

Analysis of Trend and Forecast of Corruption of Nepal

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Abstract—The present research is designed to analyze *Trend and Forecast of Corruption of Nepal during 2002 to 2022*. The study was carried out by obtaining the secondary data using various literature reviews and reports on corruption such as Transparency International, Human Right Reports, UNDP, Research journals, Google scholar etc. This study delves into the widespread issue of corruption in Nepal, exploring its historical background, various forms, and its detrimental effects on governance and socio-economic progress. Corruption, defined as the abuse of power for personal benefit, erodes public trust and impedes effective governance, impacting sectors such as healthcare, education, and public procurement. By employing a time series econometric model, the research analyzes trends in Nepal's Corruption Perceptions Index (CPI) from 2001 to 2022 and projects future trends for 2023-2027. The findings highlight fluctuations in public perception of corruption, with a notable decline observed between 2005 and 2010, followed by a partial recovery in subsequent years. The GARCH model predicts a gradual rise in perceived corruption, indicating ongoing challenges. The study emphasizes the importance of comprehensive anti-corruption measures, including institutional strengthening, improved public accountability, and increased civil engagement. Implementing these strategies could enable Nepal to more effectively tackle corruption, fostering sustainable development and restoring public trust in governance.

Keywords: *Corruption, governance, trend, forecast, sustainable development.*

1. Background

The term "corruption" originates from the Latin word "corruptus," meaning "corrupted." Legally, it refers to the misuse of power or a trusted position within any branch of government—executive, legislative, or judicial—or other organizations for personal, unlawful gain (Sumah, 2017). Transparency International (2018) defines corruption as the exploitation of power for private benefits. Similarly, it can be viewed as a behavioral issue, where individuals deviate from their official responsibilities for personal advantage, whether for material gain or social status (Nye, 1967).

Nepal continues to face severe economic, social, and political challenges, with corruption being the most detrimental (Sharma & Basnet, 2017). Corruption is so widespread that virtually no sector of society is untouched, leading to a deficit in democratic governance (Transparency International, 2019). Despite this, governance encompasses variables like pluralism, accountability, political stability, absence of violence, and governmental effectiveness (World Bank, 2021). The World Bank identifies corruption as a significant barrier to its objectives of eradicating extreme poverty by 2030 and promoting shared prosperity among the poorest 40 percent of people in developing nations (World Bank, 2021). Corruption disproportionately affects the poor and vulnerable by increasing costs and limiting access to essential services like healthcare, education, and justice (United Nations, 2018). In the procurement of medicines and medical equipment, corruption inflates costs and can result in substandard or dangerous products (Smith, 2019). The human costs of counterfeit medications and vaccines are immense, with long-term effects on children's health and well-being far outweighing the financial losses (WHO, 2020). Moreover, unofficial payments for services have particularly harmful effects on impoverished communities (Jones & Williams, 2016)."

Corruption hampers investment, leading to negative impacts on economic growth and employment (Gupta et al., 2017). Countries that successfully combat corruption manage their human and financial resources more effectively, attract greater investments, and experience faster economic growth (Johnston, 2019).

The World Bank Group acknowledges that corruption manifests in various ways. It can affect service delivery, such as when officials demand bribes for routine tasks (World Bank, 2021). Corruption may also influence the awarding of government contracts, favoring friends, family members, or business associates of officials (United Nations, 2019). Additionally, corruption can take the form of state capture, which distorts institutional functions and governance structures, often resulting in the highest economic costs (Transparency International, 2020). Addressing all types of corruption is essential to driving meaningful and sustainable change (OECD, 2021).”

This research aims to examine the causes, forms, trends, and effects of corruption in Nepal, alongside evaluating the effectiveness of anti-corruption efforts within the country. Present research aims to analyze the trend and forecast of corruption in Nepal.

