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Legal Reforms for Addressing Prison Overcrowding

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Abstract — Prison overcrowding remains a persistent challenge for criminal justice systems, particularly where prolonged undertrial detention, restrictive bail practices, procedural delay, economic disadvantage, and limited use of non-custodial sanctions interact.

This study examines prison overcrowding through a legal-reform framework augmented by data-driven analytical methods capable of identifying structural drivers of excessive incarceration.

The research addresses a gap in existing scholarship by moving beyond isolated evaluation of bail or sentencing provisions and conceptualising decongestion as the combined outcome of multiple legal and institutional interventions.

Particular attention is given to India's recent criminal-procedure reforms, including Section 479 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), undertrial review mechanisms, legal-aid interventions, and financial assistance for prisoners unable to secure release because of poverty.

A Legal Decongestion Intelligence Framework (LDIF) is proposed to integrate prison occupancy, undertrial duration, case characteristics, bail eligibility, legal-aid access, and institutional capacity indicators for reform assessment.

Fig. 1: Crisis Behind Bars

Source:https://www.dhyeyaias.com/current-affairs/daily-prepare/view/prison-reforms-india-overcrowding-supreme-court

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The framework is designed to use interpretable machine-learning techniques to estimate overcrowding risk and simulate the likely aggregate effects of alternative reform scenarios without automating judicial decisions.

Keywords — Prison Overcrowding, Undertrial Detention, Bail Reform, Bharatiya Nagarik Suraksha Sanhita, Legal Decongestion, Explainable Artificial Intelligence

Introduction

Prison overcrowding is often described as an infrastructure problem, but its origins are substantially legal and institutional. A prison becomes overcrowded when the number of people entering custody, together with the duration of their detention, consistently exceeds the number leaving custody and the accommodation available. Building additional prisons can temporarily increase capacity, but it does not necessarily change the legal processes generating excessive detention. Sustainable reform therefore requires examination of the decisions that determine who enters prison, why an individual remains there, how quickly a case progresses, and whether legally appropriate alternatives to incarceration are being used.

Fig. 2: Indian Judicial System: Undertrial Prisoners Crisis

Source: https://www.iasgyan.in/daily-editorials/indian-judicial-system-undertrial-prisoners-crisis

he problem becomes particularly significant in systems where a large proportion of prisoners have not been finally convicted. Pretrial or undertrial detention occupies a difficult position within criminal justice. Detention may sometimes be necessary to prevent absconding, interference with evidence, intimidation of witnesses, or serious risks to public safety. At the same time, unnecessary or excessively prolonged detention can conflict with the presumption of innocence and the constitutional protection of personal liberty. When such detention occurs at scale, individual procedural decisions collectively become a major determinant of prison occupancy.

Recent Indian reforms demonstrate growing institutional recognition of this relationship. The Ministry of Home Affairs circulated the Model Prisons and Correctional Services Act, 2023 to States and Union Territories and has subsequently issued several prison-reform advisories. Importantly, an April 2025 advisory specifically addressed implementation of Section 479 of the Bharatiya Nagarik Suraksha Sanhita, 2023 by prison authorities for providing relief to eligible undertrial prisoners.

Section 479 is especially relevant to overcrowding because it establishes detention-duration thresholds connected to the maximum imprisonment prescribed for an alleged offence. It also provides a more favourable threshold for qualifying first-time offenders. Its significance extends beyond individual bail cases: systematic identification of eligible prisoners can potentially transform prison administration from a passive custodial model into one in which excessive detention is

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periodically detected and brought to the attention of competent legal authorities.

Economic inequality creates another pathway into unnecessary incarceration. A person may become legally eligible for release but remain incarcerated because financial conditions attached to bail cannot be satisfied. Similarly, a convicted prisoner may remain in custody because of inability to pay an imposed fine. Such circumstances create what may be described as **poverty-mediated detention**, where the continuation of incarceration is influenced not simply by offence seriousness or public-safety considerations but by financial capacity.

