Exploring Crime Against Women in India: socio-economic and spatial dimensions

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ABSTRACT: Crimes against women (CAW) remain a critical social issue in India, despite legislative efforts and economic progress. This study analyzes CAW trends across Indian states from 2012 to 2022, focusing on the relationship between crime rates and socio-economic indicators such as literacy, GDP, and unemployment. By utilizing descriptive statistics, Pearson correlation analysis, and spatial mapping, the research provides empirical insights into regional disparities in gender-based violence and its association with economic and social determinants. Data from authoritative sources such as the National Crime Records Bureau (NCRB), National Commission for Women (NCW), World Bank, and the Statistical Handbook of NCW inform this analysis. The findings reveal significant correlations between unemployment and overall crime rates, indicating economic distress as a driving factor in gender-based violence. Conversely, the weak association between GDP growth and crime reduction challenges traditional assumptions that economic prosperity alone mitigates violence. The study argues that higher literacy may enhance reporting and awareness but does not necessarily reduce violence, especially in patriarchal settings. Spatial analysis highlights persistent regional disparities, with states like Assam, Odisha, and Haryana exhibiting consistently high crime rates. The results emphasize region-specific policy interventions, particularly in high-crime states such as Assam, Odisha, and Haryana, where enforcement mechanisms and survivor support require urgent strengthening. The study underscores the importance of integrating statistical correlations with sociological insights, advocating for multi-sectoral approaches to crime prevention. Future research should explore qualitative dimensions to enrich governance strategies and inform data-driven policy development aimed at safeguarding women's rights and enhancing institutional accountability.

KEYWORDS: gender-based violence, Crimes Against Women (CAW), women's safety,

socio-economic determinants, regional crime disparities

1. INTRODUCTION

Violence against women, commonly referred to as crimes against women (CAW), encompasses various forms of gender-based violence that inflict physical, sexual, or psychological harm. This includes coercion, threats, and arbitrary deprivation of liberty, regardless of whether the violence occurs in public or private settings (World Health Organization, 2021). Despite decades of global advocacy and legislative efforts to curb gender-based violence, CAW continues to escalate, affecting women across races, ethnicities, and socioeconomic statuses. The repercussions of CAW extend beyond individual suffering, impacting global healthcare systems, economic productivity, and human rights frameworks (Kusuma & Babu, 2017). Given its intersection with social, economic, and gender inequality, CAW directly impedes progress toward Sustainable Development Goals (SDGs), particularly SDG-3 (good health and well-being), SDG-5 (gender equality), SDG-8 (decent work and economic growth), and SDG-16 (peace, justice, and strong institutions) (Lolayekar et al., 2022). Addressing CAW, both globally and within national contexts such as India, is crucial to realizing gender justice and achieving the SDGs by 2030.

Theorizing crimes against women requires an understanding of structural inequality, socio-cultural conditioning, and institutional responses. Feminist criminology views gender-based violence as a manifestation of patriarchy, where violence is a tool to reinforce male dominance and control (Yodanis, 2004). As Flood and Pease (2009) emphasize, such violence is perpetuated through power hierarchies rooted in cultural norms and reinforced through everyday practices. In developing societies like India, where traditional norms co-exist with aspirations for modernity, CAW reflects both systemic failure and cultural inertia (Alkan & Tekmanlı, 2021). Košir and Lakshminarayanan (2025) and Bronstein et al. (2025) argue that literacy, predominantly female literacy, can empower women to challenge subjugation, yet empowerment alone cannot dismantle entrenched patriarchal structures. Ross (2006) and Rowlands (1995) remind us that education must be accompanied by social recognition, legal support, and autonomy to effect meaningful change. Furthermore, developmental theorists like Kabeer (1999) emphasize agency and choice as key dimensions of empowerment. These frameworks collectively position literacy and agency not merely as statistical indicators but as political tools for transformation in contexts marked by persistent violence and inequality.

India, despite notable strides in economic growth, educational expansion, and female workforce participation, continues to witness alarming rates of CAW. According to the World Health Organization (2021), one in every three women globally experiences physical, emotional, or sexual violence at least once in her lifetime. The United Nations

Office on Drugs and Crime (UNODC) reports that approximately 89,000 women and girls were intentionally killed worldwide in 2022 (United Nations Office on Drugs and Crime, 2023). India has implemented numerous preventive and legislative measures to safeguard women, including the Criminal Law (Amendment) Act (2018), the Legal Services Authorities (LSA) Act, the establishment of the National Commission for Women (NCW), and initiatives such as Mission Shakti and Sakhi-One Stop Centres (Ministry of Home Affairs, 2019). However, despite these interventions, India recorded a 15.3% surge in crimes against women in 2021 compared to 2020 and a further 4% rise in 2022 (NCRB, 2023). The National Family Health Survey (2019–21) found that domestic violence prevalence stands at 29.3% in India (National Family Health Survey, 2021), indicating deep-rooted systemic issues that require targeted interventions.

Research suggests that CAW in India stems from a range of socio-cultural and economic factors. Patriarchal norms, entrenched gender inequality, poverty, alcohol and substance abuse, and inadequate legal frameworks contribute to the persistence of violence against women (Lolayekar et al., 2022; Kumar Kuncharam, 2020; Maity & Roy, 2021; Gogoi, 2022; Koenig et al., 2006). The paradox between India's rapid economic advancement and its escalating gender violence highlights the inadequacy of economic development alone in addressing CAW (Dwivedi et al., 2023; International Institute for Population Sciences, 2021). Sexual, physical, and emotional violence not only violates women's fundamental rights but also hinders their ability to participate in education, employment, and societal decision-making (Yadav, 2023). The impact of CAW is pervasive, affecting healthcare systems, childcare services, and economic productivity, further reinforcing barriers to gender equality (Košir& Lakshminarayanan, 2025).

