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ASSESSING RISK ALLOCATION AND COMPENSATION READINESS IN VIETNAM'S POST-2025 NUCLEAR LIABILITY FRAMEWORK

Abstract

Vietnam's revived nuclear power program creates an environmental economics problem because accident externalities, restoration obligations, and delayed compensation can shift costs from operators to affected communities, ecosystems, and public budgets. This study aims to assess the environmental and economic risk allocation and compensation readiness of Vietnam's post-2025 nuclear liability framework against modern international nuclear liability benchmarks. A doctrinal and comparative method is applied to Law No. 94/2025/QH15, Decree No. 332/2025/ND-CP, Decision No. 768/QD-TTg, the 1997 Vienna Convention, and IAEA materials, using legal and policy data for 2025–2026 updated through April 2026. The results show that Vietnam fully aligns with five of seven benchmark elements and partially aligns with two. The aligned elements perform four economic functions: channeling concentrates claims and insurance demand in one operator; strict liability internalizes prevention and accident costs; seven compensable heads cover death, health injury, property loss, direct economic loss, environmental restoration, environmental-use income loss, preventive measures, and residual economic loss; and 30-year/10-year limitation periods protect latent claims. The monetary architecture requires 150 million SDR of operator financial security for nuclear power plants, 5 million SDR for other installations and transport, a 300 million SDR total compensation floor per incident, and a state top-up for shortfalls. The terrorism defense and missing treaty-based cross-border procedure remain partial gaps. The study concludes that Vietnam has a domestic platform for cost internalization, but full environmental and economic compensation readiness depends on treaty accession, valuation rules for environmental damage, and operational financing of claims.

Keywords

externalities, compensation, insurance, valuation, environment, liability, SDR, Vietnam

JEL Classification

Q58, Q51, K32, K13

INTRODUCTION

Vietnam's nuclear power agenda has moved from a postponed option to an active infrastructure and energy economics policy. Resolution No. 174/2024/QH15 reopened the investment policy for the Ninh Thuan nuclear power project, Decision No. 768/QD-TTg places Ninh Thuan 1 and 2 in the 2030–2035 commissioning window with projected capacity of 4,000–6,400 MW, and the March 2026 intergovernmental agreement with Russia for Ninh Thuan 1 confirms that implementation is no longer merely hypothetical (Ministry of Industry and Trade of Vietnam, 2026; National Assembly of Vietnam, 2024; Prime Minister of Vietnam, 2025). The policy rationale is economic as well as environmental since Vietnam needs reliable low-carbon electricity for industrial growth, energy security, and decarbonization, but nuclear power becomes socially and fiscally credible only if environmental accident costs are transparently priced, insured, and compensated (IAEA, 2022; Nguyen et al., 2025; Toropchin, 2025).



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The scientific problem is that nuclear power creates an environmental and economic risk-allocation challenge before any reactor begins operation. A severe nuclear incident can generate external costs through private losses, ecosystem impairment, preventive-measure expenses, lost income from environmental use, and long-tail health claims. Thus, the core question is whether liability rules, insurance, and public compensation mechanisms convert these social costs into ex ante financial obligations and ex post recoverable claims. If the framework is incomplete, part of the cost can be externalized to communities, future taxpayers, and neighboring states rather than internalized by the operator and the project's financing structure. Vietnam's Law No. 94/2025/QH15 took effect on January 1, 2026 and Decree No. 332/2025/ND-CP operationalizes compensation and financial assurance, yet Vietnam remains outside the Vienna Convention, its 1997 Protocol, the Joint Protocol, and the Convention on Supplementary Compensation for Nuclear Damage (Government of Vietnam, 2025; IAEA Office of Legal Affairs, 2026; National Assembly of Vietnam, 2025). The central scientific problem is therefore how to distinguish domestic legal convergence from genuine environmental and economic compensation readiness in a developing new-entrant nuclear state.

1. LITERATURE REVIEW AND HYPOTHESES

The scholarly landscape connects nuclear liability with three bodies of knowledge: environmental economics, law and economics of accident risk, and international nuclear liability law. Environmental economics begins from the divergence between private and social costs, classically framed through externalities and later refined through transaction costs, liability allocation, and valuation of non-market environmental services (Coase, 1960; Freeman et al., 2014; OECD, 2018; Pigou, 1920). In this perspective, nuclear liability is not only a private-law device for paying victims. It is also an economic policy instrument that assigns the expected social cost of low-probability, high-consequence electricity production among operators, insurers, electricity consumers, affected communities, and the state.