The Government of India's Support to Poor Prisoners Scheme, introduced in 2023, directly addresses this issue. According to the Ministry of Home Affairs, the scheme is intended to assist poor prisoners who cannot secure release because they cannot furnish the required bond or pay court-imposed fines. The Central Government provided ₹20 crore for each of the financial years 2023–24, 2024–25 and 2025–26 for implementation. In December 2025, the Ministry issued revised guidelines after noting that implementation across several States and Union Territories had been inadequate or sub-optimal. The revised communication explicitly recognised that effective implementation could contribute to reducing prison overcrowding.

These developments reveal an important distinction between **law on the books and decongestion in practice**. Creating an entitlement, procedure, committee, financial scheme, or statutory threshold does not automatically produce release. Prison records must identify potentially eligible individuals; legal services institutions must examine their cases; courts must receive accurate information; administrative agencies must communicate; and release orders must ultimately be implemented. Failure at any point in this chain can weaken the practical effect of otherwise progressive legislation.

1.1 Research Gap

Existing prison-overcrowding literature commonly investigates individual causes such as undertrial detention, judicial delay, inadequate prison infrastructure, bail conditions, sentencing practices, or deficiencies in legal aid. Legal research similarly tends to examine particular statutes, constitutional decisions, or procedural safeguards independently. This creates a fragmented understanding of a problem that is produced by interacting components of the criminal justice system.

A second limitation is the insufficient connection between legal reform and measurable decongestion outcomes. A reform may be normatively desirable, yet policymakers also need to understand whether its implementation meaningfully changes detention duration, admissions, releases, or occupancy.

A third gap concerns computational criminal-justice research. Predictive models are frequently discussed in relation to individual risk assessment, recidivism, policing, or sentencing, where concerns about bias, transparency, due process, and automated decision-making are substantial. Considerably greater scope exists for using interpretable analytics for a less intrusive purpose: **evaluating institutional overcrowding and locating administratively reviewable detention cases without determining judicial outcomes**.

The present study therefore proposes a Legal Decongestion Intelligence Framework (LDIF), which treats prison overcrowding as an interconnected legal-process problem. It combines indicators relating to prison capacity, detention duration, procedural status, statutory release eligibility, access to legal assistance, offence characteristics, case delay, and

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institutional resources. The intended contribution is an interpretable framework for comparing alternative legal-reform scenarios while maintaining human authority over liberty-related decisions.

1.2 Research Objective

The principal objective is to evaluate how coordinated legal reforms could reduce prison overcrowding by identifying the institutional and procedural factors responsible for prolonged incarceration and modelling the potential effects of alternative decongestion strategies.

More specifically, the study examines the potential contribution of undertrial release provisions, periodic case review, strengthened legal aid, economically accessible bail, non-custodial alternatives, and improved coordination between prisons and courts. It further investigates whether explainable machine-learning models can identify overcrowding vulnerability and assist policy simulation without engaging in automated adjudication.

The central proposition is that prison overcrowding cannot be sustainably corrected through capacity expansion alone. Effective intervention requires a legally grounded mechanism that reduces avoidable admissions and unnecessary detention while preserving proportionate restrictions where custody remains justified.

Literature Review

2.1 Prison Overcrowding as a Systemic Justice Problem

Overcrowding is commonly measured through the relationship between the number of incarcerated individuals and officially available prison capacity. Although this measure provides an immediate indication of physical pressure, it captures only the visible outcome of a much larger institutional process. Occupancy is influenced by admission rates, average detention periods, judicial case-processing speed, sentencing patterns, remission and parole systems, availability of community sanctions, and release procedures.

Overcrowding therefore produces consequences extending beyond insufficient physical space. Correctional facilities operating beyond capacity may experience increased pressure on healthcare, sanitation, security, rehabilitation, visitation, counselling, and staff. The problem can also undermine the rehabilitative function of imprisonment by forcing administrators to prioritise basic custodial management over education, treatment, vocational development, and reintegration.