2. Statement of Problem

Corruption is a pervasive and long-standing issue in Nepal, deeply embedded in its governance, economic systems, and public service sectors. It appears in various forms, such as bribery, favoritism, embezzlement, and the misuse of power for personal benefit. The problem extends across society, from local government bodies to national institutions, hindering effective governance and eroding the trust of the public.

Corruption is especially rampant in areas like public procurement, infrastructure projects, law enforcement, education, and healthcare. High-level corruption involving politicians, bureaucrats, and influential business figures often goes unpunished due to inadequate law enforcement and a lack of political commitment to address the issue. This creates a culture of impunity, where corrupt practices continue unchecked.

Institutions like the Commission for the Investigation of Abuse of Authority (CIAA) and the judiciary have faced criticism for being ineffective and politically influenced, leading to a slow process in holding corrupt individuals accountable. This creates a public perception that the powerful are above the law, further deepening the corruption problem.

Corruption significantly obstructs Nepal’s development by discouraging foreign investment, misusing public resources, and reducing the efficiency of public services. It deepens poverty and inequality, as funds meant for social programs and infrastructure are often diverted by corrupt officials. Additionally, it weakens democratic governance and undermines public trust in political institutions.

Efforts to curb corruption have been inconsistent and largely ineffective. Although laws and anti-corruption bodies exist, a lack of accountability, transparency, and an independent judiciary have hampered meaningful progress. Political instability and a culture of patronage further allow corrupt practices to thrive without serious challenge.

To effectively address corruption in Nepal, a multi-faceted approach is required. This should include empowering anti-corruption institutions, improving transparency, strengthening the rule of law, and promoting a culture of accountability and ethical leadership. Tackling corruption at all levels is essential for Nepal to achieve sustainable development and good governance (Bhattarai, 2020; Transparency International, 2022).

2.1 Research Questions

- i. What is trend of Corruption in Nepal?
- ii. What can be forecasted regarding corruption in Nepal?

2.2 Objectives of Research

- i. Analyze the trend of corruption in Nepal.
- ii. To forecast the corruption in Nepal from 2023-27.

2.3 Limitations

Results are based on the study of literature review and secondary sources of data. No attempt has been made to study primary data. Data constitutes during the period 2002-22 of Nepal.

3. Methodology

Time series research design is adopted to meet the objectives of the research.

3.1 Sources of Data

The secondary data was collected using various literature reviews and reports on corruption such as Transparency International, Human Right Reports, UNDP, Research journals, Google scholar etc.

3.2 Scale and Scoring

The CPI scores each country on a scale of **0 to 100**:

- **0** indicates a high level of perceived corruption.
- **100** indicates a very low level of perceived corruption.

A country with a score close to 0 is perceived as highly corrupt, while a country with a score close to 100 is perceived as very clean.

3.3 Data Analysis and Interpretation

3.3.1 Time Series Econometric Model

Time Series Econometric Model is applied to analyze the trend (2002 -22) and forecast (2023-27) of corruption in Nepal.

4. Result and Discussion

4.1 Trend of Corruption in Nepal

On the basis of Corruption Perception index (CPI), trend of corruption perception index of Nepal is depicted in Figure-4.1 during the period 2001-2022.

