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ARTIFICIAL INTELLIGENCE AND CRIMINAL JUSTICE SYSTEM IN INDIA

Dr. Debdatta Das
Assistant Professor, Department of law, University of Burdwan, West Bengal, Email ID: d.debdatta@gmail.com, ORCID ID: https://orcid.org/0009-0007-1851-1166

Dr. Paramita Bhattacharyya
Assistant Professor, School of Law, Brainware University, West Bengal, Email ID: mailtoparamita84@gmail.com, ORCID ID: https://orcid.org/0009-0001-7875-2152

Abstract

The integration of Artificial Intelligence (AI) into the criminal justice system in India represents a significant paradigm shift with far-reaching implications. This article explores the multifaceted intersection of AI and the criminal justice system in the Indian context, investigating the potential benefits and challenges associated with the deployment of AI technologies. The article begins by providing an overview of the key areas where AI applications can enhance efficiency, accuracy, and fairness and identifies current state of the criminal justice system in India. It delves into the utilization of AI in crime prevention, investigation, and adjudication processes, highlighting the promising outcomes and improvements witnessed in these domains. With every progressing day Artificial Intelligence (AI) is getting a grip in every sphere of our daily life. In such an environment, Criminal Justice System, which is an ever-expanding domain trying to cater to the contemporary need of the society to make it a safer place to live, it tries to adopt every possible method and technique to accomplish this objective. AI too has been adopted in the functioning of the criminal justice system to adopt more scientific and sophisticated approach to crime prevention and crime detection. Artificial intelligence (AI) has been making waves across various industries worldwide, and the criminal justice system is no exception. In this article, we'll explore the role of AI in the criminal justice system in India and the benefits it can bring. Drawing on best practices, the article offers insights into the various models of AI integration in criminal justice systems globally, considering their applicability within the Indian socio-legal framework. It concludes by highlighting the importance of an ongoing dialogue between technologists, legal experts, and policymakers to strike a balance between harnessing the transformative potential of AI and safeguarding fundamental rights within the Indian criminal justice context.

Keywords: Investigation, prosecution, justice, prison, proceedings

Introduction

Technological improvement stands out for its potential to revolutionize civilization in the vast domain of scientific advancements. AI has invaded many facets of our life, from self-driving carsto virtual personal assistants, drastically affecting how we work, communicate, and even perceive reality. As we approach the dawn of a new century, it is critical to investigate how artificial intelligence (AI) can affect the future of the criminal justice system—a world fraught with complexities, injustices, and the pursuit of justice.

A judicial system, in which prejudices are minimized and resources are more efficiently distributed, is to be considered in administration of justice system. AI has the ability to bring thisvision to life, providing a more equitable and effective administration of justice. However, such revolutionary potential necessitates careful study, stringent laws, and ethical safeguards to avoidunforeseen outcomes. One of the most significant ways AI can transform the criminal justice system is through its ability to reduce human prejudices. Human judges and law enforcement agents are all prone to bias, whether conscious or unconscious. AI's ability to analyses massive volumes of data and identify patterns can assist in detecting and correcting systemic biases that have long plagued thesystem. AI can establish a more level playing field for all individuals, regardless of race, gender,or socio-economic background, by basing choices on objective data rather than subjective beliefs. Furthermore, AI can improve the criminal justice system's efficiency by streamlining operations, optimizing resource allocation, and providing predictive analytics. Time-consuming procedures like document analysis and data processing can be automated, allowing legal practitioners to concentrate on more important areas of their work. Machine learning algorithms can help law enforcement recognize patterns and trends in criminal behavior, allowing them to prevent crimesbefore they happen. By integrating AI technologies, law enforcement agencies may strategically allocate resources, resulting in faster reaction times and more successful crime prevention initiatives.

While the potential benefits of AI in the criminal justice system are enormous, they must be approached with prudence. To avoid the deterioration of rights and freedoms and the reinforcement of existing biases, the use of AI must be directed by explicit ethical frameworks and strong laws. Transparency and accountability should be central to the use of AI in the legalsystem. Decision-making algorithms should be auditable, and systems for detecting and correcting algorithmic biases should be in place. It is critical to find a careful balance between AI's ability to improve the system and the protection of human rights, justice, and due process.

Finally, the intersection of artificial intelligence and the criminal justice system provides a tantalizing look into a future in which equity and efficiency coexist. AI has the ability to reduce biases, optimize resource allocation, and change the way justice is delivered. This journey, however, must be performed with extreme caution, with the ideals of transparency, accountability, and fairness guiding every step ahead. By viewing AI as a tool rather than a cure, we may harness its potential to create a criminal justice system that is a beacon of justice, equity,and genuine societal progress.[1]

AI in Crime Prevention

Artificial Intelligence (AI) is emerging as a potent weapon in the field of crime prevention in anera characterized by rapid technical breakthroughs. As communities attempt to assure safety and security, artificial intelligence (AI) offers novel ways to supplement existing law enforcement practices and handle developing difficulties. We can revolutionize crime prevention tactics, empower communities, and build a safer society by leveraging AI's capabilities.

Traditional approaches to crime prevention frequently focus on reactive tactics, in which law enforcement responds after a crime has been committed. AI, on the other hand, facilitates a paradigm shift towards proactive and preventive approaches. AI systems may find patterns, detect abnormalities, and provide vital insights into potential criminal activities by analyzing massive amounts of data. This proactive approach enables law enforcement to engage before crimes occur, reducing risks and protecting communities. One of AI's primary capabilities in crime prevention is its capacity to process and analyses large datasets from a variety of sources. AI algorithms can generate real-time insights by combining data from surveillance systems, social media, public records, and other relevant sources. This allows law enforcement to more effectively identify hotspots, forecast crime patterns, and allocate resources. For example, AI- powered predictive policing models can assist law enforcement agencies in identifying locationswith increased crime probability, allowing them to deploy officers proactively, avert events, andestablish confidence within communities.

Furthermore, AI has the potential to significantly improve the capabilities and efficiency of existing surveillance systems. AI-powered video analytics can monitor and analyses video feedsautomatically, indicating questionable activity and decreasing the burden on human

[1] OJP.GOV, https://www.ojp.gov/pdffiles1/nij/252038.pdf (last visited on Oct. 2, 2023).

operators. Facial recognition technologies can help to identify individuals involved in criminal activity, aidinvestigations, and speed up suspect apprehending. Law enforcement can cover bigger regions, reduce response times, and boost the effectiveness of crime prevention efforts by incorporating AI into surveillance systems. Engagement and collaboration within the community are critical components of effective crimeprevention. In this case, AI can act as a catalyst, strengthening links between law enforcement agencies and the communities they serve. AI-powered chatbots and virtual assistants can give community members with accessible and personalized information, addressing their issues and disseminating crime prevention suggestions. AI algorithms can analyses community-generated data, such as reports of suspicious activity, to aid in recognizing emerging trends and permittingtargeted responses. Community members can actively participate in crime prevention initiativesthrough AI-enabled platforms, contributing to safer neighborhoods and encouraging a sense of shared responsibility.[2]

However, as we adopt AI in crime prevention, ethical concerns and privacy precautions must be prioritized. It is critical to strike a balance between public safety and individual liberties. Policiesand laws must be in place to guarantee that AI systems are deployed responsibly, that privacy is respected, and that biases and data exploitation are avoided. Transparency in AI algorithms and decision-making processes is critical for building public trust and avoiding potential abuses.

We can proactively combat crime, empower communities, and establish a safer society by leveraging AI's analytical powers, predictive insights, and community engagement tools. As we navigate the possibilities offered by artificial intelligence, it is critical to prioritize ethical issues, maintain openness, and create collaboration among technology specialists, law enforcement agencies, and the communities they serve. AI in crime prevention has the ability to build a worldwhere everyone can prosper in safe and harmonious environments if used responsibly and inclusively.

Preventing crime is the first line of defense against crime. AI can help law enforcement agencies predict and prevent crimes by analyzing patterns in criminal activity. AI algorithms can also helppolice in identifying high-risk areas and individuals based on crime patterns and

[2] Puneet G., Sony R., the Role of Artificial Intelligence in Improving Criminal Justice: Indian Perspective, 3 Legal Issues in the Digital Era 78, 84-93 (2020), https://www.researchgate.net/publication/350346087_The_Role_of_Artificial_Intelligence_in_Improving_Criminal_Justice_System_Indian_Perspective.

other data sources. AI can also help in identifying potential threats and vulnerabilities in critical infrastructure, transportation systems, and public places. For example, AI can analyze CCTV footage and identify suspicious activities, track missing people, and monitor crowds at events.

AI in Investigation

One of the most significant challenges in the criminal justice system is the lack of resources to investigate and solve crimes. AI can assist in speeding up the investigation process by analyzing large amounts of data and identifying patterns and connections that would be difficult for humans to do alone. This can help law enforcement agencies in identifying suspects and gathering evidence in a more efficient and accurate manner.

AI can also assist in forensic analysis, which is crucial in solving many crimes. For instance, AI can analyze DNA samples, fingerprints, and other evidence to identify suspects or link crimes to previous incidents.

AI in Prosecution

The use of AI in prosecution can help in streamlining the legal process, reducing delays, and ensuring that justice is served quickly and effectively. AI can help in analyzing evidence and identifying key pieces of information that can help in building a case.

AI can also assist in identifying trends and patterns in criminal behavior, which can help prosecutors in making informed decisions about plea bargaining and sentencing. AI can analyze data on previous cases, including outcomes, to help prosecutors in building stronger cases and achieving better outcomes.

The Supreme Court of India launched its first Artificial Intelligence portal SUPACE (Supreme Court Portal for Assistance in Courts Efficiency) in April, 2021. During the launch, the then Hon'ble Chief Justice Of India, S. A. Bobde, said the Supreme Court is embracing Artificial Intelligence in its routine work. He referred to the incident of defeat of grandmaster Garry Kasparov at the hands of Deep Blue in 1997, while explaining how little known AI had come close to common man. At the launch of SUPACE, Hon'ble CJI S. A. Bobde made it clear thatthis AI portal would not be used for decision making but would be restricted to collection and analysis of data.[3] As reported in May, 2021, According to the National Judicial

[3] INDIA TODAY.IN, https//www.indiatoday.in/india/story/supreme-court-india-sc-ai-artificial-intellegence-portal-supace-launch-1788098-2021-04-07 (last visited on Oct. 2, 2023).

Data Grid, around 3.81 crore cases were pending in various district and taluka courts in India and more than one lakh cases had been pending for more than 30 years.[4] AI has proved to be a big boon in the health care sector, farming and agriculture, mitigation of climate change and prediction of natural disasters, good governance etc. But along with this the use of AI has also raised question due to its potential for mass surveillance leading to lack of privacy and protection, spread of disinformation etc.

Criminal Justice System

The criminal justice system is the foundation of any democratic society, ensuring fairness, upholding the rule of law, and defending individuals' rights. In India's huge and diversified nation, the criminal justice system is critical to maintaining social order and providing justice to its residents. However, India's system, like that of many other countries, faces severe issues that necessitate new and transformative solutions. By confronting these issues head on and embracingprogressive reforms, India may create a criminal justice system that promotes equality, efficiency, and equitable access to justice for all.

The issue of backlog and delays in judicial procedures is one of the most serious challenges confronting India's criminal justice system. Long delays have resulted from overburdened courts,procedural difficulties, and a huge amount of outstanding cases, denying justice too many peopleand damaging public trust. To address this difficulty, a multifaceted approach that harnesses technology, simplifies processes, and improves judicial infrastructure is required. Case management systems and e-filing platforms can help to speed up legal proceedings, minimize paperwork, and increase efficiency. Investing in the recruitment and training of judges and legal experts can also help the system handle cases more effectively.[5]

Another significant issue is ensuring that marginalized and poor segments of society have accessto justice. Disparities in legal representation, a lack of awareness of legal rights, and budgetary restraints frequently impede individuals' capacity to seek justice in a country as diverse as India.To overcome these obstacles, India's criminal justice system must accept novel solutions.

Community legal aid programmes, legal clinics, and mobile courts can help bridge the gap by delivering legal services to underserved and remote locations. Furthermore, utilising

[4] ANALYTICSINDIAMAG.COM, https //analyticsindiamag.com/behind-supace-the-ai-portal-of-the-supreme-court-of-india/, (lastvisited on Oct. 5, 2023).

[5] OJP.GOV, https://www.ojp.gov/ncjrs/virtual-library/abstracts/functions-criminal-justice-procedures-tasks-and-personnel (last visited on Oct. 10, 2023).

technologythrough virtual courts and teleconferencing capabilities can improve access to justice, especiallyfor individuals living in remote places.[6] Furthermore, eliminating racism and discrimination within the criminal justice system is critical. India, like any other civilization, must contend with inherent biases that can interfere with fair and impartial decision-making. It is critical to educate court personnel, law enforcement officers,and legal professionals about cultural diversity, gender issues, and human rights. Furthermore, embracing technology solutions such as artificial intelligence (AI) can aid in bias reduction by enabling data-driven decision-making and minimising subjectivity. However, in order to avoid the amplification of biases, the use of AI must be governed by ethical standards and thorough inspection.

An increasing emphasis on rehabilitation and restorative justice can also help India's criminal justice system. Recognizing that punishment is insufficient, efforts should be made to rehabilitateand reintegrate offenders into society. Alternative dispute resolution procedures, such as mediation and arbitration, can provide faster and more amicable results, relieving the court system of its burden. India may move towards a more humane and holistic approach to criminal justice by prioritizing rehabilitation and restorative justice.

India can establish a criminal justice system that is a paragon of fairness, efficiency, and societalgrowth by embracing technology, streamlining processes, and prioritizing equality and access tojustice. India has the opportunity to reshape its criminal justice environment through progressive reforms and adherence to the principles of the rule of law, ensuring that justice is accessible to alland building public faith in the system.[7]

Cardinal Principles of Criminal Justice System:

There are four major principles of criminal law:

1. Until a person is found guilty, they are presumed innocent;
2. A person's guilt must be proven "beyond reasonable doubt";
3. A person can be required to incriminate himself or herself;
4. A person who has been acquitted cannot be tried again for the same offence.

[6] OJP.GOV., https://www.ojp.gov/ncjrs/virtual-library/abstracts/functions-criminal-justice-procedures-tasks-and-personnel (last visited on Oct. 10, 2023).
[7] BJS.OJP.GOV, http//bjs.ojp.gov/content/pub/pdf/wfbcjsin.pdf (last visited on Nov.13, 2023).

Every individual should be assumed to be innocent unless and until they are proven guilty beyond a reasonable doubt, which is a key premise underlying the right to a fair trial. In the case of Woolmington v DPP[8] the presumption of innocence was re-consolidated.

In criminal law the case identifies the metaphorical "golden thread" running through that domain of the presumption of innocence that the burden of proof lies with the prosecution to establish beyond a reasonable doubt that the crime was committed, and the accused is not required to demonstrate his innocence. In this entire process of criminal trial the role of a judge is not a merespectator. Just as the prosecutor or the defense council has the duty to present the case of their client considering and studying each case as a unique one, the judge or the judicial officer, also has the prime responsibility of deciding each case as a separate one in the light of unique facts and circumstances of the particular case concerned. Hon'ble Mr. Justice P.Sathasivam, in his speech on "ROLE OF JUDICIAL OFFICERS IN CRIMINAL JUSTICE ADMINISTRATION" (05.01.2013) at Tamil Nadu State Judicial Academy for the Newly Recruited Civil Judges, referred to the observation of Former Chief Justice Ranganath Mishra in a writ petition relating to conditions of subordinate judiciary in the case of All India Judges' Association vs. Union of India[9].

Ranganath Mishra, the Chief Justice, noted: "The Trial judge is the kingpin in the hierarchical system of administration of justice. He directly comes in contact with the litigant during the proceedings in court. On him lies the responsibility of building up of the case appropriately and on his understanding of the matter the cause of justice is first answered. The personalities, knowledge, judicial restraint, capacity to maintain dignity are the additional aspects which go into making the Court's functioning successful". Mentioning the high expectations of society from the judges, he further advices: "A judge ought to be wise enough to know that he is fallible and therefore, ever ready to learn and be courageous enough to acknowledge his errors."

The Indian Evidence Act's Section 165 gives the judge broad authority to ask inquiries. Giving such broad authority is justified in order to ascertain the truth and persuasive evidence. Counsel simply wants their client to succeed, but the judge must see justice prevail. The responsibilities and duties of judicial magistrates are defined by the Code of Criminal Procedure at each step, including pre-trial, trial, and post-trial. Everyone is presumed innocent

[8] Woolmington v DPP (1935) AC 462.
[9] All India Judges' Association vs. Union of India (1992) 1 SCC 119.

unless their guilt is proven beyond a reasonable doubt in a trial before an unbiased and competent court, which is one of the fundamental principles of criminal law. Judiciary officials play a role in ensuring that no one is punished without having a fair trial, as is required by justice. Active participation and application of mind of the judicial officers within the contours of law is very significant. Hon'ble Justice Abhijit Ganguly, Judge, Calcutta High Court, in an interview given to ABP Ananda in 2022, emphasized on the potency of section 165 of Indian Evidence Act and said that he insists on applying the authority vested through this provision and also lamented the fact that many present in court are oblivious of such provision. Even if the magistrate lacks jurisdiction in the matter, Section 164 gives him the authority to record any confession or statement made during an investigation. The magistrate must inform the individual making the confession that: (a) He is not obligated to make this kind of confession; and (b) If he does, it may be used as evidence against him. Hon'ble Mr. Justice P. Sathasivam, clearly expressed that The magistrate must have reason to believe that it is being made voluntarily. He observed, judges, must exercise their judicial knowledge and wisdom to ensure that the confession is made voluntarily.

Sec 235 of Cr. PC also provides for a provision according to which if the judge convicts the accused after hearing all the arguments, he first has an obligation to hear the accused on determining the sentence before pronouncing the sentence unless he proceeds according to sec 360 Cr. PC. According to Kelkar, based on an observation from various Apex Court judgments, " A proper sentence is the amalgam of many factors such as the nature of the offence, the circumstances- extenuating or aggravating- of the offence; the prior criminal record, if any of the offender; his age and educational background; his record as to employment, home life, sobriety and social adjustment; his emotional and mental condition; the prospects for his rehabilitation and return to a normal life in the community; the possibility of treatment or training of the offender". In Dhananjoy Chatterjee v. State of West Bengal[10] the Supreme Court observed, "The measure of punishment in a given case must depend upon the atrocity of the crime, the conduct of the criminal and the defense less and unprotected state of the victim". Thus, implementation of sec 235 Cr. PC is not a mechanical process but involves various considerations which vary from case to case to case and situation to situation.

Sec 167 Cr. PC provides for a very important provision from the perspective of police investigation. As provided in the above-mentioned provision, if the police is unable to

[10] Dhananjoy Chatterjee v. State of West Bengal, 1994 SCR (1) 37.

complete its investigation within 24 hrs. Of arresting a person, then as per section s 57 of Cr. PC the Police may plead before the court to extend the detention of the accused for a period however not exceeding 15 days as provided in the law. This provision of extending the detention of the accused for a period up to 15 days is known as the 'Remand Order'. This detention of custody can be in nature of police custody or judicial custody. Further, section 167 also states that if the Judicial Magistrate is convinced that in the interest of justice and proper investigation, further detention beyond the period of 15 days is required, on completion of the period of extended detention of 15 days, he may further, grant such detention provided it shall not be in nature police custody i.e. this time it shall be judicial custody and the total period of detention (including the earlier periods of detention) shall not exceed 90 days or 60 days as the case may be. However, grant of remand in police custody cannot be a mechanical process. "The magistrate has to exercise his judicial mind while deciding whether or not the detention of the accused in any custody is necessary. The order of detention is not to be passed mechanically as a routine order on request of the police for remand. The need for making the case diary available to the Magistrate before he decides on detention or remand has been stressed by some courts."[11]

The judiciary has in various cases referred to the role of the judges and the need to apply their mind in the conduct of criminal justice system. Referring to Art. 22(2), Justice Bhagwati stated in Khatri II v. State of Bihar[12] that the "provision enables the magistrates to keep check over the police investigation and it is necessary that the magistrates should try enforcing this requirement and, where it is found to be disobeyed, come down heavily upon the police." However, the magistrate is under no compulsion to grant remand on a regular basis. To prove that, the police must present evidence. The order cannot be automated. The Hon'ble Supreme Court ruled in Sheela Barse v. State of Maharashtra that the magistrate[13] must tell the apprehended accused person of his right to a medical examination under section 54. In this instance, the High Court instructed the magistrates to inquire with the person who was arrested about any complaints of torture or other mistreatment while in police custody. According to the ruling in Hussainara Khatoon's' case[14] the magistrate has a responsibility to inform the accused of his entitlement to be freed on bail following the statutory waiting period of 90 or 60 days, as the case may be. Thus, it follows that the magistrates are the most qualified

[11] Dhananjoy Chatterjee v. State of West Bengal, 1994 SCR (1) 37.
[12] Khatri II v. State of Bihar, (1981) 1 SCC 627.
[13] Sheela Barse v. State of Maharashtra, (1983) 2 SCC 96.
[14] Hussainara Khatoon & Ors vs Home Secretary, State Of Bihar (1980) 1 SCC 108.

individuals to ensure that the accused is not denied their rights. In a most recent case of Ghulam Hassan Beigh v. Mohammad Maqbool Magrey[15] (decided on 26.07.2022), the SC while explaining the importance of the role of trial courts, opined that, "the trial court is enjoined with the duty to apply its mind at the time of framing of charge and should not act as a mere post office. The endorsement on the charge sheet presented by the police as it is without applying its mind and without recording brief reasons in support of its opinion is not countenanced by law."

The trial court and the High Court of J&K, discharged the accused persons of the offence of murder punishable under Section 302 of the IPC and charged the accused under Section 304 of the IPC for culpable homicide.

The Supreme Court observed that the trial court discharged the accused persons from the offence of murder and proceeded to frame charge for the offence of culpable homicide under Section 304 of the IPC by only taking into consideration the medical evidence on record which stated that the cause of death of the deceased was "cardio respiratory failure" but in the opinion of the Apex Court such approach of the trial court was not appropriate and cannot be countenanced in law. The post mortem report by itself cannot be considered to be a substantive evidence. "Whether the "cardio respiratory failure" had any nexus with the incident in question would have to be determined on the basis of the oral evidence of the eye witnesses as well as the medical officer concerned i.e. the expert witness who may be examined by the Prosecution as one of its witnesses."

SC expressed, "The postmortem report can be used only to corroborate his statement under Section 157, or to refresh his memory under Section 159, or to contradict his statement in the witness-box under Section 145 of the Evidence Act, 1872."

"Ultimately, upon appreciation of the entire evidence on record at the end of the trial, the trial court may take one view or the other i.e. whether it is a case of murder or case of culpable homicide. But at the stage of framing of the charge, the trial court could not have reached to such a conclusion merely relying upon the post mortem report on record. The High Court also overlooked such fundamental infirmity in the order passed by the trial court and preceded to affirm the same."

So, based on such illustrations and instances, it is evident that the role of a judge or a magistrate in a trial court is immense. His involvement in the case cannot be ignored or

[15] Ghulam Hassan Beigh v. Mohammad Maqbool Magrey, 2022 SCC Online SC 913.

minimized for real rendition of justice in a Criminal Justice System. A Judge in a criminal trial mainly deals with human behavior and law. Strict application of algorithmic representation of human behavior will defeat the cardinal principle of criminal justice and the goal of rendering justice. The decision of a judge decides the fate of the accused and the victim and thus going by the cardinal principles of criminal justice system, it would be highly inappropriate to rely on algorithmic mechanically formulated system for delivery of final decision. Once again we may to refer to the interview given to ABP Ananda in 2022 by Hon'ble Justice Abhijit Ganguly, Judge, Calcutta High Court, where he stated referring to Hon'ble Justice P.B.Mukhopadhyyay that 'Law is blind but judge is not".[16]

Application of AI in Criminal Justice System

However, AI can be a very potent means for making the working of Criminal Justice System more efficient. Some of the difficulties faced in the effective operation of the Criminal Justice System are huge number of pending cases, huge manual labour involved in procedural details, dearth of technological skill in investigation process etc. As a solution to such hurdles, various applications of AI have been used.[17]

1. E filing of cases and the opportunity to pay court fees from any point makes the job of the lawyers very convenient especially as they can access complete information regarding the case from any point.[18]
2. Further the inter operable criminal justice system (ICJS) enables seamless transfer of data between the various players of criminal justice system viz. court, police, prison etc much more smooth and hassle free . ICJS ensures quick access to documents like FIR, Case diary, charge sheet etc from one platform.[19]
3. NSTEP is a centralised process service tracking application comprising of a web application and a complementary mobile app designed to streamline the process of service of summons and notices. Introduction of AI has a great impact on disposal of cases.[20]

[16] BENGALI ABPLIVE.COM, https//bengali.abplive.com/topic/justice-abhijit-ganguly (last visited on Nov.13, 2023).
[17] OJP.GOV, https://www.ojp.gov/pdffiles1/nij/252038.pdf (last visited on Nov.13, 2023).
[18] PIB.GOV.IN https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1907546 (last visited on Nov.13, 2023).
[19] DISTRICTS. ECOURTS.GOV.IN, https://districts.ecourts.gov.in (last visited on Nov.13, 2023).
[20] E COMMITTEESCI.GOV.IN https://ecommitteesci.gov.in/nstep/#:~:text=NSTEP%20is%20a%20centralised%20process,designed%20to%20strea mline%20the%20process (last visited on Nov.13, 2023).

