

## Restructuring Electronic Traffic Violation Enforcement Regulations to Achieve Justice

Arpan <sup>a,1,\*</sup>, Ruslina Dwi Wahyuni <sup>b,2</sup>

<sup>a</sup> Doctoral Program, Faculty of Law, Sultan Agung Islamic University, Semarang, Indonesia;

<sup>b</sup> Constitutional Law Study Program, Mulia Astuti Islamic College, Wonogiri, Indonesia

<sup>1</sup>[arsanlawyer2@gmail.com](mailto:arsanlawyer2@gmail.com); <sup>2</sup>[roselynaa@gmail.com](mailto:roselynaa@gmail.com)

\*Correspondent Author; [arsanlawyer2@gmail.com](mailto:arsanlawyer2@gmail.com)

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### ABSTRACT

The implementation of Electronic Traffic Law Enforcement (ETLE) represents a form of modernization in traffic law enforcement aimed at enhancing the effectiveness, transparency, and accountability of traffic and road transport violation handling. Normatively, the use of electronic devices in traffic law enforcement has obtained a legal basis under Article 272 of Law Number 22 of 2009 on Road Traffic and Transportation. However, in practice, the implementation of ETLE reveals a number of fundamental issues related to regulatory inconsistency, normative gaps, and the insufficient internalization of substantive justice values within this technology-based law enforcement system. This study aims to analyze the reasons why regulations governing electronic traffic and road transport law enforcement have not yet been grounded in justice-based values, to identify normative, institutional, and procedural weaknesses in the implementation of ETLE, and to formulate a reconstruction of electronic traffic law enforcement regulations oriented toward justice values. This research employs a doctrinal legal research method with a socio-legal approach, adopts a constructivist paradigm, and is supported by primary data obtained through interviews and field observations. The analysis is conducted using Pancasila justice theory as the grand theory, legal effectiveness theory as the middle-range theory, and progressive legal theory as the applied theory. The findings indicate that the current ETLE system prioritizes administrative certainty and technical efficiency over substantive justice. The main weaknesses lie in the hierarchical inconsistency of regulations, deviations from the principle of personal liability, the implicit reversal of the burden of proof, the absence of clear technical standards for electronic evidence, weak mechanisms for the protection of citizens' rights, and institutional fragmentation accompanied by poor inter-agency coordination. These conditions give rise to structural injustice, particularly when vehicle owners are positioned as subjects of legal responsibility without due consideration of the actual perpetrators of traffic violations. Therefore, this study positions the reconstruction of ETLE regulations as a conceptual necessity to shift the paradigm of traffic law enforcement from administrative certainty toward substantive justice, through the clarification of legal responsibility subjects, the strengthening of citizens' rights protection, and the integration of accountable and human-oriented technology governance.

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## Introduction

Advances in science and technology, particularly in the field of information and communication technology, have brought significant changes to various aspects of life, including the traffic and road transportation law enforcement system. The government is required to adapt to these dynamics through policy innovations that are not only effective and efficient but also uphold the principle of justice. In this context, the implementation of Electronic Traffic Law Enforcement (ETLE) is one form of modernization of traffic law enforcement that aims to increase transparency, accountability, and effectiveness in enforcing traffic violations. (Arief, 2007)

Normatively, the implementation of ETLE has a strong legal basis, as stipulated in Article 272 of Law Number 22 of 2009 concerning Traffic and Road Transportation, which authorizes the use of electronic devices as aids in enforcing traffic violations. The presence of this system is expected to overcome various weaknesses in conventional law enforcement, such as limited numbers of officers, potential abuse of authority, and low levels of public compliance with traffic regulations. Furthermore, ETLE is also seen as a solution to create a more objective law enforcement system because it is based on electronic data and evidence. (Basyar et al., 2022)

However, in its implementation, the ETLE system has not fully addressed various fundamental issues in traffic law enforcement. There is a gap between normative regulations and actual practice (legal gap), indicating that existing regulations are unable to accommodate the complexity of technology-based enforcement. Existing implementing regulations do not yet provide detailed provisions regarding enforcement procedures, objection mechanisms, electronic evidence validity standards, and the protection of citizens' rights. This situation has led to inconsistent implementation of ETLE across regions and created legal uncertainty for the public. (Hadjon, 2015)