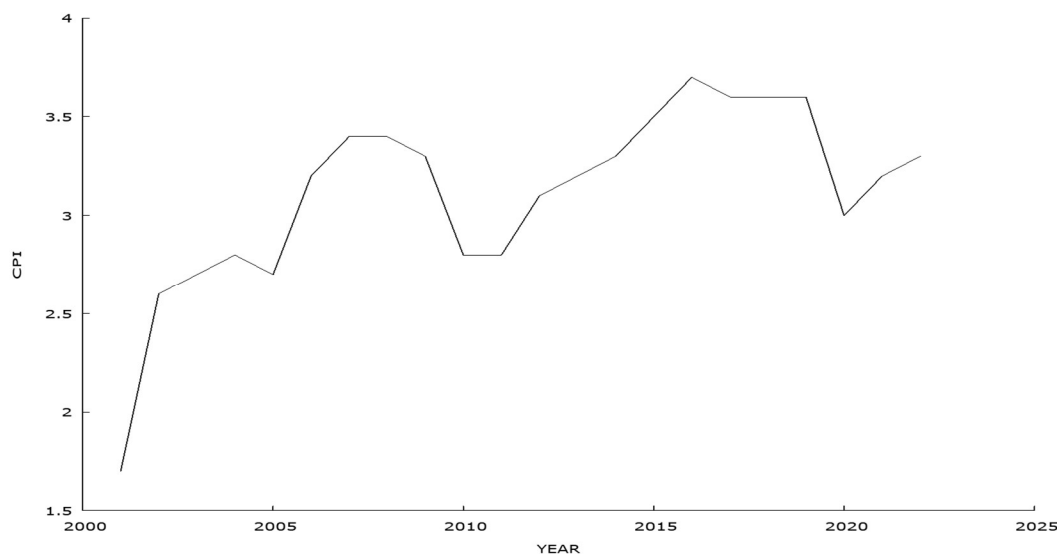


Fig. 4.1 Trend of Corruption Perception Index of Nepal¹

Analysis of the Corruption Perception Index (CPI) Trend in Nepal

1. **Early 2000s (Approx. 2001–2005):** The Corruption Perception Index (CPI) starts at a low level, reflecting a widespread belief that corruption is prevalent. However, the score gradually increases, indicating an improvement in public perception regarding corruption. This upward trend may be attributed to various reforms or governance changes that positively affected how people view corruption.
2. **2005–2010:** After an initial increase, the CPI stabilizes and experiences a slight decline. This period may have been marked by governance challenges or a lack of progress in reforms, leading to a renewed perception of corruption among the public.

¹ On the basis of data provided in the Appendix

3. **2011–2015:** The CPI experiences another improvement, reaching one of its highest levels during this time. This rise likely signifies the effectiveness of anti-corruption initiatives and increased government accountability, which helped enhance public perception.
4. **2016–2020:** Following this peak, the CPI stabilizes and begins to decline once more, particularly in the latter part of this period. This decline suggests a worsening perception of corruption, possibly due to political instability, economic difficulties, or ineffective policies.
5. **2020–2022:** The CPI shows a slight upward trend again, indicating a modest improvement in how corruption is perceived by the public.
 - **Overall Trend:** The CPI has shown fluctuations over the years, with intervals of improvement interspersed with stagnation or decline.
 - **Potential Influences:** Changes in public perception of corruption are likely influenced by factors such as political and economic instability, governmental reforms, and anti-corruption initiatives.
 - **Current Direction:** The recent modest improvement may indicate a renewed commitment to addressing corruption, although it remains uncertain whether this trend will be sustained.

This analysis sheds light on the progress and challenges faced by Nepal in its ongoing struggle against corruption over the years.

4.2 GARCH Econometric Model for Forecasting CPI

The analysis conducted using the GARCH (Generalized Autoregressive Conditional Heteroskedasticity) model on the Corruption Perception Index (CPI) depicted in Table-4.7 for the period from 2002 to 2022 yields the following insights:

The model: Using the mean equation from the GARCH model:

$$CPI_t = 1.64109 + 0.0103822 \cdot t + 0.455841 \cdot CPI_{t-1}$$

Where:

t is the time (from 2002 to 2022),

CPI_{t-1} is the previous year's CPI.