4. National Judicial Data Grid (NJDG) is a database of orders, judgments and case details of 18,735 District & Subordinate Courts and High Courts created as an online platform under the eCourts Project. Data is updated on a near real-time basis by the connected District and Taluka courts. It provides data relating to judicial proceedings/decisions of all computerized district and subordinate courts of the country.All High Courts have also joined the National Judicial Data Grid (NJDG) through web services, providing easy access facility to the litigant public. NJDG works as a monitoring tool to identify, manage & reduce pendency of cases. It helps to provide timely inputs for making policy decisions to reduce delays in disposing of cases and helps in reducing case pendency. It also facilitates better monitoring of court performance and systemic bottlenecks, and, thus, serves as an efficient resource management tool.[21]

5. In India, the use of AI for policing is very common. JARVIS, or Joint AI Research for Video Instances and Streams, is a video analytics platform that was introduced by the start-up Staqu in November 2019. It can assist law enforcement agencies in tracking each violent occurrence that occurs in a certain location. The Police may be able to mobilise officers to prevent any escalation of the incident and to contain any possible dangers to property and human life with the aid of such real-time event identification. This software's goal is to produce valuable data from lengthy CCTV video footage with brief, clear real-time notifications utilising AI and computer vision, greatly cutting the time it takes to produce useful data. Eight states and union territories, including Punjab, Haryana, Rajasthan, Bihar, and Telangana, are currently receiving services from Staqu. Punjab Police (2018) employed a similar programme and the Police Artificial Intelligence System (PAIS), which was created by Staqu. A database of more than 1 lakh records of criminals being held in jails around the state of Punjab is made available by the functionality of this product, which also allows for options like face and text searches. Product with identical features, called Trinetra has been also helping the UP Police.[22]

6. AI can be employed in DNA evidence, pattern recognition, crime scene

[21] BJS. OJP. GOV, http//bjs.ojp.gov/content/pub/pdf/wfbcjsin.pdf (last visited on Nov.13, 2023).
[22] APPSOURCE.MICROSOFT, https://appsource.microsoft.com/en-us/product/web-apps/staqutechnologiesprivatelimited1584519310889.jarvis_staqu?tab=overview (last visited on Nov.13, 2023).

reconstruction, digital forensics, image-processing, psycho/narco-analysis etc.[23]

7. AI can be used in a variety of fields, including digital forensics, image processing, psycho/ narcoanalysis, pattern recognition, crime scene reconstruction, and DNA analysis. By creating logical evidence, reconstructing crime scenes in 3D, handling evidence skillfully, and evaluating it to achieve logical conclusions at various levels of investigation, AI is assisting forensic specialists and investigators. AI-based algorithms are utilised for detection, prevention, and even prediction of future crime or criminal conduct since they can identify risk in large amounts of data.[24]

8. AI is also incredibly helpful for managing prisons. Using AI, it is possible to allocate cells depending on a variety of criteria, including the accused or convicted person's age, criminal history, family background, and type of crime committed. AI-based monitoring is the perfect remedy for:

- Put an end to the violence inside the prison
- Crowd research
- Threats to security are identified
- Detection of breaches or unauthorised entry into prisons.[25]

AI is used mostly for legal research and data base creation. Westlaw, Lexis Nexis, Google Scholar, Fastcase, Ross Intellegence are most recognized platforms providing legal research tools.[26]

Kiren Rijiju, the law minister, responded to the question of whether artificial intelligence (AI) can be used in judicial processes to shorten the length of time cases remain pending, stating that while implementing phase two of the e Courts projects, which have been in operation since 2015, a need was felt to adopt new, cutting-edge technologies of Machine Learning (ML) and Artificial Intelligence (AI) was felt to increase the efficiency of the justice delivery system. He said, “To explore the use of AI in judicial domain, the Supreme

[23] In Selvi v. State of Karnataka, the Supreme Court has laid down that Narcoanalysis test can be conducted on the accused person after seeking their consent. If the test is conducted on the accused without the consent of the person, it would violate Article 20(3) of the Indian Constitution. Further, it was held that the test should be conducted in the presence of the expert.
[24] Eman Ahmed Alaa El-Din, Artificial intelligence in forensic science: invasion or revolution?, 10 ESCTJ 20, 21-30 (2022), https://esctj.journals.ekb.eg/article_272046_4694247be2fec3aa3f89e32768714bae.pdf.
[25] RM.COE.IN, https://rm.coe.int/ai-in-prisons-2030-acjournal/1680a40b83 (last visited on NOV.13, 2023).
[26] LEGAL.THOMSONREUTERS.COM, https://legal.thomsonreuters.com/en/insights/articles/best-ai-for-legal-research (lastvisitedonNOV.13, 2023).

Court of India has constituted Artificial Intelligence Committee which has mainly identified application of AI technology in Translation of judicial documents; Legal research assistance and Process automation."

A number of law firms are now eager to test out new technologies for an instant reference on judicial precedents and pronouncements on cases with related legal issues at stake. The first law office in India to implement AI in legal research, analysis, and documentation was Cyril Amarchand Mangaldas. In order to improve and modernise their legal services and make them more effective and precise, they entered into an arrangement with Canada-based technology startup Kira Systems in 2017. Mumbai-based A "legal tech" company called Riverus has created ML software that, in a fraction of the time, can read through vast amounts of cases, "understand" them, and parse instances with similar content.[27]

- SUPACE, a hybrid of human and artificial intelligence that was previously described in the article, would not be employed in decision-making, according to Hon. CJI Justice Bobde. The gathering and processing of data will be the exclusive function of AI. Through this gateway, the Supreme Court plans to use machine learning to manage the volume of data it receives from case filings.[28]
- The Supreme Court created SCI-Interact software in 2020 to eliminate paper from all 17 of its benches. This computer programe enables judges to retrieve papers, add annexures to petitions, and take notes.[29]
- Earlier, the Ministry of Law and Justice's Department of Legal Affairs (DoLA) had unveiled a web-based programe named LIMBS, or Legal Information Management & Briefing System. The software might keep track of cases uploaded by the relevant Commissionerate's from high courts and tribunals. The goal was to efficiently follow a case's entire life cycle.[30]
- The Apex Court introduced SUVAAS, a locally developed neural translation tool, in November 2019 to more quickly and accurately translate judicial orders and

[27] ECONOMICTIMES.INDIATIMES.COM, https://economictimes.indiatimes.com/news/politics-and-nation/kiren-rijiju-justice-sanjay-kishan-kaul-point-to-significance-of-artificial-intelligence-in-arbitration/articleshow/98072092.cms?from=mdr (last visited on NOV.13, 2023).
[28] HBR.ORG, https://hbr.org/2022/09/ai-isnt-ready-to-make-unsupervised-decisions (last visited on NOV.13, 2023).
[29] ECONOMICTIMES.INDIATIMES.COM, https://economictimes.indiatimes.com/news/politics-and-nation/supreme-court-develops-software-to- make-all-its-17-benches-paperless/articleshow/75989143.cms?from=mdr (last visited on NOV.13, 2023).
[30] LEGALAFFAIRS.GOV.IN, //legalaffairs.gov.in/ (last visited on NOV.13, 2023).

judgements from English to vernacular languages.[31]

Benefits of AI in the Criminal Justice System

The use of AI in the criminal justice system in India can bring several benefits, including:

- Improved Efficiency: AI can analyze large amounts of data quickly and accurately, which can help in speeding up investigations and reducing delays in the legal process.
- Increased Accuracy: AI algorithms can analyze data without bias, which can help in ensuring that justice is served fairly.
- Cost Savings: AI can assist in reducing costs by automating routine tasks, such as document analysis, freeing up human resources to focus on more complex tasks.
- Crime Prevention: AI can assist in predicting and preventing crime, helping to keep communities safer.
- Enhanced Public Safety: AI can assist in identifying potential threats and vulnerabilities, helping law enforcement agencies to respond quickly and effectively to keep the public safe.[32]

Challenges in Implementing AI in the Criminal Justice System:

- Despite the potential benefits of AI in the criminal justice system in India, there are also challenges that need to be addressed. One of the most significant challenges is the lack of data and digital infrastructure in many parts of the country, which can limit the effectiveness of AI.
- There are also concerns around the use of AI, particularly around issues such as bias, privacy, and accountability. It is essential to ensure that AI is developed and implemented ethically and transparently, with appropriate oversight and regulation.[33]

[31] MAIN.SCI.GOV.IN, https://main.sci.gov.in/pdf/Press/press%20release%20for%20law%20day%20celebratoin.pdf (last visited on NOV. 13, 2023).

[32] OJP.GOV, https://www.ojp.gov/pdffiles1/nij/252038.pdf (last visited on NOV.13, 2023).

[33] THEAMIKUSQRIAE.COM, https://theamikusqriae.com/legal-implications-of-artificial-intelligence-in-the-criminal-justicesystem/#:~:text=Lack%20of%20human%20oversight%3A%20While,as%20when%20determining%20a%20sentence. (Last visited on NOV.13, 2023).

Conclusion and Suggestion

The convergence of Artificial Intelligence (AI) and the criminal justice system represents once- in-a-lifetime chance to transform how justice is delivered in our society. Artificial intelligence has the potential to overcome innate biases, optimize resource allocation, and improve decision- making processes. However, while we embrace AI's transformational capacity, we must proceed with caution, ensuring that ethical principles, transparency, and accountability drive its adoption.

The symbiotic interaction between humans and AI has the potential to establish a fair, efficient, and just criminal justice system. We can reduce prejudices that have plagued the criminal justice system for decades by leveraging AI's analytical capabilities. Subjective judgements impacted by race, gender, or socioeconomic variables can be mitigated by objective data-driven decision-making.

Furthermore, using AI to automate time-consuming tasks can free up valuable human resources, allowing legal practitioners to focus on more important areas of their work.

While AI has enormous potential, its deployment must adhere to strict ethical guidelines. Transparent algorithms, auditability, and strong data protection procedures are required to avoid bias reinforcement or the erosion of human freedoms. Human oversight should continue to be an important part of the decision-making process, ensuring that AI algorithms are constantly examined, evaluated, and held responsible. Collaboration among AI experts, legal professionals, and policymakers is critical for striking a careful balance between the benefits of AI and the protection of human rights and due process.

To fully realize AI's promise in the criminal justice system, we must be proactive in its development, deployment, and regulation. Here are some ideas for maximizing AI's benefits while maintaining justice, openness, and individual rights:

a. **Create extensive Ethical standards:**

Create extensive ethical standards governing the use of AI in the criminal justice system. These standards should address prejudice, transparency, accountability, and privacy protection, ensuring that AI algorithms and decision-making processes adhere to core justice concepts.

Implement Thorough Testing and Validation Processes for AI Algorithms:

Implement rigorous testing and validation processes for AI algorithms. Audits should be

performed on a regular basis to identify and correct biases or unintended outcomes. Independent third-party evaluations can boost public trust in AI systems employed in criminal justice.

b. **Human Oversight and Continuous Monitoring**:

Human oversight should be an inherent aspect of AI systems. Regular monitoring and evaluation should be carried out in order to detect and correct any biases or errors that may occur. To maintain accountability and resolve any concerns, a clear feedback loop between human operators and AI algorithms should be built.

c. **Collaborative Research and Development**:

Encourage collaboration among AI experts, legal professionals, and policymakers in order to advance research and development in AI technology specialised for the criminal justice system. To achieve a holistic approach and to consider multiple perspectives, this partnership should comprise interdisciplinary teams.

Data Governance and Privacy Protection: Create strong data governance structures to safeguard the privacy and confidentiality of those involved in the criminal justice system. Strict processes for data collection, storage, access, and sharing should be in place, with a special emphasis on preventing unauthorised use or discrimination based on sensitive information.

d. Public knowledge and Education:

Support activities to increase public knowledge and comprehension of AI technologies in the criminal justice system. Engage communities, legal professionals, and civil society organisations in debates about the benefits, hazards, and ethical implications of artificial intelligence.

We can negotiate the incorporation of AI into the criminal justice system responsibly and successfully if we follow these recommendations. We can construct a system that preserves the concepts of fairness, equity, and justice by accepting AI as a tool that supplements human judgment. The potential for AI to improve the criminal justice system is enormous, and by building a route led by ethical considerations and public trust, this promise can be realized.

URBAN SUSTAINABILITY AND THE RIGHT TO THE CITY: AN INEXORABILITY

Dr. Deepthi Rodda

Research Associate, Damodaram Sanjivayya National Law University, Visakhapatnam,

Email: dipthirodda@gmail.com

Abstract

The insufficient legal recognition of the right to the city limits the full scope of urban sustainability. The present article is based on this, in which, with the use of sociological, analysis-synthesis, theoretical-legal and hermeneutic-legal methods, the issue of the right to the city is approached from the intrinsic relationship it has with urban sustainability. In its development, aspects related to urban sustainability and the right to the city is addressed, in accordance with the most common conceptions used, its dimensions and the indicators that determine its presence, as well as the main limitations it currently has. It also assesses the position of this issue on the agendas of the main global, regional and national organisations, as well as the main actions and legal support to contribute to its realisation. Emphasis is placed on how urban sustainability is becoming a priority issue for States and how the legal recognition of the right to the city can contribute to its improvement.

Keywords: Urban Sustainability, Individualization, Socialization, Materialization, Industrialization, Right to the City;

Introduction

Urban sustainability is a topic of great importance, especially when we see how those cities whose planning takes into account the environmental, economic and social dimensions are more likely to have a more harmonious development. It is a term marked by polysemy, which requires an analysis of the indicators that determine it and the context in which it is assessed, in order to be better understood. The position of this issue on the agendas of the main global, regional and national organisations, as well as the main actions and legal backing to contribute to its realisation, are not ignored either. The considerations offered with regard to sustainability are dissimilar; not all countries have the same vision of it, although it is possible to find elements that determine certain regularity. It is a concept that, despite the debates related to its definition and scope, represents an important code for the organisation of national, regional, rural and urban development in different continents and countries. It is necessary to overcome

the tendency to simplify it to the aspects most closely related to the environment without integrating it to its full potential as a basis for integrated planning.[1]

Urban sustainability is the search for sustainable urban development that does not degrade the environment and provides quality of life for citizens. Without renouncing economic development, it must contribute to solving the two main complications caused by the current economy: social inequality and ecological degradation. As a viable paradigm, it provides a new vision for urbanism, as it aims to integrate ecosystem protection, social participation and equitable economic development. In the face of sprawling urban centre's and the high demand for environmental goods and services that this generates, it is one of the main ways to ensure liveability in cities.[2]

One of the characteristics of the current era is precisely the accelerated urbanisation that is evident on a planetary scale; it is not always accompanied by the necessary infrastructure and, increasingly, cities are experiencing crises that reveal unquestionable symptoms of urban unsustainability: social and spatial segregation, disadvantaged neighbourhoods, inequalities in access to facilities and services, among others. The will of the States has great relevance in terms of the actions that are established to counteract such problems; in fact, some are committed to the right to the city as one of the useful alternatives in this regard; above all, from a legal perspective, while recognising, as states, that this is not enough.

When delving into the content of the right to the city, it is possible to notice the close link it has with urban sustainability. It is a right that is under permanent collective construction; so much so that from the first approach to it, in 1968, by the French philosopher Henry Lefebvre, to the first time that the right to the city has been discussed, it is possible to see the close link between the right to the city and urban sustainability.[3]

At present, there are many different conceptions of it. It is strongly based on the application of principles based on human dignity, equality, social justice, equity and others. Lefebvre identifies it as a higher form of law: the right to freedom, to individualisation in socialisation, to habitat and to residence.[4] He was followed by other important academics and researchers

[1] NASEAM, *Pathways to Urban Sustainability: Challenges and Opportunities for the United States*. Washington, https://doi.org/10.17226/23551 (Jan. 15, 2023).
[2] E. Soja, *The Socio-Spatial Dialectic, Annals of the Association of American Geographers*, 70 AAAG 201, 207–225 (1980).
[3] MARIUS PIETERSE, RIGHTS-BASED LITIGATION, URBAN GOVERNANCE AND SOCIAL JUSTICE IN SOUTH AFRICA: THE RIGHT TO JOBURG 76-79 (1st ed., Routledge: Taylor & Francis, 2017).
[4] Marie Huchzermeyer, *Humanism, creativity and rights: invoking Henri Lefebvre's right to the city in the tension presented by informal settlements in South Africa today*, 85 TRANSFORMATION 64, 77-79 (2014).

who focused their studies on this new right and contributed to visualising it from other angles. The enquiries related to the right to the city are significant; what is not revealed in the same way in its link with urban sustainability. In relation to the latter, there is also an important academic production; however, it is generally approached from its economic and environmental dimensions, with the social dimension remaining more limited. The greatest attention is paid to it by disciplines such as Architecture, Geography and Urban Planning; they produce a body of legislation and doctrine that helps to give a modern treatment to the subject and to structure important debates under the aspect provided by Legal Science. Thus, the theme addressed in this article can be admitted as little dealt with and of little theoretical-practical knowledge, which determines its timeliness, novelty and relevance, as well as the pressing need to develop it. It focuses on how the right to the city can counteract manifestations of urban unsustainability.[5]

Methodology Used

Depending on the objective set, various methods are used: some are general methods of the Social Sciences, such as sociological and analysis-synthesis; others are specific to the Legal Sciences, including legal-theoretical and legal- hermeneutic methods. Through the sociological method, concepts and techniques are applied that facilitate the collection of data in order to interpret aspects related to the phenomenon of urban sustainability from the social dimension. For its part, the analysis-synthesis method facilitates the decomposition of the elements related to the right to the city and urban sustainability, which are finally integrated on the basis of their interconnections. The legal-theoretical method is used as an essential tool, bearing in mind that this is a doctrinally controversial subject. The hermeneutic-legal method is used to assess the meaning of the right to the city in its connection with urban sustainability, all of which favours a specific approach to this right, to human reality, which is, by essence, interpretative.

Conceptual Framework

A better understanding of the nexus between urban sustainability and the right to the city requires a deeper understanding of their concepts and others with which they are strongly linked, such as urbanisation and the city. As an important part of the habitat, the city, since its origin, has been the focus of human development. Given the current boom in the phenomenon of urbanisation, its value is multiplied by everything related to it in all its facets. The concept

[5] Mark Purcell, *Possible Worlds: Henri Lefebvre and the Right to the City*, 36(1) J. URB. AFF. 141, 147–154 (2013).

of urbanisation depends, to some extent, on the society in which it is used. For the purposes of this paper, we follow, in admitting it as a process through which a relationship with space is modified, without this link being univocal; it can be used in different ways, according to the social and cultural characteristics of the group that occupies it.

In addition, it is important to bear in mind some aspects that complement this notion, as well as the criteria of each country to define it. The term city, on the other hand, is sometimes used to designate a specific urbanised political-administrative entity, or in some cases, to describe an area of contiguous urbanisation, which may include several administrative entities. Depending on the country in question, different elements are taken into account to define it; most of them include population, population density, legal status and the fact that it is mainly dominated by industry and services. There is a great deal of agreement in admitting that within urban entities, the city is the most densely populated.

Cities are an expression of the development achieved by humanity from its origins to the present day. With regard to their conception, there are dissimilar criteria, above all because they can be analysed from the perspective of various disciplines, including: Sociology, Anthropology, and Geography, Urban Planning, Literature, History, Social Geography, Economics, Statistics, Philosophy and Law, the latter being the focus of the present analysis, although it starts from more general questions. Defining the city is no simple task, as it is the result of the perspective from which it is viewed in the State to which it belongs, despite the existence of regular elements that can be taken into account internationally.

It is precisely at this level that, various documents and legal instruments are developed, which in some way contribute to shaping what is known as the city. Among them is the 2005 World Charter for the Right to the City.[6] From a geographical and spatial planning point of view, is very correct in identifying the city as an urban space or territory, in addition to having a certain number of people and the fact that it contains essential public services for human beings. From this and other criteria analysed, it is a somewhat generalised idea to consider it as a territorial space, where there should be a certain concentration of population, and an accumulation of both economic and social activities.

There is greater agreement that each type of society implies a characteristic city, inextricably interwoven with its typical social structure; it forms a complex system characterised by continuous processes of development and change; defined by the concentration of means of

[6] UN-Habitat, 2005, art. 1.4.

production, population, financial, administrative, political and service resources. In defining the city from the perspective of Law, the observations made by other sciences are taken as a basis, and it is not lost sight of the fact that even in the legal sciences there is also a multidisciplinary perspective. Therefore, in her link with the right to the city, the author takes into account the need to value it legally, without losing its integral focus, by virtue of which it is considered as a local political community, understood as both a collective space and a suitable place for the political, economic, social and cultural development of the population.

In the current global context, cities face a variety of challenges. The one that stands out is sustainability, for which it must become a strategic space of new territorial centrality, from which to offer more appropriate responses to diversity and the new challenges that arise: counteracting social exclusion; preventing territorial hyper specialisation; avoiding inequalities between places and the people who live there; reconciling global and market pressures on the city with the social and collective aspirations of its inhabitants, so that the pre-eminence of one does not make the other invisible; and the need to reinvent oneself, politically and culturally so that it can respond efficiently to the needs that its functional expansion implies. Urban sustainability, despite being valued from different approaches and perspectives, suggests the quality of people's living space; it is very relevant nowadays in view of the well-known positive and negative effects brought about by the phenomenon of urbanisation. For this reason, it is accepted as an essential reference for the present 21st century to emerge as a new paradigm in urban planning. In these conceptual analyses, one cannot lose sight of the fact that sustainable urbanism is not synonymous with sustainable development.[7]

The latter is broader and establishing it does not depend exclusively on urban planning. However, the application of the term sustainability has some pitfalls, among which the concept of sustainable development itself stands out. Its meaning is universally accepted; however, there is no uniformity of criteria for its assimilation; in this sense, there are multiple interpretations, some of which deviate considerably from the original meaning that marks its genesis. Thus, conceptualisations fluctuate, from those that put economic growth before the environment, to those that consider that sustainable development has more to do with the absolute protection of nature even at the expense of human well- being. This shows that each expression of sustainability is based on a particular point of view in society, determined by ideological, scientific and social factors, conditioned at the same time by the interests of the

[7] HENRI LEFEBVRE, THE URBAN REVOLUTION 124-132 (Minnesota University Press, 2003).

actors involved and the circumstances surrounding them. It is this author's opinion that sustainability necessarily implies the holistic integration of the environmental, economic and social dimensions; this transcends urban sustainability; to ignore it would be to conceive it in a partial way.