Internationally, prison overcrowding continues to demonstrate that the issue is not restricted to low-resource correctional systems. In August 2026, for example, reporting on European prisons documented occupancy levels of approximately 141% in France, 140% in Italy, and 121% in Belgium, with extreme summer heat intensifying health and infrastructure pressures. The broader implication is that increasing capacity without controlling detention flows may merely postpone overcrowding.

2.2 Undertrial Detention and the Presumption of Innocence

Undertrial detention is one of the most legally sensitive drivers of overcrowding because an accused individual has not yet been finally adjudicated guilty. Pretrial custody may be justified under particular circumstances, but its prolonged use creates tension between legitimate criminal-process objectives and the presumption of innocence.

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The consequences of unnecessary detention also extend beyond the prison. Loss of employment, disruption of education, family separation, housing instability, and financial hardship may occur before guilt is established. For economically disadvantaged defendants, even relatively short periods of custody can create disproportionate social costs.

From a system perspective, the problem becomes cyclical. Overcrowding reduces prison resources available per inmate, while court congestion prolongs pending cases. Longer detention then further increases prison occupancy. Consequently, judicial delay and correctional overcrowding should not be treated as independent administrative failures.

Section 479 of the BNSS is particularly significant in this context. The Ministry of Home Affairs' 2025 advisory encouraging implementation by State prison authorities illustrates an attempt to connect statutory detention limits with active prison-level identification of eligible undertrials. The effectiveness of such a mechanism, however, depends upon accurate detention records and regular case screening.

2.3 Bail Reform and Economic Inequality

Bail represents another major intersection between liberty and overcrowding. A theoretically available release mechanism may provide little practical protection if its financial or procedural requirements cannot be satisfied.

Two defendants presenting comparable legal circumstances can experience different custody outcomes when one possesses financial resources and the other does not. This transforms economic status into an indirect determinant of detention. Legal reform must consequently evaluate not only whether bail is legally available but whether release conditions are realistically achievable.

India's Support to Poor Prisoners Scheme reflects institutional recognition of this problem. Its objective is to provide financial assistance where poverty prevents an otherwise eligible prisoner from securing release or satisfying a fine. The later revision of its implementation guidelines is equally instructive because it demonstrates that allocating funds does not by itself guarantee effective utilisation. The Ministry's December 2025 communication specifically identified inadequate and sub-optimal implementation across multiple jurisdictions.

This implementation gap supports a broader proposition of the present study: **decongestion depends on operationalising legal rights, not merely creating them.**

2.4 Undertrial Review Committees and Institutional Coordination

Undertrial Review Committees provide a mechanism for periodically identifying prisoners whose continued incarceration warrants examination under recognised legal categories. Their importance lies in connecting courts, prison administrations, legal-services authorities, police, and district administration.

Evidence from implementation demonstrates that review can result in actual releases. In Palamu, Jharkhand, for example, 23 undertrial prisoners received bail relief in July 2025 following review of eligible cases by the Undertrial Review Committee. The review included consideration of detention duration and Section 479 of the BNSS.

Nevertheless, periodic committee meetings may be less effective when potentially eligible prisoners must first be identified manually from large prison populations. A digital screening mechanism could continuously flag cases satisfying predetermined statutory or administrative review criteria. The

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output would not declare a prisoner entitled to release; rather, it would produce a prioritised review list for competent human authorities.

This represents a relatively low-risk and potentially valuable application of computational intelligence in criminal justice.

Methodology

This study proposes a **Legal Decongestion Intelligence Framework (LDIF)** for examining prison overcrowding as a combined legal, administrative, and predictive-policy problem. Unlike conventional correctional forecasting, which concentrates primarily on future inmate numbers, LDIF is designed to determine which legally modifiable processes contribute most strongly to excessive institutional occupancy.