Law-and-economics research explains why accident rules matter even where direct safety regulation is already intensive. Calabresi (1970) frames accident law around the minimization and allocation of accident costs, while Shavell (1984) shows that liability and safety regulation operate as imperfect substitutes or complements depending on information, solvency, litigation probability, and administrative costs. These insights are especially relevant to nuclear power because the risk is difficult for ordinary victims to observe ex ante, losses can be catastrophic, and operators may become judgment-proof if required compensation exceeds available assets or insurance. Valuation scholar-

ship also matters because compensating death, injury, ecosystem impairment, and lost environmental use income requires methods that can translate non-market losses into legally manageable claims (Atkinson & Mourato, 2008; Freeman et al., 2014; Viscusi & Aldy, 2003).

Nuclear liability law was developed as a specialized response to this combination of catastrophic risk, information asymmetry, and insurability limits. The literature generally agrees that ordinary fault-based tort law is poorly suited to nuclear incidents because proving negligence after complex technical events can delay recovery and fragment claims (Trebilcock & Winter, 1997; Stoiber et al., 2003; Gioia, 2025). Modern regimes therefore combine strict liability with legal channeling to a single operator. Channeling reduces victims' evidentiary burden, concentrates claims against one liable entity, and protects suppliers and contractors from dispersed third-party litigation that could undermine investment and dilute the compensation pool (Abraham, 2014; Bellamy, 2019; Louaas & Picard, 2022). Nowakowska (2024) confirms that clearly bounded liability architecture is central to insurability and capital-market predictability.

A related strand examines the international treaty architecture. The Vienna and Paris regimes, later connected by the Joint Protocol and supplemented by the Convention on Supplementary Compensation, do more than define who is liable. They also organize cross-border procedure through exclusive jurisdiction, recognition and enforcement of judgments, non-discrimination, and single-

rum treatment of compensation rights (Heffron et al., 2016; IAEA, 1997, 2017, 2020b; OECD NEA, 2022). This procedural infrastructure is repeatedly described as the comparative advantage of treaty participation. Domestic legislation can imitate substantive rules, but only treaty membership can reliably reduce forum conflicts and reassure foreign victims that claims will be handled within a predictable transboundary system (Gioia, 2025; McRae, 2015; OECD NEA, 2022).

The meaning of compensable nuclear damage has also become more environmentally and economically oriented over time. Earlier liability instruments focused mainly on personal injury and property damage, whereas post-Chornobyl and post-Fukushima reforms broadened compensation to include environmental reinstatement, loss of income from environmental use or enjoyment, preventive measures, and other economic losses (Faure & Liu, 2012; IAEA, 2020a, 2020b; Pisi, 2023; Saenko et al., 2011). This development mirrors the environmental economics literature's insistence that ecosystems, fisheries, agriculture, tourism, and community livelihoods are not residual concerns. Environmental justice scholarship adds that compensation systems should not leave vulnerable communities with unrecovered ecological and livelihood losses, especially where the public benefits of electricity generation are spatially separated from accident burdens (Greenberg & Lowrie, 2023; Kyne & Bolin, 2016; Nam-Speers et al., 2023).

Financial security is the second major economic test of regime adequacy. Liability caps and compulsory insurance are often criticized because they can socialize catastrophic tail risk once private coverage is exhausted, but the same literature explains why defined financial layers persist: without a legally predictable maximum and a public backstop, private insurance markets may not be able to price or supply cover for extreme nuclear losses (Gudgel, 2023; Heffron et al., 2016; Louaas & Picard, 2022; Trebilcock & Winter, 1997). Post-Fukushima research also shows that compensation speed, state fiscal credibility, and claims administration can become more important than the nominal statutory limit, because victims experience the regime through payment procedures rather than through doctrinal categories alone (Faure & Liu, 2012; Nagato, 2019).