Environmental sustainability implies that urban planning should cause the minimum impact on the environment and space; the city is developed by proposing to consume the least amount of resources and energy and to generate the least possible amount of waste and emissions. In this sense, urban planning also seeks environmental restoration, which is why ecological planning must be implemented as a strategy for organising the city economic activities, as well as the rational use of the territory, making the territorial vocation congruent with the productive activities and constructions of the city, the different interventions and functions that are envisaged for a given territory and the balanced socio-economic development between regions.[8]

In relation to economic sustainability, urban development must be economically viable, which means that it should not consume more resources than those strictly necessary in development projects and at the same time, these must provide an economic advantage to the city and its inhabitants, which obviously includes the generation of jobs and increase the competitiveness of the city, with the intention of generating economic equity among society. In addition, urban development must incorporate sustainable technologies in its constructions and real estate and thus generate business opportunities in this field.[9] Social sustainability, on the other hand, is a way of ensuring the well-being of society; in order to be sustainable, any urban project must respond to the social demands of its surroundings, improving the quality of life of the population, and ensuring citizen participation in the design of the project.[10]

This multidimensional integration in urban planning means that the conditions for improving the quality of life in the city are based on the physical determinants of the environment and the improvement of human living conditions, which requires economic progress and social development. [11]Therefore, in order to achieve urban sustainability, it is necessary to find

[8] Ian Scoones, *The Politics of Sustainability and Development*, 41(1) ANL. REV. ENV. & AND RE. 272, 293-319 (2016).
[9] Henita Rahmayanti, *et al.*, *The Role Of Sustainable Urban Building in Industry 4.0.*, J. PHYS.: CONF. SER. 1387 23, 35-37 (2019).
[10] Basiago, *Economic, Social, and Environmental Sustainability in Development Theory and Urban Planning Practice*, 19 THE ENV.LIST 145, 156-161 (1999).
[11] Fatimazahra Barramou & Khalifa Mansouri, *et.al.*, *Toward a Multi-Dimensional Ontology Model for Urban Planning*, 12(6) J. GEO. INFO. SYS 23, 24-27 (2020).

solutions related to the allocation of physical spaces for urban expansion, with the concession of social and economic activities and new ideas and construction design, which facilitate the compatibility between environmental services of the city with the human actions of a city; all with the intention of minimising the negative impacts of these on the environment and enhance economic and social development. Without renouncing economic development, the two main complications caused by the current economy must be resolved: ecological degradation and social inequality. The city is highly dependent on the environment and at the same time transfigures it; it requires the use and exploitation of the elements provided by nature, because by using and transforming them it ensures their permanence and their possibilities of reproduction and expansion at a given time, so that misuse deteriorates the quality of urban life. Urban sustainability, therefore, is the search for sustainable urban development that does not degrade the environment and provides quality of life for citizens, where the demands of the economy, environmental protection and everything that implies social cohesion are harmonised .[12] The right to the city is also characterised by polysemy, especially if we take into account that it is under permanent discussion and construction. It represents a notion whose content is transformed over time, also according to the scenario in which it unfolds. Since the end of the 60s of the twentieth century, when the international level has seen a broad expansion of academic production on the subject, as well as its approach through international organisations, networks, social movements, international and national instruments and others from civil society organisations, which promote its development.

The dissimilar considerations offered with respect to this right, since its genesis, serve as a substratum to understand what is currently being said about its definition. It should not be overlooked either that the indicators respond, to some extent, to what is stipulated in each State, because although principles, policies and guidelines are drawn up at different levels, it is there where they are implemented, in accordance with their peculiarities, there are other reasons that also limit their establishment; although it is not the aim of this paper, it is worth considering them. First of all, the urban sphere is unclear, i.e. the physical or administrative boundaries of the city are not always clear, which is why we usually work with the municipal division, which serves as a homogeneous starting point, but is not ideal. Another issue is the lack of data, as data collection for the purpose of making comparisons of urban settlements at the global level

[12] D. Harvey, *The Right to the City*, 53(September–October) NEW L. REV. 20, 23-40 (2008).

is complex; many of the data that characterise cities are widely dispersed. In addition, they are not always correctly weighted, which has repercussions on their significance.

Finally, there is the lack of a homogeneous methodology for temporal and spatial comparison, especially for comparison at the global, regional or national level when homogenising quality of life and development levels between different cities, even between neighbourhoods within the same city. Here it is also appreciated that not all cities have the same urban structure. In view of this situation, several organisations are promoting actions that contribute to achieving progress in the determination of sustainability indicators applicable to urban planning and that in some way serve as a guide for States, without ignoring their willingness to establish other criteria as well. However, it is worth mentioning the United Nations Organisation and with it, the Habitat Programmes and Agenda 21 (UNCED, 1992, Art. 40), of the 1992 United Nations Conference on Environment and Development, which plays a fundamental role in this framework, above all for its scope and for proposing important criteria for the evaluation of sustainability. From the above, it can be seen that most indicators of sustainable urban development today seem to have the same structure. They refer essentially to the physical or environmental, to socio-demographic and economic aspects, and finally to the availability of alternative, more sustainable lifestyle options, which are of great importance when integrating physical sustainability and economic well-being. It is also noteworthy that not all indicators are oriented towards the same urban model, which makes it possible to differentiate between two large groups with different problems: cities in developed countries and cities in developing countries. In developing cities, the proposed indicators focus on issues related to the sustainability of minimum standards of quality of life and development. In this way, issues such as the number of dwellings connected to supply and sanitation networks, life expectancy at birth, female-headed households, households below the poverty line, among others, are indicated. Developed countries, especially those with a long urban tradition, have high living standards and successive phases of industrialisation. The sustainability of development focuses on aspects such as the quality of the urban environment and surroundings, as well as the solution to problems arising from high population concentration and internal mobility.[13]

In both cases, the indicators are also that the political system of the society in question ensures the effective participation of citizens in decision making. In addition, economic, social and ecological needs must be addressed jointly and the economic system must be able to

[13] A. LEICHT, J. HEISS, *et.al.*, ISSUES AND TRENDS IN EDUCATION FOR SUSTAINABLE DEVELOPMENT 200-209, (UNESCO Press, 2018).

generate surpluses and know-how in a self-sufficient and sustainable manner. It must also include a participatory process with local residents. This includes the social system offering solutions to the tensions arising from non-harmonious development, in addition to the production system respecting the obligation to preserve the ecological basis of development. There needs to be an equivalent multi-sectoral community forum or group to monitor the process.

Significantly, it is recognised that the existing technological system must constantly seek new solutions and that an Action Plan with long-term goals must be prepared. The management system must be flexible and self-correcting. A monitoring and evaluation framework needs to be in place, as well as indicators to measure progress. There are other criteria that also indicate sustainability, which correspond to the following elements: mixed land use, where the rights of people and nature coexist; use of compact building design, where their interdependence is recognised; creating a variety of housing opportunities and options; respecting the relationship between spirit and matter; creating walkable neighbourhoods; promoting distinctive and attractive communities with a strong sense of place; preserving open space, agricultural land, natural landscapes and critical environmental areas; eliminating the concept of waste; strengthening and directing development towards existing communities; reliance on natural energy flows; presence of a variety of transportation options; making development-related decisions as predictable, fair and effective as possible; seeking constant improvement in knowledge sharing; and finally, promoting community collaboration in development decisions.[14] The analysis of these indicators, in addition to serving as a guide to determine the state of societies, acquires great connotation as it also facilitates the assessment of the main features of urban unsustainability at present. These can be grouped into those of a social, economic, territorial and urban nature. The former include marginalisation, exclusion, poverty, stratification, abandonment of historic centres, effects of separation from work and home environments, loss of one's own culture and alienation.[15]

Economic features include: unemployment, excessive tertiarization of the economy, little economic diversification, dependence on foreign resources, increasing mobility and the energy needs of the local economy.

[14] Basiago, *Economic, Social, and Environmental Sustainability in Development Theory and Urban Planning Practice*, 19 THE ENV.LIST 145, 156-161 (1999).
[15] A. Ramachandran, *Impacts of Urbanization on the Lifestyle and on the Prevalence of Diabetes in Native Asian Indian Population*, 44(3) DI. RESEARCH & CLINICAL PR., 199, 207-213 (1999).

Territorial and urban planning issues include: lack of roads for vehicles, lack of open spaces, poorly functional buildings, limited recreational areas, and unregulated land consumption in the urban perimeter, sub-urbanisation, and the need for transport infrastructure, among others. In general, as described in previous paragraphs, the manifestations of urban unsustainability are not expressed equally in all societies, but it is possible to refer to some regularities, worthy of concern, that threaten the full development of people, mainly in the dissimilar urban settlements. It is clear that in cities marked by these unsustainable conditions, it can be seen that there is a concentration of people who accumulate unsustainable factors. Vulnerability, such as broken and single-parent families, disabled or socially maladjusted people, a low level of education, vocational training that is obsolete for the labour market, who have scarce economic resources and a greater dependence on social benefits.

In many cases their housing is inadequate and they occupy peri-urban areas or undeveloped land, and it should be noted that they generally form poorly maintained settlements, with environmental degradation, deficient services and poor accessibility. It also coincides with the fact that in some of them there is a concentration of immigrant population with different cultures, languages and ethnicities, which makes it difficult for them to integrate into local society.

Contradictorily, to a considerable extent, far from resolving these problems, they are increasing. There are processes that reinforce, in the most vulnerable, situations of decline. Among the most significant of these are public interventions (works, regulations) that isolate and block a neighbourhood or city, preventing its regeneration; progressive accumulation of housing for vulnerable groups, due to zoning and ordinances that do not facilitate the diversity of supply in the same neighbourhood; progressive concentration of very vulnerable groups in central or peripheral areas, which in many cases are substandard housing or have minimal conditions of habitability; inadequate policies with particularly vulnerable groups that enter a cycle of marginalisation, especially children, young people, women, the elderly and the disabled.

In addition to the above, there are other situations such as the following: disappearance of local businesses, which close or relocate, and rejection of new investments due to issues of social environment, physical environment, insecurity; informal economy environment and tendency of some sectors to marginalisation, given the extension of job insecurity; lack of resources in the family environment and in social networks, as a consequence of the scarcity of work of the members, the reduction and irregularity of income and the scarce patrimony; difficulty for

residents to access new vocational training and jobs, and even to consider their potential skills; lack of adequate opportunities and lack of information and advice on existing opportunities in terms of training, the labour market, support for entrepreneurship; finally, insufficient support for the cultural and associative life of neighbourhoods and, in particular, ignorance of the participation of those affected in decision-making and in the implementation of the policies that most affect them.[16] Although these circumstances are not the same, as has already been stated, there is a similarity in the causes that give rise to them: moving to cities, where it is assumed that better living conditions exist, even if it is to settle in places that do not have the possibilities of these; as well as the absence of coherent and effective generalised policies with respect to the transformation of these realities. The same need to articulate a vision of equity and inclusion in the treatment of territorial and social problems in the urban environment determines that dissimilar social movements, governmental and non-governmental organisations at different levels, from local to global, in several countries, incorporate in their missions, focus, analysis and work projections, issues related to cities as engines of global growth and the consolidation of urban sustainability in the world. An example that illustrates this is the fact that the Member States of the United Nations hold the United Nations Conference on Housing and Sustainable Urban Development every 20 years. This process is led by the UN's lead agency on urban development, the United Nations Human Settlements Programme, better known as UN-Habitat. These meetings are an occasion to discuss guidelines and define actions to strengthen global political commitment to environmentally sustainable, balanced and equitable social development of towns, cities and other human settlements, both rural and urban, and to ensure socially and environmentally sustainable, balanced and equitable urban development.

The first conference, Habitat I, was held in 1976 in Vancouver, Canada. Twenty years later, in 1996, Habitat II was held in Istanbul, Turkey. Both conferences recognised, among other things, the need to promote sustainable urban development, ensure adequate shelter for all and generate sustainable human settlements in an increasingly urbanised world. The Urban Agendas are adopted as a guide to achieve the adopted agreements. If it is a question of measuring their impact, it is worth recognising that since then, more than a hundred countries have endorsed the right to adequate housing in their Supreme Laws.[17]

[16] David Harvey, The Right to the City, DAVIDHARVEY.ORG (Feb.21, 2023), https://davidharvey.org/media/righttothecity.pdf

[17] UNHABITAT, https://unhabitat.org/history-mandate-role-in-the-un-system (last visited Jan. 6, 2023).

The year 2000 marked a very important milestone with the Millennium Summit, which, by virtue of giving continuity to what was agreed in the Habitat Agendas, brought together the main provisions of these agendas in what are known as the Millennium Development Goals. One of its priorities is to eradicate poverty and ensure environmental sustainability. The basic precepts of the Habitat Agenda are also supported by other highly relevant meetings, such as the World Summit on Sustainable Development in 2002 and Rio+20 in 2012. [18]

Similarly, the World Urban Forum in Medellin, Colombia, in 2014, which, based on the exchange of various representatives of governments, the private sector, international organisations, academia and other actors, reaffirmed commitments to integrate urban equity into the development agenda, is an important action. In this arsenal of pro-urban sustainability actions, the Post-2015 Development Agenda, which has become a guide of goals to be achieved in 15 years to address the global development agenda, includes a specific goal for the sustainable development of cities and human settlements.[19]

October 2016 marks the time of the Habitat III Conference in Quito, Ecuador, where the global commitment to sustainability is reinvigorated. The international community collectively assesses rapidly changing urban trends and the ways in which these patterns are impacting human development, environmental well-being and civic and governance systems around the world. It adopts a New Urban Agenda, which enables new goals to be set and strategies to be implemented that respond to the challenges of this increasingly urbanised age. It seeks to reconcile, with greater emphasis than previous ones, the inescapable link between urbanisation and development. To this end, it addresses in depth the so-called development enablers and operational mobilisers.

It cannot be overlooked that this event is taking place in circumstances that mark high levels of inequality, especially in urban areas, where two-thirds of the population is believed to be experiencing greater inequality than two decades ago.[20]

Attempts to achieve sustainable urban development are already going back some time in history. Expectations have not yet been fulfilled, but progress is being made, at least in terms of raising awareness of the issue, not only by the organisations mentioned above, but also by civil society, which is increasingly integrating a growing number of social movements,

[18] Ivan Turok, *Cities, Regions and Competitiveness*, 38(9) REGIONAL STUDIES 46, 52-56 (2004).
[19] Marcelo Souza, *Which Right to Which City? In Defense of Political-Strategic Clarity*, 2(1) INT. J. & SOC. MOVETS. 61, 72-73 (2010).
[20] UN-HABITAT, *UN Conference on Housing and Sustainable Urban Development : Habitat III*, https://www.scconline.com/blog/wp-content/uploads/2020/07/20th-Harvard-bluebook.pdf, (Dec. 27, 2022).

protagonists of these struggles for an efficient urbanism where cities respond to the main current problems, so that they can become fairer, more supportive, equitable and respectful of differences.

The above justifies the incessant search for more concrete and effective alternatives that help to convert urban space into a relevant scenario for social change, given that, as is evident, the greatest limitations are concentrated in it. Thus, new institutions appear, such as the right to the city, outlined from different dimensions, the legal dimension being of transcendental value in relation to what is analysed in this paper. Right to the city vs. urban unsustainability New ways of thinking about the city and other human settlements are demanded; and therefore, new ways of dealing with urban problems, revealing manifestations of urban unsustainability. In the face of this, the right to the city is presented as a proposal whose connotation is growing, above all because of its meaning, its scope and the elements of effectiveness that it can provide from a legal perspective.[21]

The right to the city implies significant structural transformations that transcend the patterns used for the form of appropriation of territory and natural resources. It refers to the search for solutions against the negative effects of globalisation, privatisation, scarcity of natural resources, increasing global poverty, environmental fragility and their consequences for the survival of humanity and the planet.

The models of urban development, the function of the city, the determination of urbanisable spaces, the existence of public spaces and other aspects that point towards sustainability, are decisions that affect society as a whole in one way or another. The right to the city includes several aspects in its content, which, by their very nature, have a direct capacity for action and can deploy their greatest effects around sustainable urbanism; from them we can see the close relationship between the two.

García states that it is not exactly a new right, given that it provides for the effective fulfilment of all internationally agreed human rights, the Sustainable Development Goals and the commitments of the Habitat Agenda. This right offers concrete instruments to transform human settlements into a commons and a collective creation. It contributes to the implementation of the paradigm on cities and territories as rights, which requires fundamental changes in the conceptions, knowledge, attitudes and practices of a broad spectrum of actors and institutions at multiple levels. This same author recognises that this is a right that, thanks to the elements

[21] Kirabo Kacyira, *The Future We Want*, 94(1&2) UN-Habitat (2012).

it presents, can be admitted as a valuable alternative, focused on the local level, with a great impact on the attention to urban problems that, when assessed on a higher scale, often go unnoticed, including: socio-spatial exclusion; territorial inequality in terms of employment, services and infrastructure; the quality and accessibility of public spaces, among others.

It is also supported by who warns about its vindicative sense in terms of human settlements and urban development. The right to the city, as asserts, has the particularity of not looking at the individual in isolation, but rather of considering him or her as part of a whole, as an integral part of humanity; it contributes to interpreting the needs and desires of the natural person seen in its social dimension. Among the merits of this right, in its link to urban sustainability, is that its full and effective materialisation requires the respect, protection and fulfilment of all human rights without exception, along with the concrete principles and rights that specifically emanate from the right to the city: the social function of the city, the fight against socio-spatial discrimination, quality public spaces and sustainable and inclusive urban-rural linkages.[22]

Tibaijuka[23] indicates that it is a collective right of all the inhabitants of the city, especially those who are vulnerable and disadvantaged, which is reinforced by López (2000), alluding to the facets in which it manifests itself.[24] It is suggested that this right incorporates a collective interest, that is, a need that is not attributable to a single individual but to a collectively, which is synthesised in the equitable usufruct of what the city has to offer under criteria of sustainability, equity, equality and social justice.[25] Human rights outline the contours of what the city has to offer and determine that it is not subject to the sway of political will. The right to the city, as Correa also affirms, implies a series of particular and social benefits, which individually considered can be claimed as a particular right, for example, decent housing, public space, building safety, mobility, etcetera. However, the sum of these interests, together with many others, draws its outline, which without eliminating the characteristics of each of them, configures an interest, a new right, which as a whole, is considered a collective right.[26]

[22] U. Ramanathan, *Illegality and the Urban Poor*, 41(29) ECO. & POL. WKLY 13, 20-22 (2006).
[23] ANNA KAJUMULO TIBAIJUKA, *Report of the Fact-Finding Mission to Zimbabwe to assess the Scope and Impact of Operation Murambatsvina by the UN Special Envoy on Human Settlements Issues in Zimbabwe*, https://unhabitat.org/sites/default/files/documents/2019-05/wuf-5.pdf (Jan. 18, 2023).
[24] R. Shukla, Rights of the Poor: An Overview of the Supreme Court, 41(35) ECO. & POL. WKLY 7, 8-12 (2006).
[25] Lopez RP and HP Hynes, *Obesity, Physical Activity, and the Urban Environment: Public Health Research Needs*, 25(2) ENV. HEALTH. 35, 42-44 (2006).
[26] RIGHT2CITY, *Declaration on Human Rights Day and the Right to the City*, https://www..org/news/declaration-on-human-rights-day-and-the-right-to-the-city/ global platform for right to city (Feb. 12, 2023).

The effective materialisation of urban sustainability in its environmental, economic and social dimensions coincides with the content of the right to the city, which can counteract the manifestations that threaten it. There are different challenges to be taken on so that this right can finally contribute, through its application, to the verification in practice, regardless of the type of society in question, of the indicators that reveal the existence of such sustainability. Firstly, there is a need for greater legal recognition of the right to the city. While it is true that progress is being made in this area, it is still insufficient. Few countries include it in their supreme laws, in this case, Ecuador and Mexico, and in other provisions of the legal system, the most important of which are France, Brazil, Ecuador, Argentina and Mexico: France, Brazil, Ecuador, Argentina and Mexico. This is perhaps based on the original relationship between the Constitution and the right to property, as stated by Martinez, who also warns about the possibility of the Supreme Law assuming at a given moment that the decision on public space and urban planning is related to decisions of a political nature, based on the collective will.[27]

The other major challenge is that wherever such positivisation is achieved, institutional frameworks and platforms for the enforceability of this right should be created and promoted to facilitate the full observance of what its content implies. This is the only way to ensure that the right to the city, by representing a claim of citizenship as an essential attribute of the urban, is declined, as far as urban planning is concerned, in planning for complexity, social relations, sustainable mobility, accessibility, collective identity, citizen participation and the main aspects that contribute to sustainability, in its multidimensional nature.

Results obtained

1. A characterisation of manifestations of urban sustainability in order to determine the limitations that are present in today's societies.
2. A systematisation of theoretical assumptions concerning the relationship between urban sustainability and the right to the city.
3. A rationale that helps to argue for the application of the right to the city to contribute to the achievement of greater urban sustainability.

[27] RITA VELLOSO AND MIGUEL A. MARTÍNEZ, PRINCIPAL INVESTIGATORS. URBAN STRUGGLES FOR THE RIGHT TO THE CITY AND URBAN COMMONS IN BRAZIL AND EUROPE 167-181 (The Swedish Foundation for International Cooperation, 2019).

Conclusion

Urban sustainability has indicators that, although they have their particularities according to the society in which they are verified, reveal how it has limitations, the expression of which also differs in the different contexts. Nevertheless, similarities are recognised in the causes that give rise to them, as well as the need to counteract them through the willingness of states to design and implement concrete and effective actions, as well as the application of more viable alternatives to those used to date. From various theoretical and comparative assumptions, the close relationship between urban sustainability and the right to the city is recognised, as well as the viability of the latter in terms of its contribution to the achievement of the former. The right to the city is revealed as one of the legal proposals for change in the face of manifestations of urban unsustainability; however, despite its growing connotation, not all countries endorse it or appreciate its meaning and scope in the same way in their legal systems, and there are insufficient platforms of enforceability to make it effective, in terms of compliance with the indicators foreseen to guarantee urban sustainability.

IMPACT OF MACRO ECONOMIC VARIABLES ON ECONOMIC CRIME IN INDIA: AN EMPIRICAL ANALYSIS

Dr. Poulomi Khasnobis
Visiting Faculty, IIIT Kalyani, Email: id: titlyecono@gmail.com, ORCID ID-0009-0005-3996-1110

Abstract

This paper attempts to shed light on the relationship between Economic crime and Institutional factors (police and court) in twenty Indian major states using Panel Data analysis. Major states are Andhra Pradesh, Assam, Bihar, Goa, Gujrat, Haryana, Himachal Pradesh Kerala, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Odisha, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal. The selection criteria of major Indian states are highest population density in last census 2011.Data are taken from the Reserve Bank of India the and National Crime Record Bureau. Results declare that the economic crime rate increases with economic growth. Industrial Worker is the proxy of Urbanization. Urbanization leads to more economic crime. Police and Court are two institution which control Crime. Charge sheet rate is the performance indicator of Police and Convicts rate is the court's performance indicator. Institutional factors like charge sheet and convict rate significantly reduce Economic crime in major states. As a policy prescription may conclude that law and order should be strengthened to control economic crime in India.

Keywords: Economic Crime, SGDPPC, C-D ratio, Charge sheet rate and Convicts rate.

Introduction

Crime is the source of insecurity and discomfort of our society. Economists have recognized that it is the result of Underdevelopment. Various literature shows that unemployment, illiteracy, inflation, and poverty play an important role in crime. Most of the studies reveal a negative relationship between crime and economic growth. But it gives the opposite result in Pakistan, Economic growth has no role to increasing crime.[61] Crime increases with poverty, unemployment, and income inequality. But paper reveals the opposite result crime rate decreases with the poverty in Pakistan.[62] In Indonesia Unemployment negative impact on

[61] Ahmed., A., Ali, S., and Ahmed, N. (2014), "Crime and Economic Growth in Developing Country", Journal of Basic and Applied Scientific Research., Vol.- 4(4), pp 31-41.
[62] Ibid.

crime.[63] Crime decreases as Crime decreases in sheds light on education. Crime may control by police personnel and conviction rate.[64] There are two legal sections IPC and SLL according to the law and enforcement in India. Here we have discussed Economic crime which is under the IPC. Breach of trust, Counter hefting, Forgery, and Cheating is included in Economic crime. There is dearth of literature which focused on the detecting factors of economic crime. Main objective of this paper is to identify the socio demographic factors which responsible for crime and impact of institutional factors which combating crime. There is main two institutions police and prosecution which combat the crime. The performance indicators of police and court are chargesheet rate and convict rate. In this study, we have selected twenty major Indian states in India according to the population density in the census 2011 during the period of 1994-2018.Paper is organized in following ways: it begins with the literature review, second part is discussed about the sources of data and using methodology, third part of this study focused on the result analysis and fourth pat, we have discussed conclusion, policy suggestion.

Literature Review

We have discussed some literature which also focused on the relationship between socio-economic factors of crime. Some literature uses time series data, panel and country level data.

Adekoya et.al(2017): This paper explores the relationship between crime rate with economic growth in Nigeria during the time period of 1970-2013. The economic growth was reduced by 8% as crime rate increased at 1% in Nigeria. There is a negative relationship between economic growth and Crime. Cost of prosecution increases the economic growth rate.