Table 4.1: Model 1: GARCH, using observations 2002-2022 (T = 21)

Dependent variable: Corruption Perception Index

Standard errors based on Hessian

	<i>Coefficient</i>	<i>Std. Error</i>	<i>z</i>	<i>p-value</i>	
constant	1.64109	0.360415	4.553	<0.0001	***
Time	0.0103822	0.0104534	0.9932	0.3206	
Corruption ₋₁	0.455841	0.138767	3.285	0.0010	***
alpha(0)	0.0451218	0.0139249	3.240	0.0012	***
Mean dependent var	3.180952		S.D. dependent var		0.340028
Log-likelihood	2.735389		Akaike criterion		4.529223
Schwarz criterion	9.751835		Hannan-Quinn		5.662663

Unconditional error variance = 0.0451218

(Source: Author's calculation, 2024)

Coefficient Analysis

1. Constant:

Interpretation: The constant suggests that, when all other variables are set to zero, the expected value of the Corruption Perception Index is roughly 1.64109. The z-value indicates that this estimate is statistically significant, with a very low p-value suggesting strong evidence against the null hypothesis (which posits that the coefficient equals zero).

2. Time:

Interpretation: The coefficient for time is nearly zero and is not statistically significant (p-value > 0.05). This implies that there is no meaningful trend over time in the Corruption Perception Index during the analyzed period.

3. Corruption Perception Index (lagged value):

Interpretation: This coefficient indicates a significant positive correlation between the lagged value of the Corruption Perception Index and its current value. A unit increase in the previous CPI is associated with an increase of approximately 0.455841 in the current CPI, demonstrating a strong persistence in the perception of corruption. The z-value indicates that this estimate is statistically significant, with a low p-value suggesting strong evidence against the null hypothesis (which posits that the coefficient equals zero).

GARCH Parameters

1. Alpha (α_0):

Interpretation: This coefficient (0.0451218) reflects the effect of past squared residuals (shocks) on current conditional variance. A positive alpha value indicates that previous shocks affect current volatility. The low p-value confirms the robustness of this relationship.

Interpretation of Model Fit (Fig-4.2)