Comparative research on newcomer and developing countries shows that formal legal convergence does not always equal operational readiness. Bellamy (2019) finds that states developing nuclear new build programs often adopt strict liability and channeling, but differences persist in financial security, jurisdiction, and damage categories. The United Arab Emirates is commonly treated as a close convention-alignment model, while India is discussed as a localized adaptation shaped by supplier-liability concerns and domestic politics (Grover, 2024; McRae, 2015). IAEA guidance likewise emphasizes that newcomer states must integrate liability rules with regulatory capacity, implementing legislation, transport rules, emergency preparedness, and waste management institutions (IAEA, 2013; Stoiber et al., 2003; Stoiber et al., 2010). The new literature on advanced reactors and small modular reactors reinforces this point because liability readiness must remain credible even as technology and project structures evolve (Roland, 2023).

Vietnam-specific scholarship has focused mainly on energy planning, program revival, and technology prospects rather than on a detailed environmental economics assessment of compensation readiness (Nguyen et al., 2025; Toropchin, 2025). The legal situation changed materially in 2025–2026. Law No. 94/2025/QH15 now places nuclear power within a strategic electricity security framework, while Decree No. 332/2025/ND-CP specifies nuclear damage categories, financial security, insurance, and state top-up arrangements (Government of Vietnam, 2025; National Assembly of Vietnam, 2025). At the same time, the IAEA country fact sheet continues to list Vietnam as a non-party to the Vienna Convention, the 1997 Protocol, the Joint Protocol, and the CSC (IAEA Office of Legal Affairs, 2026). This combination of active domestic reform and treaty non-participation creates an analytical gap: the literature has not yet tested whether Vietnam's revised framework internalizes nuclear accident costs in a way that is convention-ready and environmentally credible.

Taken together, the literature establishes three findings. First, nuclear liability rules are environmental and economic instruments because they allocate accident costs, shape prevention and

insurance incentives, and determine whether environmental losses are internalized or socialized. Second, modern compensation readiness must be assessed through legal rules, financial security, environmental valuation capacity, public fiscal exposure, and cross-border procedure rather than through treaty terminology alone. Third, Vietnam is a timely developing-country case because its 2025–2026 reforms substantially changed the domestic platform before treaty accession.

This study aims to assess the environmental and economic risk allocation and compensation readiness of Vietnam's post-2025 nuclear liability framework against modern international nuclear liability benchmarks.

H1: Vietnam's post-2025 nuclear liability framework substantially aligns with the benchmark elements needed to allocate nuclear accident costs and support environmental-economic compensation readiness.

H2: Domestic legal alignment alone is insufficient to ensure full environmental-economic compensation readiness unless treaty-based cross-border procedures, environmental valuation rules, and operational financial mechanisms are also in place.

2. METHODS

This study uses a legal doctrinal and comparative design combined with an environmental and economic assessment matrix. The primary legal materials are Vietnam's Law No. 94/2025/QH15 on Atomic Energy, Government Decree No. 332/2025/ND-CP, Decision No. 768/QD-TTg, the consolidated text of the 1997 Vienna Convention, and IAEA explanatory and policy materials on civil liability for nuclear damage (Government of Vietnam, 2025; IAEA, 1997, 2017, 2020a, 2020b; National Assembly of Vietnam, 2025; Prime Minister of Vietnam, 2025). The study also uses IAEA treaty-status data and official Vietnamese policy information available through April 2026 to keep the assessment current (IAEA Office of Legal Affairs, 2026; Ministry of Industry and Trade of Vietnam, 2026).

The procedure has four steps. First, seven benchmark elements are extracted from the modern Vienna model and related IAEA materials: liable person and channeling; liability standard and defenses; scope of compensable nuclear damage; limitation periods; operator financial security; total compensation architecture and public top-up; and treaty-linked cross-border procedure. Second, the relevant Vietnamese rules are coded against each benchmark. Third, each benchmark is classified as full alignment, partial alignment, or non-alignment. Full alignment means that the Vietnamese rule performs the same legal and economic function as the benchmark; partial alignment means that the rule pursues the same objective but leaves a doctrinal, fiscal, valuation, or procedural gap; non-alignment would mean a material contradiction with the benchmark.

Fourth, the doctrinal comparison is interpreted through an environmental and economic lens. Each benchmark is assessed not only as a legal rule but also as a mechanism for cost internalization, insurance demand, public fiscal exposure, environmental damage valuation, and claims administration. This interpretation draws on the law-and-economics and environmental valuation literature reviewed above, especially scholarship on externalities, liability versus regulation, environmental cost-benefit analysis, and nuclear insurance (Atkinson & Mourato, 2008; Calabresi, 1970; Coase, 1960; Freeman et al., 2014; Gudgel, 2023; OECD, 2018; Shavell, 1984). No empirical survey or interview data are used. For language editing and manuscript structuring, Grammarly was only used as an auxiliary tool; all legal interpretation, source verification, comparative assessment, and conclusions were independently reviewed by the author.