Ebomoyi et.al(2017): This study focused on the relationship between socio-economic demographic determinants and crime during 1981-2015 in Nigeria. The authors have applied ECM model. The results highlight the positive relationship between crime and unemployment, and inflation respectively. Crime rate decreases with the increasing level of education and per capita income.[65]

Raphael (2001). This study reveals the relationship between unemployment and crime in US states. Two stage least square were applied in this study. Author chooses seven types of offences like property crime(including Auto theft, Burglary, Larceny)Violent crime (includes

[63] Armin., F, Indris. 2019.Analysis of the Effects of Education, Unemployment, Poverty, and Income Inequality on crime in Indonesia. Advance in Economics, Business and Management Research, vol 124, pp 368-374.
[64] Tella.D.R.,Schagrodsky, E.,2004. Do Police Reduce Crime? Estimates Using the Allocation of Police force After a terrorist attack. American Economic Review, vol 94, no 1, pp 115-133
[65] Ebomoyi., I, Igbinionds.,O,S .2017.Socio Economic Determinants of Crime in Nigeria, Annals of the University of Petrosani Economics, vol 17(1), pp 101-114.

in Robbery, Murder, Rape, Assault). Unemployment has a positive impact on both types of crime.[66]

Teles (2004): This paper investigates how to impact on fiscal and monetary policy on crime. Inflation and Crime are closely co-related with each other. The fiscal policy included in lump-sum taxes, government expenditure, and monetization of public deficit on criminal impacts.

Tamayo (2013): This study examines the relationship between inflation and crime in Philippines during 2003-2007. Author applied Durbin Watson test. Result reveals that there is positive relationship between crime and inflation.[67]

Ahmed et.al (2014): This study explores the connection between crime and economic variables like higher education, unemployment, per capita GDP, Poverty and unemployment in Pakisthan during the period of 1972-2011. ECM model applied in this study. Crime decreases with the increasing higher education rate. Unemployment has positive impact on crime where poverty has negative impact on crime.

Idris et al(2019): This paper analyze the effects of poverty, unemployment, income inequality, poverty and education on crime rate during 2013-17 in 31 province in Indonesia. Multiple regression model in panel data have applied. Crime rate increases with the income inequality and poverty. Crime rate decreases with unemployment and education.

Din and Saleemi (2019): This paper inspected the relationship between crime and governance in 11 Asian Country during 1984-2014.Authors have considered four types of crime Homicide, Robbery, Burglary and Kidnapping. Governance is the proxy of socio-economic factors likes GDP per capita, unemployment, poverty, GDP growth, law and order, internal conflict, external conflict, military in politics, investment profile, religious tensions, ethnic tensions, and bureaucratic quality, used as a quality of the governance. GMM tools applied in this paper. Apart from socioeconomic variables others indicators of quality of governance are indicated by ICRG index. Results reveal that GDP per capita and income inequality are negatively significant with the Homicide rate. Quality of governance is significantly related to all types of crime.[68]

[66] Raphel., S. Ebner, W,R., 2001.Identifying the effect of unemployment on crime. The Journal of Law and Economics, vol 44(1), pp 259-83

[67] Tamayo, M,A., Chavez, C., Nabe, N., 2013.Crime and Inflation rate in Philipines: A co integration Analysis. International Journal of Finance and Management. Vol 2(5), pp 380-385

[68] Saleemi, W,M., Din,U,A,R., 2019," How Does Quality of Governance Influence Occurrence of Crime? A Longitude Analysis of Asian Countries "., *MPRA no 9414*2.

Chakroborty (2014): Authors have considered two types of crime here property and violent crime in India. They measured the impact of deterrent factor police on crime. OLS and 2SLS methods have been applied in this study. Violent crime may be controlled by police but property crime may not be controlled by police personnel. Except the deterrent factors Authors have considered several social factors like population density, GDP growth, Literacy rate, population share in SC and ST, population share in urban, working age population. Literacy rate and population density are negatively significant with crime rate. Property crime control through increase the literacy rate.[69]

BerkOzler (2005):Objective of this paper is the impact of local inequality on violent and property crime in South Africa. There are two types of crime Violent and Property has been discussed. The result shows that inequality leads to crime in general. Author does not find any evidence that inequality between racial groups fosters interpersonal conflict at local level.[70]

Montolio (2008) : This paper capture is the impact of socio-demographic factors on crime in Spain during the period of 1993-1999. Education level and GDP per capita may controls the property crime. But unemployment is negatively significant with crime. Clear up rate is the institutional factors which control crime.[71]

Nicolas et.al (2009): This paper expressed a relationship between various criminal activities in Greece during 1971-2006. Time series analysis applied on it. The result express that economic depression creates criminal activities and opportunities and economic prosperity created for gaining profit from illegitimate action.[72]

Anwar et.al(2017): This paper analyze the impact of socio -economic determinants on crime in Pakistan it covers the time period of 1973-2014. They applied ARDL model. The results shows that crime increases with the poverty and education where unemployment is negatively significant with crime. Crime may be controlled by the police strength.

Yildiz et.al(2022): This paper explore to the relationship between economic crime and socio-economic determinants in Turkey during the period of 2008-2019. Applied panel data techniques GMM. Results highlights that economic crime increases with the GDP per capita,

[69] Chakroborty, R. 2012. Deterrent Effects of some Violent and Property. crimes: An Empirical Investigation., *Arthaniti Journal of Economic Theoryand Practice*, vol 11(1-2), pp 47-76

[70] Ozler, B., 2005. Crime and Local Inequality in South Africa. *Policy Research World Bank*, paper no 2925.

[71] Montolio, D., Vanin, P. 2009. Does Capital Reduce Crime? *Journal of Lawand Economics*, vol 52, no 1, pp 145-170.

[72] Nikolas, D., Alexandros, G. 2009.The effects of socio-economic determinants on crime rate: Empirical research in case of Greece with co integration Analysis, *International Journal of Economic Science and Applied Research* 2(2), pp 51-64

Education attainment rate and migration. Unemployment is negatively significant with economic crime.[73]

Omotor(2010): This Study examines the relationship between socio-economic determinants and crime in Nigeria during the period of 2002-2005. The author using the pooled ordinary least square and Pooled EGLS.This study highlights that crime combat force controls crime where GDP per capita and population density are negatively significant in all types of crime.[74]

Data

The Economic Crime and related data and other data like GDP per capita, own tax, non own tax, C-D ratio, Social expenditure are collected from the NCRB and from the RBI. Data covers the period from 1994- 2018. For our analysis purpose we have selected 20 major states as per population density in the last census report 2011. Our selected 20 major states cover around 88.2% of the population, 77.22% of geographical areas, and 83.8% of crimes in India.75

Methodology

Panel dataset is used in this study. Panel data analysis is relevant for in depth understanding the results and interpretations. The basic linear model for panel data analysis is discussed below:

$$y_{it} = \beta_0 + \beta xit + u_{it} \quad (1)$$

Where y is dependent variable (property crime), x is the set of independent variables (economic, social, financial and institutional factors), u is the disturbance term, i denotes individuals and t denotes time. The Ordinary Least Square (OLS) regression is applied to this equation (1) ignoring time variation, and then it is pooled panel regression. Pooled panel data analysis is applied under the assumption of normal distribution of uit, with zero mean and constant variance, i.e.,

[73] Yildiz., U, Gunay., K,E.,Gunsoy., G., Gunsoy, B., 2022. Socio-Economic Determinants of Economic Crime in Turkey: Dynamic Panel Data Analysis. Journal of Management and Economic Research, vol 20(3), pp 253-275

[74] Omotor,G,D., 2010. Demographic and Socio Economic Determinants of Crime in Nigeria.*Jounal of Applied Business and Economics*. Vol 11, issue1, pp 181-195

$uit \sim N(0, \sigma 2)$. It is a restrictive model to increase number of observations only ignoring time varying data. It is useful only when cross sectional observations are small as well as those individuals have time series values, and form panel data. It could be applied from long/short time and small/large number of individual identical cross-sectional data. Otherwise, alternative models such as fixed effect model (FEM) and random effect model (REM) are required to be estimated for the study purpose considering both 'time'and 'individual'. Time 'year' and individual 'state' (cross sectional data) are approximately same. Panel data analysis techniques like fixed effect model (FEM) and random effect model (REM) are appropriate and applied here.

Selection of REM and FEM: Hausman χ2(Chi-square) Test

Hausman χ2 test criteria is used to select appropriate model between REM and FEM. The Hausman test criteria is as discussed below:

H0: Random Effects Model is appropriate.

H1: Fixed Effects Model is appropriate.

The test statistic is the Hausman χ^2 which is defined as

$$\chi^2 = (\hat{\beta} - \hat{\beta})'[\hat{V}(\beta) - \hat{V}(\beta)]^{-1}(\hat{\beta} - \hat{\beta})$$
$$RE \quad FE \quad RE \quad FE \quad RE \quad FE$$

Where βRE and βFE denote the vector of REM and FEM estimates, respectively; and V denotes variances of them.

Decision Rule: If, calculated χ2 is more than tabulated χ2value, then null hypothesis (H0) is rejected and accept alternative hypothesis (H1), otherwise.

Least Square Dummy Variable Model (LSDVM)

In this study, the Hausman Chi-square test has suggested mostly fixed effect (FE) model. Fixed effect model is also known as within effect that are unable to capture or estimate state specific individual features. Here, αi is individual fixed effect which is time invariant and it is unobservable characteristics of individual and does not change over time, i.e., it remains fixed for all t. Hence,

αi may be correlated with observed variables (xit), i.e., $cov(xit, \alpha i) \neq 0$. Now, question arises how to estimate these parametersαi. In this context, to estimate individual characteristics which

are fixed for state specific level that might be captured in their respective dummy variables. Here, Least Square Dummy Variable (LSDV) model is more appropriate to measure individual effect with other determining factors.

There are three different fixed effect estimation methods: Within Group (within), Least Square Dummy Variable (LSDV) and First Difference (FD) methods. In panel data analysis generally, we use within group estimation method and it is popularly known as FE. Individual fixed effects are

estimated in LSDV method. LSDVM provides same result as FE, however, in addition, it also estimates dummy variables to capture individual effects.

Now we discuss the models for estimating individualistic parameters αiin details. It is solved using binary or dummy variables in equation (3) or/and equation (4). Let $D1i$ = 1 if i=1, otherwise zero;

$D2i$ = 1 if i=2, otherwise zero; and so on. Now, consider a reference state corresponding Dn is omitted here, then, equation (3) and/or equation (4) can be written as

$yit = \alpha 0 + \beta xit + \gamma 1D1i + \gamma 2D2i + \cdots + \gamma n{-}1Dn - 1i + \varepsilon it$ ……. (8) Or

$yit = \alpha 0 + \beta xit + \sum \eta_1 {-}1\ \gamma i\ Di + \varepsilon it$……. (9)

Where i= 1, 2, 3, ……, n; and t=1, 2, ……., T

Yit= Crime,

α0= constant term,

β= set of coefficients of socio- economic, fiscal, financial and institutional variables,

εit= disturbance term,

D= dummy variable,

It should be noted that one reference state is selected according to the rank criteria for property and economic crime. Dummy (D) is used for each state except reference state, which is would be used for comparison with all other state dummies.

So, there are two equivalent ways to write the fixed effects regression model, eq (3) and eq (8) (or eq (9)), and in both formulations, the slope coefficient of x is the same. Hence, in principle, the binary or dummy variable specification of the fixed effect regression model can be estimated by OLS.

Similarly, dummy can be used for each time (here, year). Now, we may consider binary or dummy variables for both individual and time effects. Hence, both dummy variables are used in equation

(6) and it turns to LSDVM which can be written as

$$y_{it} = \mu + \beta x_{it} + \sum_{1}^{n-1} \gamma_i D_i + \sum_{1}^{t-1} \varphi_t D_t + u_{it} \quad \ldots\ldots\ldots (10)$$

Where μ is common constant; Di and Dt are dummy variables for individual and time effects, respectively; and uit is the disturbance term.

Considering individual effect, time effect, or both effects LSDV is better than FE (within) method. However, degree of freedom is lost in LSDVM due to large number of (dummy) variables. For the analysis of LSDV model we select the reference state according to the bottom ranking of economic crime rate among the 20 major states. Here From ranking order, we have bottom 7 states among 20 major states for, economic crime. We choose Odisha which lies consistently in bottom rank in 5 years interval 1994,1999,2004,2009,2014 and 2019 respectively.

Table 1: Ranking of Economic crime rate at bottom

1994	1999	2004	2009	2014	2019
Tripura	Tripura	Nagaland	Nagaland	Madhya Pradesh	Madhya Pradesh
Odisha	West Bengal	Tripura	Madhya Pradesh	Nagaland	Tamil Nadu
West Bengal	Odisha	West Bengal	Odisha	Gujarat	Gujarat
Meghalaya	Meghalaya	Odisha	Bihar	Tripura	Nagaland
Punjab	Nagaland	Madhya Pradesh	Gujarat	Odisha	Bihar
Bihar	Himachal Pradesh	Meghala ya	Tamil Nadu	Uttar Pradesh	Tripura
Madhya Pradesh	Bihar	Tamil Nadu	West Bengal	Tamil Nadu	Uttar Pradesh

Table 1 represents summary statistics of variables in panel data set consisting 20 major states. Mean, standard deviation (SD) and observation are shown in last three columns. Variables are taken in natural logarithm (ln). Mean value of variable is expressed in original value of the concern variable. Overall mean of property crime rate is 38.32 while that of economic crime rate is 7.67.

Similarly, overall mean value of State GDP per capita, C-D ratio, Charge sheet rate, and Convict rate are 65709.71, 52.27,74.93 and 25.09respectively. It should be noted that standard deviation (SD) of each variable has three separate values for overall SD, between groups SD and within group SD. From SD values (Table 2) we observe variation of each variable within states and between states.

Table 2 : Summary Statistics of variables in panel data set

Group factors	Variable(ln)		Mean	SD	Observation
Crime	Property crime	Overall	38.32	19.59	N=500
		Between		16.15	n=20
		Within		11.63	T=25
	Economic Crime	Overall	7.67	5.39	N=500
		Between		4.26	n=20
		Within		3.42	T=25
Development	SGDP Per capita	Overall	65709.71	45763.6	N=500
		Between		33231.6	n=20
		Within		32296.8	T=25
Financial	C-D ratio	Overall	52.27	24.18	N=500
		Between		22.41	n=20
		Within		10.33	T=25
Institutional	Charge sheet rate	Overall	74.93	13.67	N=500
		Between		12.01	n=20
		Within		7.04	T=25

	Convicts rate	Overall	25.01	20.63	N=50
		Between		17.94	0
		Within		10.91	n=20
					T=25

Source: : *NCRB, RBI Hand Book, Author's own calculation*

Result and Discussion:

Table 3 represents the results of FEM of economic crime and highlights both institutional factors such as police and court. Economic crime should be controlled by

the increasing charge sheet and convicts rate. Economic crime is controlled by institutional factors. This results also supported by Omotor (2010) and Anwar(2017). Economic crime increases with the Economic growth. These results also supported by Yidiz et.al(20222) and Omotor (2010). Own tax revenue and industrial worker have positive impact on Economic crime. Industrial worker is the proxy of urbanization or industrialization. So, we may conclude that more economic crime happens in urban area.

Table 3: Estimation result of FEM for the Role of Institution in Economic Crime

Group factors	Variables	M1	M2	M3	M4	M5	M6	M7
Development	SGDPPC	*0.461*** (10.18)*	0.565*** (13.07)	0.562*** (13.24)	0.472*** (12.13)	0.604*** (16.73)	0.471*** (10.96)	0.494*** (11.45)
	Industrial worker	*0.281*** (6.73)*			0.289*** (7.09)		0.276*** (6.68)	0.278*** (6.69)
Social	Social Exp	*0.056 (0.93)*			0.084*** (3.28)			
Financial	C-D ratio	*0.061 (0.77)*	0.131 (1.60)	0.132 (1.62)			0.060 (0.76)	0.076 (0.96)
Fiscal	Own Tax	*0.019 (0.37)*	0.066** (2.45)	0.071*** (3.16)		0.070*** (2.60)	0.064*** (3.00)	
	Non- Tax	*0.003 (0.18)*	0.007 (0.32)			0.010 (0.48)		0.032* (1.84)
Institutional	Charge Sheet rate	*-0.220 (-1.60)*	-0.313** (-2.20)	-0.311** (-2.19)	-0.235* (-1.82)	-0.380*** (-2.78)	-0.224* (-1.65)	-0.149 (-1.12)
	Convictsrate	*-0.218*** (-8.16)*	-0.223*** (-7.98)	-0.222*** (-8.00)	-0.216*** (-8.15)	-0.220*** (-7.88)	-0.218*** (-8.21)	-0.221*** (-8.21)
	Constant	*-4.28*** (-6.69)*	-3.39*** (-5.21)	-3.36*** (-5.19)	-4.19*** (-6.98)	-3.08*** (-4.95)	-4.19*** (-6.63)	-4.54*** (-7.30)
Model specification	F statistics	*70.62*** (0.000)*	79.35*** (0.000)	95.27*** (0.000)	113.11*** (0.0000)	94.40*** (0.000)	94.04*** (0.0000)	92.08*** (0.0000)
	Hausman χ^2 test	*28.10*** (0.000)*	*7.43 (0.28)*	*10.61** (0.05)*	*11.15** (0.04)*	*11.58** (0.04)*	*17.87*** (0.000)*	*12.78** (0.04)*

Note: Figures in parentheses are t- values. '', '**' and '****' denote significance at 10%, 5% and 1% level, respectively*

LSDVM Analysis

To capture the individual state effect the least square dummy variable model (LSDVM) is appropriate where coefficients of explanatory variables remain unaffected. Here, we have selected Odisha as the reference state as per its consistent bottom rank in India over the study period. Now we have seen the individual effect of states referring Odisha. For the economic crime analysis other states dummy variables are coded as West Bengal (D1), Andhra Pradesh (D2), Assam(D3), Bihar(D4), Goa(D5), Gujarat(D6), Haryana(D7), Himachal Pradesh(D8), Karnataka(D9), Kerala (10), Madhya Pradesh (D11), Maharashtra(D12), Meghalaya(D13),

Nagaland(D14), Punjab(D15), Rajasthan(D16), Tamil Nadu(D17), Tripura(D18), and Uttar Pradesh (D19). Table 4 provides the estimated results of LSDVM for economic crime rate in major states in India. The estimated coefficients of SGDPPC and convicts' rate are respectively significant as in the above sections. The significantly positive coefficients of dummy variables are Andhra Pradesh (D2), Assam (D3), Bihar (D4), Kerala (D10), Madhya Pradesh (D11), Punjab (D15), Rajasthan (D16) and Uttar Pradesh (D19). These findings suggest that economic crime rates of Andhra Pradesh (D2), Assam (D3), Bihar (D4), Kerala (D10), Madhya Pradesh (D11), Punjab (D15), Rajasthan (D16) and Uttar Pradesh (D19) are higher compared to the referral state Odisha.

Table 4: LSDVM Analysis of Economic crime in Major states.

Variables	M1	M2	M3	M4
C	-4.54*** (-6.59)	-4.89*** (-6.78)	-4.22*** (-5.64)	-4.60*** (-6.34)
GSDPPC	0.455*** (11.17)	0.468*** (10.13)	0.551*** (11.97)	0.447*** (9.76)
C-D		0.108 (1.27)	0.220*** (2.55)	0.090 (1.08)
Social Exp	0.086*** (3.19)			
WORKER	0.297*** (7.12)	0.284*** (6.67)		0.281*** (6.65)
OWN TAX				0.061*** (2.71)
NON-TAX		0.029 (1.60)		
Charge Sheet rate	-0.229* (-1.72)	-0.130 (-0.93)	-0.146 (-1.03)	-0.199 (-1.01)
Convict rate	-0.225*** (-8.14)	-0.228*** (-8.16)	-0.224*** (-7.69)	-0.226*** (-8.18)
WB	-0.073	-0.101	-0.077	-0.105

	(-0.23)	(-0.32)	(-0.23)	(-0.34)
AP	1.00*** (3.20)	0.888*** (2.81)	1.08*** (2.32)	0.921*** (2.94)
ASSAM	0.674** (2.11)	0.675** (2.08)	0.693** (2.03)	0.701** (2.17)
BIHAR	1.14*** (3.64)	1.13*** (3.57)	0.775*** (2.37)	1.14*** (3.65)
GOA	-0.082 (-0.25)	-0.021 (-0.06)	0.429 (1.17)	-0.001 (-0.01)
GUJRAT	0.021 (0.07)	-0.051 (-0.16)	0.235 (0.71)	-0.025 (-0.08)
HARIYANA	0.450 (1.40)	0.386 (1.20)	0.690** (2.05)	0.410 (1.28)
HP	-0.178 (-0.57)	-0.141 (-0.44)	0.111 (0.33)	-0.102 (-0.32)
KARNATAK	0.394 (1.24)	0.318 (1.00)	0.441 (1.34)	0.321 (1.02)
Kerala	0.957*** (3.02)	0.879*** (2.78)	1.00*** (3.06)	0.905*** (2.87)
MP	0.402 (1.33)	0.306 (1.02)	0.212 (0.68)	0.343 (1.15)
Maharashtra	0.115 (0.38)	0.017 (0.06)	0.144 (0.45)	0.026 (0.09)
Meghalaya	0.436 (1.34)	0.526 (1.54)	0.284 (0.79)	0.546 (1.60)
Nagaland	0.479 (1.48)	0.572* (1.70)	0.336 (0.96)	0.638* (1.90)
PUNJAB	0.709** (2.21)	0.616* (1.92)	0.921*** (2.77)	0.649** (2.03)
RAJASTHAN	1.94*** (6.18)	1.86*** (5.92)	1.81*** (5.52)	1.89*** (6.05)
TAMILNADU	-0.052 (-0.16)	-0.169 (-0.52)	0.114 (0.34)	-0.153 (-0.48)
TRIPURA	-0.263 (-0.85)	-0.212 (-0.67)	-0.191 (-0.57)	-0.155 (-0.49)
UP	1.03*** (3.30)	1.00*** (3.15)	0.938*** (2.83)	1.01*** (3.22)
F test	81.28*** (0.000)	76.66*** (0.000)	73.92*** (0.0000)	77.83*** (0.000)

*Note: Figures in parentheses are t-values. '***', '**' and '*' denote significance level at 1%, 5% and 10%, respectively. Odisha is the referral states, and other states with dummy code are West Bengal (D1), Andhra Pradesh (D2), Assam(D3), Bihar(D4), Goa(D5), Gujarat(D6), Haryana(D7), Himachal Pradesh(D8), Karnataka (D9), Kerala (D10), Madhya Pradesh (D11), Maharashtra (D12), Meghalaya(D13), Nagaland(D14), Punjab(D15), Rajasthan(D16), Tamil Nadu(D17), Tripura(D18), and Uttar Pradesh (D19).*

Conclusion

This paper has discussed the impact of socio economic and institutional factors on economic crime in major states in the first part of our study then we have discussed the detecting factors of economic crime in major twenty Indian states. Here we have selected as the proxy of crime

detecting socio-economic and institutional factors like economic growth (state GDP per capita), Industrialization (Industrial worker), Fiscal indicator (Own –tax revenue, Non own tax revenue), Social factor (Social expenditure), Financial indicator (C-D ratio), Institution factors (Charge sheet rate, Convict rate). The findings are discussed accordingly. Economic crime increases with the economic growth. Social expenditure, Own tax revenue, industrial worker has positive impact on economic crime. Economic crime decreases with the institutional factors charge sheet rate and convict's rate. Economic crime is directly related with economic growth, social expenditure, industrial worker and fiscal instrument like own tax in major twenty Indian states. However, economic crime is inversely related with institutional factors. Economic crime may control by the institutional factors in major states. As a policy prescription, we may suggest that law and order must be strengthen to control economic crime.

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THE LAW OF AMNESTY: CONTENTIOUS APPLICATION TO INTERNATIONAL CRIMES

Saheli Chakraborty

Assistant Professor, The West Bengal National University of Juridical Sciences, Email: saheliphd202206@nujs.edu, ORCID ID: 0000-0002-9679-0080

Abstract

Application of Amnesty is one of the most contentious contrivances in the recent international criminal law development. This offer of immunity to the perpetrators, who have non-arguably been aggressors of odious events or crimes, is pursued as a tool of peace-making by the state and other stakeholders. However, in the capacity of the Rule of Law, it emerges as an unwanted blot on the victims of such heinous crimes in the name of Justice. As one of the discretionary decisions of states, where conflict resolution relies entirely on the state interest, the Law of Amnesty faces the wrath of discriminatory application. This paper is attempt to find whether there is any discriminatory application of the Law of Amnesty in International Crimes from the narrow lens of international instruments, International Customary Law, and Judicial pronouncements.

Keywords: Amnesty, Immunity, International Criminal Law

Introduction

The Law of Amnesty's historical development suggests no strict definition of the term promulgated by any international instrument. While modern International Law relies significantly on International Conventions, Treaties, and other instruments as its source, the Law of Amnesty finds its provenance in International Customary Law. However, the lack of a specific definition leads to arbitrary application, and therefore, Amnesty, as a term, finds itself in the scope of contentious.