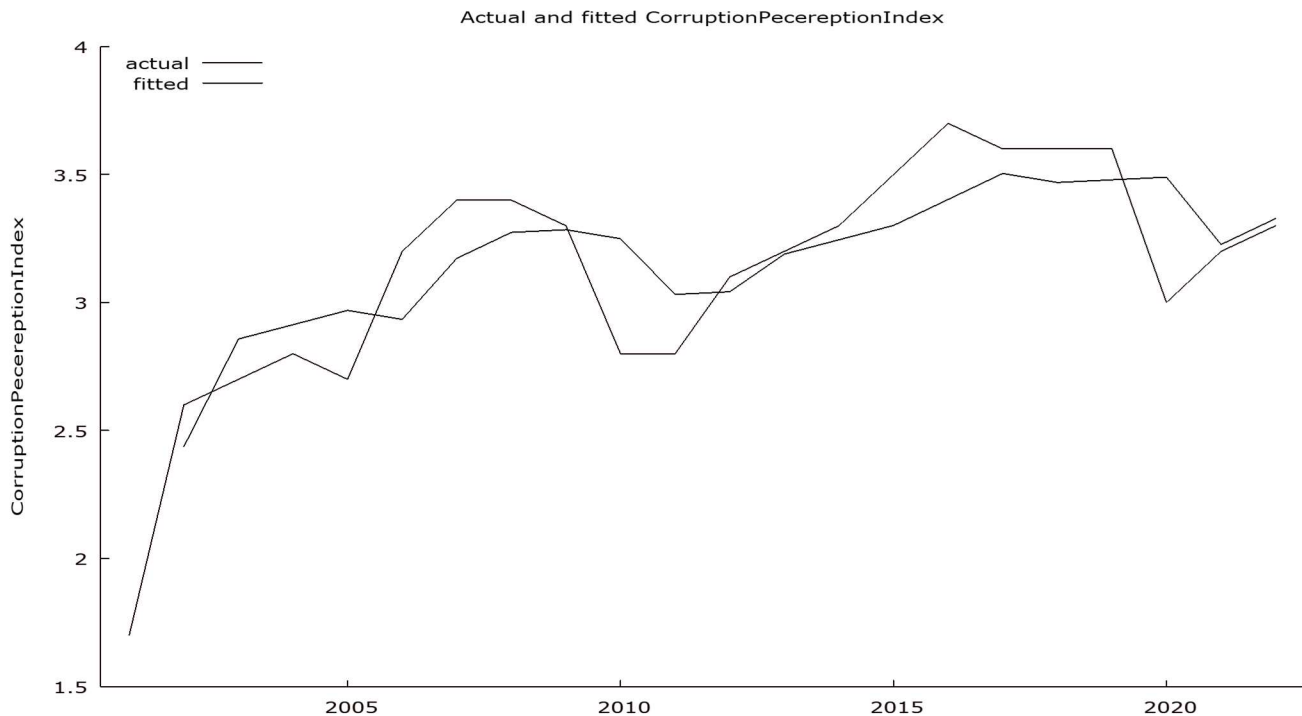


Fig-4.2 Trend of CPI, Actual Vs. Fitted²

Log-Likelihood: A higher log-likelihood value is indicative of a better model fit.

² On the basis of data provided in Index

Information Criteria (AIC, BIC, HQC): Lower values of these criteria are preferred, as they suggest a better fitting model.

Unconditional Error Variance: This measure reflects the long-term variance of the error term, providing insight into the overall variability within corruption perceptions.

Forecast from the model

Here are the updated forecasted Corruption Perception Index (CPI) values for the period 2023 to 2027, using the corrected 2022 CPI value of 34:

- **2023:** 38.14
- **2024:** 40.04
- **2025:** 40.92
- **2026:** 41.33
- **2027:** 41.52

The forecasted Corruption Perception Index (CPI) values for the period 2023 to 2027 suggest a gradual increase in perceived corruption over time.

Forecast Analysis

- i. 2023 CPI: 38.14³
 - The CPI increases from 34 in 2022 to 38.14 in 2023. This suggests a significant rise in perceived corruption or a improvement in efforts to improve the corruption perception during this period.
- ii. 2024 CPI: 40.04
 - The CPI continues to rise to 40.04 in 2024, signaling a steady improvement of corruption perceptions. However, the rate of increase slows compared to the previous year.
- iii. 2025 CPI: 40.92
 - The CPI reaches 40.92 in 2025, with the growth rate further decelerating. While the increase continues, it implies that corruption perceptions may be stabilizing at this point.
- iv. 2026 CPI: 41.33
 - The forecasted CPI for 2026 shows only a small increase to 41.33. This suggests a period of relative stagnation in corruption perception, with only a slight deterioration in perception compared to previous years.
- v. 2027 CPI: 41.52
 - By 2027, the CPI reaches 41.52, indicating that perceived corruption remains high but the rate of deterioration is slowing down. It implies that while the negative trend continues, it is not accelerating significantly.

Interpretation of the Results:

- **Steady Increase in Corruption Perception:** Over the forecast period, there is a consistent increase in the CPI, indicating an improvement in public perception regarding corruption.. This may reflect factors such as well institutional efforts to combat corruption, societal frustration, or increasing public awareness of corruption.
- **Slowing Growth Rate:** The forecast shows that while corruption perceptions improves year-on-year, the rate of increase gradually slows. This could imply that corruption might be reaching a plateau, where the perception becomes stable but remains high.
- **Challenges in Reversing Corruption Trends:** The upward trend indicates that improving corruption perceptions would require significant interventions, policy reforms, or institutional changes. Without such changes, the forecast suggests persistent negative trends.

³ Actual CPI of Nepal is 35 in 2023. Thus the forecast is overestimated.

- In summary, the forecasted CPI from 2023 to 2027 indicates a concerning yet slowing rise in perceived corruption, suggesting that corruption is likely to remain a critical issue unless addressed with substantial reforms.