3. RESULTS

The seven-element assessment shows substantial but incomplete environmental and economic risk allocation and compensation readiness. Vietnam fully aligns with five benchmark elements and partially aligns with two. The strongest areas are channeling, damage scope, limitation periods, operator financial security, and total compensation architecture. Economically, these rules concentrate claims, create an insurable risk-bearing enti-

ty, recognize environmental and livelihood losses, and reduce the probability that uncompensated accident costs will be shifted to victims or public budgets. The residual gaps are the broader statutory defense for terrorism and the absence of treaty-based cross-border procedure, while Vietnam remains outside the Vienna/CSC system. Table 1 summarizes the legal findings and the environmental and economic function of each benchmark.

The first result concerns legal channeling as an economic risk-allocation device. Article 69 of Law No. 94/2025/QH15 places liability on the project owner during trial operation and on the operating organization during operation, while transport rules preserve a single point of responsibility until transfer occurs or liability is contractually shifted to the carrier upon request (National Assembly of Vietnam, 2025). This matters economically because victims need not identify multiple suppliers, contractors, or transport actors, and insurers can underwrite one legally recognized risk-bearing entity. The Vietnamese rule therefore performs the same cost-concentration function as the Vienna model's operator-centered liability and is assessed as fully aligned (IAEA, 1997, 2020b).

The second result concerns strict liability and defenses. Vietnam follows the convention model by imposing liability without proof of fault, which supports cost internalization because the operator cannot avoid liability merely by showing regulatory compliance. However, Vietnam's exemption for incidents caused by war or terrorism is broader than the Vienna Convention's reference to armed conflict, hostilities, civil war, or insurrection (IAEA, 1997; National Assembly of Vietnam, 2025). From an environmental and economic perspective, the broader terrorism defense is material because it could transfer uncompensated accident costs from the operator-insurance layer to victims or public finance. This element is therefore partially aligned.

The third result is the clearest improvement in environmental and economic content. Article 104 of Decree No. 332/2025/ND-CP recognizes seven heads of nuclear damage, including environmental reinstatement costs, loss of income from environmental use or enjoyment, preventive-measure costs, and other economic losses determined by the competent court (Government of Vietnam, 2025). This mirrors the modern Vienna defini-

Table 1. Environmental and economic risk allocation assessment of Vietnam's post-2025 nuclear liability framework

Benchmark	Vietnam rule	Environmental and economic role	Assessment
Liable person and channeling	Project owner during trial operation or operating organization during operation; transport liability allocated by consignor/transfer rule; liability applies regardless of where damage occurs	Concentrates claims and insurance demand in one liable entity; lowers search and litigation costs for victims	Full
Liability standard and defenses	Strict liability without fault; exoneration for war or terrorism; possible relief where the victim intentionally or negligently caused damage	Internalizes prevention costs, but the terrorism defense can shift catastrophic residual losses to victims or the state	Partial
Compensable nuclear damage	Seven heads: death/health, property, direct economic loss, environmental reinstatement, environmental-use income loss, preventive measures, and other economic loss	Makes environmental restoration and ecosystem-related income loss compensable instead of treating them as externalities	Full
Limitation periods	30 years for death or health damage; 10 years for other damage	Protects latent injury claims and improves intertemporal fairness in compensation	Full
Operator financial security	Minimum security of 150 million SDR for nuclear power plants and 5 million SDR for other installations and transport	Creates an ex ante insurance or financial assurance layer and supports risk pricing	Full
Total compensation and state top-up	Total compensation per incident not lower than 300 million SDR; State covers shortfall up to the total ceiling	Defines the public fiscal backstop and improves payment credibility, but leaves residual tail risk above the ceiling	Full
Cross-border procedure	Domestic law anticipates treaty compliance, but disputes remain under general civil procedure and Vietnam is not a party to the Vienna Convention, Protocol, Joint Protocol, or CSC	Does not yet provide exclusive jurisdiction, recognition and enforcement, or single-forum treatment for transboundary claims	Partial

tion and directly addresses the journal's economics orientation: environmental impairment is treated as a compensable economic loss linked to restoration costs, lost income, and preventive expenditures, not merely as a regulatory or symbolic harm. This element is fully aligned and substantively important for internalizing ecological and livelihood losses (Freeman et al., 2014; IAEA, 2020b; Pisi, 2023).

