

Barriers to Foreign Direct Investment in Nepalese Hydropower: A Policy and Stakeholder Perspective

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Abstract: Nepal possesses one of the world's largest hydropower potentials (83,000 MW), yet less than 3,000 MW has been developed. While the government has introduced liberal policies such as the Foreign Investment and Technology Transfer Act (FITTA, 2019) and Bilateral Investment Promotion and Protection Agreements (BIPPA), actual foreign direct investment (FDI) inflows remain far below potential. This study identifies and analyses the barriers to FDI in Nepal's hydropower sector from a policy and stakeholder perspective. Primary data were collected from 30 stakeholders in the Kathmandu Valley, including FDI-based hydropower companies, government authorities, commercial banks, Nepal Rastra Bank, Nepal Electricity Authority (NEA), legal and financial consultants, and private-sector associations. Quantitative rankings (5-point Likert scale) and qualitative thematic analysis of open-ended responses were employed. Findings reveal that economic barriers are perceived as the most severe (mean = 3.91), particularly high inflation (4.10) and lack of investment security (4.03), followed by political barriers such as frequent strikes (3.95) and government changes (3.85). NEA's monopoly as regulator and single buyer of power was identified as a unique structural barrier. The central theme from qualitative analysis is a critical policy-practice gap: formal policies are liberal, but inconsistent implementation, bureaucratic discretion, land acquisition complexities, and transmission constraints deter investment. Stakeholders recommend establishing an independent energy regulator, simplifying licensing, amending land laws, and accelerating the development of transmission infrastructure. The study concludes that addressing implementation failures, not just policy content, is essential to unlock Nepal's hydropower potential.

Keywords: Foreign Direct Investment, hydropower, policy barriers, political risk, Nepal Electricity Authority, land acquisition, transmission infrastructure, policy-practice gap, Nepal

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1. Introduction

Nepal is endowed with one of the world's most abundant hydropower resources, with a theoretical potential of approximately 83,000 megawatts (MW), of which 42,000 MW is considered economically viable using existing technologies (Pandey et al., 2023; trade.gov, 2021). Despite this immense natural advantage, the country has developed less than 3,000 MW of operational capacity, leaving over 95% of its hydropower potential untapped (Nepal Economic Forum, 2024). The persistent gap between potential and realisation stems not from a lack of investor interest, but from a complex web of structural, institutional, and policy-related barriers that discourage foreign direct investment (FDI) in the sector.

The Government of Nepal (GoN) has, over the past three decades, introduced a series of legal and policy instruments to attract foreign capital into hydropower. Key among these are the Electricity Act (1992), the Hydropower Policy (2001), the Foreign Investment and Technology Transfer Act (FITTA, 2019), and Bilateral Investment Promotion and Protection Agreements (BIPPA) with six countries, including India, the United Kingdom, France, Germany, Mauritius, and Finland (NepalLawSunshine, 2025). FITTA permits 100% foreign ownership, profit repatriation, and provides a single-window service center for investors. Despite these progressive frameworks, actual FDI inflows remain far below potential. By

fiscal year 2021/22, hydropower accounted for 32.8% of Nepal's total FDI stock, yet net FDI inflows as a percentage of GDP languished around 0.2% (NepalEconomicForum.org, 2025; UrjaKhabar, 2023). This paradox—liberal policies coexisting with low realised investment—suggests deep-seated barriers that extend beyond formal legal provisions.

Existing literature on FDI determinants in Nepal has predominantly focused on macroeconomic and financial variables, often through cross-country regression analyses that fail to capture country-specific institutional and political realities (Dahal & Aryal, 2003; Maskey et al., 2006). What remains underexplored is the qualitative, stakeholder-informed understanding of why committed FDI fails to materialise or why projects face protracted delays. From a policy and stakeholder perspective, critical barriers include: political instability and frequent government changes leading to policy inconsistency; bureaucratic red tape and corruption in licensing and land acquisition; infrastructure deficits, particularly inadequate transmission lines and road access to project sites; the monopoly of Nepal Electricity Authority (NEA) in power purchase and sale; disputes over resource ownership and resettlement; and the absence of a bankable Power Purchase Agreement (PPA) framework that assures reasonable returns. A conceptual framework is shown in Figure 1.