A more fundamental problem lies in the fairness aspect of the ETLE system. In practice, electronic-based enforcement of traffic violations tends to focus on vehicle identification, rather than on identifying the perpetrator. The ETLE system records the license plate number of the vehicle that committed the violation, then a notification is sent to the vehicle owner based on available administrative data. Consequently, the vehicle owner is often positioned as the responsible party, even though they are not always the actual perpetrator of the violation. This contradicts basic legal principles, particularly the principle of personal liability, which emphasizes that legal responsibility should be imposed on individuals who actually commit unlawful acts. (Ilham, 2020)

This situation not only creates injustice but also has the potential to violate the presumption of innocence. In the ETLE system, vehicle owners are indirectly burdened

with the burden of proving that they are not the perpetrator of the violation. This demonstrates an implicit reversal of the burden of proof, which is inconsistent with the basic principles of criminal law and administrative law. Furthermore, the available objection mechanisms are often administrative, complex, and inaccessible to the public, leading many citizens to choose to accept sanctions even though they believe they are innocent.

On the other hand, the ETLE system also tends to be mechanical and administrative, prioritizing technical efficiency over substantive justice. Enforcement is carried out automatically based on camera footage without considering the social context, emergency conditions, or other humanitarian factors. As a result, law enforcement loses its ethical and humanitarian dimensions and has the potential to give rise to structural injustice. Sanctions imposed are also uniform without considering the level of culpability or the circumstances of the violation, thus failing to reflect the principle of proportionality in law.

Another equally important issue relates to regulatory weaknesses in governing technical standards for electronic evidence, data integration between institutions, and the protection of individuals' personal data. The absence of clear standards regarding the accuracy and validity of ETLE devices opens the possibility of errors in enforcement. Furthermore, the lack of a clear mechanism for compensation in the event of system errors demonstrates weak legal protection for citizens. In the context of a state based on the rule of law, this situation reflects an imbalance between state authority and the protection of individual rights.

Furthermore, the implementation of ETLE also faces institutional and structural challenges, such as limited infrastructure, unintegrated data systems, and weak coordination between relevant agencies. This institutional fragmentation prevents the ETLE system from functioning optimally as an integrated law enforcement instrument. In some cases, this situation even creates distributive injustice, especially for communities with limited access to technology and information. Therefore, the author will attempt to write an article on restructuring regulations for handling electronic traffic violations to achieve justice.

## Method

This study uses a doctrinal (normative) legal research approach aimed at examining and analyzing regulations for electronically handling traffic and road transportation violations (ETLE) from a justice perspective. The approach employed is a socio-legal approach, combining normative analysis with empirical reality on the ground. (Maulana & Indriastuti, 2022)

## Results and Discussion

### 1. Electronic Traffic and Road Transportation Violation Enforcement (ETLE)

Electronic traffic and road transportation violation enforcement (ETLE) is a form of law enforcement transformation that utilizes information technology to increase effectiveness, transparency, and accountability. This system is legally legitimized by Law Number 22 of 2009 concerning Road Traffic and Transportation, specifically Article 272, which recognizes the use of electronic devices as evidence in traffic violation enforcement.

Normatively, the implementation of ETLE in Indonesia is based on the provisions of

Law Number 22 of 2009 concerning Traffic and Road Transportation and is reinforced by derivative regulations such as the Police Regulation concerning technology-based law enforcement. In this context, ETLE functions as a law enforcement tool by utilizing surveillance cameras (CCTV) capable of automatically recording traffic violations, such as violations of road signs, markings, seat belt use, and even the use of mobile phones while driving.

From a law enforcement perspective, ETLE reflects a paradigm shift from manual law enforcement to digital law enforcement. This system works through several stages, namely: (1) recording violations by camera, (2) identifying vehicles through motor vehicle registration data, (3) sending a confirmation letter to the vehicle owner, and (4) determining sanctions after the verification process. With this mechanism, ETLE is expected to be able to increase accuracy and objectivity in enforcement. (Radbruch, 1950)

However, in practice, the implementation of ETLE still faces several problems. One major issue is the inconsistency between the concept of legal liability (personal liability) and the ETLE mechanism, which is based on vehicle identification. In many cases, violations are committed by drivers who are not the vehicle owner, thus raising fairness issues when administrative sanctions are directed at the vehicle owner. This indicates a shift from perpetrator-based liability (legal subject) to object-based liability (vehicle). (Rahardjo, 2006)

Furthermore, technical constraints also pose challenges, such as limited camera numbers, recording quality, inter-agency data integration, and low public awareness regarding violation confirmation. Socially, there remains public resistance to the ETLE system, particularly related to perceptions of unfairness and a lack of understanding of how the system works.