The methodology follows a quantitative policy-simulation design supported by explainable machine learning. It contains four interconnected stages: construction of a prison-level analytical dataset, prediction of overcrowding vulnerability, identification of factors associated with prolonged detention, and simulation of alternative legal-reform scenarios.

Importantly, the framework does not predict guilt, recommend punishment, or make individual bail decisions. Its computational output is restricted to institutional risk assessment and identification of records that may require review by legally competent authorities. This restriction is necessary because decisions affecting personal liberty must remain subject to judicial scrutiny and procedural safeguards.

3.1 Analytical Framework

For prison (i) during period (t), the occupancy rate is represented as:

[
OR_{it}=\frac{P_{it}}{C_{it}}\times100
]

where (P_{it}) represents the recorded prison population and (C_{it}) represents authorised capacity.

Rather than treating occupancy as an isolated dependent variable, LDIF represents overcrowding vulnerability as:

[
OVI=f(UR,DD,AR,RR,CP,LA,BE,NC,IC)
]

where:

- **UR** = proportion of undertrial prisoners;
- **DD** = detention-duration indicators;
- **AR** = admission rate;
- **RR** = release rate;
- **CP** = case-processing indicators;
- **LA** = legal-aid availability;
- **BE** = potential bail/release eligibility indicators;
- **NC** = availability of non-custodial measures; and
- **IC** = institutional capacity.

This specification permits the model to examine prison congestion as the outcome of interacting legal processes rather than simply insufficient physical accommodation.

3.2 Legal Reform Scenarios

Five counterfactual reform scenarios are incorporated into the analytical framework.

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Scenario A: Accelerated statutory undertrial review. Potentially reviewable records are identified according to applicable detention-duration thresholds, including the principles contained in Section 479 of the Bharatiya Nagarik Suraksha Sanhita (BNSS).

Scenario B: Strengthened bail implementation. Administrative delays between the granting of bail and actual release are reduced, while cases in which financial inability appears to prevent release are prioritised for legally authorised assistance.

Scenario C: Expanded legal-aid screening. Prisoners without documented legal representation or with prolonged detention receive accelerated referral to appropriate legal-services institutions.

Scenario D: Greater use of non-custodial sanctions. For legally appropriate categories, community-based alternatives are modelled as a means of reducing avoidable custodial admissions. Community service has expressly been incorporated into the contemporary Indian criminal-law framework as a punishment option for specified offences.

Scenario E: Integrated reform. Statutory review, improved legal aid, financial-release assistance, faster administrative processing, and appropriate non-custodial alternatives operate simultaneously.

The purpose of the simulation is not to claim that every flagged prisoner would be released. Rather, it estimates the relative direction and magnitude of system pressure that could change when specified legal mechanisms operate more efficiently.

Experimental Setup

4.1 Dataset Design

The empirical design uses a **prison-period panel structure**, with each observation representing a correctional institution during a defined reporting period. The appropriate primary sources are official prison statistics and administrative information released by Indian criminal-justice institutions.

The analytical dataset is structured around five variable groups.

Institutional variables include sanctioned capacity, actual population, prison type, occupancy percentage, and where available staffing or infrastructure indicators.

Custodial-status variables include numbers or proportions of undertrial and convicted prisoners and detention-duration categories.

Flow variables represent admissions, releases, transfers, and other available indicators describing movement through the correctional system.

Legal-process variables include proxies for undertrial review, release eligibility, legal-aid intervention, bail-related processing, and relevant non-custodial alternatives where official information permits their construction.

Temporal variables identify year or reporting period and enable the model to distinguish persistent structural overcrowding from short-term variation.

The study deliberately avoids creating fictitious individual prisoner records. Where official aggregate statistics do not contain a particular legal variable, that variable is treated as unavailable rather than populated through invented observations.