This study addresses this gap by adopting a policy and stakeholder perspective to identify, categorise, and analyse the major barriers to FDI in Nepal's hydropower sector. Drawing on primary data from 30 stakeholders—including FDI-based hydropower companies, government authorities, commercial banks, regulatory bodies (Nepal Rastra Bank, NEA), legal and financial consultants, and private sector associations (FNCCI)—this research moves beyond quantitative risk perceptions to explore the institutional, political, and operational obstacles that investors face. The objectives are: (1) to identify the most critical policy and regulatory barriers as perceived by key stakeholders; (2) to examine how political instability, bureaucratic inefficiency, and infrastructure deficits impede FDI realisation; and (3) to propose evidence-based policy recommendations for removing these barriers. By centring the voices of those directly involved in FDI facilitation and implementation, this study provides actionable insights for policymakers aiming to transform Nepal's hydropower potential into tangible economic and energy security outcomes.

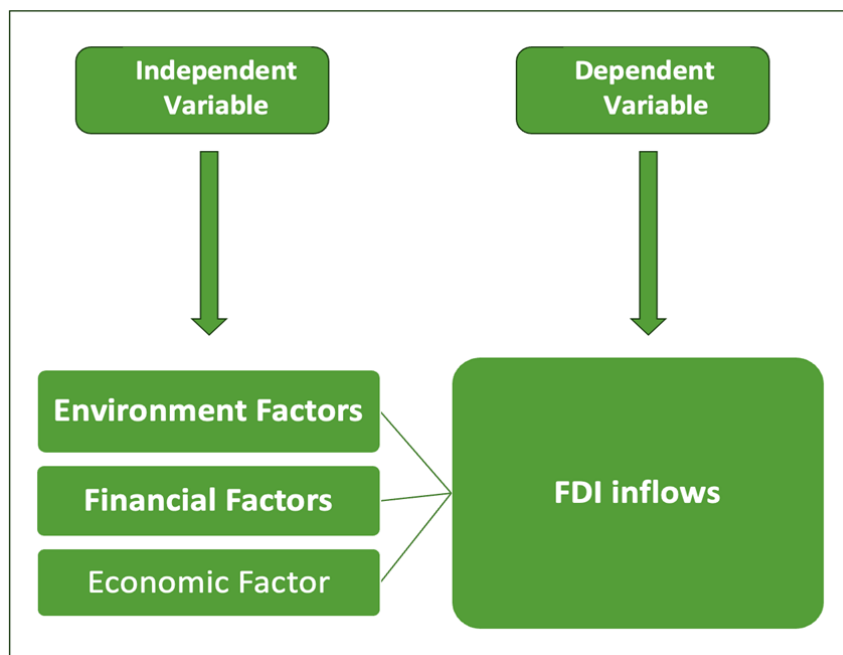


Figure 1: Conceptual framework of barriers to FDI inflows in Nepal's hydropower sector.

2. Materials and methods

2.1 Research Design

This study adopted a descriptive and exploratory research design to identify, categorize, and analyze the barriers to foreign direct investment (FDI) in Nepal's hydropower sector from a policy and stakeholder perspective. Unlike the quantitative causal-comparative approach used in Manuscript 1, this manuscript emphasizes qualitative insights alongside descriptive quantitative summaries to capture the nuanced perceptions of stakeholders regarding institutional, political, regulatory, and operational obstacles. The design is particularly suited for understanding complex, multi-dimensional barriers that cannot be fully captured by statistical models alone. A mixed-method orientation was employed, combining closed-ended Likert-scale ratings of barrier importance with open-ended responses that allowed stakeholders to articulate specific policy challenges and recommend solutions.

