interview (KII)

1. Personal information
 - a) Name:
 - b) Position/Rank/ Experience:
 - c) Gender:
 - d) Address:
 - e) Contact Number:
2. Geopolitical issues
 - a. What are the geopolitical issues of Madhesh Province with India?
 - b. Are there any border encroachments and cross-border occupation issues in your area? If yes what are the causes? Mention please.
 - c. Are there disputes or tensions along the border? What are the causes?
 - d. What are the security challenges that you found concerning border issues?
 - e. How do these border issues be resolved?
 - f. How government decisions or agreements play role in managing Madhesh Province border issues?
3. Security Challenges
 - a. How do geopolitical disputes along the Madhesh province border contribute to security risks in the region?
 - b. What challenges do security agencies face in managing border issues?
 - c. What role do informal border crossings play in exacerbating security challenges?
 - d. How do these border issues impact the security of the local communities and the nation as a whole?
 - e. Please suggest mitigation measures of security challenges of border issues.
 - f. How counterpart's relation helps to resolve border issues? How can border agencies be effective in resolving such activities?
 - g. What steps should the government take to address those issues?

Appendix 'B'**(Refers to Page 27 Para 3.4)****For Focused Group Discussion (FGD)**

1. Please, Can I have your Introduction
 - f) Name:
 - g) Position/Rank:
 - h) Gender:
 - i) Experience:
 - j) Address:
 - k) Contact Number:
2. What are the Border issues that you observed all along the Border of Madhesh Provinces or in your Area of Responsibility (AOR)?
3. How do you view the following border issues that exist in Madhesh Province of Nepal or issues in your area of Responsibility (AOR) in the Madhesh Province border?
 - a) Geopolitical issues
 - b) Socio-economic issues
 - c) Socio-cultural Issues
 - d) Infrastructures
 - e) Cross border Occupation
 - f) Border encroachment
 - g) Illegal Activities (Smuggling of Goods, humans, drugs, weapons etc)
 - h) Trans-border crime
4. Do you suggest any more border issues that exist in the border of Madhesh Province?
5. How do you think these issues be solved? Suggest mitigation measures?
6. What are the security challenges that you found concerning border issues?
7. Please suggest mitigation measures for security challenges due to existing border issues.
8. Do you have anything more to say regarding border issues and security challenges?

Appendix 'C'**(Refers to Page 27 Para 3.4)****Personal Interview**

1. Please, may I have your Introduction
 - a. Name:
 - b. Age/nationality:
 - c. Gender:
 - d. Address:
 - e. Contact Number:
 - f. Marital Status:
2. Do you know about any border issues of Madhesh Province with India? Please tell them?
3. Can you specify the border encroachment, cross border occupation and border disputes in your area?
4. Do you observe any illegal activities in border areas? What are they?
5. Why do you choose to marry India/ Nepal?
6. Do you find any socio- cultural similarities or differences in border communities?
7. What challenges do you find marrying cross border?
8. Do you find any security challenges of socio- cultural issues and cross border marriage?
9. After cross border marriage, have you faced difficulties or easiness in resolving the border issues?

Annex (A)**(Refers to Page 30, para 3.6)****Coding**

- C1 Representatives from District Administrative Office, Parsa
- C2 Representatives from District Administrative, Mahottari
- S1 Representatives from APF, Nepal Battallion, Parsa
- S2 Representatives from APF, Nepal Battallion, Mahottari
- S3 Representatives of APF, Nepal Border security Department
- B1 Informants from APF, Nepal Purposed Border security company, Parsa
- M1 Representatives of Ministry of Home affairs
- R1 Representatives of the custom office, Birgunj
- R2 Representatives of the custom Office, Mahottari
- D1 Representative of the Survey Departments.