Analysis and Explanation of Legal Liabilities Arising from Climate Change-Related Damage

1. Davood Malekpour Jarghooyeh: Department of Law, Ki.C., Islamic Azad University, Kish, Iran
2. Pouria Razi*: Department of Law, BA.C., Islamic Azad University, Hormozgan, Iran
3. Jamshid Asgar Ramaki: Department of Law, VaP.C., Islamic Azad University, Tehran, Iran

*Correspondence: Pouria.razi@iau.ac.ir

Abstract

Climate change, by increasing the severity or likelihood of certain hazards, including floods, droughts, coastal erosion, and water stress, challenges traditional assumptions in private law concerning the stability of property, the foreseeability of harm, and the direct attribution of damage. This article examines the relationship among climate-related hazards, property security, and civil liability within the framework of Iranian law. The study employs a descriptive–analytical method and a library-based research approach. The findings indicate that the impacts of climate change are not limited to the physical destruction of property; reductions in the economic value of property, restrictions on the ability to use and benefit from property, changes in riverbeds and coastlines, forced population displacement, and government-imposed conservation restrictions may also give rise to property disputes. In the field of civil liability, the multiplicity of human and natural contributing factors, the temporal gap between pollutant emissions and the occurrence of damage, and the probabilistic nature of attribution science make it difficult to establish a causal relationship. Nevertheless, evidentiary difficulties should not result in the automatic immunity of actors who create or contribute to risk or in the disregard of the losses suffered by affected parties. The article proposes that existing legal rules be supplemented by transparent risk-assessment criteria, access to scientific data, appropriate judicial presumptions, allocation of liability based on each party's effective contribution to the creation of risk, and collective compensation mechanisms. At the same time, restrictions on property rights for environmental reasons should be lawful, necessary, proportionate, and accompanied by access to effective remedies. The article concludes that an appropriate legal response lies neither in the unrestricted absolutization of property rights nor in the unlimited prioritization of the public interest; rather, it requires a reasoned balance among legal certainty, ecological protection, compensation for damage, and intergenerational justice.

Keywords: climate change; property rights; civil liability; causation; attribution science; regulatory taking; environmental damage; Iranian law.

Received: 24 July 2026
Revised: 09 October 2026
Accepted: 13 October 2026
Initial Publication: 04 November 2026
Final Publication: 01 September 2027

Copyright: © 2027 by the authors. Published under the terms and conditions of Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

Citation: Malekpour Jarghooyeh, D., Razi, P., & Asgar Ramaki, J. (2027). Analysis and Explanation of Legal Liabilities Arising from Climate Change-Related Damage. *Legal Studies in Digital Age,* 6(9), 1-9.

1. Introduction

Climate change is no longer merely an issue within the domain of the natural sciences or environmental policymaking; it increasingly affects contractual relations, property values, land use, the management of common resources, and compensation for damage. The Synthesis Report of the Intergovernmental Panel on Climate Change states that human activities, principally through greenhouse gas emissions, have unequivocally caused global warming and that its effects are observable across numerous regions and a wide range of climate-related hazards (Eslamifard, 2022). Accordingly, the legal system must address the material and distributive consequences of this transformation within the rules governing property and civil liability.

Property rights in the private-law tradition are founded on the owner's authority to possess, use, enjoy, and transfer property; however, such authority has never been detached from statutory restrictions and the rights of others. Article 30 of the Iranian Civil Code recognizes the owner's authority over property but subjects it to exceptions prescribed by law. On the other hand, Article 1 of the Civil Liability Act establishes liability for compensation where harm is caused without legal authorization, intentionally or through negligence. The climate-related problem arises because harm may not result from a single, proximate act, but rather from the accumulation of emissions, land-use decisions, the absence of adaptation measures, and a combination of factors operating over time. Under such circumstances, the question is not merely who owns the property or who has committed a fault; rather, it is necessary to determine how risk has been distributed, who possessed the capacity to prevent the harm, and how scientific evidence can be linked to legal standards of attribution.