2.2 Study Area and Population

The study was conducted in the Kathmandu Valley, Nepal, which serves as the epicenter of policy formulation, regulatory oversight, and corporate decision-making for FDI in hydropower. The target population comprised stakeholders directly involved in or knowledgeable about FDI-financed hydropower projects, including: (a) representatives of FDI-based hydropower companies, (b) officials from government authorities responsible for FDI regulation and hydropower licensing, (c) commercial bank officers handling foreign investment transactions, (d) legal and financial consultants specializing in FDI and hydropower contracts, (e) regulatory body representatives from Nepal Rastra Bank and the Nepal Electricity Authority's (NEA) Power Trade Department, and (f) private sector associations such as the Federation of Nepalese Chambers of Commerce and Industry (FNCCI). This diverse population ensured a comprehensive multi-stakeholder perspective on barriers.

2.3 Sampling Procedure

A convenience sampling technique was employed due to the specialized nature of the respondent pool and the difficulty of accessing senior executives, policymakers, and domain experts. The sample size was determined based on the study's need for both quantitative descriptive statistics and qualitative thematic saturation. A total of 30 respondents participated in the survey, representing the following categories: nine from two FDI-based hydropower companies, two from Nepal Rastra Bank's legal department, one from the Power Trade Department of NEA, five from commercial banks, one from the Office of the Company Registrar, nine from independent FDI-based lawyers and financial consultants, and one non-FDI hydropower company, along with representation from FNCCI. All respondents were based in Kathmandu Valley, and each had direct professional experience with FDI processes in Nepal's hydropower sector.

2.4 Data Collection Instrument

Primary data were collected using a structured questionnaire designed on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), supplemented with open-ended questions to capture qualitative insights.

Political Risk Factors (4 items): Frequent government changes, strikes by political parties, large government size affecting committed FDI, forced donations, and lack of civil liberties.

Financial Risk Factors (4 items): Exchange rate depreciation, inconsistent capital market trends, insufficient financial institutions, low tax incentives.

Economic Risk Factors (5 items): High inflation, high debt volume, trade deficit, high corporate tax rates, lack of proper security for foreign investment.

Policy and Institutional Barriers (embedded in the above): Items specifically addressing bureaucratic quality, corruption, regulatory delays, and policy inconsistency were extracted for barrier analysis.

Open-ended question: "Is the existing policy framework in Nepal sufficient to attract and sustain long-term flows of Foreign Direct Investment (FDI)? Please explain your answer." This allowed stakeholders to elaborate on specific policy gaps and recommend improvements.

The questionnaire was developed based on Dunning's (1977) location advantage theory and adapted from prior empirical studies on FDI determinants in developing countries, with particular attention to Nepal's unique political and institutional context.

2.5 Variables and Measurement

For barrier identification purposes, the independent variables—political, financial, and economic risk factors—were treated as barrier dimensions rather than predictors. Each item within these dimensions was analysed individually to determine the most critical barriers as rated by stakeholders. The dependent variable in this manuscript is the perceived "barrier intensity," measured as the mean score for each barrier item, with higher scores indicating more severe obstacles to FDI.

2.6 Reliability and Validity

Reliability of the quantitative items was assessed using Cronbach's alpha coefficient. The overall scale achieved $\alpha = 0.761$, indicating acceptable internal consistency (George & Mallery, 2009). Content validity was established through a thorough literature review and expert review by an academician. For the qualitative open-ended responses, trustworthiness was enhanced through investigator triangulation and member checking, whereby key findings were reviewed with two senior stakeholders to confirm accurate interpretation.

2.7 Data Collection Procedure

Data collection took place between September and October 2025. Questionnaires were distributed in person to the headquarters of selected organisations in Kathmandu. Respondents were assured of confidentiality, and participation was voluntary. Completed questionnaires were collected within two weeks of distribution. The response rate was 100% among the 30 targeted participants. For the open-ended question, 28 respondents provided written explanations, yielding rich qualitative data for thematic analysis.

2.8 Data Analysis Techniques

Data analysis proceeded in two parallel streams: quantitative and qualitative.

Quantitative Analysis: Descriptive statistics (mean, standard deviation) were calculated for each barrier item (political, financial, and economic risk items) to rank barriers by perceived severity. Frequency distributions were generated to show the proportion of respondents who agreed or strongly agreed with each barrier statement. Items were then ranked from highest to lowest mean score to identify the top barriers to FDI in Nepal's hydropower sector.