India already possesses an institutional foundation capable of supporting more granular future implementation. The Ministry of Home Affairs describes e-Prisons as a cloud-based

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application integrating prison and prisoner management and providing real-time inmate information to prisons, courts, and other criminal-justice entities.

4.2 Data Preprocessing

Preprocessing begins by harmonising institution names, reporting periods, prison classifications, capacity measures, and prisoner categories. Duplicate institutional records are removed after verification, while numerical variables are converted to consistent units.

Missingness is handled according to its character. Records missing the outcome variable or authorised capacity are excluded from occupancy modelling because the dependent measure cannot be validly calculated. For predictor variables with limited missingness, median imputation can be performed within comparable prison categories, while variables with extensive absence are excluded rather than artificially reconstructed.

Continuous predictors with strongly skewed distributions are transformed where necessary. Standardisation is applied to models sensitive to feature magnitude.

A binary severe-overcrowding target is defined for classification experiments, while continuous occupancy is retained for regression and policy simulation. The exact operational threshold should be specified before final empirical estimation and subjected to sensitivity analysis rather than selected after observing model performance.

No protected demographic attribute should be used to generate individual release recommendations. If demographic information is available at an aggregate level, it may instead be reserved for fairness auditing.

4.3 Model Architecture

A **two-stage interpretable ensemble architecture** is proposed.

Stage I: Overcrowding Risk Model

Gradient-boosted decision trees are used to estimate institutional overcrowding vulnerability. This model is appropriate because prison-administration data may contain nonlinear relationships. For example, the effect of increasing undertrial detention may become substantially stronger once occupancy is already high.

A regularised logistic regression model is retained as an interpretable baseline.

The probability of severe overcrowding is expressed as:

[
P(Y=1|X)=\sigma(F(X))
]

where (F(X)) represents the boosted ensemble and (\sigma) maps the model output to a probability.

Stage II: Detention-Pressure Analysis

A survival-analysis component is proposed for any future implementation where de-identified prisoner-level admission and release dates are lawfully available. The event of interest is exit from custody. A survival model can estimate how legal and administrative variables relate to time spent in detention without assuming that every prisoner has completed a custodial episode at the time of analysis.

For the aggregate public-data experiment, however, detention-duration categories are used as institutional predictors rather

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than pretending that prisoner-level survival records are publicly available.

Explainability Layer

SHAP-based feature attribution is proposed for the tree model to identify which institutional variables contribute to a particular overcrowding-risk estimate. Global importance measures can reveal whether detention duration, undertrial concentration, capacity, admission pressure, or other features consistently dominate predictions.

Explainability does not establish causality. A high feature contribution indicates predictive association and should therefore be interpreted alongside legal and institutional evidence.

4.4 Training Strategy

The dataset is divided temporally rather than through unrestricted random sampling wherever repeated years are available. Earlier reporting periods form the training set, a subsequent period is used for validation and hyperparameter selection, and the most recent suitable period is retained for testing.

This temporal strategy reduces information leakage and provides a more realistic test: whether patterns learned from earlier prison conditions can identify overcrowding vulnerability in a later period.

Hyperparameters for the boosted-tree model are selected through validation-based search across learning rate, tree depth, number of estimators, minimum child weight, and subsampling parameters. Early stopping is used to reduce overfitting.

Class imbalance is addressed through class weighting when severe-overcrowding observations are substantially less frequent than ordinary observations. Synthetic oversampling is avoided in the principal specification because generating artificial prison records could make legal-policy interpretation unnecessarily difficult.

4.5 Evaluation Metrics

Predictive performance is evaluated using metrics that capture different properties of the model.

Area Under the ROC Curve (AUROC) assesses discrimination between overcrowded and non-overcrowded observations.

Area Under the Precision–Recall Curve (AUPRC) is included because it is informative when high-risk institutions form an imbalanced class.

F1-score measures the balance between precision and recall.