On the other hand, ETLE has several significant advantages. This system can increase transparency and accountability in law enforcement, minimize direct contact between officers and violators, and support orderly traffic through a deterrent effect based on continuous monitoring. In the long term, ETLE has the potential to become a crucial instrument in building a legal culture that is more disciplined and compliant with traffic regulations. (Sadjiyono, 2008)

To optimize the implementation of ETLE, strategic steps are needed, including: (1) improving regulations that accommodate the principles of justice and legal certainty, particularly regarding accountability for violations; (2) improving technology infrastructure and data system integration; (3) conducting massive outreach to the public; and (4) strengthening the objection mechanism or due process of law for people who feel disadvantaged.

Thus, ETLE represents a significant innovation in Indonesia's traffic law enforcement system. However, its success depends heavily on the balance between technological advancement, legal certainty, and the protection of substantive principles of justice in society.

## **2. Normative, Institutional, and Procedural Weaknesses in the Regulation and Implementation of Traffic and Road Transportation Violation Action Based on ETLE**

Restorative justice arrangements for sexual violence cases in Indonesia have a legal basis through various laws and regulations. However, in practice, these arrangements still have several fundamental weaknesses that contribute to suboptimal protection for victims. One of the main weaknesses lies in the regulation's formal-procedural orientation, which does not fully reflect the values of substantive justice.

The implementation of Electronic Traffic Law Enforcement (ETLE) as a modern

instrument for traffic law enforcement based on Law Number 22 of 2009 concerning Traffic and Road Transportation is essentially aimed at increasing effectiveness, transparency, and accountability. However, in practice, this system still faces various fundamental weaknesses of a normative, institutional, and procedural nature, resulting in less than optimal achievement of substantive justice. (Saputra, 2021)

1. Normative Weaknesses. Normatively, the main weakness of ETLE lies in the existence of a legal gap and regulatory disharmony. Although the law has legitimized the use of electronic devices as evidence, further provisions in implementing regulations have not comprehensively regulated technology-based enforcement mechanisms. This is evident in the absence of clear provisions regarding the validity standards for electronic evidence, objection procedures, and the mechanism for determining violators in the event of a dispute. Furthermore, there are deviations from basic legal principles, particularly the principle of personal liability. In ETLE practice, responsibility is often placed on the vehicle owner, rather than the actual perpetrator of the violation. This indicates that regulations do not explicitly regulate the relationship between electronic evidence and perpetrator identification, thus potentially giving rise to injustice. Another normative weakness is the lack of adequate integration of the principle of protecting citizens' rights. Regulations focus more on the technical aspects of enforcement than on guaranteeing public rights, such as the right to self-defense, the right to information, and the right to protection from system errors. This condition indicates that the ETLE legal framework is still administrative in nature and not fully oriented towards substantive justice.
2. Institutional Weaknesses, Institutional weaknesses in ETLE enforcement primarily lie in fragmentation between agencies and weak system integration. ETLE implementation involves various agencies such as the police, transportation agencies, and vehicle data managers, but suboptimal coordination leads to data asymmetry, particularly regarding outdated vehicle ownership. Furthermore, there are limitations in infrastructure and technology, resulting in uneven implementation of ETLE across all regions. This creates gaps in law enforcement, as not all violations can be detected fairly in every region. Weaknesses are also evident in the quality and quantity of human resources (HR). The number of officers managing and verifying the ETLE system is still limited, both in terms of number and technical competence, potentially leading to errors in the enforcement process.
3. Procedural weaknesses lie in the mechanism, which tends to be mechanical and provides little room for justice, as the system operates automatically based on records without considering the context of the violation, such as emergency situations or justification. Furthermore, the available objection procedures are still complicated, inefficient, and tend to place a heavy burden on the public to prove their innocence, indicating a reversal of the burden of proof. The absence of an initial clarification mechanism before imposing sanctions also indicates a failure to comply with the principle of due process of law. Coupled with the lack of transparency regarding technical standards and the verification process, this situation limits access to justice and undermines public trust in the ETLE system.

### **3. Reconstruction of regulations for handling traffic and road transportation violations electronically (ETLE) that are oriented towards the values of substantive justice and protection of citizens' rights.**

Reconstructing regulations for handling traffic and road transportation violations based on Electronic Traffic Law Enforcement (ETLE) is an urgent need to correct the current system's tendency to prioritize administrative certainty over substantive justice. Although the implementation of ETLE has been legitimized by Law Number 22 of 2009 concerning Road Traffic and Transportation, the existing regulations have not fully guaranteed the balance between technological effectiveness and the protection of citizens' rights.