Qualitative Analysis: Open-ended responses to the question regarding the sufficiency of the existing policy framework were analysed using thematic analysis (Braun & Clarke, 2006). The process involved:

- Familiarisation with all responses.
- Initial coding of meaningful segments.
- Grouping codes into broader themes.
- Reviewing and refining themes.
- Defining and naming final themes.

Thematic saturation was achieved after analysing the 28 responses, as no new codes emerged in the final responses.

2.9 Ethical Considerations

The study adhered to standard research ethics protocols. Informed consent was obtained from all participants prior to data collection. Anonymity was maintained by not recording individual identifiers. Data were used exclusively for academic purposes. Respondents were given the option to skip any question they were uncomfortable answering, and all open-ended responses were anonymised prior to analysis to prevent the identification of specific individuals or organisations.

This section presents findings on barriers to foreign direct investment (FDI) in Nepal's hydropower sector from policy and stakeholder perspectives. The results are derived from primary data collected from 30 stakeholders in the Kathmandu Valley, including representatives of FDI-based hydropower companies, government authorities, commercial banks, regulatory bodies, legal and financial consultants, and private-sector associations. The findings are organised into three parts: (1) quantitative ranking of barrier categories based on stakeholder perceptions, (2) item-level analysis of specific barriers within each category, and (3) qualitative thematic analysis of open-ended responses regarding the sufficiency of Nepal's policy framework to attract and sustain FDI.

3. Results

3.1 Demographic and Professional Profile of Stakeholders

The stakeholder sample comprised 30 respondents: 16 male (53.3%) and 14 female (46.7%). The largest age group was "30 and below" (40%), followed by "31–40 years" (26.7%), "41–50 years" (23.3%), and "51–60 years" (10.0%). Educationally, 63.3% held Master's degrees, 33.3% held Bachelor's degrees, and 3.3% held M.Phil/PhD, indicating a highly knowledgeable respondent base.

The institutional breakdown provided diverse stakeholder perspectives: nine respondents from two FDI-based hydropower companies, two from Nepal Rastra Bank's legal department, one from the Power Trade Department of Nepal Electricity Authority (NEA), five from commercial banks, one from the Office of the Company Registrar, nine from independent FDI-based lawyers and financial consultants, one from a non-FDI hydropower company, and representation from the Federation of Nepalese Chambers of Commerce and Industry (FNCCI). This diversity ensures that the identified barriers reflect multiple vantage points—those of investor, regulator, financier, legal advisor, and industry association.

3.2 Quantitative Ranking of Barrier Categories

Stakeholders rated their agreement with statements across three categories of risk: Political Risk Factors, Financial Risk Factors, and Economic Risk Factors. The descriptive statistics provide aggregate mean scores for each category, which are reproduced in Table 1 below.

Table 1: Perceived Severity of Barrier Categories (N=30)

Barrier Category	Mean Score (1–5)	Standard Deviation	Rank
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Economic Risk Factors	3.91	0.565	1
Political/Governance Risk Factors	3.70	0.664	2
Financial Risk Factors	3.51	0.586	3

Note: Higher mean indicates greater perceived barrier severity. 1=Strongly Disagree, 5=Strongly Agree.

Economic risk factors emerged as the most severe barrier category (mean = 3.91, approaching “Agree”), indicating that macroeconomic conditions—high inflation, large debt volume, trade deficit, high corporate taxes, and lack of investment security—are perceived by stakeholders as the primary obstacles to FDI. Political and governance risks (mean = 3.70) ranked second, reflecting concerns about bureaucratic delays, corruption, policy inconsistency, and political instability. Financial risks (mean = 3.51) ranked third, though still above neutral, suggesting that exchange rate volatility, capital market instability, limited financial institutions, and low tax incentives are recognised but somewhat less critical than economic and political barriers. The relatively low standard deviations (0.565–0.664) indicate moderate to high consensus among stakeholders, particularly for economic risks (SD = 0.565), where agreement was most consistent.