The Sustainable Development Goals (SDGs) seek to empower women and eradicate gender-based violence, with SDG 5.2 specifically aiming to "eliminate all forms of violence against women and girls in the public and private spheres, including trafficking, sexual abuse, and other types of exploitation" (World Health Organization, 2023). However, CAW remains a significant obstacle to achieving gender equity, as women continue to face systemic discrimination and violence that limit their autonomy and well-being (Košir & Lakshminarayanan, 2025). Theories of women's empowerment, such as those articulated by Kabeer (1999, 2019), emphasize the need for women to transcend restrictive social norms and exercise independent agency. Yet, CAW remains a significant hindrance to empowerment efforts (Priya et al., 2021). Studies further establish that violence against women not only affects individuals but also impedes broader societal development (Gill & Mason-Bish, 2013; Himabindu et al., 2014; Htun & Jensenius, 2020; Vicente et al., 2020).

CAW in India manifests in various forms, including domestic violence, marital rape, dowry-related harassment, honor killings, human trafficking, acid attacks, cybercrimes, female foeticide, and stalking (Košir & Lakshminarayanan, 2025). Many of these crimes are deeply entrenched in socio-cultural traditions that perpetuate gender-based discrim-

ination. For instance, honor killings—predominantly observed in India—occur when families retaliate against women who challenge societal norms related to caste and marriage (Košir & Lakshminarayanan, 2025). Sexual violence in its broader scope includes rape, harassment, and gender-based violence, presenting significant threats to women's autonomy (Graaf, 2021; Lewis et al., 2021). Empirical evidence suggests that women are far more likely to be victimized by an acquaintance than a stranger, reinforcing concerns about violence within domestic and social spaces (Persson & Dhingra, 2020; Wood & Fabian, 2024). The pervasive fear of victimization contributes to heightened anxiety and restricted mobility among women, reinforcing socio-economic disparities (Crosby et al., 2022; Mellgren & Ivert, 2018; Das et al., 2024; Farkas et al., 2025). Research further indicates that women experience higher levels of fear of crime compared to men, a phenomenon termed "female fear" (Gordon & Riger, 1989; Silva & Wright, 2014).

While gender-based violence affects individuals across all gender identities, it disproportionately impacts women due to patriarchal systems that suppress their economic and social autonomy (Bellizzi & Molek, 2021). Studies have demonstrated that violence against women occurs globally, affecting populations regardless of geography, education, or income levels (Ajygin, 2010; UNHCR, 2022; Walker, 1999). Approximately 30% of women worldwide experience physical and/or sexual violence at some point in their lives (World Health Organization, 2021). Although CAW is more prevalent in developing regions such as sub-Saharan Africa and among refugee and asylum-seeking populations, it remains a widespread issue across all socio-economic groups (Bellizzi & Molek, 2021; Tsegay, 2022; Tsegay & Tecleberhan, 2024).

This study systematically analyzes CAW trends in India, investigating the association between crime rates and key socio-economic indicators, including literacy, GDP, and unemployment over ten years. By employing descriptive statistics, Pearson correlation analysis, and spatial mapping techniques, this research provides insights into crime patterns, regional disparities, and socio-economic determinants of violence against women. The study is conducted using data from authoritative sources, including the National Crime Records Bureau (NCRB), National Commission for Women (NCW), World Bank, and Statistical Handbook of the NCW.

The objective of this study is to contribute empirical evidence to the ongoing discourse on gender-based violence in India, highlighting structural determinants that influence CAW prevalence. By correlating socio-economic variables with crime data, the study aims to provide policy-relevant insights that can guide interventions aimed at reducing gender-based violence. The urgency of addressing crimes against women in India necessitates evidence-based approaches that go beyond anecdotal observations and fragmented policy efforts. While legislative frameworks and government initiatives have sought to curb gender-based violence, the persistent rise in CAW highlights systemic gaps in enforcement, socio-economic support, and legal accessibility. This study bridges a critical gap by employing quantitative analysis to examine the interconnections between

crime rates and key socio-economic determinants, providing empirical evidence that can shape policy responses. By analyzing crime trends over ten years across Indian states, the research systematically evaluates how factors such as education, economic status, and employment influence gender-based violence, contributing to a more holistic understanding of CAW dynamics.

The justification for this study stems from the multifaceted nature of gender violence, which is not merely a social or legal issue but an economic and structural challenge affecting governance, human rights, and national development. Existing crime data often focuses on isolated statistics without exploring the underlying socio-economic correlations that perpetuate violence against women. Through the use of descriptive statistics, Pearson correlation analysis, and spatial mapping techniques, this study offers data-driven insights that can inform targeted interventions, addressing not only the prevalence of CAW but also its root causes.

Furthermore, as India strives to meet the Sustainable Development Goals (SDGs) by 2030, gender equality remains a foundational objective that influences multiple development parameters. Crimes against women directly obstruct the realization of SDG-5 on gender equality, alongside other critical goals such as economic growth, institutional justice, and societal well-being. This study's findings offer policy-relevant recommendations by correlating CAW with socio-economic variables, helping policymakers and stakeholders develop more effective prevention strategies. By integrating empirical evidence with criminological frameworks, this research contributes to the existing academic discourse on gender-based violence while reinforcing the need for structural reforms and enhanced institutional accountability in India's approach to addressing CAW.