Recently, OHCHR provided a resolution to the issue by defining what constitutes an Amnesty: Legal measures that have the effect of (a) Prospectively barring criminal prosecution and, in some cases, civil actions against certain individuals or categories of individuals in respect of specific criminal conduct committed before the Amnesty's adoption; or (b) Retroactively nullifying legal liability previously established[1]. Amnesties do not prevent legal liability for

[1] OHCHR, Rule-of-Law Tools for Post-Conflict States, Amnesties, HR/PUB/09/1 (2009), p. 41.

conduct that has not yet occurred, which would be an invitation to violate the law[2]. Providing Amnesty policies by states can be traced back from the inception of such principle and is augmented on the grounds of being an essential ground of peacekeeping and providing holistic Justice. However, this argument has been the fulcrum of the controversy about whether applying such Amnesty Policies sabotages transitional Justice or enhances it.

Due to a lack of strict definition, state and non-state actors have formulated such amnesty policies to their advantage, leading to inconsistent and complex procedures across the globe.

Tracing the development of immunity policies and negotiations, domestic Amnesty has been the genesis of International Amnesty. Around the 1990s, international organizations like the United Nations[3], socio-political bodies, social organizations, and other non-state actors mentioned Amnesty policies to be responsible for reducing individual liability from heinous crimes under International Law.

Unlike Droit administrative, the Rule of Law extends the edifice of Justice, where Law stands supreme[4]. The founding basis of the Rule of Law stands on extending human rights to all while providing equal scope to all and punishing the wrong-doers. On such onset, individual liability is adjudicated on an equal footing. And those laws or policies that waive such individual liability and accountability for serious crimes violate the Rule of Law and extend its infringement on maintaining peace and security globally.

As mentioned above, Amnesty Principles not only exerts an influence on Human Rights but alleged has a staunch effect on International Peacekeeping and negotiations for its diverse practical application. The application of the Law of Amnesty has been the subject of debate since its inception. There are arguments and counterarguments with reference to its validity and application as to whether it would infringe or violate the state's international obligations or have added to the development of transition justice over time.

The school of thinkers who attribute a negative view on the Law of Amnesty believes the discriminatory application of this policy is due to the arbitrary factors on which Amnesty is given to the perpetrators. These factors, based on which eligibility is sought to receive Amnesty, vary from jurisdiction to jurisdiction, state to state, and case to case[5].

[2] Discussion paper on the legality of Amnesties, International Centre of Transitional Justice, 21st Feb 2010
[3] Supra *Note* 1
[4] M.N. Venkatachaliah , *Rule of Law : Contemporary Challenges* , Indian Journal of Public Administration (1999).
[5] Supra *Note* 1

On the other hand, the other contending school of thinkers moot for the application of such immunity-based policy on the sole contention that such policies expand the horizon of Justice and further cater to peace-making amongst nations, even though such application stands of unstable, rocky, and arbitrary factors. This, can be seen from reviewing and analyzing the various sources of Public International Law, namely Treaties and Conventions, International Customary Law, and International Cases. Amongst all three, the International cases are contemporary in their development and have been interpreted by the other two sources; therefore, its ratio dicendi needs to be addressed with a significant outlook when the Amnesty in International Law controversy is in question.

Law of Amnesty: International Treaties and Convention

Considering all the sources of International Law, Treaties and Conventions provide the most contemporary and specific interpretation to any International Principle, Doctrine or Law. Therefore, to shed light on the legal validity of domestic amnesty policies for perpetrators of International Crimes, Treaties and Convention is the first and the most obvious quarter to analyse. To utter disappointment, there is no mention or prohibition on Domestic Amnesty in any realm of international Law, including International Human Rights Law, Humanitarian Law, Criminal Law, etc. On reviewing, not one specific treaty that prohibits explicitly or ceases any amnesty policies expressly could be considered. This glooms, the application with uncertainty and non-specificity, which is taken advantage of by various states to promote antagonism to amnesties for human rights crimes[6]

When the question is about applying such amnesty policies, the other parallel factors also need to be considered. Amnesty Policies are not only a toolkit to provide Justice by negotiating peace with the perpetrators but also a powerful expression of state sovereignty[7]. To elaborate further, Amnesty for any offense by a state under domestic Law is when the normal functioning of the domestic laws is ceased, which results in the question of the state's sovereignty. Scholar Carl Schmitt also said, "*The power to declare the exception to the law- is an integral and highly symbolically visible dimension of state sovereignty."* With the support of domestic laws, the states wouldn't want to curb their discretion and further the sovereignty, and therefore, if any

[6] Diane Orentlicher, "Settling Accounts: The Duty to Prosecute Human Rights Violations of a Prior Regime," Yale Law Journal 100, no. 8 (1991): 2537-2618

[7] M. Pensky 'Amnesty on Trial : Impunity, accountability and the norms of international Law.' Ethics and Global Politics 1 (1-2) (2008)

such instrument which has implied to reduce the use or depend on amnesties has been primarily on the face and otherwise, been discouraged by the states, in practice.

However, this practice has yet to be witnessed in the case of those exceptional treaties speaking about Amnesties post-conflict, as it reduces the curb on sovereignty and increases the discretionary power in the hands of the state by virtue of domestic Law. The International Treaties have been silent about Amnesties, except one. The 1977 Protocol II to the Geneva Conventions says: "At the end of the hostilities, the authorities in power shall endeavour to grant the broadest possibility amnesty to persons who have participated in the armed conflict, or those deprived of their liberty for reasons related to the armed conflict, whether they are interned or detained[8]" But, some scholars have argued that, depending on this provision, courts have upheld amnesty policies, as convicted for serious crimes, which is in direct conflict of the object and purpose of the Convention [9] This could be further elaborated by reference to a well prominent case of AZAPO[10]. In this case, the validity of the Promotion of Unity and Reconciliation Act,1955 of South Africa was in question in the South African Constitution Court, where the court had held that the provisions in this Act were in accordance with National and International laws.

Even though the problem persists due to continuous silence of the treaties and conventions with regard to Amnesty Provisions, significant scholars have advocated that the States have a duty to investigate, where needed and permitted, and prosecute those who are accused of serious crimes like Genocide, Torture, and Crime in general against humanity[11]. And, in cases where there is legal recognition, even punishing the offenders and not defending them under the ambit of Amnesty would lead to direct disrespect and violation of Human Rights.

On analysing other International instruments, that is: a) Certain International instruments, like treaties and conventions, make it a legal obligation and binding on the states to prohibit Amnesty and take steps to prosecute and punish the perpetrators[12]. b) Certain Treaties, as a legal remedy to victims of such crime, mention prosecution and punishment of such perpetrators, which the victims or their heirs can move as right. C) Further, certain treaties even prohibit any provision that would be an amnesty or be interpreted as one, as that would limit

[8] Protocol Additional to the Geneva Conventions of 12th August 1949, and relating to the Protection of Victims of Non- Non-International Armed Conflicts (Protocol II), 8 June 1977, Art. 6(5)
[9] *ibid*
[10] AZAPO V. President of Republic of South Africa and Others, CCT17/96 (July 25, 1996)
[11] Diane Orentlicher, "Settling Accounts: The Duty to Prosecute Human Rights Violations of a Prior Regime," Yale Law Journal 100, no. 8 (1991): 2537-2618
[12] Supra Note 7

the prosecution and, in return, reduce the chances of Justice being met. d) Certain instruments make it obligatory for the state parties to recognize and respect certain non-negotiable principles, doctrines, and provisions on any ground for the gravity of such principles.

Despite varied forms of interpretation of the legal instruments primarily dealing with International crime, no analogous stage could be formulated, and the controversy remains. But, what could be inferred is that Amnesty policies are allowed with regard to post-conflict offenses, which are general and petty, as opposed to International crimes or any such offenses that can qualify as crimes against humanity.

Law of Amnesty: **International Customary Law**

International Customs play a significant role in international Law when it comes to understanding the validity or importance of certain principles and doctrines being practiced from time immemorial and have taken the stage of legal obligation. International Customary Law is only one such practice with both a. State practice and b. *Opinio Juris.* Though International Customary law provides a comprehensive, diverse answer to legal questions, especially with reference to rules like Amnesties, it also comes with its share of complexities.

The first question that needs to be answered is whether International Customary Law prohibits Amnesty policies. Secondly, if it doesn't, it shows the trend, which can be interpreted as ceasing amnesty policies.

To answer the first question, reliance needs to be made on the principles of *Jus Cogens* and *Erga Omnes. If any offense is under the ambit of Jus Cogens,* they are universally declared illegal and are not dependent on any treaty, Convention, or bilateral agreement. It is to be maintained throughout by states, irrespective of whether the state is party to any convention. Such acts are few, which are brought to the stage and recognized as essential as *Jus Cogens*. Similarly, recognizing any action of utmost significance doesn't serve any purpose until the states' obligation is maintained. Here, the role of *Erga Omnes* comes where it is the duty and an obligation of states universally or as referred to individually to maintain the same. Jus Cogens has referred certain offenses, which, irrespective of jurisdiction, geographical and social barriers are offenses and are universal, for example – High Sea Piracy. The ambit of *Jus Cogens* crimes has increased to Torture, Rape, Genocide, and any such crimes against humanity, etc. Therefore, to refer to the question in hand, whether International Customary Law prohibits Amnesty policies, it's answered in the ambit of *Jus Cogens*, where the offenses are already under the wrap of *Jus Cogens.* Anyone committing such a crime is brought under

the shield of defense from prosecution. It would lead to gross injustice and human rights infringement and violate the universally declared *Jus Cogens* crimes. Further, the *Erga Omnes,* or in other words, the duty that is obligated on the states to prosecute and further punish, would be grossly infringed by such actions of Amnesty Principles. The contentious application of Law of Amnesty acts like a double-edged sword, where both ways it may be offensive to the established international norms. However, the brunt of this double-aged sword maybe much more on infringing the existing international human rights, international customary law as compared to it's objective of being a step towards peace-making amongst nations, through immunity to the perpetrators.

The possibility of where the states can contend that treaties which make prosecution of International Crimes, or punishing the same as a legal remedy of the victim or survivor, are not binding on such states, for it not being a signatory or not having ratified the same. Such possibility is reduced to null, by the principles of *Jus Cogens*, where the option of not being a signatory doesn't form a crutch. Instead, it is universal and needs to be respected in all accounts. And such principles which provide Amnesty to the entire prosecution are violative.

The obligation to prosecute doesn't derive its source from treaties per se, irrespective of their duty as a party to any treaty or Convention. International Customary Law, by virtue of its expressed practice over time, entails a commitment from states to move universal jurisdiction, where the experiments of such have happened before, where a state prosecutes a national of another country in another third state. One of the significant examples being of Augusto Pinochet, who was a Chilean Dictator, arrested in the United Kingdom under a Spanish Warrant[13]. This was done to meet each state's duties to fulfill the commitment and obligations to prosecute crimes under the ambit of *Jus Cogens.*

Irrespective of the International Customary law expressly addressing the issue of the Amnesty Policies, there has not been a reduction on the state's part with reference to its formulation of amnesty principles. UN Human Rights Council, in its periodic Review, has vehemently criticized states bringing forward amnesty principles and policies to safeguard perpetrators of International Human Rights crimes[14].

Resorting to another medium, Lousie Mallinder's database, which speaks about amnesty policies formulated around the globe by receiving data employing empirical research, states

[13] Mallinder , Amnesties, Human Rights and Political Transformations, Chapter 3
[14] Leyla Sadat, Exile, Amnesty and International Law

that the number of Amnesties has increased by many folds in the recent years[15]. To look for the reasons, Mallinder addresses Realism in International Law as one of the reasons, also stating the explanation provided Ronald Style, which is polar opposite to one another. The latter resolution states that Amnesty policies have increased due to the proportionate increase of Internal Criminal Law, as Amnesty is resorted to when the perpetrators are persecuted and punished. Therefore, domestic amnestic policies are brought to reduce such prosecutions, which was unlikely even a few years back due to unawareness and lack of power in the realms of Law. On the same ground, the dependency on International Customary Law is also dependable and is rustic for its crystallization.

Law of Amnesty: **Judicial Pronouncements**

Due to the diverse development of Jurisprudence, the court interpretations of various realms of Law have been widely diverse, which has been criticized by several scholars. But, with reference to Amnesty, the contemporary cases have been influential in providing light to the confused state of affairs. The following three cases of three different jurisdictions give a specific picture of the validity of Amnesty in such states.

Firstly, in the case of *Gomes Lund v. Brazil*[16], a group of Students and workers had disappeared, factually later found to be tortured and murdered, and the bodies were thrown in the nearby water by the Army and the police of the state during 19070s. The 1979 Amnesty policies promulgated by the state prohibited any dissemination of information regarding such "Disappearing" individuals, nor did it allow any investigation or prosecution of those alleged to be responsible for such offense. The state, by its wings, had tried to show that they had tried to look for the disappeared people, to which the court had stated "Not Enough" to meet the obligations of the international instruments, as the state had denied its citizens the fundamental right, i.e., right to move to court and get a free and fair trial, for its basic human rights and fundamental rights have been infringed. Adding to this, the court held that, due to the Amnesty Laws in place, it is impossible to bring those responsible for such gross injustice to court and prosecute them, as they are defended under the shield of "Amnesty Laws." Such laws, further, are gross injustice and violation of Human Rights and the state's international obligations.

The second case is *Prosecutor v. Furundzija*[17]. This is a judgment of the Trial Chamber of International Criminal Tribunal for the former Yugoslavia , where the charges for ‘Torture’

[15] November 24, 2010
[16] IT95-17/1-T,para 155
[17] SCSL 2004-15-AR72(E)

were alleged against the perpetrators.The court held that the act of 'torture' is a *jus cogens* violation, which in return obligates the state to prosecute and punish where needed. And any such amnesty Laws which defend such actions shall be held violative and incompatible with the International obligations and duties of the state to prosecute and investigate crimes of torture. The court dissolved the issue with regard to Amnesty Laws, stating it doesn't even stand a chance to be referred to as an issue, but does form the fulcrum of the case is the Obiter Dictum, which is the state's duty to investigate, prosecute such perpetrators of crimes like torture.

Another significant case regarding this subject is *Prosecutor v. Kallon & Kamra*[18]. This case is from the special court of Leone that was formed, primarily dealing with cases of Amnesties granted to Sankoh and his group of rebels in the 1999 Lome Accord, which is referred to as the Peace Accord of 1999 by some scholars for it had ceased the Sierra Leones Civil war, for a temporary basis. This was signed between the United Nation Representatives and the stakeholders of this civil war, where the UN Representatives had given their reservations to the amnesty provisions that included crimes like war crimes, crimes against humanity, etc. Such reservations were also explained in the eleventh hour before signing, as the international organization shall not recognize such defense mechanism of amnesties for grave crimes, as mentioned. Hence, the special court also recognized such reservations as illegal and violative. Therefore, the statute of this court also said such reservations and was challenged because it violates the Lome Accord of 1999.

On the other hand,, the court concluded that it does not recognize amnesty provisions of the Lome Accord of 1999, as it violates any International Customary Law. It added that with reference to International Law and practice, a state cannot provide Amnesty to perpetrators of serious crimes recognized under International Law. Further, the court has added that such norms or laws are in the developmental stage and are still far from mentioning anything in specificity.

On the other hand, The International Court, the universal court that deals with International Crimes, in the Rome Statute, the governing legislation, like other International treaties, doesn't mention prohibition to Amnesty. This shows the clear demarcation of the state parties being negligent or reluctant to be exploited by some states in using Amnesties to their advantage. The statute further doesn't mention Amnesties altogether. This brings forward the most complex

[18] SCSL 2004-15-AR 72(E)

concern where the most contemporary court dealing with the world issues of International crime has no mention of the vital concern that is perpetrators defended under the shield of Amnesty, leading to unclear and lacunas. To add to this contention, the arrest warrant of Joseph Kony[19], is one of the primary examples.

Conclusion

Analyzing the recent development in the sphere of International Criminal Law, it is pertinent to mention that, the regime has taken rudimentary step in providing legal status to the law of amnesty. Contemporary International Criminal Law has not provided any clear specific agenda regarding Domestic Amnesties in International Law regarding its validity and application. Interpreting the language of the objects and purposes of the tries, on the silence of it with reference to amnesties, can be referred to as prohibitory in nature to uphold the primary founding reasons for its existence. With reference to International Customary Law, it doesn't expressly mention the prohibition of domestic Amnesties, though depending on *Jus Cogens* and *Erga Omnes,* it clears that air if the crime falls under the ambit of *Jus Cogens.* Yet, lack of state practice cannot be univocally proved. While, there is direct conflict with the foundation of fundamental human rights, yet, prohibition on application of amnesty cannot be universally applied.

Lastly, the judicial pronouncements provide a ray of hope, but the absence of its mention in the Rome Statute further leaves us in an ambiguous state. The norm development, or with the help of any international instrument, such ambiguous state can be reduced and curtailed till then; the interpretation suggests that domestic Amnesty for any grave, serious crime is violative of the international obligations of any state.

[19] Supra Note 5

CULTIVATING JUSTICE: A DEEP DIVE INTO RIGHTS AND PROTECTIONS FOR INDIAN FARMERS

Rima Ghosh

Academic Fellow & Ph.D. Scholar, The West Bengal National University of Juridical Sciences, Kolkata, Email ID: rima.ghosh81@gmail.com, ORCID ID: 0009-0000-1212-915X

Abstract

The farmers play an essential role in a country, and their existence cannot be ignored. Famer is the backbone of the nation. India can country of agriculture, and most of the areas are rural. In developing countries like India, in the Farmer's occupation that is farming has not yet been considered as an industrial activity. It has been seen from the history that the Indian farmers impoverished the poor, and they even do not cultivate in their land, and for that, they suffered a lot. But the modernization period that is in the globalized world is giving new techniques for cultivation. However, this cultivation technique is not at par with challenges faced by the Farmer in this contemporary situation. NABARD had a significant role in improving the socio-economic status of the Farmer in our country. As a result of that, farmers are not getting benefits. Though the rights are available for the farmers, it is high time to think of or review their rights in the present context. As it is accepted in the IPR that farmers' rights are provided, here is the irony they are being deprived of their actual benefits. Hence to give that benefit to the farmers, the policymakers should re-think the legal mandates. This research paper provides an updated policy suggestion for the betterment of the farmers in this pandemic situation.

Keywords: Agriculture, Economy, Farmers, Right, Policy

Introduction

The farmers are the backbones of the agricultural industry. Undoubtedly, their role cannot be denied; without the farmers the agricultural sector of a country would fall.[1] And in the country, agriculture is the vital economy for a country to flourish. Agriculture fulfills the basic need in the form of a food of a human being living in a country. In a developing country like India for its economy, the agriculture sector joins as an essential character for the upliftment of the employment sector and Gross Domestic Products. Long ago, in history, Gandhiji said, "India lives in villages and agriculture is the soul of the Indian economy." Nearly two-thirds of its people rely for their livelihoods directly on agriculture. Agronomy is India's economy's most

[1] Magdoff, F. and Tokar, B., 2010. Agriculture and food in crisis: Conflict, resistance, and renewal. NYU Press.

prominent resting spot. India has made significant strides in the field of food security since Independence. Indians have tripled, but the production of food grain has increased over four-fold, and the supply of per capita food grain has also increased significantly.

The farmers are holding the agrarian structure as a backbone. For instance, that it has been researched that agriculture has become one of the principal roles for a countries development, and to flourish the economy, the gross domestic product should be considered rational for all its citizens.[2] The structure of agriculture will succeed when the farmers come forward with their new cultivation process for the crops being grown and harvested. The local people try to help the farmers for the cultivation of crops that will meet the hunger of the ordinary people and also will act as a process of development for the economy of the Foreign countries by goods as to be exported. Every agrarian and food in the world can be maintained as crop genetic diversity through Farmers' Rights. [3]

The term "food sovereignty" was invented in 1996 by Via Campesina, an international NGO concerned with farmers' rights.[4] It is supposed to be "the right of each nation to maintain and develop its capacity to produce its basic foods respecting cultural and productive diversity."

Farmers and NGOs can strengthen their case against patents on crop plants by applying, whenever possible, a recognized human rights framework instead of self-proclaimed new rights.[5]

In the case of Ex parte Hibberd, the Court of the U.S, in the year 1986, it was on the history that for the first, their chance arises of granting utility patents on plants by the then patent officer.[6] As per the recent patent legislation of Canada and the United States that every plant, materials of plants as well as seed- accommodating the adjust the genetic traits can be patented.

When the farmers cultivate crops, they used best quality material for that the farmers are cautious about the process of technology, pesticides, manure, and many other essential requirements which are necessary for the crops to be grown in the best way and that will helps in exporting in different and which will attract the markets. Even the farmers make assures that

[2] Binswanger, H.P. and Deininger, K., 1997. Explaining agricultural and agrarian policies in developing countries. Journal of economic literature, 35(4), pp.1958-2005.
[3] Santilli, J., 2012. *Agrobiodiversity and the law: Regulating genetic resources, food security and cultural diversity*. Routledge.
[4] Thivet, D., 2014. Peasants' transnational mobilization for food sovereignty in La Via Campesina. *Food activism: Agency, democracy and economy, London, Bloomsbury*, pp.193-209.
[5] Straub, P., 2005. Farmers in the IP Wrench-How Patents on Gene-Modified Crops Violate the Right to Food in Developing Countries. *Hastings Int'l & Comp. L. Rev.*, *29*, p.187.
[6] Fowler, C., 2000. The Plant Patent Act of 1930: A sociological history of its creation. *J. Pat. & trademark off. Soc'y*, *82*, p.621.

the well-developed nurtured crops are a good sign that will be marked as an advantage for the economy of the state. These are all interconnected as the goods when exported to foreign countries. Automatically the economy of the concerned state will flourish, which will further used for the growth and evolution of the state.

Role of NABARD to improve the socio-economic condition of the farmers':

In the year 1982, NABARD has been launched the farmers club program to spreading the attitude of "development through credit, technology transfer, awareness, and capacity building." Which is about 1.43 lakh all over the country. Few of them are inactive, and some of them have a disability. After that, a fresh up and boost up capacity building program was started to come together. To sustain the farmers' club, all over the country, 106 federation farmers' club had been joining together about 50 farmers club in several blocks, and side by side, will generate membership about 1000 farmers. These associations had been undertaking financial activities to obtain profits of the economic scale. Since 1982, NABARD supported large numbers of farmers' clubs were set up, various banks, and voluntary organizations. The visit of farmers' experience and meeting, planning, partnership have helped to adopt the technology with availing from the bank as well as the government department, etc. NABARD has also been given awards to the best performing farmer's clubs to encourage them to support the farming community. It was also found NABARD always felicitating the farmers to promote the activity of agronomy and production more.

Since the beginning, NABARD has been endorsing the concept of various organizations of farmers in the form of farmer club. Though, to sustenance, these farmers' organizations need a long-term policy.[7] NABARD has been present 'in the irrigated areas through RIDF interventions' and 'in the Rainfed areas through watershed programs.' NABARD has always encouraged the farmers' group; associations & producer thought the country. During various field studies, it was observed that there are a few invalid and inactive farmers' clubs in the initial years of formation. During the initial stage, after 3 years, more than 50% of farmers' club were absolute and inactive. This scenario, more or less the same in others are also. So, a database will set up to strengthen the active farmers' club.

It was revealed that the transformation of the Farmers' club association into a producer organization would construct on the social mobilization of farmers has already been taken

[7] Srinivasan, N., 2022. *State of Agricultural Finance in India*. SAGE Publishing India.

place.[8] The association has required less handholding support for encouraging POs compared to any other intervention. NABARD supported the successful intervention in Chhattisgarh. All stakeholders have been learned through these successful models and scale up the transformation of Farmers' Club federations to Producer Organizations. The farmers' unions and farmers' producer organization were supported by NABARD under the PODF Scheme from 2012-13 to 2013-14. As an example, A association of farmer club has been set up to procuring, processing, and retailing of the seed in Chhattisgarh. The association in the same district and others in the neighboring community is in the process. A study was undertaken to understand the model and to examine the scope of replicating the model in other parts of the country.