The fourth result concerns time. Vietnam provides a 30-year limitation period for death or health damage and a 10-year period for other nuclear damage, measured from the nuclear incident (National Assembly of Vietnam, 2025). These periods match the core temporal structure of the 1997 Vienna model and are more responsive to latent radiation-related injury than ordinary short tort periods (IAEA, 1997, 2020b). The rule also supports distributional fairness because delayed health claims remain legally visible within the compensation architecture. This element is fully aligned.

The fifth and sixth results concern the monetary architecture. Decree No. 332/2025/ND-CP requires a minimum operator financial-security layer of 150 million SDR for each nuclear power plant incident and 5 million SDR for incidents at other nuclear installations or during transport. It also guarantees total compensation of not less than 300 million SDR per incident and requires the State to cover shortfalls up to that total amount where the operator, insurer, or other financial-assurance provider cannot pay (Government of Vietnam, 2025). Functionally, this reproduces the Vienna model's 150 million SDR operator layer combined with public funds up to at least 300 million SDR (IAEA, 1997, 2020b). It also expresses the compensation ceiling in SDRs, which stabilizes international value compared with a domestic-currency-only rule. These two benchmarks are fully aligned.

The seventh result is the remaining procedural gap. Article 69(5) of Law No. 94/2025/QH15 anticipates treaty compliance when Vietnam becomes a contracting party, but current disputes remain subject to general civil procedure, and Vietnam is still a non-party to the Vienna Convention, the 1997 Protocol, the Joint Protocol, and the CSC (IAEA Office of Legal Affairs, 2026; National Assembly of Vietnam, 2025). The missing treaty layer has economic consequences because fragmented pro-

ceedings can raise transaction costs, delay payment, weaken recovery expectations, and reduce the credibility of compensation for cross-border environmental damage. This benchmark is therefore only partially aligned.

The hypothesis testing follows from these findings. H1 is supported in substantial terms because five of seven benchmark elements are fully aligned and the two partial elements still pursue the same cost-allocation objectives as the modern international model. H2 is also supported because domestic alignment does not by itself create full environmental and economic compensation readiness. Treaty accession, valuation guidance for environmental damage, and operational claims-financing rules remain necessary to make the statutory compensation promise credible in a severe or transboundary nuclear incident.

4. DISCUSSION

The results reposition Vietnam within the comparative literature on newcomer-country nuclear liability law and make an environmental and economic contribution to that literature. Earlier studies warn that developing nuclear programs often import international principles without fully solving insurance depth, fiscal exposure, or claims administration (Bellamy, 2019; Stoiber et al., 2010; OECD NEA, 2022). Vietnam's 2025–2026 reforms show stronger substantive convergence than a simple transplant narrative would suggest. More importantly, the reforms show how a liability framework can function as an economic instrument for assigning residual environmental costs in a low-carbon electricity project. Compared with more politically localized models such as India's supplier-liability approach, Vietnam's revised framework is closer to the conventionalist pathway associated with treaty-oriented newcomer regimes (Grover, 2024; McRae, 2015).

The findings also connect nuclear liability more directly to environmental economics than much country-specific nuclear law scholarship has done. In Pigouvian terms, the core question is whether accident costs are shifted back into the project's financial structure rather than left outside it as externalities (Pigou, 1920). Vietnam's strict liabil-

ity, compulsory financial assurance, and recognition of environmental-use income loss move the system toward internalization. At the same time, Coasean and Calabresian insights caution that legal entitlement allocation is not enough when transaction costs, information problems, and catastrophic insolvency are high (Calabresi, 1970; Coase, 1960). That caution explains why Vietnam's statutory top-up, environmental valuation methods, and claims procedures are as important as the formal liability rule.