The structure of this paper follows a logical sequence that facilitates a comprehensive analysis of crimes against women (CAW) in India through both empirical and theoretical lenses. The paper opens with an Introduction that outlines the scope, significance, and policy context of CAW, followed by theoretical perceptions within feminist and socio-economic paradigms. The Methodology section details the data sources, variables, and statistical techniques employed, including correlation analysis and spatial mapping. This is followed by the Results and Discussion, divided into thematic subsections that examine regional crime patterns, temporal trends, and the relationship between socio-economic indicators and crime categories. The paper concludes with a Conclusion that synthesizes significant findings, discusses policy implications, outlines study limitations, and offers reflections and directions for future research.

2. METHODOLOGY
2.1 DATA SOURCES

This study utilizes a combination of authoritative and publicly available datasets to analyze crimes against women across Indian states. The primary sources include the Na-

tional Commission for Women (NCW), World Bank, National Crime Records Bureau (NCRB), and the Statistical Handbook of the National Commission for Women (National Commission for Women, 2023). These datasets provide comprehensive information on reported crimes, socio-economic indicators, and policy responses across different periods.

The NCRB database serves as the primary source for crime statistics, covering incidents such as domestic violence, kidnapping, sexual assault, and harassment. The World Bank dataset contributes essential macroeconomic indicators such as Gross Domestic Product (GDP) growth rates, literacy levels, and unemployment rates, which help identify socio-economic drivers of crime trends. Additionally, reports from the National Commission for Women supplement crime statistics by offering insights into legal interventions, law enforcement efficiency, and socio-cultural factors influencing crime reporting.

2.2 ANALYTICAL FRAMEWORK

This study adopts a quantitative approach, integrating descriptive statistical methods and correlation analysis to explore crime trends and socio-economic influences. The first stage of the analysis employs descriptive statistical techniques to examine crime distribution and trends across different states and periods. Crime rates, absolute case numbers, and comparative trends are visualized using graphs and bar charts, enabling a clear representation of spatial and temporal variations in gender-based violence.

The study examines the intricate relationship between crime rates and key socio-economic indicators, including literacy levels, economic growth, and unemployment rates. While education has traditionally been associated with lower crime prevalence, emerging research suggests that literacy can interact with crime trends in complex ways, influencing both awareness and reporting patterns (Sabri et al., 2022; Košir & Lakshminarayanan, 2025). Literacy, particularly female literacy, may reduce certain types of violence while simultaneously increasing reporting rates due to enhanced legal awareness and self-advocacy (Deyessa et al., 2010). At the same time, education without corresponding shifts in patriarchal attitudes can provoke resistance, leading to backlash and elevated risks of domestic violence (Erten & Keskin, 2018). Economic prosperity is often presumed to contribute to crime reduction, yet disparities in wealth distribution and regional economic inequalities may lead to contrasting effects across states (Anser et al., 2020; Hazra, 2020). GDP growth alone does not ensure equitable access to resources or protective institutional frameworks. Similarly, unemployment has long been recognized as a significant driver of crime, as economic distress exacerbates social instability and heightens vulnerabilities, particularly in cases of gender-based violence (Okafor & Ede, 2023; Alkan & Tekmanlı, 2021). High unemployment often correlates with psychological stress, strained household dynamics, and weakened social control mechanisms (Das & Basu Roy, 2020). By systematically analyzing these socio-economic variables alongside

crime trends, this study aims to provide a comprehensive assessment of how structural conditions shape both the prevalence and nature of crimes against women across India.

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To quantify the statistical relationship between crimes against women and socio-economic factors, the study employs Pearson correlation analysis. This widely used statistical tool assesses the strength and direction of associations between two variables. The Pearson correlation coefficient ((r)) ranges from -1 (strong negative correlation) to +1 (strong positive correlation), with values close to zero indicating weak or no correlation. Statistical analysis is conducted using Stata 17, a robust econometric software that facilitates precise computation of correlation coefficients and supports further statistical modeling. The correlation findings provide insights into whether higher literacy rates contribute to lower crime rates, whether GDP influences gender-based violence, and whether unemployment exacerbates the prevalence of crime against women.

3. RESULTS AND DISCUSSIONS
3.1 CRIME AGAINST WOMEN IN INDIA ACROSS DIFFERENT STATES

The latest National Crime Records Bureau (NCRB) report (2022) documents a total of 445,256 registered cases of crimes against women, marking a 4% increase from the previous year. This rise translates to an alarming 51 FIRs filed every hour, reflecting the persistent risk of gender-based violence in India. The crime rate per 100,000 women's population stands at 66.4, illustrating the magnitude of the issue on a national scale.

The visual representation of crime against women in India, as shown in the maps sourced from the National Crime Records Bureau (NCRB), provides a crucial comparative analysis of crime trends across states over two distinct periods: 2012–2016 (Figure 1a) and 2017–2021 (Figure 1b). The maps employ a color-coded gradient to indicate crime intensity, where darker shades signify higher rates of crimes against women, offering a spatial perspective on gender-based violence trends across Indian states.