Contemporary rights of the farmers in the globalized era

In the early 1980s, the farmers' rights were used as a political concept. The appearance was initiated by civil society activists to emphasize the precious unrewarded contributions of farmers to PGRFA.[9] In the very initial stage, develop the idea of increased the demand for the plant breeders' rights in consultation with the international era. [10]

Farmers' rights are a significant constituent of the global contract to protecting the farmers' communities and performing their role as guardians of the plant genetic resources used for food & agriculture. The international agreement promotes a balancing approach to strategies for the protection of PGRFA. Since the last fifty years, a vital contribution has been made by the farmers, indigenous peoples, and local communities to developing the crop genetic diversity and the hefty of food.[11]

Therefore, crop genetic diversity in the global contract to realize the objective of plant genetic resources for agriculture & food. Farmers' rights are one of the vital preconditions for the maintenance of crop genetic diversity. The global understanding of these rights was laid after the first consideration of farmers' rights during the worldwide consultation in 1986—the chief rudiments of the history of the negotiations that led to the adoption of farmers' rights.[12] The

[8] Rondot, P. and Collion, M.H., 2001. Agricultural producer organizations: their contribution to rural capacity building and poverty reduction. World Bank.
[9] Naluwairo, R., 2006. From Concept to Action: The Protection and Promotion of Farmers' Rights in East Africa.
[10] Cary Fowler. 1994. Unnatural selection. Technology, politics and plant evolution. p. 192. Yverdon, Switzerland, Gordon and Breach); and Svanhild-Isabelle Batta Bjørnstad. 2004. Breakthrough for 'the South'? An analysis of the recognition of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture. FNI Report 13/2004. p. 35. Lysaker, Norway, The Fridtjof Nansen Institute.
[11] United Nations Human Rights website: http://www.ohchr.org/EN/Issues/Pages/WhatareHumanRights.aspx; http://undocs.org/A/RES/217(III)
[12] Michael M. Cernea (ed.) 1985. Putting people first. Published for the World Bank (Oxford University Press).

idea for the rights of farmers may include several dimensions: reward for innovation in the development of farmers' varieties and conservation of plant genetic resources are the essential supporting activities.[13]

Rights of the Farmer in India scenario

The farmer 's right is to preserve the traditional information and to continue it. The sharing of the profits obtained from the use of resources is a fair usage of the PGRFA. Framers' right helps farmers, as well as to the global pool of genetic resources, to continue to retain, retain, develop and manage crop genetic resources. Farmers' rights are a costly outlet in developed countries for better food safety and nutrition. Not only food production, but also access to food are the key challenges of improving food security. It is necessary to note that the rights of food in India have been properly guaranteed by law. In reality, the right to food has been preserved in global legal documents for more than fifty and is a part of the modern global human rights structure.[14]

Importance of farmers in human life

Farmer is the real economic asset of human beings. Farmer gives us genuine food to survive for living animals.[15] But the Farmer was always deprived of their production rights; they are sufferers from their economic benefit. Since the born of the earth, the farmers' cultivated the crop and vegetables, which is our food. The Farmer is produced various types of agriculture products paddy, wheat, maize, Bazra, vegetables, and pulses all over the world. The farmers have a traditional knowledge to carry on the generation wise occupation and expertise. The farmers prepare the soil through plow, then step by step used their legal knowledge to cultivate the crops and vegetables. Most of the tribes are occupationally agriculturists like Santal, Munda, Rabha, Bhumij, Oroan, Malpahariya, Lepcha, Gorait, Garo, etc.

Protection of Traditional Knowledge

Good herbal genetic resources for food and agriculture shall be safeguarded by traditional expertise.[16] The security of traditional knowledge relates to plant genetic resources for food and agriculture. The key tools for the preservation of cultural knowledge are therefore

[13] Report of the Tenth Session of the Working Group of the Commission on Plant Genetic Resources, CPGR-6/95/REP, Appendix C, particularly paragraphs 23–26; Report of the Sixth Session of the Commission on Plant Genetic Resources, CPGR-6/95/REP, Appendix K.

[14] United Nations, Permanent Mission of India to the United Nations, India and United Nations: Human Rights, http://www.un.int/india/indiaand_ the un hr.html (last visited May 31, 2010).

[15] Berry, W., 2010. *Bringing it to the table: On farming and food*. ReadHowYouWant. com.

[16] Downes, D.R., 2000. How intellectual property could be a tool to protect traditional knowledge. *Colum. J. Envtl. L.*, *25*, p.253.

indigenous people and community groups. Traditional expertise to grow agriculture and local farming expertise is included on an international contract.[17]

The agreement and its multilateral arrangement share efficient rules of facilitated access for collecting local, national and international gene banks in the public domain under direct supervision of contracting parties.[18] It is the responsibility of farmers to join the world gene banks for genetic material. The collection of the local seeds stored in small cooling units of the research laboratories and national research centres for the collection of seeds containing all recognized crops all over the world.[19]

Benefit Sharing

It depends on access to heritage funds under the multilateral scheme to contribute freely to further research with others in the event of any new developments or to pay a percentage of profitability for further agri-conservation and growth if they wish to sustain innovations themselves, if they are to obtain a common fund. The profit-sharing fund was established in 2008.[20] For the preservation of traditional information which is part of the genetics used for the production of new plant varieties, the Law on the Conservation of Plant Varieties and Farmers' Rights of 2001 was adopted. This prerequisite for registration has been fulfilled by current forms of payment and reimbursement to the Group.[21]

Participation in decision-making

The right to engage in decision — making, at national level, in matters relating to the conservation and sustainable use of plant genetic resources for food and agriculture is stated for promotion of farmer 's rights in Article 9.2 of the International Treaty.[22]

Important advances in the area of the rights of breeders, farmers and local communities were made in 2001. Protecting Plant Varieties and Farmers' Rights (PPVFR) has been adopted by

[17]Z. Aksoy, 2016. *"Global Governance of Traditional Knowledge and its justice implications: a case for an alternative approach. An Internal Colloquium"*, 4-5 February 2016, Colloquium Paper No. 3. The Hague, The Netherlands.

[18] Wambugu, P.W. and Muthamia, Z., 2012. Incentives and disincentives for Kenya's participation in the multilateral system of access and benefit sharing. *The Multilateral System of Access and Benefit Sharing: Case Studies on Implementation in Kenya, Morocco, Philippines and Peru. Rome, Italy: Bioversity International*, pp.9-41.

[19]International Covenant on Economic, Social and Cultural Rights art. **11,** opened for signature Dec. 19, 1966, 993 U.N.T.S. 3.

[20] ITPGRFA webpage: http://www.fao.org/plant-treaty/areas-of-work/benefit-sharingfund/overview/en/

[21] Lok Sabha, "Report of the joint Committee on the Protecting of Plant Varieties and Farmers' Rights Bill, **1999",** Lok Sabha Secretariat, New Delhi, August 2000.

[22] Sumita, 2023. Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture. *Part 2 Indian J. Integrated Rsch. L.*, *3*, p.1.

the Indian government. In 1994, this legislation was necessary under the Intellectual Property Rights Agreement (TRIPs). In accordance with Article 27.3(b) of this Agreement, Member States shall, in accordance with either a patent or an effective sui generis scheme, provide for the protection and safety of plant varieties. The Member States therefore had the choice to frame laws that suited their course, and India took up the option. Sui generis has been designed to combine the interests of breeders, farmers and populations and ensure an equal distribution of benefits. The sui generis scheme is used to protect species of plants. The Indian Patent Act of 1970 removed patentability from agriculture and horticulture. It provides versatility in respect of protected genera / species, levels, and security duration compared to other similar laws in various countries that have been or are being drafted. The Act extends to all plant types, except microorganisms. The genera and species of the varieties shall be informed by gazette following the implementation of the Act in compliance with the relevant rules and by-laws. This article aims to examine the provisions of the laws to be applied effectively.[23]

Respect and Protection of Farmers on India

In developing countries like India, the Agricultural Industry played a very important role in the economy. It contributes to one of the essential parts and principal factors that will flourish India's Economy in the near future. In every sphere of life, agriculture is the most necessities of a human being. It may start from Rice, Wheat, and Pulses to many others. But it is hard to believe that in the country the farmers have a role and that they have just become an intermediate between Multinational companies and the Government. Even though quite often, it has been seen that they, at times, they are not paid the minimum remuneration. In India, most of the farmers are very poor; they live on daily wages even some farmers work on hire basis and are also sometimes a tenant farmer. Farmers are not much educated and are not aware of new technologies.[24]

However, there is NABARD Bank, which gives loans to the farmers for their cultivation. But there are still some farmers who do not know anything about new modern technology and are not also aware. So it's high time needs to think for the farmers and plan strategies for the Farmer's development in the near future. Though there are Farmer's Rights and protection mention in the laws of the country, it does not prevent it. Especially the first and foremost point

[23]Pratibha Brahmi, Sanjeev Saxena and B. S. Dhillon, *"The Protection of Plant Varieties and Farmers' Rights Act of India*" CURRENT SCIENCE, VOL. 86, NO. 3, 10 FEBRUARY 2004

[24] Agarwal, B., 1998. Disinherited peasants, disadvantaged workers: a gender perspective on land and livelihood. *Economic and political weekly*, pp.A2-A14.

is to make camps of education in the villages and make the farmers aware of knowledge and new technologies that will help in the cultivation process.

Moreover, it should become prevalent that farmers should lead their life in society with dignity and respect as the farmers are one only whose work of cultivation only feeds the stomach of the people in the county. For example, still, we have in the state of Assam, the people of that state respect the 'farmer' only because they are fighting against nature and give us three-time food in a day. The people of that state also believe that Farmer is joined a very sacred occupation.

Intellectual Property Rights protection for the Farmers

Any tangible idea can be protected by law when it is expressed utilizing a concept of Intellectual Property (IP). Legal rights that can be established over original or inventive design are termed as IPR. The rights holders are usually allowed by such legal rights that the third persons cannot unauthorize the use of their creations/inventions. So therefore, for any commercial use of any work, the concerned person should take a prior person from the owner or creator of that particular work.[25]

The rights of the farmers are those rights that are coming from the history and also for the further of the Farmer's contributions in preserving, upgrading, and accessible of the genetic resources of plant and especially those in the centers of genesis /diversity. For the making of crop genetic diversity, they are essential for the precondition, which is the basis in an around the globe for all the food and agricultural production. As though the intellectual efforts which are required to produce and refine the best quality of different types of varieties in the local market, but it needs to verify the Intellectual property rights that are connected to brand new plant varieties have somehow overlooked the contributions of the farmers. To relevant this IP, as mentioned above, part with plant varieties, it can be understood well by the example that the system of rights of a patent or plant breeders are deliberately determined by private enterprise thought. In contrast, common property is trade-in by PGRs right. The development of the farmers in the further future is being ignored by this and the benefaction that is being always assembled by the farmers, which are most significant for the establishment of political and social and the idea for the rights of the Farmer.

[25]Jayashree Watal, "*Intellectual Property Rights in Indian Agriculture"*, (New Delhi: Indian Council for *Research on International Economic Relations, 1998), p.1.*

Intellectual Property Rights basic theory of plant varieties is by is the acknowledgment of the revolution by the human beings in growing a newly discovered an idea of the type of plant alternative, with or without re-joining that is narrative and well defined that from the preliminary varieties. The transformation that is unlike builds in numerous non- biological realm, life forms such as crop varieties are not thoroughly created, but are every time produce from pre-existing life forms and generate by natural procedure. Thus, the innovation of a new type has two components: the use of pre-existing varieties and the knowledge required to select a brand-new variety by re-joining the earlier ones or by the further procedure. Fairness request that the acknowledgment of transformation builds on the brand-new types of the breed.[26]

Farmers' rights in the Indian PPVFR Act, 2001

a. Recognition of farmers as users, custodians, and breeders

It is one of the central concepts for the conservation of Plant Varieties and Farmers' Rights Act (PPVFR Act) pursue to blemish the rights of plant breeders and farmers on an equivalent basis. It declares the demand of acknowledge and preservation of the rights of farmers with esteem to the benefaction they make in maintenance, upgrading, and making PGR accessible for the growth of new plant varieties. The PPVFR Act also considers it equivalent demands so to preserve PBRs to vital funding for analysis and development, each in the communal and privatized zone, for the growth of the newly discovered plant. The breeders are allowed to grip on the unique virtue to manufacture, in the retail in various markets for disseminate and to export or import the fertilizer substances that are recorded as a variety under the PBRs Act.[27]

The various roles of cultivating, growing, and sort out of different varieties are being done by the farmers that are being addressed by the PPVFR Act. The growing or some kind out of types with regard to the Act that refers to the usefulness attach by the farmers to wild species or traditional varieties through choosing and recognition of their functional traits. Therefore, the farmers' equitable are encircle the character of the farmers as he purchaser preserves and breeders. The Indian Farmers are permitted with nine particulars with fair, which are mention as follows: -

[26] Mabeza-Chimedza, R., 2000. Transforming agricultural service delivery institutions for greater responsiveness. *Agrekon*, *39*(4), pp.412-431.
[27] Spielman, D.J. and Smale, M., 2017. Policy options to accelerate variety change among smallholder farmers in South Asia and Africa South of the Sahara.

b. The Farmer's right to the permission of seed

Farmer hand are authorized to rescue, utilize, spread, re-stew, swap, divide or trade their farm produce, as well as the seed of protected varieties according to the right of access to the source. Before the pronouncement of the PPVFR Act, the farmers were also allowed to do the same. But it needs to be noted that the farmers are not authorized to trade branded seed of a variety protected under this Act. The Act does not protect Farmers' rights, their opportunity, and secure their life in the country. According to 317, the farmers are given the right to preserve and sort out the amount of the seeds for growing crops on their land and also preserve and secure the variety.

c. The Farmer's right to the permission of OK – being

The Breeders, who work for the growth and development of new varieties that are being furnished PRG by all the Indian Legal entities s well as by the farmers, should be given an equitable allowance of the welfare over the \profit- oriented grains of the recorded varieties.[28] The PPVFR Act 2001 is one of the most important among all the National Plant Variety preservation laws, which is mainly to achieve benefit sharing that with the PBRs.

d. The Farmer's right to Reimbursement

With the proper management curriculum and under prescribed, the recorded seed must be traded should be accompanied by a comprehensive revelation of their cultivator's production. The Farmer is permitted to profess payment from the breeder when such seed is sold to the Farmer that break down to give predicted money and recommended management condition, through the office of the PPVFR Authority.[29]

e. The Farmer's Right in Reasonable seed price

With an affordable price, the farmers are granted the right to access seeds of registered varieties. Still, if the farmers are not giving these opportunities, then the farmers will waste their exclusive rights. This may give rise to compulsory licensing for the preservation of the varieties.

[28] Reddy, M.S., Raju, D.T. and Kanthisri, B.S., 2018. Livelihood opportunities among dairy farmers for their economic empowerment. *Extnicon 2018. Transforming agricultural extension systems: towards achieving the relevant Sustainable Development Goals (SDGs) for global impact, Kandy, Sri Lanka, 10-12 May 2018*, pp.91-105.

[29] JOSEPH, J., 2008. ORIENTATION LECTURES ON INDIA'S SEED POLICY, GENETICALLY MODIFIED CROPS & FARMERS'RIGHTS.

f. The Farmers' right of acknowledgment and compensation for the benefaction of the preservation of agriculture

The Nation Gene Fund gives awards and acknowledged the Farmers who have been working in PGR preservation and harvest development and who have made considerable benefaction for the conservation for the safeguard of genetic resources for the growing and expansion of crops. The end finance collected for the resources From the implementation of the Act, the National Gene Fund are given resources, which in turn are associated with the presented from the national and international organizations. The expenditures of the finance are appropriate to help in the preservation and renewable use of PGR.[30]

g. The Farmer's Right in the registration of varieties

The existing farmers' varieties that meet the requirements for the distinctness of the seeds not alike regularity, secureness, and measure, but do not incorporate that of originality are permitted for the registration under the Indian PPVFR Act.[31] Because of this right, the farmers get the benefit of one-off opportunity fora certain amount of time. Still, at the time of record of crop species that have been taken under the PPVFR Act, then only the crop species are recorded that of the varieties under the preview of PBRs.

h. The Farmer's Right in an endorsement for the profit-oriented of centrally procure varieties.

If any seeds varieties used for any profit-oriented purpose by the third parties may be brand new or undestroyed as a wellspring medium for the evolution of an inherently procure type, then the farmers are required to issue or give preceding permission or approval for its commercial use. By this, the farmers will get royalties, benefit-sharing, and one-off payments from the breeders if they among them settle down the terms and conditions of the authorization.

i. The Farmer's Right of excluded of payment for the registration

The farmers are being given the relaxation of not to reimburse any type of allowance or wage under the PPVFR Act, that is generally required for the registration of variety; to examine that the quality of the array is distinctness that is the variety is alike or not; regularity or stability;

[30] Dutfield, G., 2010. *Intellectual property, biogenetic resources and traditional knowledge*. Earthscan.
[31] Tonapi, V.A., 2008. PPV and FR Act and National Seed Policy. *Sorghum Improvement in the New Millennium. Patancheru 502 324, Andhra Pradesh, India: International Crops Research Institute for the Semi-Arid Tropics. 340 pp*, *48*, p.232.

and extra other services that are given by the PPVFR Authority; moreover for also the proceeding of legal matters of the cases related to the infringement.

j. The Farmer's Right in protection from accidental infringement

When any infringement arises on any right, if the farmers can prove before the court that he or she does not know about the extent of any rights, which are as mentioned in the PPVFR Act, then he or she will be reuse from any kinds of imp enactment. By this, it can be said that this principle was brought into consideration due to the centuries-old unrestrained rights that the seed of all varieties had control over by the Farmer and the novel nature of the PPVFR Act and the farmers' poor lawful understanding.[32]

The Need of Sui generis System

Ever since, the domestic market is always higher in demand for the export market, and the money which comes from this market is a massive benefit for the economy of many developing countries. Therefore this economy is very much attached and close to that of the farmers – produced seed of varieties that are not only high in demand for the export market but also for the local market. If the economy of the developing countries rises so, then it should protect the rights of the farmers for near-future growth and development. The Government of the developing countries should come up with camps and awareness programs for better understandings of the farmers in the rural villages and also encourages the farmers to the production of the new plant crop varieties they will generally use for the local people to cultivate. With due these, many developing countries have started a sui generis (translating roughly into self-generating) system of protection that is not compliant with UPOV in that it allows farmers to improve and adapt the seed in order to make it more successful in the local conditions

Conclusion and Suggestion

Agricultural production has played a significant role in the economy of developing countries. The Farmer is our economic leverage for people to live. The 'farmers' rights' idea acknowledges that farmers have built and continue to contribute to the growth of genetic diversity.

In order to ensure efficient and proper security and protection of farmers' rights, the governments must make such adjustments to the acts. More clarity should be made with the amendment of the Patents Act, 1970, especially with regard to the patenting of biotechnological

[32] Mamgai, P., Murai, A.S. and Singh, R., 2019. Conservation of Farmers' Varieties through PPV & FR Act.

inventions. Security of the IPRs in farming should be strengthened and strengthened in the Central and State governments to enhance compliance, access to resources and technology, sharing of benefits, equality, and justice. We need a policy and legislation that will include new instruments and tools that can effectively ensure that countries of origin maintain their rights to their genetic resources, that the advantages resulting from these resources are equally shared, and, more significantly, that the indigenous people making intellectual efforts are adequately covered. Where Indian legislation is not contrary to international treaties at the same time, Indian people such as farmers should not be ignored who, through agriculture, provide the country with economic development. The defense of the trademark today in the world has been skewed in favor of merchants who purchase the produce of the Farmer. Farmers must still obtain their well-earned rights, benefits, and rewards, as well. If it is planned and produced so that farmers can label their products and reap the benefits of their labor and innovation, farmers and other innovators can produce more productive and better goods.

SEXUAL HARASSMENT OF WOMEN IN INFORMAL AND UNORGANISED SECTORS IN INDIA: AN ANALYTICAL STUDY

Upala Basu

Ph.D. Research Scholar, Department of Law, North Bengal University and Research Assistant, Calcutta High Court, Email ID – basu.upala4@gmail.com, ORCID ID: 0009-0008-9283-8981

Abstract

Globally there is a great deal of arising tension about sexual harassment in the workplace. It is a type of gender-based violence that is harmful to the victims' productivity, well-being, and sense of dignity while also violating their human rights. In India, the informal and small-scale business sector that is not governed by official regulations is where the problem of sexual harassment is most prevalent. The issue of sexual harassment in the workplace is widespread and it impacts people in a variety of sectors and industries. But it's especially common in the unorganised sector where employees frequently don't have access to official complaint and redressal procedures. Since a sizable section of the labour force in India works in the unorganised sector, it is imperative that sexual harassment in this sector be prevented. This article shall discuss the problem of sexual harassment in India's unorganised industry, and its impact on employees, and the probable remedies that might be resorted to.

Keywords: Sexual harassment , Unorganised Sectors , Women , Workplace.

Prologue

> "Women will work out their destinies – much better, too, than men can ever do for them. All the mischief to women has come because men undertook to shape the destiny of women."
>
> - Swami Vivekananda

Among 95% of Indian women working in the informal sector, there is a clear gender divide in the country's labour force participation in this sector. Women are employed in the unorganised sector as street vendors, housekeepers, labourers in agriculture, construction, and other occupations. Given the significant proportion of women employed in the unorganised sector a more thorough examination of the matter regarding the efficient enforcement of workplace sexual harassment legislation is warranted.

In India, the informal sector employs the majority of workers. The most recent statistics from the Periodic Labour Force Survey Annual report, 2020–2021 shows that women make up more than half (56.7%) of the non-agricultural informal sector. The majority of them are the only providers of income for their families, hailing from underprivileged origins and marginalised areas. Since they frequently lack literacy and knowledge of the law, it is quite challenging for them to speak out against harassment. They are further discouraged from reporting such assaults by their fear of losing their livelihood and the shame attached to the problem.[1]

The risks that persons working in the informal labour sector confront are highlighted by a recently released study that demonstrates poor women in India are often the targets of sexual harassment and abuse at work. This vulnerability is made worse by the global coronavirus pandemic. According to a report of Human Rights Watch, the abuse occurs as a result of insufficient enforcement of the sexual harassment laws by local and federal governments. Following nationwide demonstrations in response to a woman being gang-raped in New Delhi in 2013, the bill was passed. Employers in India with ten or more employees are required by law to abide by the policies in place to avoid harassment.[2]

Since the law's introduction, compliance has proven troublesome. According to a 2015 assessment by a non-governmental organisation that supports India's business community, 25% of global corporations and 36% of Indian businesses in the nation were not abiding by the law. The International Labour Organisation estimates that 2 billion people, or more than 61% of the working population worldwide, are employed in the informal sector. In terms of the total economy, growing and developing nations in Africa, the Asia-Pacific region, Latin America, and the Middle East have the highest percentages of informal labour. For many years, there has been a global issue with the mistreatment of workers in the informal sector, which includes jobs like home-based labour, street vending, household labour, waste collection, and physical labour in the construction and agricultural industries. However, the problem is particularly gender-based in India, where 95% of the 195 million female workers in the nation work in informal employment, according to a report by Deloitte and the Global Compact Network India, which uses statistics from the World Bank. Additionally, women employed in the

[1] Surbhi Karwa 'India's Workplace Harassment Law Has Failed Informal, Marginalised Workers', (October 3, 2022), https://behanbox.com/2022/10/03/indias-workplace-harassment-law-has-failed-informal-marginalised-workers/ (Last visited: Nov. 30, 2023)

[2]U.S. News Staff , 'India's Informal Female Workers at Risk of Abuse, The study by Human Rights Watch spotlights the vulnerability of people working in the informal sector.' , (Oct. 16, 2020, 12:10 p.m.) , https://www.usnews.com/news/best-countries/articles/2020-10-16/informal-female-workers-face-harassment-and-abuse-in-india-report-finds.

unorganised sector lack the same voice as those in India's entertainment industries who have joined the worldwide #MeToo movement.[3]

Social Position of Women Working in Unorganised Sectors

Given the grave human rights breaches and domestic violence that occurred during the lockdown, including sexual harassment at work, it is necessary to review the current laws in this case. Since they can give nations instructions on how to strive towards reducing labour market discrimination for guaranteeing decent work, access to social security, and promoting gender equality, it is possible to evaluate international labour standards and their reaction to the issue. India historically had a labour market that is highly informal with high rates of precarious work. Women make up a significant portion of the informal economy, employing almost 90% of all workers in this sector. As they work in the unorganised sector, women are not eligible for social protection or coverage under labour laws. Their circumstances were made worse by the COVID-19 pandemic which caused them to lose their means of subsistence and fall into poverty. In general, women work as independent contractors, part-time employees, domestic helpers, piece-rate workers, and home-based employees with formal employment contracts who are not entitled to paid time-off or social security. According to the Periodic Labour Force Survey (PLFS) report of 2017–18, 51.9% of women reported being self-employed, 27% reported working casually, and only 21% reported being paid a regular salary. Women are primarily employed in "other services" (44.4%) in urban areas, with manufacturing and trade coming in second and third, respectively, and hotel and restaurant at thirteen percent. According to the PLFS 2017–18 of the women in the regular pay salaried group, 51.8% were not qualified for social security, 50.4% did not have regular job contracts, and 66.8% did not qualify for paid leave. Therefore, one of the biggest obstacles facing the nation's female informal sector workers has been their access to social security. The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, and the Unorganised Workers' Social Security Act, 2008 are the current legal provisions that protect some of the women workers in the informal sector. Even though the nation's 44 labour laws have been codified into four labour codes, many informal workers remain beyond their legal jurisdiction because to the definition's establishment-oriented nature, which applies to establishments with ten or more employees, as well as enforcement gaps. Whether they work

[3] *Ibid.*

for pay or for themselves, women are undoubtedly the worst affected groups in the informal economy. The gender pay gap continues to be a significant source of worry. Equal compensation standards are broken in a significant number of situations, such as when beedi-making, brick-making, building work, etc. Women are typically paid less than males for jobs of a similar nature.