Compared with the law-and-economics literature on liability versus regulation, Vietnam's framework confirms that nuclear governance cannot rely on either safety regulation or liability alone. Nuclear plants are heavily regulated because public authorities often have better access to technical safety information, but liability remains necessary because it assigns residual accident costs and shapes insurance incentives after regulatory controls fail (Shavell, 1984; Trebilcock & Winter, 1997). The Vietnamese model therefore fits the mixed-instrument logic described by Shavell (1984): *ex ante* safety regulation and *ex post* liability are complementary where harm is severe, information is asymmetric, and victims cannot bargain with operators in advance.

The environmental damage result is particularly important when compared with post-Chornobyl and post-Fukushima scholarship. Faure and Liu (2012), Pisi (2023), and the IAEA explanatory materials show that modern regimes increasingly recognize restoration, preventive measures, and environmental use income because radioactive contamination can disrupt agriculture, fisheries, tourism, and ecosystem services even where private property loss is incomplete or difficult to isolate. Vietnam's seven-category definition reflects this modern approach and gives environmental losses a recoverable economic form. However, the

statute still needs valuation guidance. Without methods for restoration cost assessment, lost environmental use income, ecological baselines, and proof standards, recognition of environmental damage may remain legally progressive but administratively slow (Atkinson & Mourato, 2008; Freeman et al., 2014; OECD, 2018).

The financial security findings also qualify the positive assessment. The 150 million SDR operator layer and 300 million SDR total floor improve bankability and compensation credibility, but they do not eliminate moral hazard or fiscal exposure. Scholarship on nuclear insurance and the Fukushima compensation experience shows that public backstops can be necessary for victim recovery yet can also socialize extreme losses if premiums and public oversight do not reflect the state's contingent liability (Gudgel, 2023; Louaas & Picard, 2022; Nagato, 2019). Vietnam's next implementation challenge is therefore not simply to require insurance on paper, but to ensure credible underwriting, reinsurance, premium discipline, and budgetary procedures for rapid state top-up payments.

Finally, the treaty-accession gap confirms a central point in the international literature. Domestic convergence can make Vietnam convention-ready, but it cannot reproduce the procedural benefits of treaty membership. Exclusive jurisdiction and recognition of judgments matter because nuclear damage can cross borders, because victims may be located in multiple states, and because payment disputes can undermine confidence in a revived nuclear program (Gioia, 2025; Heffron et al., 2016; IAEA, 2017; OECD NEA, 2022). For environmental economics, this procedural gap is not merely technical. It affects transaction costs, expected recovery, the valuation of cross-border environmental losses, and the credibility of compensation for foreign victims and neighboring communities.

CONCLUSION

The research objective was to assess the environmental and economic risk allocation and compensation readiness of Vietnam's post-2025 nuclear liability framework against modern international nuclear liability benchmarks. The comparative doctrinal analysis shows that Vietnam now substantially converges with the 1997 Vienna model across seven benchmark elements, with full alignment on five elements and partial alignment on two. The strongest results are operator-centered liability, strict liability subject to

limited defenses, seven compensable heads of nuclear damage, 30-year and 10-year limitation periods, and an SDR-based financial architecture combining a 150 million SDR operator layer for nuclear power plants, a 5 million SDR layer for lower-risk activities, a 300 million SDR total floor, and a state top-up. The remaining limits are the broader terrorism defense and the absence of treaty-based cross-border procedure while Vietnam remains outside the Vienna and CSC systems.

The main conclusion is that Vietnam now has a domestic platform for internalizing a significant part of nuclear accident costs, including environmental restoration and environmental use income losses, but this platform is not yet a complete environmental and economic compensation system. The next stage of reform should focus on treaty accession, operational claims administration rules, environmental valuation guidance, insurance and reinsurance capacity, and fiscal procedures for the state backstop. Future research should test the bankability of the operator financial-security layer, the sustainability of the public top-up under severe incident scenarios, and the institutional design of mass-claims processing for environmental and cross-border nuclear damage.

AUTHOR CONTRIBUTIONS

Conceptualization: Phuc G. Dao.
Data curation: Phuc G. Dao.
Formal analysis: Phuc G. Dao.
Funding acquisition: Phuc G. Dao.
Investigation: Phuc G. Dao.
Methodology: Phuc G. Dao.
Project administration: Phuc G. Dao.
Resources: Phuc G. Dao.
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Validation: Phuc G. Dao.
Visualization: Phuc G. Dao.
Writing – original draft: Phuc G. Dao.
Writing – review & editing: Phuc G. Dao.

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