A comparative assessment of both maps reveals that certain states have consistently re-mained in the highest crime rate category. In contrast, others have seen significant shifts, either increasing or decreasing, in crime prevalence. Assam and Tripura were the most affected states in 2012–2016, with their crime rate exceeding 64 per 100,000 women. However, in the later period (2017–2021), Assam remains in the highest category, and Arunachal Pradesh emerges as another high-crime region, indicating worsening condi-tions for women's safety in certain northeastern states. Assam shows a considerable in-crease, with crime intensity rising from 59.72 per 100,000 women in 2012–2014 to 100.5 in 2017. This suggests a growing vulnerability in the state, possibly influenced by so-cio-economic instability, law enforcement limitations, and migration-induced stressors. The rise in reported crimes may also be attributed to improved reporting mechanisms rather than an actual surge in offenses (Sabri et al., 2022).
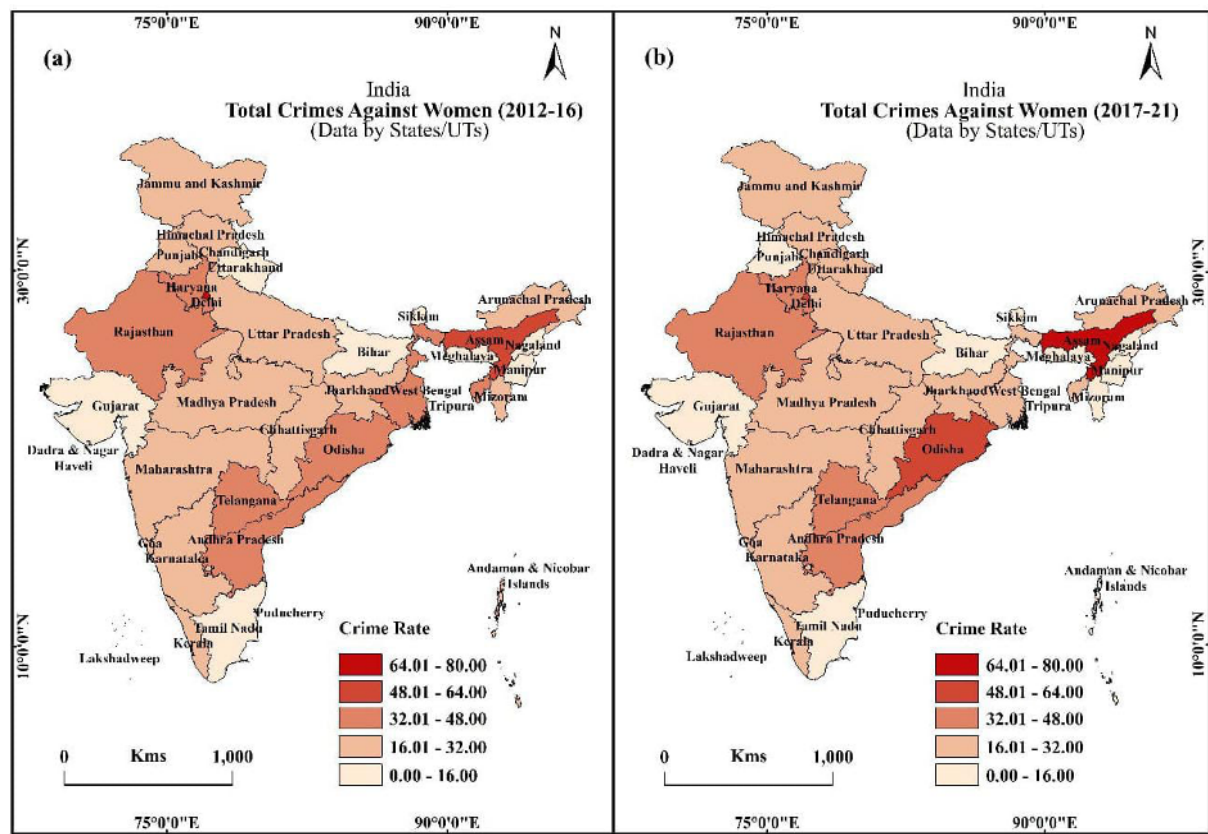

Figure 1. Total crime against women rate state-wise in the years 2012-16 (a) and 2017-21 (b)

Source: Authors' creation using NCRB data

States such as Odisha, Rajasthan, and Haryana, which previously exhibited moder-ate-to-high crime rates in the earlier period, remain within similar categories, reflect-ing persistent challenges in curbing gender-based violence in these regions. Meanwhile, West Bengal and Madhya Pradesh, categorized as moderate-risk states in the 2012–2016 period, continue to show similar patterns in 2017–2021, pointing to limited progress in crime reduction efforts despite various legal frameworks aimed at protecting women.

On the other hand, states such as Gujarat, Maharashtra, and Tamil Nadu consistently fall within the lower crime rate category across both periods. The factors contributing to lower reported crime rates could include better urban safety measures, effective policing, and greater public awareness of gender-based violence (Sabri et al., 2022). However, lower reporting does not necessarily indicate fewer incidents, as underreporting of gender-based violence remains a documented issue in many parts of India (Walker et al., 2021).

Examining shifts in crime intensity between the two periods indicates emerging trends in gender-based violence. Notably, northeastern states such as Arunachal Pradesh and Assam continue to report high crime rates against women, suggesting the persistence of structural issues such as weak law enforcement, socio-economic vulnerabilities, and cultural norms that may enable gender-based violence. Additionally, studies indicate that the geographic isolation of specific areas within northeastern states contributes to limited legal intervention, making women in these regions more vulnerable to crimes such as trafficking and domestic abuse (Okafor & Ede, 2023). The worsening situation in Haryana, Odisha, and Rajasthan, as highlighted in both maps, underscores the urgency of addressing systemic gender violence in these states. Odisha, for instance, has seen a significant surge in cases of assault against women, with an increasing rate of kidnappings and domestic violence in urban and semi-urban pockets. Similar trends are observed in Haryana, where crime rates have risen sharply in the last decade, particularly cases of dowry-related deaths and intimate partner violence (Anser et al., 2020).