It is believed that female employees are dependent on male employees who are actively employed, and their pay is viewed as secondary or, at most, supplemental. Therefore, some businesses are perfectly content to pay women employees less than their male colleagues. In these kinds of situations, the Equal Remuneration Act of 1976 is broken. Furthermore, women employed in the informal sector are not eligible for benefits under the Maternity Benefit Act of 1961 because this Act only applies to businesses with ten or more employees. Nonetheless, fewer than ten people are employed by the majority of the unofficial sectors. Additionally, a sizable portion of women employed in the informal sector work for themselves or in circumstances where employer-employee interactions are so murky that there is no employer to be identified.

An atmosphere that is safe to work in is something that many unofficial workspaces lack. Workplace sexual assault and harassment cases have not gotten enough attention from the general public or from the legal system. Most cases of sexual harassment of female employees occur in small-scale companies, informal vendor marketplaces, construction sites, domestic helper homes, and agricultural settings.

According to a new International Labour Organisation (ILO) brief on the COVID-19 crisis and the informal economy, lockdown and containment measures have caused extreme poverty for informal workers and their families resulting in a rise by more than 56% in lower- and middle-income countries (ILO Report, 2020). Their suffering has worsened after pandemic. During the lockdown, the National Commission on Women received 315 complaints about violence, with 47% of the accusations being to domestic abuse. Violence is more likely when there is economic hardship, a lack of social safety nets, post-traumatic stress brought on by isolation policies, and return migration. Although women had a brief escape earlier, the loss of livelihood for women employed in the unorganised sector changes the power dynamics and provides the offenders with an incentive to commit violent crimes. The new ILO Convention ratified by 190 countries concerning violence and harassment in the world of work adopted in June 2019 recognises that violence and harassment disproportionately impact women and girls and affects employment, productivity, health and safety. The convention has wide coverage applying to

all sectors formal and informal both in rural and urban areas. The convention acknowledges that domestic violence can have an impact on employment, productivity, health, and safety. It also reaffirms that, in addition to other measures, governments, employers, workers' organisations, and labour market institutions can help recognise, respond to, and address the effects of domestic violence. It also considers psychological violence and gives labour inspectorates more authority to carry out their duties in an efficient manner to ensure that labour inspectorates and other relevant authorities, as appropriate, have the authority to address workplace violence and harassment. This includes the ability to issue orders requiring immediate enforcement of measures and orders to halt work in situations where there is an immediate risk to an employee's life, health, or safety, subject to the right to appeal to a judicial or administrative authority that may be provided by law. This clause gives the Labour Inspectorate the authority to enforce the law effectively. The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (POSH) was passed in India, but it hasn't been easy for women in the unorganised sector to use the law. However, the POSH Act, 2013 does not specify the labour department's responsibility, which makes the legislation's execution inadequate. POSH Act, 2013 and its difficulties in implementation are one of the key obstacles of the POSH Act of 2013 as a legislation especially for women employed in the unorganised sector. They are unable to protest or seek redress in incidents of harassment because of their vulnerability and lack of agency. They just give in to harassment from bosses or coworkers because they are unaware of their legal options and fear social disgrace.

According to a 2012 Oxfam India and Social and Rural Research Institute (PARI) survey, women who engage in construction (29%), domestic work (23%), and small-scale manufacturing (16%) are the most susceptible to workplace harassment (Oxfam 2018). Fear of losing one's job, the lack of a workplace complaint procedure, the fear of social stigma, and ignorance of redressal mechanisms were among the main excuses given by the female informal workers for not reporting instances of harassment. One of the numerous causes of India's dropping female labour force participation rate over the past several years is workplace sexual harassment. There is little doubt that the Vishakha Guidelines and the POSH Act, 2013 that followed were important steps in the fight against workplace sexual harassment. The statute defines a workplace as one that includes self-employed individuals as well as those in the organised and unorganised sectors. Unfortunately, the Act's rules are not being implemented well, particularly when it comes to informal workplaces. Every organisation must establish internal complaints committees (ICC) in accordance with the Act. In the unorganised sector,

the legislation has required the creation of a local complaints committee (LCC) to look into and handle complaints of sexual harassment. The informal sector is dispersed over space, so the government must still create such LCCs in every economic area. The informal workforce, particularly women workers, know very little about the establishment of said LCCs. Women employees are unable to seek redress under this act due to the lack of LCCs or their ignorance of the remedial mechanism. In the Direction of Improved Execution, it is urgently necessary to identify practical solutions for this grave problem in a country the size of India. Ensuring the efficient operation and successful constitution of Local Community Councils (LCCs) in every district is the primary responsibility. District magistrates have the authority to create LCCs in accordance with the results of surveys they conduct on the various jobs and kinds of work that women in their districts perform. The responsibility for overseeing LCCs for various worker categories must be delegated to representative bodies or registered organisations. For instance, town vending committees should handle street sellers, residents welfare organisations should handle domestic helpers, and welfare boards for construction workers should handle construction workers welfare boards need to look after construction workers, panchayats may be empowered to take care of women farm workers, and so on The Ministry of Labour and Employment and the Ministry of Women and Child Development should launch a media campaign, utilising social media, to raise awareness among the general public and among women employed in the informal sector in particular. Commercials on radio and television that discuss the law can be extensively disseminated and publicised. In the same way that businesses are required to display posters promoting ICCs, LCCs must also be promoted everywhere that women who work in the informal sector typically congregate, such as markets, neighbourhoods, construction sites, rural farms, etc. As the labour department plays a crucial role in improving the enforcement of the law, it is necessary to take into account the labour department's involvement in accordance with ILO Convention of 2019. Furthermore, the crisis has given rise to a whole new dimension in the problem of violence and harassment in the workplace, which means that governments need to review the current legal framework and create effective response plans for new types of harassment that have an impact on employees' well-being. International labour standards can offer a framework for well-informed policy decisions in this regard. Creating gender-sensitive social protection measures is also necessary to defend the rights of women employed in the unorganised sector.[4]

[4]Ellina Samantroy et. al , violence in times of covid-19 , lack of legal protection for women informal workers , http://feministlawarchives.pldindia.org/wp-content/uploads/violence-in-times-of-covid-19-lack-of-legal-protection-for-women-informal-workers.pdf .

Emergence of the Problem

The origin of discriminatory treatment against women is misogynistic approach towards women by the society. The term "**misogyny**" is derived from Ancient Greek word "misogynic" meaning hatred towards women. Misogyny has taken shape in multiple forms such as male privilege, patriarchy, gender discrimination, belittling of women, violence against women and sexual objectification. The roots of misogyny can be traced back to ancient Greek mythology.[5]

Historical Perspective

Hesiod in **Greek mythology** claims that before women existed, men lived in harmony with the gods as partners until Prometheus chose to take the God's fire recipe, which infuriated Zeus. Zeus punished mankind with an evil thing for their delight called Pandora who was believed to be the first woman carrying a box which unleashed all evils such as labour, sickness, old age and death. As mythology started spreading vices about women almost every religion started developing a negative outlook towards women. According to **Hindu mythology** though women are elevated to the position of Goddess but some scriptures restrict the role of women only to that of a mother, daughter and wife as described in Manusmriti. Tertullian, who was the founder of **Latin Christianity**, said that being a female is a curse given by God and they are a Devil's Gateway. Similarly, in **Islam**, the holy book Quran has a 4th chapter called An-Nisa meaning women. The 34th verse is a key verse in feminist criticism of Islam which states that men are in charge of women in respect of rights, maintenance and women are bound to depend on men for all needs. It is also mentioned that arrogance from women should not be tolerated and if seen such women should be stuck off. So, it is evident that religious scriptures were gravely responsible for suppression of women socially. So gradually with time the entire globe along with their mindset has been constituted upon a patriarchal base. Misogyny over years has evolved as an ideology engulfing the society as smog with no or faint traces of light for growth and upliftment of women. Great philosophers, socialists and thinkers were subdued by roars of male dominant society which narrowed their vision and made them a supporter of patriarchal society.[6]

Aristotle being one of the most ancient philosopher and scientist was also a misogynist. He considered women as a deformity, an incomplete male. He preached that male should always have a command and women being inferior creatures created by God are bound to follow.

[5]Srivastava K, Chaudhury et al ., Misogyny, feminism and sexual harassment, 26 *Ind Psychiatry Journal* 111-113 (2017) .
[6] *Ibid.*

Misogyny had several male supporters in the front but with times women started following and believing in this concept indirectly and unknowingly and is also responsible for suppression of women. Over centuries women and their rights have been suppressed and they were neglected as human being treated as a lower part of the society. Their roles were restricted to household chores and giving birth. Prolonged oppression raised voices and collectively led to the concept of feminism which started as the longest movement in history and is still continuing.[7]

Present Situation

After our Independence with the rapid development of the media it appears that a modern educated girl in big cities of India neither cares for religion and spiritual perfection nor hankers after domestic life as before. But practice of inequality emerging from spiritual belief is something that can never grow old, fade off or die. As the nation cannot change its soul, so it cannot also change its age-old ideas. That is why even during the turbulent modern age of over materialism, over realism, over individualism, over rationalism and over cynicism women faces oppression in all walks of life though they have gained noticeable importance at parliamentary, administrative and professional levels. The Women constituting almost half the country's population now have the right to participate in political activity on equal terms but still are deprived of self-respect and are subjugated into a grim existence. As India enters the 21st century, where Indian women are beginning to stir but even today the traditional families consider a husband to be the master. The wife's role is to look after him and his comforts. The whole world revolves round him. He does not like his wife to be independent and there are feelings of jealousy and suspicion. He uses physical force to keep his wife subdued or creates hurdles in her work to prove his superiority. This is the major cause of tension at home and workplace as well which contributes in a big way towards the rising graph of cruelty even today.[8]

International Overview

Since its founding, the United Nations has prioritized the promotion of women in its operations. Reaffirming belief in fundamental human rights, human dignity and worth, and gender equality is one of the main objectives outlined in the UN Charter Preamble. To address concerns pertaining to women, the Commission on the Status of Women was founded in 1946. The **Universal Declaration of Human Rights** had affirmed the principle of inadmissibility of

[7] *Ibid.*
[8] R. Radha, Historical perspective of violence against women in India through various ages, 9 *International Journal of Basic and Applied Research*, 152 (2019).

discrimination and proclaimed that all human beings are born free and equal in dignity and rights and everyone is entitled to all rights and freedoms set forth therein, without distinction of any kind, including distinction based on sex. Nonetheless, a great deal of discrimination against women still persists, mostly because women and girls are subject to numerous socially rather than legally imposed restrictions. It went against the values of respect for human rights and equality of rights. A **Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)** was formed in order to put the Declaration's ideas into practice. The General Assembly adopted the **Declaration on the Elimination of Discrimination against Women** on November 7, 1967. A common description of this Convention is "an international bill of rights for women." It has established a complete set of rights to which all people, including women, are entitled, as well as extra safeguards for women's human rights.[9]

During the United Nations-sponsored International Women's Decade (1976–1985), three conferences were organized in addition to the aforementioned convention in Mexico City (1975), Copenhagen (1980), and Nairobi (1985). The fourth conference, which took place in Beijing in 1995, significantly raised awareness of women's issues throughout the world. The Beijing Conference declared that women's rights are human rights and demanded that these rights be integrated into the activities of the various UN human rights committees. It regarded the problem of violence against women as a human rights issue, both in public and private settings. The Conference demanded that all conflicts between women's rights and negative consequences be eliminated.[10] The UN General Assembly in 2000 convened a Special session on 'Women: Gender Equality, Development and Peace for 21st Century' to assess the progress on women's issues. The Beijing Platform for Action, also known as the Women's Human Rights Agreement, was reviewed by the Commission on the Status of Women during its 49th Session in February 2005. Numerous topics were covered at the conference, such as human rights, education, the environment, poverty, economics, girls' rights, and authority and decision-making. The World Summit Outcome was reaffirmed in the General Assembly's twenty-third Special Session in 2005. The Summit decided to abolish systematic gender discrimination and advance gender equality. The U.N. Commission on the Status of Women met on March 14, 2011 in the Economic and Social Council Chamber to discuss the present scenario of gender violence in the world.[11] The international community can create a gender-sensitive plan for implementing the WHO Framework for women's protection by building on

[9] Lok Sabha Secretariat "Crime against Women" (2013).
[10] *Id.* at 15.
[11] Op.cit, Violence against Women and Children,184-185.

already-existing policy documents, legislative tools, and international initiatives.[12] Many attempts have been made to combat the pandemic since the mid-1980s, when the world community started to recognize violence against women as a global social problem. These efforts have included declarations, resolutions, and regional treaties. Significant advancements in women's security and rights have been sparked by these instruments. However, everyone has some limitations. It relates to a problem or area, or it is not legally enforceable. Women's safeguards are therefore patchy, which a global convention will fix.[13]

The Existing Legal Remedies

Other socially vulnerable groups and communities, in addition to girls, women, boys, and men, are frequently the targets of sexual harassment because of their social identities. A particular gender identity and sexual orientation are valued by our society as "normal." Violence is more likely to occur to those who defy this. Individuals with physical, sensory, or psychological limitations frequently experience sexual harassment or are viewed as less capable and inferior. Similarly, people who exhibit unusual gendered behaviours (effeminate men and masculine women) or alternative sexual orientations (transsexuals, gays, lesbians, bisexuals, etc.) are frequently made fun of and ridiculed for their speech, demeanour, attire, and/or sexual preferences. Sexual harassment is defined as any form of discrimination, exclusion, offensive or disparaging comment, or breach of privacy. It is critical that we respect and acknowledge the decisions made by "others" and abstain from acting in a way that betrays our preconceptions or causes us discomfort. We must make sure that these people's choices and rights are respected.[14]

The Penal Provisions

There are several provisions existing to protect women against sexual harassment at workplace but only few provisions have been provided in the Indian Penal Code, 1860 to deal with acts of sexual harassment. The sections include,

Section 294: Obscene acts and songs whoever, to the annoyance of others:

1. does any obscene act in any public place, or

[12] World Health Organization , *Gender, women, and the tobacco epidemic*, 231 (May 31, 2010).
[13] Violence Against Women and International Law: An Overview, https://everywoman.org/violence-against-women-and-the-law/ (Last visited : Nov. 12, 2023).
[14] Sexual Harassment , https://wcd.nic.in/sites/default/files/Sexual%20Harassment%2C%20English-Jagori.pdf.

2. sings, recites or utters any obscene song, ballad or words in or near any public place, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine, or with both.

Section 354: Any man commits to assault or use of criminal force to woman with intent to outrage her modesty or knowing it to be likely that he will thereby outrage her modesty, shall be punished with imprisonment or fined or both.

Sexual harassment includes:

1. physical contact and advances involving unwelcome and explicit sexual overtures

2. demand or request for sexual favours

3. showing pornography against the will of a woman

4. making sexually coloured remarks Punishment: imprisonment which may extend to three years or with fine or both.

Voyeurism is also penalised in which any man watching or capturing the image of a woman and engaging in a private act. The punishment is on first conviction there shall be an imprisonment for not less than one year which may extend to three years and fine. Repeated offenders shall be subjected to an imprisonment not less than three years, this may extend to seven years and fine.

Stalking is if any man is following a woman and attempting to contact, or foster personal interaction despite a clear indication of disinterest by her or monitors the use by a woman of internet, email or any other form of electronic communication. The punishment shall be imprisonment which may extend up to three years and for repeated offenders imprisonment may extend to five years and fine.

Section 509: uttering any word or making any gesture intended to insult the modesty of a woman Punishment: imprisonment for three years and fine.

Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013

Any act of abuse, assault, or harassment with overtly sexual undertones, whether overt or covert, including the unwelcome or excessive promise of incentives in exchange for sexual favors, is considered sexual harassment. One of the ways that women's rights to equality, life, and liberty are violated at work is through sexual harassment. It makes the workplace

unfriendly and insecure, which deters women from working and hinders their ability to advance socially and economically. It causes problems with mental and psychological health, like bipolar illness and depression. Following the Supreme Court's decision in the *Vishaka v. State of Rajasthan* [15] , the legislation on Sexual Harassment of women at workplace was created by in 2013 and put into effect to offer safeguards against sexual harassment for employed women. The Supreme Court adopted the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which was ratified by the Indian government in 1993, as well as the fundamental human rights established in Articles 14, 15, 19(1)(g), and 21 of the Indian Constitution.

"No woman shall be subjected to harassment at any workplace, whether public or private, whether the aggrieved woman is employed there or not," is stated by the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act of 2013. The following are the main parts of the law:

- **Complaints Committee:** In order to address allegations of sexual harassment at work, employers with ten or more employees are required by law to establish an Internal Complaints Committee. If this committee is not constituted or its recommendations are not followed, there would be a penalty of up to Rs. 50,000/-for the first offence, double the fine, or the loss of the business licence for the second offence. If the offended woman decides to take legal action on her own, the employer is also required to support her and to start proceedings against the offender under the Indian Penal Code. The woman may bring a complaint to the District Office's Local Complaints Committee if there isn't already an internal complaints committee in place.
- **To file a complaint in accordance with this Act:** Within three months of the occurrence, a woman has the option to file a report of sexual harassment with the internal or municipal complaints committee. Her legal successor may also file the complaint if the lady is unable of doing so because of a physical or mental disability or death.
- **Results of the Inquiry:** Following its investigation, the internal/local complaints committee may recommend to the employer, within sixty days, that the respondent be disciplined for sexual harassment as a misconduct in accordance with government guidelines or service rules, or the employer may deduct appropriate amounts from the

[15]AIR 1997 SC 3011

respondent's salary or wages. The woman who was wronged may also file an appeal with the government-designated court or tribunal. The appeal must be filed in response to the recommendations within ninety days.

The importance of passing laws prohibiting workplace sexual harassment was emphasised in the 2013 Justice J.S. Verma Committee Report, which also emphasised that the legislation should be sufficiently wide to protect "every female member of the national workforce." The report also underlined how important it was to make sure that the law still applied to the informal sector and that it was under its authority.

The International Labour Organisation (ILO) recently passed the historic 2019 Violence and Harassment Convention, which created global norms for responding to workplace violence and harassment. It presented the notion of the "world of work." Before this Convention, there was no international legislation specifically addressing violence and harassment in the workplace. Aside from the formal and informal economies, the Convention's broad application also extends to "persons working irrespective of their contractual status, persons in training, including interns and apprentices, workers whose employment has been terminated, volunteers, job seekers and job applicants, and individuals exercising the authority, duties or responsibilities of an employer." A resounding majority of votes came from India approved the Convention.

The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (referred to as the "POSH Act") is a domestic law that provides victims with civil redress and codifies the prohibition against sexual harassment in the workplace. The POSH Act recognises that every woman has a right to a workplace that is secure, safe, and free from harassment and hostility, regardless of her age or level of employment. The law provides protection to women who work in whatever capacity be it regular, temporary, ad hoc, or daily salary basis. According to Section 2(p) of the POSH Act, an unorganised sector is any place of business where less than 10 persons are employed and where an enterprise owned by individuals or self-employed workers is engaged in the production, sale, or provision of any form of service. Any workplace with fewer than ten workers is considered to be in the unorganised sector, to put it simply.

Local Committee or LCs has a greater degree of power in comparison to Internal Complaints Committees (ICCs) found in private enterprises or the organised sector. While LCs work in tandem with the state apparatus and have authority over the entire district for which they are

created, ICCs are restricted to the jurisdiction of their particular organisation. The shockingly low number of current LCs (only 29%) across the country is indicative of the government apparatus's lack of earnestness in ensuring that the Act is applied effectively. Many reasons contribute to the low reporting rate of incidents of workplace sexual harassment, such as a lack of knowledge about the law, mistrust of the complaints and redressal process, stigma, humiliation, and fear of reprisals. It is essential that LCs be built and managed efficiently across the country because for women working in the unorganised sector, district-level LCs represent their only choice.

When monitored only five states Madhya Pradesh, Kerala, Karnataka, Haryana, and Chhattisgarh and two Union Territories Daman and Diu and Dadra and Nagar Haveli furnished precise information regarding the LCs that were established within their respective borders, according to the plea. Furthermore, according to the petition, no state could divulge details regarding the initiatives their respective state governments had taken to advance and publicise the POSH Act. A public interest litigation (PIL) was brought in 2017 to highlight the inadequate implementation of the POSH Act in the state of Tamil Nadu, specifically in mills and factories, before the Madras High Court through the case of *R.Karuppusamy v. State of Tamil Nadu & Ors*.[16]. The Court directed the Collectors in each district of the state to submit individual reports outlining their efforts to form Local Committees (LCs) to handle complaints of workplace harassment. Three proposals were made in the petition to ensure POSH Act compliance and improve the current state of affairs. In the first place, the LCs ought to be properly formed. Each district, which consists of wards or municipalities in urban areas and blocks, talukas, and tehsils in rural regions, shall have a nodal officer appointed. Third, awareness should be encouraged and information concerning the POSH Act properly distributed.

Provisions for Sexually Harassed Women Employed in Unorganised Sectors

The perspective from which the law on sexual harassment in the workplace is perceived is one of its main shortcomings. Under the POSH Act, sexual harassment at work is primarily seen as a "women's issue" rather than a labour one. The Ministry of Women and Child Development (WCD) is in charge of the matter; the Ministry of Labour and Employment is rarely involved at all. This is fundamentally problematic because it focuses primarily on women, making them the problem, and ignores the true issue, which is unfriendly workplaces, when sexual

[16] W.P. 106340/2017.

harassment at work is classified as a women's issue. This significantly lessens the significance of the work environment, which is the setting in which the harassment occurs. To guarantee that traditionally male-dominated businesses are inclusive and friendly to women, laws pertaining to sexual harassment at work are essential. One of the biggest steps towards creating more inclusive workplaces will be to shift the way that sexual harassment in the workplace is perceived and to accept it as a labour issue.

- **The Importance of Local Committee**

In the unorganised sector, the process for addressing allegations of sexual harassment at work is outlined in Section 7 of the POSH Act. This section also addresses the Local Committee's (LC) duration, makeup, and other terms and conditions.

As a district-level committee, the LC has authority comparable to that of a civil court. It is formed by the District Officer, who may hold the position of Collector, Deputy Collector, Additional District Magistrate, or District Magistrate. It is tasked with investigating accusations of sexual harassment made by employees against their employers or by employers with fewer than ten workers. Furthermore, the POSH Act's Section 2(e) defines domestic workers separately. Regarding domestic workers, LC forwards the complaint to the police, who will file a case under Section 509 of the Indian Penal Code, 1860 (word, gesture, or act designed to insult a woman's modesty) and register it within seven days. In accordance with the POSH Act's provisions, the government is also in charge of creating educational and training materials, organising awareness campaigns, enhancing public knowledge of the law, promoting the Act's provisions, and leading orientation and training sessions for LC members.

- **Evaluating The Effectiveness of The Law**

Among the most vulnerable segments of the labour force in the nation are women employed in the unorganised sector. A sizable fraction of India's socially and economically disadvantaged women work in the unorganised economy. These women are frequently the main breadwinners for their families; they are forced to work for their basic survival regardless of their desire to do so. Furthermore, assessing the work of LCs is essential to determining whether or not the POSH Act is being implemented properly, given that over 90% of all working women in India are employed in the unorganised sector.