3.3 Item-Level Analysis of Specific Barriers

To identify the most specific and actionable barriers, each item within the three categories was analysed individually. The following tables (Table 2, 3, 4) present mean scores and the percentage of respondents who agreed or strongly agreed (rated 4 or 5) with each barrier statement.

3.3.1 Economic Risk Factors

Table 2: Economic Barrier Items (N=30)

Barrier Item	Mean	% Agree/Strongly Agree	Rank within Category
High inflation rate	4.10	76.7%	1
Lack of proper security for foreign investment	4.03	73.3%	2
High volume of trade deficit	3.90	66.7%	3
High volume of debt	3.80	60.0%	4
High rate of corporate tax	3.70	56.7%	5

High inflation (mean = 4.10) was the single most severe barrier across all categories, with over three-quarters of stakeholders agreeing that inflationary pressures deter foreign investment. Nepal’s persistent inflation—often in double digits relative to regional competitors—erodes real returns and increases project costs. Lack of proper security for foreign investment (mean = 4.03) ranked second, reflecting concerns about contract enforcement, dispute resolution mechanisms, and protection against expropriation or policy changes. The trade deficit (mean = 3.90) and debt volume (3.80) were also notable, indicating macroeconomic fragility. Corporate tax rate (3.70), while still a barrier, was perceived as relatively less severe compared to inflation and security concerns.

3.3.2 Political/Governance Risk Factors

Table 3: Political and Governance Barrier Items (N=30)

Barrier Item	Mean	% Agree/Strongly Agree	Rank within Category
Frequent strikes by political parties	3.95	70.0%	1
Frequent change in government	3.85	66.7%	2
Bureaucratic delays and large government size	3.68	60.0%	3
Force donation from political parties	3.33	43.3%	4

Frequent strikes (bandhs) by political parties (mean = 3.95) was the most severe political barrier. Stakeholders reported that strikes disrupt construction schedules, delay equipment transport, and increase project costs through idle labor and extended timelines. Frequent changes in government (mean = 3.85) ranked second; Nepal has seen over 15 governments since 1990, leading to policy reversals, renegotiations of Power Purchase Agreements (PPAs), and loss of investor confidence. Bureaucratic delays (mean = 3.68) reflect the slow and opaque licensing, land acquisition, and environmental

approval processes. Forced donations (mean = 3.33) was the lowest-ranked political barrier, though still concerning for a minority of respondents (43% agreed). This may indicate that while extortion occurs, it is less systemic than other political obstacles.

3.3.3 Financial Risk Factors

Table 4: Financial Barrier Items (N=30)

Barrier Item	Mean	% Agree/Strongly Agree	Rank within Category
Depreciating exchange rate of Nepalese currency	3.70	60.0%	1
Insufficient availability of financial institutions	3.55	53.3%	2
Provision of low tax incentive for foreign investors	3.50	50.0%	3
Inconsistent trends of Nepalese capital market	3.30	40.0%	4

Currency depreciation (mean = 3.70) was the top financial barrier. The Nepalese rupee is pegged to the Indian rupee, but its real effective exchange rate fluctuates, creating uncertainty for foreign investors who repatriate profits or service foreign-currency debt. Insufficient financial institutions (3.55) reflects the limited depth of Nepal's banking sector for large-scale project finance; many investors rely on international development banks or foreign lenders. Low tax incentives (3.50) indicates that stakeholders feel Nepal's tax holiday periods (typically 5–7 years for hydropower) are less attractive compared to regional competitors. Capital market inconsistency (3.30) was the lowest-rated financial barrier, though still noted by 40% of respondents.

3.4 Overall Ranking of Top Ten Individual Barriers

Combining all items across the three categories, Table 5 presents the top ten most severe barriers to FDI in Nepal's hydropower sector as perceived by stakeholders.