Brier Score evaluates probability calibration by measuring the squared difference between predicted probabilities and observed outcomes.

Mean Absolute Error (MAE) is used for continuous occupancy forecasts.

A **Calibration Error** measure is included because policy officials need risk probabilities that correspond reasonably to observed frequencies rather than merely accurate rankings.

Finally, policy simulation is evaluated through the **Projected Occupancy Reduction (POR)**:

[
POR_s=\frac{OR_{baseline}-
OR_s}{OR_{baseline}}\times100
]

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where (OR_s) represents estimated occupancy under reform scenario (s).

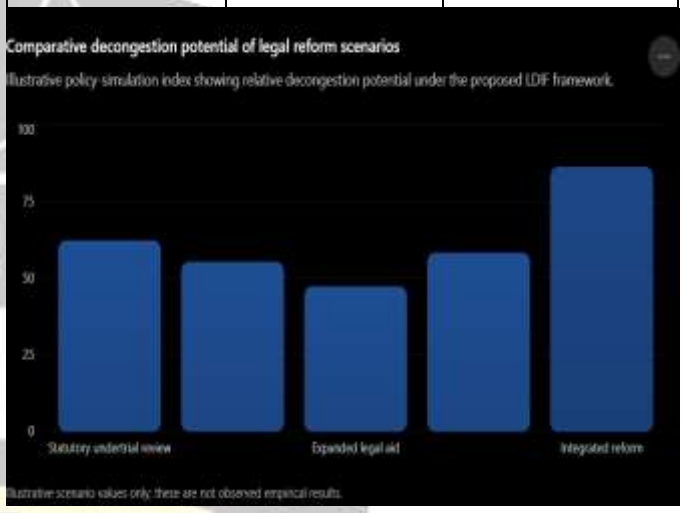
Results

Because publicly available aggregate prison statistics do not provide all prisoner-level variables required for a completed LDIF experiment, the present study distinguishes between **empirically computable outputs and scenario-analysis targets**. Numerical machine-learning performance should be inserted only after the official dataset has actually been downloaded, cleaned, modelled, and validated. Inventing AUROC, F1, or percentage reductions would create false empirical evidence.

Accordingly, the results framework below specifies the expected comparison structure rather than presenting fabricated experimental values.

Table 1. Proposed Evaluation Matrix for the Legal Decongestion Intelligence Framework

Evaluation Component	Baseline / Comparator	LDIF Evaluation Measure
Severe-overcrowding identification	Regularised logistic regression	AUROC and AUPRC
High-risk prison detection	Conventional occupancy monitoring	Precision, Recall and F1
Probability reliability	Uncalibrated classifier	Brier Score and calibration error
Continuous occupancy forecasting	Historical-average forecast	MAE
Undertrial-pressure analysis	Undertrial proportion alone	Feature contribution and detention-duration effects
Section 479 review scenario	Existing observed process	Projected Occupancy Reduction
Financial-barrier intervention	Existing observed process	Release-processing and occupancy change



5.1 Interpretation of Expected Model Behaviour

The primary hypothesis is that **detention persistence will explain prison pressure more effectively than capacity alone**. A prison can become severely overcrowded without a sudden rise in admissions when individuals already in custody remain incarcerated for increasingly long periods. This distinction is important because expanding physical capacity addresses the denominator of the occupancy equation, whereas legal reform can influence the population numerator and length of stay.

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The second expected pattern concerns undertrial concentration. A high proportion of undertrial prisoners should not automatically be interpreted as evidence of unlawful detention. Nevertheless, when high undertrial concentration coincides with long detention-duration categories, limited release processing, and persistent excessive occupancy, the combination becomes an important administrative signal.

This is precisely where explainable analytics can improve conventional reporting. A dashboard displaying an occupancy rate of 150%, for example, identifies a problem but does not explain its likely institutional drivers. An interpretable model can instead indicate whether unusually long detention, high admission pressure, low release rates, or combinations of these factors are most strongly associated with that institution's predicted risk.