5. Conclusion

An examination of Nepal's Corruption Perceptions Index (CPI) from 2001 to 2022 highlights notable fluctuations in public perceptions of corruption, reflecting both ongoing challenges and periodic improvements. This data is crucial for formulating policies aimed at combating corruption in Nepal. By focusing on institutional reform, enhancing public accountability, and fostering active citizen participation, the country can build a more transparent and accountable governance system. Implementing these reforms, coupled with strong political will and collaboration with international bodies, is key to restoring trust in public institutions and promoting sustainable development.

6. Policy Recommendations

i. Strengthening Anti-Corruption Institutions

- **Independent Anti-Corruption Commission (CIAA):** Strengthen the Commission for the Investigation of Abuse of Authority (CIAA) by granting it greater autonomy, resources, and authority to investigate and prosecute corruption cases. Introducing regular audits and making accountability measures more transparent can enhance public confidence.
- **Judicial Reforms:** Ensure an independent judiciary, free from political pressure, to guarantee fair and impartial trials for individuals involved in corrupt practices.

ii. Improving Public Sector Accountability

- **Transparency Initiatives:** Enforce policies requiring public officials to disclose their assets and sources of income. Penalties for non-compliance should be introduced to ensure adherence to these regulations.
- **Whistleblower Protection:** Establish laws that safeguard whistleblowers from retaliation, encouraging the reporting of corrupt practices without fear of repercussions.

iii. Engaging Civil Society and Media

- **Public Awareness Campaigns:** Conduct nationwide campaigns to inform citizens about their rights and the negative effects of corruption on development. Empowered and informed citizens are more likely to hold public officials accountable.
- **Supporting Investigative Journalism:** Provide resources and training for journalists to pursue in-depth investigations into corruption. This will increase public scrutiny and put pressure on corrupt officials.

iv. Enhancing Public Procurement Processes

- **E-Government Solutions:** Introduce e-procurement systems to minimize human involvement in public procurement processes, thereby reducing opportunities for corruption.
- **Audit Mechanisms:** Mandate routine audits of public contracts and procurement processes, with the results made publicly available to ensure transparency.

v. Fostering Political Will and Leadership Commitment

- **Top-Level Commitment:** Political leaders should demonstrate strong commitment to fighting corruption by integrating anti-corruption strategies into national development frameworks and publicly advocating for these measures.
- **International Cooperation:** Collaborate with international organizations to develop effective anti-corruption frameworks and adopt global best practices.

vi. Monitoring and Evaluation

- Establish Baselines and Indicators: Set specific anti-corruption indicators to track progress. This could include monitoring the number of corruption cases, conducting public perception surveys, and evaluating the impact of anti-corruption initiatives.
- Regular Reporting: Require annual reports from anti-corruption bodies and ensure they are accessible to the public, maintaining transparency and awareness about the country's efforts to combat corruption.

By adopting these recommendations, Nepal can strengthen its anti-corruption infrastructure, reduce opportunities for misuse of public resources, and create a culture of accountability that fosters long-term development and trust in governance.

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Appendix

Table: Corruption Perception Index (CPI) of Nepal

country	date	CPI
Nepal	1/1/2001	36
Nepal	1/1/2002	30
Nepal	1/1/2003	32
Nepal	1/1/2004	33
Nepal	1/1/2005	35
Nepal	1/1/2006	34
Nepal	1/1/2007	27
Nepal	1/1/2008	29
Nepal	1/1/2009	27
Nepal	1/1/2010	22
Nepal	1/1/2011	22
Nepal	1/1/2012	27
Nepal	1/1/2013	31
Nepal	1/1/2014	29
Nepal	1/1/2015	27
Nepal	1/1/2016	29
Nepal	1/1/2017	31
Nepal	1/1/2018	31
Nepal	1/1/2019	34
Nepal	1/1/2020	33
Nepal	1/1/2021	33
Nepal	1/1/2022	34

(Source: World Bank Development Indicators 2022)