This article addresses three questions. First, through what mechanisms does climate change affect the security and substantive content of private and public property rights? Second, what limitations do classical rules of civil liability encounter when dealing with multicausal and gradually developing losses? Third, what interpretive, legislative, and institutional reforms could provide more effective protection for injured parties and the environment without unjustifiably weakening property rights? The guiding premise of this article is that the general rules of Iranian law possess certain capacities to address these issues, but their effective application requires clearer criteria concerning foreseeable risk, causation, the proportionality of public intervention, and methods of compensation.

2. Research Method

The present study is qualitative and based on a descriptive–analytical method. Its principal basis is the extraction and analysis of relevant concepts, problems, and proposals, particularly discussions concerning the foundations of property rights, civil liability, the effects of climate-related hazards on land and real property, the reconstruction of causation, and proposed legal reforms. To supplement the scholarly framework, IPCC reports, the Paris Agreement, and academic research concerning climate litigation and attribution science have also been used. This study does not constitute empirical or statistical research concerning the extent of losses in specific regions of Iran and does not claim to empirically measure the effects of climate change on real-estate prices or the number of judicial claims. Furthermore, comparative-law examples are employed to elucidate analytical trends and should not be understood as implying the direct transferability of solutions adopted in other legal systems to Iranian law.

3. Climate Change and Forms of Property Damage

Climate change can damage property and property rights through various pathways. Flooding and heavy precipitation may destroy buildings, access roads, infrastructure, and agricultural land; drought and reduced access to water may diminish land productivity and its economic value; coastal erosion and sea-level rise may alter the physical boundaries and usability of coastal land; and land subsidence or extreme heat may increase the maintenance costs of infrastructure and buildings. The IPCC emphasizes that impacts and risks depend on the interaction among climate hazards, exposure, and socioeconomic vulnerability (Pashapour Mazraeh et al., 2024). Therefore, the occurrence of a weather event alone is insufficient to explain the entirety of the resulting damage; construction practices, infrastructure quality, land-use policies, and the financial capacity of property owners also influence the ultimate consequences.

3.1. Forms of Damage

For legal analysis, a distinction must be made between direct physical damage and losses arising from the diminished functionality or value of property. The destruction of a wall or the loss of crops constitutes direct damage; by contrast, restricted access to water, the loss of the possibility of conventional cultivation, a decline in property value because of its location within a high-risk zone, or a requirement to evacuate may constitute functional or economic loss. This distinction is important at the stages of proving damage and determining the amount of compensation. A mere decline in market value does not always constitute compensable damage; its relationship with an actual risk, a public decision, diminished use and enjoyment, or another harmful act must be established. Likewise, not every conservation-related restriction should immediately be regarded as compensable harm, because some restrictions may arise from general and previously announced safety and environmental regulations.

3.2. Transformation of the Concept of Property and the Limits of State Intervention

Article 30 of the Iranian Civil Code establishes the owner's broad authority to possess, use, and enjoy property; however, the statutory phrase "except in cases excluded by law" itself demonstrates that property ownership is neither absolute nor unlimited. Article 50 of the Constitution likewise characterizes environmental protection as a public duty and prohibits economic and other activities that necessarily involve environmental pollution or irreparable environmental degradation. Articles 40 and 45 of the Constitution are also significant in analyzing the limits governing the exercise of rights and public resources. On this basis, property may be understood in relation to externalities, ecological capacity, and the rights of others. Nevertheless, the notion of "function-oriented property" should be treated as an analytical and normative framework rather than as an automatic substitute for expressly established legal rules.

The state may restrict construction in high-risk areas, establish river or coastal setbacks, designate protected areas, implement flood-control projects, or, under severe circumstances, consider evacuation and relocation necessary to reduce climate-related risks. Such measures may prevent future losses, while simultaneously affecting the owner's use and enjoyment of property, its value, and individuals' legitimate expectations. The legitimacy of such intervention should be assessed from at least four perspectives: the existence of a clear legal basis; a legitimate public objective; necessity and proportionality between the means employed and the objective pursued; and the availability of fair procedures, notification, opportunities for objection, and, where appropriate, compensation. The more severe and individualized the effect of a measure on the economic substance and usability of property, the greater the need for rigorous justification and consideration of compensation.