Table 5: Top Ten Individual Barriers

Rank	Barrier Item	Category	Mean
1	High inflation rate	Economic	4.10
2	Lack of proper security for foreign investment	Economic	4.03
3	Frequent strikes by political parties	Political	3.95
4	High volume of trade deficit	Economic	3.90
5	Frequent change in government	Political	3.85
6	High volume of debt	Economic	3.80
7	High rate of corporate tax	Economic	3.70
7	Depreciating exchange rate	Financial	3.70
7	Bureaucratic delays & large government	Political	3.68
10	Insufficient financial institutions	Financial	3.55

Economic barriers dominate the top ten, occupying five of the top ten positions (including the top two). Political barriers occupy three positions, and financial barriers two. This distribution confirms that stakeholders view macroeconomic instability as the most formidable obstacle, followed by political governance issues, with financial system constraints being comparatively less severe.

3.5 Qualitative Thematic Analysis

All 30 respondents were asked an open-ended question: "Is the existing policy framework in Nepal sufficient to attract and sustain long-term flows of Foreign Direct Investment (FDI)? Please explain your answer." Twenty-eight respondents provided written explanations. Thematic analysis of these responses yielded five dominant themes, organized from most frequently mentioned to least.

Theme 1: Policy Inconsistency and Lack of Implementation

The overwhelming majority of stakeholders expressed that while Nepal's formal policies (FITTA, Hydropower Policy, Electricity Act) are theoretically liberal and investor-friendly, the critical problem lies in inconsistent implementation and frequent policy reversals. One senior executive from an FDI-based hydropower company stated:

"The laws look good on paper—100% foreign ownership, profit repatriation, tax holidays. But when you try to get a generation license or sign a PPA with NEA, the rules change depending on who is the minister. Every government change brings new conditions."

A legal consultant added:

"We have BIPPA with six countries, but dispute resolution mechanisms are never tested. Investors fear that even if they win arbitration, Nepalese courts will not enforce it."

Theme 2: Monopoly of Nepal Electricity Authority (NEA) as a Structural Barrier

Stakeholders consistently identified NEA's monopoly over power purchase and transmission as a major deterrent. A representative from a commercial bank noted:

"NEA is both the regulator and the single buyer. They set the tariff, and there is no alternative market. If NEA delays payments or renegotiates PPAs—which has happened—the project becomes unfinanceable."

Investors reported that while FITTA liberalizes entry, the downstream market remains controlled by a state-owned entity with weak financial health and politicized decision-making. Several respondents recommended creating an independent system operator and allowing third-party power sales.

Theme 3: Land Acquisition and Resettlement Complexities (Mentioned by 15 respondents, 54%)

Land acquisition was cited as a project-killing bottleneck. A hydropower company representative explained:

"Even after securing a generation license, acquiring land for the powerhouse, dam, and transmission lines can take 3–5 years. Local communities protest, compensation demands escalate, and courts issue injunctions. Foreign investors are not equipped to navigate this."

Stakeholders noted that the Land Acquisition Act (1977) is outdated and does not provide clear procedures for foreign-financed infrastructure projects. Resettlement plans required by development banks add time and cost.

Theme 4: Transmission Line Constraints (Mentioned by 12 respondents, 43%)

Respondents highlighted that transmission infrastructure lags far behind generation capacity. An energy consultant stated:

"We have projects that are ready to generate, but they are stranded because the transmission line is delayed by forest clearance, local opposition, or funding gaps. NEA's transmission plan is not synchronized with IPP timelines."

Cross-border transmission constraints were also noted: export to India requires separate approvals and wheeling charges, reducing profitability.

Theme 5: Corruption and Informal Payments (Mentioned by 9 respondents, 32%)

While not the most frequent theme, corruption was acknowledged as a persistent hidden barrier. A financial consultant remarked:

"No one will say it directly, but 'facilitation payments' are expected at every step—from environmental approvals to customs clearance for imported turbines. This adds 10–15% to project costs and creates legal risk for foreign companies under their home country anti-bribery laws."

However, several respondents noted that corruption has decreased compared to the 1990s and early 2000s, but remains a concern.