Drawbacks with the Present Legislation

The legislation covering the sexual harassment issues mostly deals with the scenario whereby it covers sexual harassment cases in organised and formal sectors with no guidelines for the employers of unorganised sectors in actuality. The problems of addressing the same includes:

- **Local Committees are Critical for POSH Implementation**

In order to prevent and address workplace sexual harassment, the legislation establishes two types of committees: an internal committee for the organised sector and a local committee for the unorganised sector. The term "unorganised sector" refers to businesses with fewer than ten employees. In accordance with section 6 of the POSH Act, a District Officer must form a group known as the Local Committee in order to handle complaints from unorganised businesses on sexual harassment. The complaints must be transmitted within 7 days after receipt, and the district official must appoint a nodal official in each block, taluka, tehsil, or ward to receive them. The committee consists of a chairperson, who is typically a distinguished woman in the social work field who is dedicated to the cause of women; one member who is a woman working in a district block, taluka, tehsil, ward, or municipality; two members from NGOs or associations that address sexual harassment issues; and an ex-officio member who is the district's social welfare or women and child development officer. Additionally, a minimum of one nominee must be a female from one of the Scheduled Tribes, Scheduled Castes, Other Backward Classes, or Minority Communities.

- **Non-constitution of Local Committees**

In order to provide women from the unorganised sector with a channel for redress against sexual harassment, district authorities are essential. In addition to designating the committee and informing the local nodal officials, the District Officer is obligated to act upon the Local Committee's suggestion in the event that the allegations are verified. Furthermore, the District Officer receives the inquiry report regarding the claims of sexual harassment. District Officers, however, have been proven to be deficient in their duties. In October 2018, the Martha Farrell Foundation conducted research through RTI that examined 655 districts and discovered that most local committees are "defunct," with members having "improper constitutions of membership" and "lack of awareness of roles and responsibilities amongst members." Just 29% of the 655 districts reported having established local committees, while 15% stated they had not. It was reported by 57% of the districts that they were unsure if they had local committees. Just 16% of the 29% of respondents had a female chairman, despite section 7's

mandate that the Committee's composition include women. Furthermore, just 18% of respondents claimed their committee has five or more members. Up to 103 districts were still lacking a committee.

- **Non appointment of the Appellate authorities.**

Employers who violate the Act by failing to form an internal committee risk penalty. However, there isn't a precise system in place to guarantee the District Officer's real accountability. Effective data on the operations of local committees, which, in contrast to internal committees, have not received much research, is likewise lacking. This applies to local committees in government and civil society organisations such as the NCW. Even in the study conducted by the Martha Farrell Foundation, 56% of districts failed to reply to RTI requests. This demonstrates once more the lack of interest in examining the local committees' operations within government agencies. This lessens the ability of women employed in the unorganised sector to seek improved legal execution.

- **Underreporting, Lack of Proactive Approach by Local Committees**

Even with the complex complaint and investigation process, very few instances really make it to local committees. According to the Martha Farrell Foundation Study, just 11% of districts having local committees addressed complaints made in accordance with the laws. Comparably, by 2020, the Local Committee in Mumbai had only received five complaints—all of which came from the official sector. The same foundation conducted another study on domestic workers in certain parts of Delhi and discovered that despite dealing with numerous cases of sexual harassment, none of the workers filed complaints with the local committees. There are multiple explanations for why local committees are no longer in operation. In the Martha Farrell Foundation Study, it was shown that only eighteen percent of districts with local committees had arranged orientation and training sessions for committee members. In the Foundation's report on domestic workers, comparable findings were also seen with regard to sensitization and further trainings against sexual harassment for domestic workers.

Many domestic workers in Delhi who participated in the quick poll conducted by the Martha Farrell Foundation had never heard of these panels. Additionally, there was nothing on the internet about them.

This demonstrates the lack of initiative on the part of local bodies. According to the law, their roles extend beyond being redressal committees to include acting as entities that take action to stop sexual harassment. The committee was renamed from the Local Complaints Committee

to the Local Committee in 2016 to make it clearer that it is also a forum for prevention. As mandated by the law, district officers and local committees must arrange training, sensitization events, and legal education. In the Martha Farrell Foundation Study, it was shown that only eighteen percent of districts with local committees had arranged orientation and training sessions for committee members. In the Foundation's report on domestic workers, comparable findings were also seen with regard to sensitization and further trainings against sexual harassment for domestic workers.

- **Poor Focus on Marginalised Women**

One other significant difficulty is that the law fails to consider the numerous marginalisation of women workers in the informal sector during the complaint and inquiry procedure. Workers in the informal sector file complaints with informal Local Committees using a procedure akin to that of internal committees. The unique obstacles that marginalised working women have when reporting harassment are disregarded. First of all, a daily wage earner or a domestic worker lacks documentation to prove her employment, unlike women in the formal sector. In addition, any complaint of harassment must be reported within three months in accordance with Section 9. However, the statute permits the committee to continue receiving complaints beyond this time frame. Anagha Sarpotdar, a social science researcher, discovered that committees do not read the clause to take into consideration the marginalised status of workers in the unorganised sector as a justification for complaint filing delays.

The Verma Committee has suggested that there be no deadline for submitting a complaint. Instead, complaints about the facts and circumstances surrounding, as well as the complainant's personal circumstances, should be accepted within a fair timeframe. Next, the Committee may resolve the dispute through party conciliation and document the settlement before opening an investigation into the complaint request. The Verma committee had also suggested that this clause be removed, pointing out that it will make it more difficult for women to file legitimate complaints. Given the disparity in power between the two parties, this is especially true for employees in the unorganised sector.

In a similar vein, under section 12, an aggrieved woman may, as a temporary measure, be granted three months' leave, transfer to another branch, or other relief while the complaint is pending in order to prevent future victimisation. This assumes that the company has multiple branches and that a leave policy is in place. In the unorganised sector, this might not be the case.

The vast majority of labour and social security legislation now in effect in India are limited to the formal sector and do not apply to the large-scale informal sector. A working woman in the informal sector has no choice but to quit her job, a tendency shown in a number of studies. Due to the fact that many of these women are the only providers for their families, their situation is much more precarious.

Epilogue

Economic stability and the ability to avoid sexual harassment at work are inextricably intertwined. If an inclusive and equal employment rights regime does not protect women in the unorganised sector, the requirements of the subject specific legislation would probably remain unattainable for them. The foundation of society's inclination to stigmatise women in any instance of sexual harassment is the patriarchal inclination to place blame on women and exonerate men. Although they are the most difficult to implement, attitude adjustments are essential for total change. Programmes for gender sensitization are essential, particularly for the younger generation. Strict legal awareness campaigns are the only way to combat the almost complete ignorance of women in the unorganised sector regarding the law and their rights. The State legal services authorities and other human rights institutions should carry out this duty. A number of civil society organisations also prioritise legal awareness. Change in this area can be greatly aided by convergence and synergies. In the absence of active and functional LCCs, there will not be any benefit to women employed in the unorganised sector. This requires more than just appointing them. The fundamental milestone hasn't been reached yet as it needs proper training, the right tools, and progress tracking. To reach this marginalised group, a comprehensive support structure made up of LCCs, Legal Services Authorities, and Human Rights Institutions must collaborate. This will only occur if state authorities recognise the fundamental rights of women to life, safety, and a means of subsistence and treat them with the gravity that they deserve.

GEOGRAPHICAL INDICATION AND CLIMATE CHANGE: A STUDY OF CHALLENGES AND OPPORTUNITIES IN SUSTAINABLE AGRICULTURE

Arnabi Bhagat

5th Year student, Alliance School of Law, Alliance University, Bangalore, Email ID: arnabibhagat@gmail.com

Abstract

Agriculture, as we very well know, is totally based on the climate, focusing mainly on crop quality, yield and most importantly its geographical distribution all around. On the other hand, Geographical Indication [Hereinafter also referred as GI] basically defined as protection that are used for the protection originating from a specific area and attributes the quality of its origin. There are a lot of challenges that that climate changes bring forward for Geographical Indication Protection for the sustainable Agriculture. It is very noticeable that the increasing pace of climate change will definitely have a far-reaching impact on agro ecosystems and their productivity affecting the Geographical Protection too. Vide this article, the author attempts to explore the challenges and the possible opportunities that climate change provides to GIs protection for sustainable agriculture. The author will analyze the impact of climate change on agriculture production and will also focus on the need to protect GI as a tool for sustainable development. Further, the author will focus on how climate smart agriculture should be implemented to bring a positive impact for the benefits of GI and sustainable agriculture.

Keywords*:* Climate change, Sustainable development, Geographical Indication, Agricultural Production

Introduction

Geographical Indications are now-a-days, becoming the most important and valuable asset in the global food system. Consumers are more inclined to things that are particularly based on their own area, and high quality of the food products. Agriculture lies at the heart of the trade and sustainable development nexus[1]. In developing countries like India, agriculture comprises of 50% of the total GDP and also is the livelihood for the majority of residents[2]. But the

[1]Green, Duncan, et al. "Sustainable Development, Poverty and Agricultural Trade Reform." *Agricultural Commodities, Trade and Sustainable Development*, edited by Thomas Lines, International Institute for Environment and Development, 2005, pp. 15–40. *JSTOR*, http://www.jstor.org/stable/resrep01377.8. Accessed 2 Apr. 2023.
[2]*Id.*

production and the marketing of the GIs are facing a lot of challenges due to the drastic change in the climate.

Geographical Indications on the other hand are the components of a collection of strategies that attempt to challenge the idea that, food is basically a commodity, by valuing the place of its origin of agricultural food products, also with the aim to promote the sustainable territorial development and also by reorganizing the system of agri-food[3]. When compared to global brands or generic products, the products having the identity tied with the product of its origin, gets extra value, and GIs recognize this value belongs to the community that over time built these products.[4] They have been recognized for producing a range of beneficial economic, social, and environmental outcomes, including: guaranteeing the quality and identity of products; defending the culinary and cultural heritage associated with particular regions; valuing local expertise and preserving traditional production methods; and promoting improved access to markets[5].

Since, back in centuries the practice of food products being associated with the place of its origin is being continued, which enhances its distinctive traits and attributes. Historically, geographical indicators were being used by the producers as a means of defence against the practice of copying or misusing their distinctive goods. Geographical indications are being utilized as a marketing tactic more frequently these days, enabling producers to leverage the status and uniqueness of their location to market their goods and boost sales[6]. Few well known examples of the geographical Indications include Parma Ham, from the Parma region of Italy, Roquefort cheese, made in the Roquefort sur soulzon area of France, Champagne, made in the region of France and Darjeeling tea from India.

Many European Nations adopted the norms for providing the judicial protection to the product of origin, back in 20th century. However, Protected Geographical Indication and Protected Designations of origins were only officially be regulated by the European Unions in 1992[7]. Later in 1994, World Trade Organization (WTO) ratified the Agreement on Trade Related

[3] Marja Zattoni Milano, Ademir Antonio Cazella, Environmental effects of geographical indications and their influential factors: A review of the empirical evidence, Current Research in Environmental Sustainability, Volume 3, 2021, 100096, SSN 2666-0490, (https://www.sciencedirect.com/science/article/pii/S2666049021000724).
[4]Van de Kop, Petra, Denis Sautier, and Astrid Gerz. *Origin-based products: Lessons for pro-poor market development*. Vol. 372. The Royal Tropical Institute-KIT, 2006.
[5]*Id.*
[6]*Id*.
[7]SANTILLI, JULIANA."As IndicaçõesGeográficas: Um InstrumentoJurídico e Econômico para valorizarosprodutos da biodiversidade." *PNMA* 30 (2011): 127-146.

Aspects of Intellectual Property Rights (TRIPS), and thus as a result of it all the signatory Nations are now subjected to its regulations related to Geographical Indications (GIs)[8].

Since, India became signatory to World Trade Organization (WTO), in 1995, the issue of India's Intellectual Property Right is being on major concern and is an ongoing discussion too. The importance of GI also cannot be overlooked in this growing economy as the reputation, quality and quantity all are interlinked to each other[9].After the incorporation of the TRIPS Agreement, numerous non-European countries have implemented the GI recognition regime. As per the Global Inventory of Intellectual Property held in 2018, received from the 95 authorities, in total there were 65,900 GIs were in force, including GIs being protected by the Sui generis systems[10].

In countries like India, the interest and the sentiments along with it becomes commercial, when their geographical indication or old traditional knowledge gets exploited just with the name of commerce, economy, technological advancement etc[11]. As a mechanism to protect and promote the rights of local communities over their biological resources and knowledge, a country can also enact legislation to establish such rights. The community is declared and recognized as the owners of community knowledge[12]. They hold this right as custodians for past, present and future members of the community[13]. Though, GI nowadays being a target study, the environmental performance and the sustainable development of it got the limelight very recently, with varied and contrary results.

Briefing with the concept, the main objective is to bring out the impact of the increasing climate change on agricultural production and its implication for GI protection. It proves to be the major threat to the environment sustainable as well as the agricultural production and GI protection.

Relationship between Climate Change and Geographical Indication

Basically, climate change refers to the weather alteration pattern, which results in increase of Carbon-di-oxide, Ultra Violet radiation, temperature, precipitation, ocean water level and also

[8]*Id*.
[9]Soumya Vinayan, *Geographical indications in India: Issues and challenges: An overview*, Vol. 19, 119, 132 (2017), https : //onlinelibrary.wiley.com/doi/abs/10.1111/jwip.12076.
[10] Supra Note 3.
[11]Gervais Daniel, *Spiritual but Not Intellectual? The Protection of Sacred Intangible Traditional Knowledge*, Cardozo Journal of International and Comparative Law, 467 (2003).
[12] Martin Khor, Intellectual property, Biodiversity and sustainable Development,42,Zed Books Ltd, Third World Network,2002.
[13]*Id*.

the forest cover. The relationship of Geographical Indication with climate is multifaceted and complex yet very crucial and meaningful. Climate changes do have a major role in the geographical indication as it directly affects the production area of the particular product. GI products may also differ and effect by the changing behaviour of the customers for the environment friendly and sustainable products. Climate change being an important issue of concern, consumer may seek out of GI products that are made in environment friendly and also sustainable manner.

The Preamble to the UN framework on climate change (FCCC) acknowledge huge concern on the adverse effect of climate change and human mankind[14]. The FCCC also indicated the escaled activities performed by humans that significantly surges the greenhouse gases concentration in our atmosphere, which results in atmospheric warming and indirectly effect the natural biodiversity as well as human mankind. Approx 30% of the plants and animals' varieties are at the point of risk of extinction due to the same climate change.[15]

During 2004-2005, Darjeeling tea became the first in India, to get the tag of geographical Indication Protection. Karnataka being at the top with the highest number of products with the GI tag[16]. As many varieties are used in a commonplace, the quality of agricultural products here is strongly linked with natural factors. They have influence during cultivation or during processing[17]. The most prominent relation between the Geographical Indication and the climate change can be seen when they put an impact on the production and the quality of the products. The GI products can definitely be referred to as terroir products as they are strongly connected to their origin via the climate, altitude, the soil[18]. Taking the example of GI protection on tea, Kangra tea is famous for its distinctive aroma, lightness of colour and liquor, whereas, the Tea of Darjeeling is described as having less body liquor. Also, being available in different forms depending on the category of the different leaf sizes. Thus, to obtain this variety different processing techniques are being used and it clearly justify the uniqueness of the tea produced.[19]

Kangra tea, the most surprising fact is that the defined production method of this specific tea consists of only the processing techniques and not at all the cultivation method, and the

[14] Climate Change and Biodiversity: India's Perspective and Legal Framework, 52 JILI (2010) 343.
[15] *Id*.
[16] ManuAiyappa Kanathanda, *From food to crop, Karnataka tops GI table with 39 products*, TOI, November 28, 2017.
[17] Delphine Marie-Viven, *The protection of geographical indication in India*, p.125, sage publication,2015.
[18] *Id*.
[19] *Id*. at 127.

uniqueness of this is the result of the combination of all the natural factors along with the knowledge involved in the processing of the raw material.[20]

Thus, to provide a conclusion to the uniqueness of the kangra tea and Darjeeling tea, both reflects the combination of variety, climate, natural environment adding up the technique of processing.

Again, the GI Monsooned Malabar Coffee, is registered for a coffee which is processed in a technique that have direct link to the climatic condition, discovered that the shipping of the coffee needs considerable amount of time. After being shipped it needs to be stored in the storage area for a longer time period for undergoing a transformation which needs hot and wet weather of the Malabar Coast during Monsoon. This process is generally termed as "Monsooning"[21].

Similarly, the effect of climate and its changes are not only limited to the crops and agricultural sector it also effects the handicrafts and textiles too. The availability of the raw materials as well as the quality of the raw material depends on the climate, that are required for making those handicrafts. Also, the natural factor of climate change plays a similar role in the processing process of Roquefort cheese in France. [22]

In conclusion, the relation between climate change and geographical indication is crucial in the context of the increasing Global warming, which directly impacts the quality and attributed characteristics of the products, originated from a particular origin. It is high time to realize the effect of these rapidly increasing change in climate, to protect and preserve the uniqueness and the quality of the product of a specific place.

GI and Its Importance in Sustainable Agriculture

Since a long time, there has been a scale of stagnancy in the agricultural sector. Geographical Indication do serve as a tool for encouraging sustainable agriculture. India had shown rapid progress on the sector of agriculture in year 2005. Being in India, country well known for its rich culture and diversity, it's necessary to preserve those unique ways of sustaining for the sustainable development. Geographical Indication is the sign that are used to identify goods originated from a specific geographic area and do attribute the quality of its origin. The main

[20] *Id.* at 126.
[21] Supra Note 21.
[22] Protection of Geographical Indications: National and International Perspective, 46 JILI (2004) 269

aim of GI is to provide reputation to the product originated from a specific region, bring economic boost and also promote cultural and traditional activity[23].

From the past few years, the concept of Geographical Indication and the related trade and judicial controversies has started receiving, great attention from the legal point of view and also received attention in the scholarly articles, journals and books as well[24]. The main objective of Geographical Indication is to provide protection against the dilution of any indication. While with not the motive of "misleading the public", there might be some use of GIs that are considered as the "free riding" on the reputation of the product obtaining GI of any region[25]. For example: when any protected mark is used in its translated form, i.e. with adding some extra information, to help communicate the products true origin, such as "Californian Chablis". This kind of "free riding" is ought to be considered as against the moral ethics of ethical business practices and are supposed to tarnish the image of the product too[26]. Very few rates of attention is provided to the concept of geographical indication and its relation to sustainable agriculture. The European Conference of Ministers responsible for the cultural heritage in Helsinki in 1995, embraced the concept of cultural landscapes to include peoples' tradition, cultural diversity, along with the interaction with environment and agriculture. It is particularly difficult to define the extent of natural heritage to be protected. As per Article 3 of the 2003 UNESCO convention, clearly states that "Nothing in this convention can be interpreted as…… affecting the rights and obligations of state parties deriving from any international instruments relating to Intellectual Property Rights or to the use of biological or ecological resources to which they are parties"[27]. Some of the famous authors have even pointed out that the extension of article 23 of TRIPS Agreement to all geographical indication could be based on the relevance of cultural identity as public domain. [28]

Geographical Indications were not explicitly designed to protect the agro-biodiversity, which leads to limited discussion of the effect and assessment of GI products and environment is limited. Further, the diffusion of these legal categories not only in the western nations but also

[23] Geographical Indication: A Journey of Indian Exclusiveness, 4 JIPL (2019) 81.
[24]Parasecoli, Fabio, and Aya Tasaki. "Shared Meals and Food Fights: Geographical Indications, Rural Development, and the Environment." *Environment & Society Environment & Society*, vol. 2, 2011, pp. 106–23. *JSTOR*, http://www.jstor.org/stable/43296989. Accessed 4 May 2023.
[25]Das, Kasturi, Protection of Geographical Indications: An Overview of Select Issues with Particular Reference to India (May 1, 2007).
[26] Correa, Carlos, Protection of Geographical Indications in Caricom Countries, September (2002).
[27]Parasecoli, Fabio, and Aya Tasaki. "Shared Meals and Food Fights: Geographical Indications, Rural Development, and the Environment." *Environment & Society Environment & Society*, vol. 2, 2011, pp. 106–23. *JSTOR*, http://www.jstor.org/stable/43296989. Accessed 4 May 2023.
[28]*Id.*

in the emerging economies would contribute to maintaining and developing the genetic resources including cultivation, harvesting, and most importantly biodiversity, which in future could turns out to boost the economy , turning into an asset with a potentially noticeable impact on rural economic development.[29]GI protection can help farmers to receive a fair price of their product, as the market is ready to purchase the products with unique quality and provenance with double of its price[30]. Thus, this incentivizes farmers to continue the production of products in more traditional manner and invest more in sustainable farming, that helps in sustainable agriculture as well as also boost the Indian economy[31].

Therefore, Geographical Indication do have a potential, to become a valid tool in implementing a sustainable as well as quality-based agriculture provided it gets the proper socio-political environment. Also, on the other hand, the implementation of the geographical indication could increase the commercial valuation of the crops yield and avoid their disappearance in the low crop productivity, high cost associated with the labour intensive methods of production, also lack of transmission of necessary know how's.[32]

Placing Reliance in European Union Model of GI

Viticulture is famous for European Nation. The EU has a very well known and established GI system for wine which makes sure that the consumer are not mislead with the quality, authenticity, he place of origin of the product that they are purchasing. This system of GI helps in marketing their product value too. There are total 5 bioclimatic indices for the cultivation of grapes. The following are the indices for the same[33]:

1. Growing season Precipitation.
2. Length of the growing season.
3. Index of Latitude and Longitude.
4. Hydro thermic Index.
5. Cool night Index.
6. Dryness Index.
7. Composite Index.

[29] *Id*.
[30] Supra Note 24.
[31] Supra Note,23.
[32] Supra,27
[33]A. C. Malheiro, J. Santos, H. Fraga, J. Pinto, Climate change scenarios applied to viticultural zoning in Europe, 2010.

All these bioclimatic Indices are used to assess the agricultural suitability of wine-grape in the European Nations. The LGS and GSP are the most crucial components that are required for wine grapes to grow and that component of temperature is present throughout Europe. Any region where the temperature of LGS is lower than 182 d, is not at all suitable for the cultivation of wine grape[34]. Hence, due to the variation in the climatic condition, the production or cultivation of the agricultural products also differ greatly. The direct effects of enhanced carbon dioxide concentration are out of the scope of the present study, though there is some evidence for positive physiological effects on grapevines.[35] Anytime the new wine cultivation can took place at any region, the meso climatic characteristics and the soil types are some of the characteristic of climate which cannot be ignored. Agricultural practices, wine production techniques, variety selection and genetic manipulation might also play a key role for the adaptation measures of the viticultural sector in response to climate change.[36]

India herein can also benefit by adopting the similar kind of approach just as the EU. This would require hard work on strengthening the legal framework of GI and also depends on its enforcement mechanism, those are equipped to handle the GI protection mechanism.

Suggestions and Conclusion

In solving the path, towards the sustainable agriculture, the basic role here is of Geographical Indication. It acts as a tool for adaptation and mitigation of climate change in Agriculture as well as to promote sustainable agriculture.

Over all the studies mentioned above, Climate change has an adverse effect on the Geographical Indication also Geographical Indication is proved to be an important tool for promoting sustainable agriculture and preserving the unique identity of the product. The increasing effect of climate change in geographical indication can only be controlled through the method of sustainable agriculture that could possibly reduce the emission of greenhouse gases and adapt the changing climate. Also, the advancement in the field of research and development could help mitigate the effect of climate change on agricultural production.

Also, adapting the EU model of GI for the protection and promotion of traditional knowledge and the specific agricultural products, will help India to mitigate some effects of the climate change and also could be a viable strategy for India to promote their GI in the global market

[34] *Id*.
[35] *Id. At 175.*
[36] *Id.*

that could help earn indirect revenue to the country. However, to do so, it requires full International Cooperation and strong legal framework along with the similar climatic condition to achieve the objective. Depending on the social and economic dynamics of the nation, within the different communities, variable amount of geographical indications must be kept for local use and sustainable agriculture at price that must be accessible to all, in order to maintain the cultural significance, growth of the economy as well as promoting sustainable agriculture.

Lastly, awareness within the community and the public awareness about the increasing climate change and its effect on agricultural production which indirectly effects the Geographical indication is important. The importance of preserving the community's cultural heritage and biodiversity must be known to all. Overall, these are the few key point suggestions that could help mitigate the impact of climate change on geographical indication of agricultural products and also help to support the livelihood of farmers, boosting the economy of the Nation as well as preserving the cultural heritage of the Nation too.

CENTRE FOR REGULATORY STUDIES, GOVERNANCE AND PUBLIC POLICY
THE WEST BENGAL NATIONAL UNIVERSITY OF JURIDICAL SCIENCES, KOLKATA

E : journal.crsgpp@nujs.edu

B : https://nujs.edu/nujs-crsgpp.html

P: +91(033) 2335 7379 (Ext. 7210)