The primary step in regulatory reconstruction is a paradigm shift in legal accountability from vehicle-based liability to driver-based liability. Enforcement must be directed at drivers as the actual perpetrators of violations, not solely at vehicle owners. Therefore, a more accurate mechanism for identifying perpetrators is needed, including a driver nomination system that is simple, fair, and does not burden the public. In this way, the principle of personal liability can be re-established as the basis for legal accountability. (Soekanto, 1983)

Furthermore, the reconstruction must emphasize the strengthening of the principle of due process of law, particularly by eliminating the practice of reversing the burden of proof that currently burdens vehicle owners. The state, as law enforcer, is obligated to prove the perpetrator's guilt, while the public must be given a proportional and equal opportunity to defend themselves. In this context, a prior hearing mechanism is necessary before imposing sanctions, so that citizens have the opportunity to provide explanations before facing legal consequences.

Another important aspect is the transparency and accountability of the technology system. Regulations must detail the technical standards for ETLE devices, including calibration, accuracy, and independent audits of electronic evidence. Furthermore, the public must be given access to adequate information, such as complete recordings of violations, camera locations, and enforcement procedures. This transparency is key to building public trust in technology-based law enforcement systems.

Reconstruction must also include simplifying the complaints mechanism to make it more accessible, faster, and less burdensome for the public. The complaints procedure should be digitally integrated, based on the principles of simplicity, transparency, and free of charge from the initial stage. This is crucial to ensure that citizens' right to justice is not hampered by complex bureaucracy. (Sunggono, 2002)

Furthermore, regulations need to explicitly address the protection of citizens' rights, including the right to compensation in the event of system errors. The state must be responsible for any losses caused by technological or administrative errors, as a form of accountability in the use of automated systems. Protection of personal data must also be strengthened, given that ETLE involves technology-based data collection and processing that potentially impacts privacy.

Equally important, regulatory reconstruction must lead to a harmonization of the hierarchy of laws and regulations, by strengthening the legal basis for ETLE at the level of laws and government regulations. This is necessary to avoid overlapping and voiding norms, while ensuring that all aspects of enforcement have strong legal legitimacy. Therefore, the reconstruction of ETLE regulations must position technology not merely as a tool for enforcement efficiency, but as an instrument for realizing substantive justice. Electronic law enforcement must be able to balance legal certainty, utility, and justice, while guaranteeing the comprehensive protection of citizens' rights. Without such improvements, ETLE has the potential to become an administratively effective system, but weak in delivering true justice.

## Conclusion

Traffic violation enforcement based on the ETLE system does not fully reflect substantive justice due to the ongoing shift from personal liability to vehicle-based liability, accompanied by normative, institutional, and procedural weaknesses. Therefore, regulatory reconstruction is needed that emphasizes perpetrator-based accountability, guarantees due process of law, and strengthens the protection of citizens' rights so that ETLE is not only effective but also fair.

## References

- Arief, B. N. (2007). *Problems of law enforcement and criminal law policy in crime control*. Kencana.
- Basyar, A., Engkus, & Nur, M. I. (2022). Application of good governance principles in the implementation of electronic traffic tickets in Bandung City. *Jurnal Ilmiah Hospitality*, 11(2).
- Hadjon, P. M. (2015). *Introduction to Indonesian administrative law*. Gadjah Mada University Press.
- Ilham. (2020). Analysis of obstacles in the implementation of ETLE in Makassar. *Jurnal Penegakan Hukum*, 6(1).
- Maulana, & Indriastuti. (2022). Evaluation of ETLE implementation in Surabaya City. *Jurnal Transportasi*, 8(2).
- Radbruch, G. (1950). *Legal philosophy* (K. Wilk, Trans.). Harvard University Press.
- Rahardjo, S. (2006). *Progressive law: A liberating law*. Genta Publishing.
- Sadjijono. (2008). *Legal professional ethics: A philosophical study of the concept and implementation of the Indonesian National Police code of ethics*. Laksbang Mediatama.
- Saputra, N. P. (2021). Electronic traffic law enforcement (ETLE) and its problems. *Jurnal Info Singkat*, 13(7).
- Soekanto, S. (1983). *Factors influencing law enforcement*. CV Rajawali.
- Sunggono, B. (2002). *Legal research methodology*. PT Raja Grafindo Persada.