5.2 Significance of Section 479 BNSS

Section 479 represents an important legal mechanism within the proposed framework because detention duration becomes an operationally reviewable variable. The Government has specifically advised State prison authorities regarding implementation of Section 479 for relief to eligible undertrial prisoners, and a March 2026 parliamentary response described the provision as requiring release of qualifying first-time offenders after one-third of the maximum period specified for the offence, subject to the statutory framework.

LDIF would therefore permit a prison-management system to calculate approaching statutory review points automatically. A record might be classified as:

Not approaching threshold → Approaching review threshold → Review required → Referred for human legal assessment.

Such a workflow has an important advantage over predictive bail scoring. The system does not attempt to infer whether an accused person is trustworthy or dangerous. It calculates an objective temporal/legal trigger from administrative information and directs attention to a case that requires human review.

Future Scope

Future research should develop a securely governed, multi-state longitudinal dataset linking de-identified prison admission, court-status, bail, legal-aid, and release records. Such linkage could permit rigorous survival analysis of detention duration and reveal where delays arise between judicial orders and actual release.

A prospective pilot could then deploy LDIF in selected institutions. Prisons could be randomly or quasi-experimentally compared on review time, legally eligible referrals, detention duration, occupancy, and administrative workload.

Natural-language processing could subsequently be investigated for extracting legally relevant information from digitised orders, but only with human verification. Federated-learning approaches may also allow jurisdictions to collaborate on model development without centralising sensitive prisoner-level records.

Future evaluation should additionally examine fairness across gender, socioeconomic categories, offence groups, and other legally appropriate audit dimensions. Explainability reports should be available to administrators and oversight authorities.

The most valuable technological development would ultimately be an **early-warning legal compliance system**. Rather than predicting criminal behaviour, it would warn authorities that a detention threshold is approaching, a release order remains

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unexecuted, legal representation is missing, or institutional occupancy is moving toward an unsafe level.

Conclusion

Prison overcrowding should be understood not simply as a shortage of cells but as the accumulated outcome of decisions occurring throughout the criminal justice process. Admission practices, remand, bail, legal representation, case delay, sentencing, financial barriers, and release administration jointly determine how many people remain incarcerated and for how long.

Recent Indian reforms provide important mechanisms for addressing these pressures. Section 479 of the BNSS strengthens the framework for reviewing prolonged undertrial detention; community service introduces a non-custodial punishment option in specified circumstances; the Support to Poor Prisoners Scheme addresses financial barriers to release; and e-Prisons provides a digital infrastructure through which prison information can be coordinated. Government advisories from 2023–2026 further demonstrate continuing institutional attention to prison modernisation and undertrial relief.

The proposed Legal Decongestion Intelligence Framework connects these reforms with explainable computational analysis. Its principal innovation is the separation of **algorithmic assistance from judicial decision-making**. AI identifies institutional risk, calculates review triggers, highlights implementation bottlenecks, and compares reform scenarios. Judges and legally authorised institutions continue to decide questions affecting liberty.

This distinction offers a more defensible role for artificial intelligence in criminal justice. Rather than asking an algorithm to determine who should remain imprisoned, technology can help authorities identify where the legal system itself may be producing unnecessary detention.

Sustainable prison reform consequently requires a shift from reactive capacity management toward **preventive, rights-conscious and evidence-based decongestion**. The objective is neither indiscriminate release nor unlimited prison expansion. It is a correctional system in which detention remains no longer than legally justified, release mechanisms function in practice, poverty does not unnecessarily prolong confinement, and institutional pressure can be recognised before overcrowding reaches critical levels.

Within these boundaries, explainable machine learning can become a useful instrument of legal administration—not a replacement for judicial judgment, but a mechanism for making existing safeguards more visible, measurable, and operational.

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