Conversely, Delhi, which has historically been among the states with high crimes against women, has witnessed a relative decline in crime rates between the two periods. Figure 1b indicates that the capital city moved from the highest category in 2012–2016 to a comparatively lower category in 2017–2021. This decline may be attributed to improved policing strategies, increased public surveillance, and the implementation of women's safety initiatives such as the installation of CCTV cameras and stricter enforcement of harassment laws (Sabri et al., 2022).

3.2 VIOLENCE AGAINST WOMEN: INCREASING RATE IN INDIA (2012–2022)

The National Crime Records Bureau (NCRB) statistics indicate that the rate of crimes against women in India has increased by 12.9% between 2018 and 2022, with the reported crime rate per 100,000 women rising from 58.8 in 2018 to 66.4 in 2022. This trend highlights ongoing challenges in addressing gender-based violence despite legislative efforts and policy interventions.
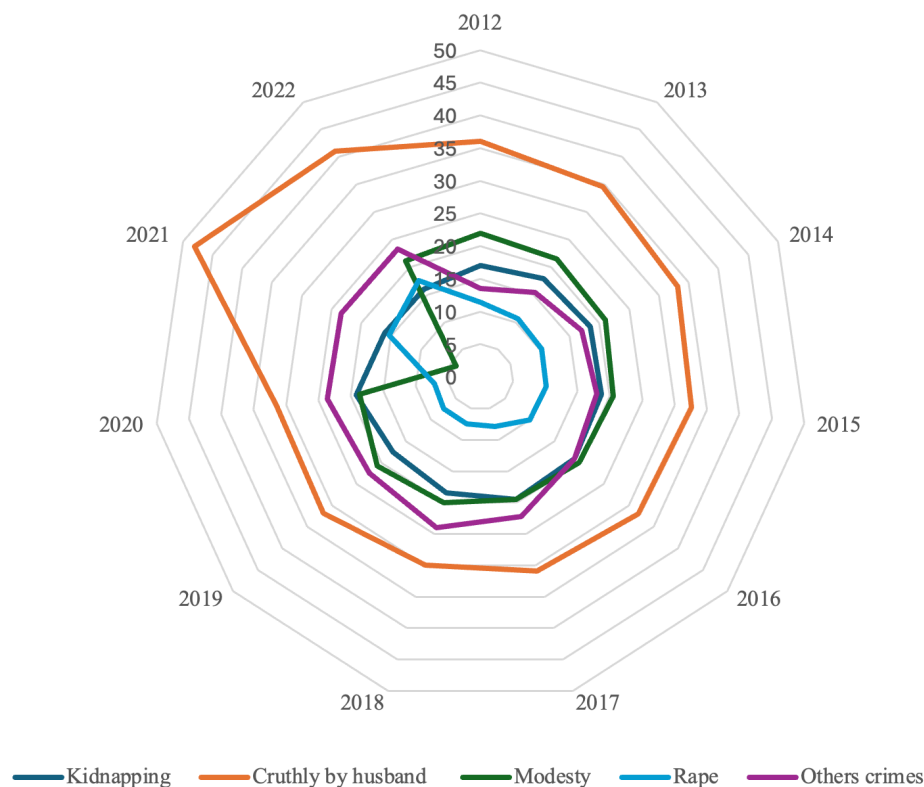
Figure 2. Year-wise distribution of different types of crime from 2012 to 2022
Source: National Commission for Women

Figure 2 categorizes crimes against women based on their nature and prevalence, revealing distinct patterns that have persisted over time. Domestic cruelty remains the most dominant category, accounting for 31.4% of total reported crimes against women. This form of violence, which includes spousal abuse and dowry-related harassment, continues to be deeply entrenched in patriarchal systems, making it difficult for victims to seek justice due to social stigma and economic dependency (Anser et al., 2020). Figure 2.2 further reveals that cases of domestic cruelty have shown a consistent rise from 2012 to 2022, reinforcing concerns about gaps in legal protections and survivor assistance mechanisms. Although legal provisions such as the Protection of Women from Domestic Violence Act (2005) exist, enforcement mechanisms remain inconsistent, often failing to provide timely interventions and adequate support for survivors.

Kidnapping and abduction constitute 19.2% of recorded crimes, highlighting persistent issues related to forced marriages and trafficking. Figure 2.2 illustrates notable fluctuations in kidnapping cases, with peaks observed in specific years, suggesting periodic intensifications in abduction activities. This trend correlates with socio-economic instability, migration patterns, and vulnerabilities faced by women, particularly in Bihar, Jharkhand, and Odisha, where trafficking networks are prevalent. The findingdata from Figure 2.2 underscores the need for stronger law enforcement interventions to dismantle organized crime networks involved in forced marriages and sex trafficking (Okafor &

Ede, 2023). The persistence of high kidnapping rates across multiple years indicates that existing legal frameworks remain inadequate in deterring such offenses, necessitating cross-border cooperation and intelligence-sharing mechanisms.

Sexual violence, including assault and rape, remains a critical issue, as reflected in both Figure 2.1 and Figure 2.2, along with NCRB data spanning 2012–2022. Figure 2.2 shows clear fluctuations in rape cases over time, suggesting that factors such as awareness campaigns, changing enforcement measures, and socio-political conditions may influence reporting trends. The state-wise distribution in Figure 3 further confirms Delhi's continued prominence as the leading region for crimes against women, with an alarming rate of 144.4 per 100,000 women. Other states with persistently high crime rates across multiple years include Haryana (118.7%), Rajasthan (115.1%), and Odisha (103.3%). The continued prevalence of sexual violence, despite legislative amendments aimed at strengthening sentencing provisions, underscores systemic gaps in judicial efficacy and survivor support systems (Sabri et al., 2022).