4. Discussion

The findings of this study provide a comprehensive, stakeholder-informed understanding of the barriers to foreign direct investment (FDI) in Nepal's hydropower sector. Unlike previous studies that have focused on aggregate macroeconomic determinants (Dahal & Aryal, 2003; Maskey et al., 2006), this research uncovers the specific institutional, political, and operational obstacles that investors face on the ground. The results reveal a critical disconnect between Nepal's liberal FDI policies and their inconsistent implementation—a policy-practice gap that emerged as the central theme from stakeholder narratives.

4.1 Economic Barriers as the Dominant Constraint

The quantitative ranking showed that economic risk factors (mean = 3.91) were perceived as the most severe barrier category, with high inflation (4.10) and lack of investment security (4.03) as the top two individual barriers. This finding is significant because it challenges the conventional assumption that political instability is the primary deterrent in Nepal.

While political factors are undoubtedly important, stakeholders clearly indicated that macroeconomic instability—eroding real returns and creating uncertainty about future cash flows—poses an even greater threat to long-term investment.

Nepal's inflation rate has consistently exceeded the regional average, often reaching double digits, while the rupee's peg to the Indian rupee creates exchange-rate risks for foreign investors repatriating earnings. This finding aligns with prior research in other developing countries where inflation volatility has been shown to negatively affect FDI (Adjai, Ahn, & Thomas, 1998; Coleman & Tetty, 2008). The perceived "lack of proper security for foreign investment" reflects concerns about contract enforcement, dispute resolution, and protection against policy reversals—a finding consistent with the broader literature on institutional quality and FDI (Benassy-Quare, Coupet, & Mayer, 2007; Drabek & Payne, 2002).

4.2 Political and Governance Barriers: Beyond Formal Policies

Political barriers ranked second overall, but items such as "frequent strikes" (3.95) and "frequent government changes" (3.85) were among the top five individual barriers. This finding resonates with previous empirical work on FDI in Nepal (Pant, 2010; Ghimire, 2011) and more broadly on political risk in developing countries (Schneider & Frey, 1985; Busse & Hefeker, 2007). What is particularly noteworthy is stakeholders' distinction between formal policy provisions (which they acknowledged as generally liberal) and the *de facto* investment climate shaped by political disruptions.

Frequent strikes (*bandhs*) impose direct costs on hydropower projects—delaying construction, blocking transport of heavy equipment, and forcing idle labour payments. Frequent government changes, with Nepal having experienced over 15 governments since 1990, lead to renegotiations of signed agreements, changes in ministerial directives, and a loss of institutional memory. This finding supports the argument that political stability, not just policy content, is a critical determinant of FDI in infrastructure sectors (Asiedu, 2006).

4.3 The Unique Role of NEA's Monopoly

One of the most striking qualitative findings was the widespread concern (64% of respondents) about the Nepal Electricity Authority (NEA)'s monopoly as both regulator and single buyer of power. This structural barrier is unique to Nepal's hydropower sector and has received insufficient attention in the academic literature. Stakeholders reported that NEA's control over Power Purchase Agreements (PPAs), tariff setting, and transmission access creates an unlevel playing field. When NEA delays payments or unilaterally renegotiates contracts—as has occurred in several instances—projects become unfinanceable.

This finding aligns with criticisms raised by independent power producers (IPPs) in other contexts where state-owned utilities dominate (Eberhard & Gratwick, 2011). The absence of an independent system operator and competitive power market in Nepal means that foreign investors have no alternative buyer for their electricity, giving NEA disproportionate bargaining power. Policy reforms recommended by stakeholders—establishing an independent energy regulator, unbundling NEA's functions, and allowing third-party access to transmission—are consistent with international best practices for attracting private investment in power sectors (World Bank, 2006).

4.4 Land Acquisition and Transmission as Operational Bottlenecks

Land acquisition and resettlement complexities (mentioned by 54% of respondents) and transmission line constraints (43%) represent operational barriers that are often overlooked in macro-level FDI studies. These findings point to the gap between project approval (generation license) and actual construction. In Nepal, land acquisition follows the 1977 Land Acquisition Act, which lacks streamlined procedures for foreign-financed infrastructure projects. Local protests, demands for inflated compensation, and court injunctions can delay projects by 3–5 years, eroding investor confidence and increasing costs.