Assault with intent to outrage modesty represents 18.7% of reported incidents, reflecting broader concerns related to sexual harassment, public molestation, and unsafe environments for women in both urban and rural contexts. The trend analysis in Figure 2.2 suggests that harassment-related crimes have varied over time, reinforcing the need for continuous public awareness and legal scrutiny. Despite increased awareness and legal reforms, such crimes remain highly prevalent, necessitating a multi-sectoral approach that includes legal enforcement, community education, and workplace safety measures to prevent harassment and create safer spaces for women (Sabri et al., 2022).

Rape accounts for 7.1% of total crimes against women, with NCRB data indicating that, on average, one woman was raped every 15 minutes in India in 2022. The trends in Figure 2.2 highlight periodic increases in reported rape cases, reflecting either heightened victim reporting or deepening issues related to legal enforcement failures. The low conviction rate in rape cases reinforces concerns about judicial inefficiencies, survivor stigmatization, and the challenges of obtaining justice. As highlighted in legal analysis (Walker et al., 2021), the effectiveness of fast-track courts remains inconsistent, with delays in case resolution contributing to prolonged victim distress and inadequate legal redress. The trend variations in Figure 2.2 suggest that while enforcement reforms may have led to improved reporting in certain years, judicial delays and underreporting continue to obstruct survivor justice.

3.3 REPORTED CRIME RATES IN 2022

The „Crime in India 2022" report provides a comprehensive view of state-wise crime rates against women. Figure 3 visually represents the percentage of reported crime rates across different states, identifying regions with incidents surpassing the national average. The data show that 13 states and union territories recorded crime rates higher than the

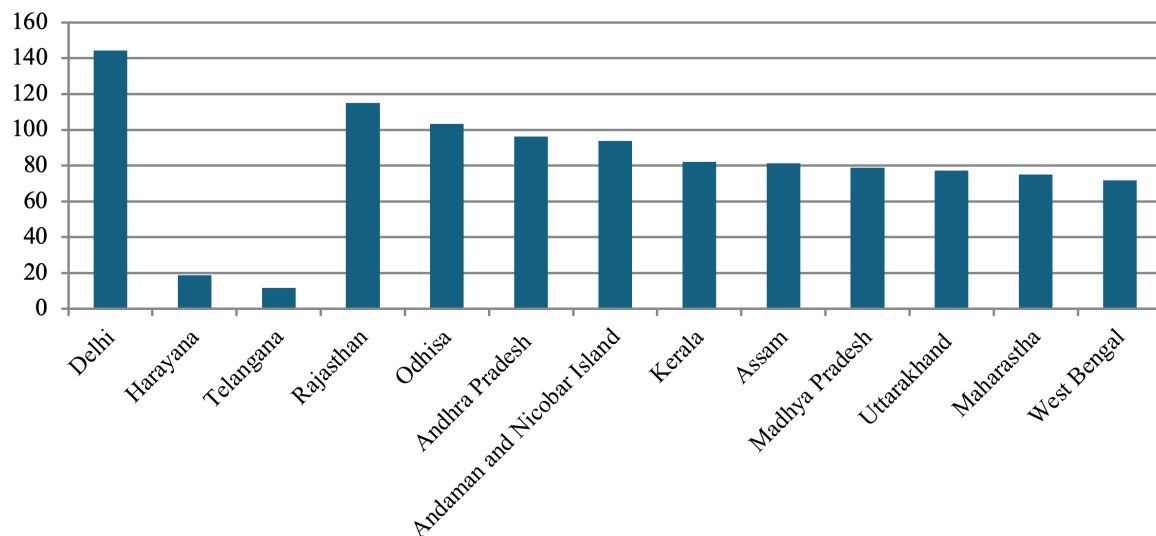national benchmark of 66.4 per 100,000 women.

Figure 3. The percentage of reported crime rates across different states surpasses the national average
Source: NCRB

Delhi, with a crime rate of 144.4 per 100,000 women, remains the most affected state, followed by Haryana (118.7%), Telangana (117%), Rajasthan (115.1%), Odisha (103.3%), and Andhra Pradesh (96.2%). The disproportionately high crime rates in these states indicate persistent structural challenges, including inadequate policing, weak judicial responses, and socio-cultural attitudes that hinder women's safety. The trend observed in Figure 3 aligns with broader empirical findings, reinforcing concerns about law enforcement efficiency and systemic barriers to justice (Sabri et al., 2022). The state-wise breakdown in Figure 3 also highlights Uttar Pradesh, which contributed nearly 15% of total reported cases despite having a lower per capita crime rate. This discrepancy may be attributed to high population density, which influences absolute crime numbers while masking variations in crime intensity. Assam also remains a high-risk state, with a reported crime rate of 81.2 per 100,000 women, reflecting the growing vulnerabilities faced by women in the northeastern regions. The trends depicted in Figure 3 further align with regional disparities observed in earlier figures. States with urbanized populations, such as Delhi and Haryana, report high crime rates due to increased exposure to unsafe environments and public harassment. In contrast, less urbanized states exhibit lower per capita crime rates, reinforcing the argument that crime dynamics vary significantly based on socio-economic conditions.

The persistent challenges highlighted in Figures 2 and 3 underscore the need for targeted policy interventions to enhance legal protections, improve law enforcement efficiency, and expand survivor support programs. While increased awareness and legislative measures have contributed to higher reporting rates, deeper structural reforms are necessary to address systemic gender-based violence and ensure justice accessibility.

3.4 ASSOCIATION BETWEEN CRIME AND SOCIO-ECONOMIC INDICATORS

Understanding the underlying factors that drive crime requires an analytical approach that goes beyond absolute case numbers. By examining correlations between different types of crimes against women and key socio-economic indicators such as literacy rates, GDP, and unemployment, this study provides deeper insights into the structural determinants of gender-based violence in India. The statistical analysis, conducted over a decade across states, helps identify patterns that reveal how economic conditions and educational access intersect with crime trends. The correlation matrix in Table 1 presents compelling relationships—some expected, others counterintuitive. This section interprets these correlations, weaving statistical findings with socio-economic realities to build a more nuanced understanding of crime against women in India. By integrating empirical evidence with theoretical perspectives, the analysis aims to contribute to a more informed approach to crime prevention and policy-making.

The strong positive correlation between literacy rate and overall crime rate challenges conventional wisdom that higher literacy should reduce crime incidence. While literacy is typically linked to economic opportunities and social mobility, data suggest that certain types of crime, particularly white-collar crimes and cyber-related offenses, are more prevalent in literate populations. This aligns with existing literature, which argues that increased literacy may facilitate more sophisticated criminal activities, such as financial fraud, while also leading to higher reporting rates (Hazra & Cui, 2018). Additionally, the economic disparities within highly literate states, such as Kerala and West Bengal, reflect how education alone does not eliminate crime but requires complementary policy measures addressing employment and inequality.

The correlation between GDP and crime rates is relatively weak, indicating that economic growth alone is not a sufficient predictor of criminal activity. The assumption that higher GDP reduces crime through improved living conditions and employment opportunities does not necessarily hold, as more profound socio-political inequalities often influence crime trends. Empirical research suggests that economic expansion does not automatically translate to equitable resource distribution, leaving marginalized groups vulnerable to social instability and criminal behavior (Anser et al., 2020). This phenomenon is particularly evident in industrialized states such as Maharashtra and Gujarat, where economic prosperity coexists with high crime rates, underscoring the need for targeted social policies alongside economic development strategies.

	Crime rate	Literacy rate	GDP	Kidnapping	Curtly by husband	Modesty	Rape	Other crime	Unemployment
Crime rate	1								
Literacy rate	0.7756	1							
GDP	0.036	-0.0305	1						
Kidnapping	0.0363	-0.3472	-0.3324	1					
Curtly by husband	-0.0739	0.4269	0.4028	-0.8558	1				
Modesty	-0.0314	-0.5034	-0.0992	0.4054	-0.7428	1			
Rape	-0.1062	0.3374	0.4002	-0.8328	0.8757	-0.3885	1		
Other crimes	0.7797	0.9109	-0.3523	-0.0428	0.116	-0.4067	-0.019	1	
Unemployment	0.4267	0.7933	-0.3412	-0.4736	0.4745	-0.5107	0.3498	0.7425	1

Table 1. Correlation matrix of crime and socio-economic indicators in India
Source: World Bank, Statistical handbook—National Commission for Women

A robust correlation exists between unemployment and crime rates, reinforcing the well-established relationship between economic hardship and criminal behavior. States with higher unemployment, such as Bihar and Odisha, report increased crime rates, reflecting how joblessness exacerbates socio-economic stressors that drive criminal activity. Research supports this linkage, demonstrating that unemployment heightens economic desperation, leading to both violent and non-violent crimes (Van Dijk et al., 2021). This highlights the necessity of employment-generation policies, vocational training programs, and social safety nets to mitigate crime induced by economic instability.

A noteworthy correlation exists between domestic violence (cruelty by husband) and sexual violence (rape cases), indicating that intimate partner violence often escalates into more severe forms of abuse. This trend aligns with broader literature on gender-based violence, which argues that patriarchal norms and systemic legal barriers contribute to the perpetuation of violence against women (Walker et al., 2021). Despite legal frameworks such as the Protection of Women from Domestic Violence Act (2005), enforcement gaps and social stigma hinder reporting and intervention, particularly in conservative regions such as Uttar Pradesh and Rajasthan. The data suggest that effective crime prevention strategies must integrate gender-sensitive policies, strengthening legal protections and support systems for survivors.

The strong negative correlation between kidnapping and domestic violence suggests distinct crime dynamics across different regions. In states with high kidnapping cases, such as Jharkhand and Assam, domestic violence reporting rates appear lower. This may be attributed to differences in law enforcement priorities, where cases of abduction and trafficking command greater attention, potentially overshadowing domestic violence concerns (Okafor & Ede, 2023). Additionally, cultural factors may influence crime reporting, with domestic violence often being underreported due to social stigma, while kidnapping cases draw immediate public and legal intervention.

Modesty-related crimes, which include harassment and public assault, exhibit a negative correlation with domestic violence, indicating differing manifestations of gender-based crimes across regions. In urbanized states such as Delhi and Maharashtra, public harassment cases are high, whereas in rural states, domestic violence remains more prevalent. This dichotomy reflects broader discussions on how urbanization shifts crime visibility and reporting dynamics (Sabri et al., 2022). Addressing these issues requires a multifaceted approach, combining urban policing reforms with rural community sensitization programs.