Similarly, transmission infrastructure lags far behind generation capacity. Several respondents noted that hydropower projects are ready to generate but remain stranded due to missing transmission lines delayed by forest clearance disputes, funding gaps, or local opposition. This finding is consistent with infrastructure bottlenecks identified as major constraints to FDI in developing countries (Baker, Che mat, & Harun, 2012; Shah, 2014).

4.5 Limitations

The study's findings should be interpreted in light of several limitations. The sample size ($n=30$) is modest, though appropriate for exploratory qualitative analysis and descriptive quantitative ranking. Convenience sampling from Kathmandu Valley may not fully represent stakeholders in remote project areas. The open-ended responses, while rich, may reflect social desirability bias, particularly regarding corruption. Finally, the study captures perceptions at a single point in time (September–October 2025); barriers may evolve as political and economic conditions change. Despite these limitations, the consistency of findings across quantitative rankings and qualitative themes strengthens their validity.

5. Conclusion

This study set out to identify and analyse the barriers to foreign direct investment (FDI) in Nepal's hydropower sector from a policy and stakeholder perspective. Based on primary data from 30 stakeholders—including investors, regulators, financial institutions, legal advisors, and industry associations—the research yields several important conclusions.

First, economic barriers are perceived as the most severe category, with high inflation (mean = 4.10) and lack of investment security (4.03) ranking as the top individual barriers. These macroeconomic instabilities erode real returns and create uncertainty about long-term project viability. Second, political and governance barriers—specifically frequent strikes (3.95) and frequent government changes (3.85)—remain highly significant. While formal FDI policies in Nepal are liberal, their inconsistent implementation due to political disruptions creates a hostile environment for long-term infrastructure investment.

Third, the study uncovers a unique structural barrier: the Nepal Electricity Authority (NEA)'s monopoly as both regulator and single buyer of power. Stakeholders widely agreed that NEA's dominance over Power Purchase Agreements, tariff setting, and transmission access creates an unlevel playing field, discourages competition, and makes projects vulnerable to unilateral renegotiation. Fourth, operational bottlenecks—land acquisition complexities and transmission line constraints—add years to project timelines and increase costs, often killing otherwise viable projects.

Fifth, the policy-practice gap emerged as the central theme from qualitative analysis. Stakeholders consistently reported that while laws such as FITTA 2019 and the Electricity Act are theoretically investor-friendly, their implementation is plagued by bureaucratic discretion, rule changes with every government transition, weak contract enforcement, and a lack of coordination among agencies. This gap between formal policy and actual practice is the most critical barrier to attracting and sustaining FDI in Nepal's hydropower sector.

Based on these findings, the following policy recommendations are proposed:

- i. Establish an independent energy regulator separate from NEA to set tariffs transparently, oversee PPAs, and ensure non-discriminatory transmission access. This would reduce investor uncertainty and align Nepal with international best practices for power sector reform.
- ii. Strengthen policy stability mechanisms, such as parliamentary endorsement of major PPAs and Project Development Agreements (PDAs), to insulate them from arbitrary changes with each government transition.
- iii. Simplify and digitise licensing and approval processes through the single-window system mandated by FITTA 2019, but not yet fully operational. Time-bound approvals and online tracking would reduce bureaucratic delays and opportunities for rent-seeking.
- iv. Amend the Land Acquisition Act (1977) to provide clear, time-bound procedures for hydropower projects, including transparent compensation formulas and expedited dispute resolution.
- v. Accelerate transmission infrastructure through dedicated funding, expedited forest and environmental clearances, and priority status for cross-border transmission lines to enable electricity export to India and Bangladesh.
- vi. Enhance investment protection by operationalising dispute resolution mechanisms under BIPPA agreements, potentially partnering with MIGA for political risk insurance.

Future research should expand the sample to include stakeholders in project-affected communities and remote areas, incorporate actual (not just perceived) data on FDI project timelines and costs, and conduct comparative case studies of successful vs. delayed hydropower projects. Longitudinal research tracking policy changes and their impact on realised FDI would also be valuable.

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