3.5 LINKING THE FINDINGS WITH THEORETICAL BASES OF CRIME AGAINST WOMEN

The empirical findings of this study closely align with and extend existing theoretical perspectives on gendered violence. Flood and Pease (2009) argue that violence against

women is embedded in social structures that legitimize male authority, a point supported by the dominance of domestic cruelty in Figure 2 and its consistent growth. This is reaffirmed by the positive correlation between cruelty by husbands and literacy, reflecting the complex backlash that emerges when women begin to assert autonomy in traditionally patriarchal households (Yodanis, 2004; Erten & Keskin, 2018).

Košir and Lakshminarayanan (2025) highlight that literacy, though crucial, does not uniformly deter CAW. Our correlation matrix underscores this: while literacy correlates strongly with overall crime and other crimes, it negatively correlates with modesty-related crimes and kidnapping. These patterns indicate that as awareness increases, certain crimes may be reduced through prevention or deterrence, while others become more visible due to improved reporting (Deyessa et al., 2010).

Additionally, the positive correlation between unemployment and crime rate supports socio-economic vulnerability models (Alkan & Tekmanlı, 2021), which argue that economic distress exacerbates both perpetration and victimization risks. That GDP shows a weak or negative correlation with CAW components reinforces that macroeconomic growth alone does not safeguard women in the absence of inclusive and distributive justice (Hazra, 2020). Together, these findings reaffirm that addressing CAW in India requires a multifaceted approach, where legal reform, social transformation, and economic empowerment converge to challenge the structural roots of gendered violence.

4. CONCLUSION

The findings presented in this study underscore the urgent need for targeted interventions to address gender-based violence in India.Crimes against women (CAW) in India remain a pressing concern, despite decades of legislative and policy efforts. This study was motivated by a critical need to understand how structural socio-economic variables, such as literacy, GDP, and unemployment, influence the spatial and temporal patterns of gender-based violence across Indian states. By bridging statistical evidence and socio-cultural insights, the research aims to inform more effective governance responses to CAW.

 The data presented in Figures 1, 2, and 3 reveal substantial regional disparities in crimes against women, reinforcing the necessity of region-specific measures tailored to the socio-cultural dynamics of each state. While states such as Delhi have shown a decline in crime rates, regions including Assam, Odisha, and Haryana continue to exhibit high incidences. These necessitate state-level policy adaptations to strengthen law enforcement and improve survivor support systems. Addressing domestic cruelty, which remains one of the most prevalent forms of gender-based violence, requires robust legal enforcement, economic empowerment programs, and accessible victim support services. Additionally, concerted efforts to prevent kidnapping and trafficking must focus on stricter law enforcement, cross-border cooperation, and enhanced monitoring mechanisms to track

offenders and dismantle organized crime networks involved in human trafficking.

The comparative analysis of crime trends in Figures 1–3 highlights the critical role of evidence-based interventions in reducing gender-based violence. The data indicate that economic distress, education levels, and employment accessibility significantly influence crime prevalence, suggesting that economic interventions—such as job creation programs for women—can play a vital role in mitigating vulnerabilities associated with domestic abuse and human trafficking (Anser et al., 2020). Furthermore, the decline in crime rates observed in Delhi signals the potential effectiveness of urban safety measures, including improved policing, stricter public surveillance, and awareness campaigns. Replicating these successful interventions in high-risk states may contribute to more consistent reductions in gender-based crime nationwide. Strengthening judicial mechanisms to ensure faster convictions, alongside comprehensive survivor rehabilitation programs, can enhance access to justice and improve legal accountability (Walker et al., 2021).

While lower crime rates in states such as Maharashtra and Tamil Nadu may suggest better enforcement and public safety conditions, the possibility of underreporting must be critically examined through qualitative studies. The disparity between reported cases and actual crime prevalence underscores the importance of mixed-method analyses, integrating statistical correlations with sociological insights to understand the dynamics of crimes against women comprehensively. The correlation analysis conducted in this study reveals several policy implications that must be considered in future legislative efforts. Firstly, economic reforms must prioritize employment accessibility alongside literacy initiatives, ensuring that women have financial independence and access to education, which can mitigate risks associated with domestic violence and exploitation. Secondly, gender-sensitive legal frameworks must be reinforced with stronger enforcement mechanisms, addressing both intimate partner violence and broader public safety concerns. Lastly, state-specific crime prevention strategies should be developed, accounting for regional disparities in crime trends and ensuring context-appropriate policy interventions.

5. LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

Despite offering valuable insights, this study has certain limitations. The use of secondary data, particularly from official crime statistics, may underrepresent true crime prevalence due to underreporting, stigma, and uneven institutional access. The reliance on Pearson correlation restricts causal interpretation and does not account for confounding variables that may influence results. Furthermore, state-level data may conceal district-level or intra-state disparities, limiting the granularity of policy application. The exclusion of factors such as caste, religion, digital infrastructure, and legal awareness, due to data constraints, narrows the socio-cultural breadth of the analysis. Finally, the absence of qualitative insights, including survivor experiences or community narratives,

limits the depth of interpretation. Future studies should adopt mixed-method frameworks to capture both measurable trends and grounded realities.

Future research should explore the qualitative dimensions of these correlations, examining sociocultural drivers that underpin statistical relationships and informing policy interventions through field-based observations and criminological theories. A mixed-method approach incorporating policy evaluations and empirical research will be instrumental in developing data-driven governance strategies that foster effective crime prevention and legal accountability. By integrating insights from macro-level crime trends and localized socio-economic realities, this study contributes to ongoing discourse on gender-based violence. It provides a foundation for evidence-based policy-making aimed at ensuring greater protection and justice for women across India.

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