One theoretical difficulty lies in distinguishing legitimate regulation of property use from intervention that effectively eliminates a substantial proportion of the owner's economic interests. In comparative legal scholarship, the concept of a regulatory taking is used to describe certain forms of intervention that occur without the formal transfer of title (Bakhshandeh, 2019). This concept should not be directly equated with institutions existing under Iranian law; rather, it can serve to frame an analytical question: considering the severity, duration, purpose, foreseeability, and distribution of its burden, does a public restriction constitute merely a general protective regulation, or does it impose an exceptional burden on a particular owner? The severity of the effect should be examined in conjunction with the legal basis of the measure, the nature of the risk, and the availability of alternative uses. Compensatory solutions may include payment of compensation where provided by law, negotiated acquisition, transfer of development rights, land exchanges, or financial assistance for adaptation. Each of these instruments requires a legislative basis and transparent standards.

4. Property Conflicts Arising from Climate-Related Hazards

Climate-related hazards may generate both vertical conflicts between the state and property owners and horizontal conflicts among neighboring owners. In vertical conflicts, disputes may concern the acquisition of land for constructing dams or flood-control barriers, establishing river setbacks, restricting construction, or relocating residents (Farber & Chen, 2023). In horizontal conflicts, alterations in watercourses, the transfer of runoff from upstream to downstream properties, extraction from shared water resources, or damage caused to one owner by another owner's protective measures may become the subject of litigation. Legal analysis must distinguish between the natural origin of a hazard and its anthropogenic aggravation. For

example, where inappropriate land development or the obstruction of natural drainage channels has aggravated flood damage, the assessment of liability cannot end merely because precipitation itself had a natural origin (Susskind & Kim, 2022).

The gradual alteration of coastlines or riverbeds raises questions concerning property boundaries, the validity of title documents, the legal consequences of natural changes, and the scope of authority of public institutions. In such cases, exclusive reliance on old maps or cadastral descriptions may exacerbate disputes. A practical approach would be to reconcile registration data, cadastral maps, satellite imagery, hydrological data, and expert reports through a reviewable process (Power & Mee, 2024). Changes attributable to natural hazards should be distinguished from those resulting from occupation or human intervention, and clear mechanisms should be established for notifying property owners, recording risk warnings, and updating maps. Legal certainty requires that owners be able to reliably identify known risks and statutory restrictions relating to property before undertaking transactions or investments (Farber & Chen, 2023).

5. Elements of Civil Liability and the Difficulty of Establishing Causation

Civil liability is generally assessed through the establishment of damage, attributable conduct, causation, and a legal basis for liability. Article 1 of the Civil Liability Act of 1960 provides that where damage is caused to another person's life, health, property, liberty, reputation, or other legally protected rights, intentionally or negligently and without legal authorization, the person responsible is liable to compensate for that damage. In climate-related cases, the principal difficulty is generally not the absence of damage but linking a particular loss to the conduct of one or more defendants. Greenhouse gas emissions occurring on a large scale over many years become connected with localized and delayed losses; moreover, natural conditions, infrastructure quality, planning decisions, and individual conduct also influence the ultimate outcome.

Climate attribution science seeks to determine how anthropogenic climate change has altered the probability or severity of a particular event or consequence. This field of science does not necessarily establish that a specific event occurred solely because of climate change; rather, it may demonstrate that global warming increased the probability of the event or intensified its severity. Legal scholarship indicates that attribution evidence can assist in formulating causal arguments in climate litigation, although translating scientific findings into legal liability still requires assessment of legal standards, the scope of the duty of care, and the defendant's contribution to the relevant harm (Lloyd & Shepherd, 2021; Peel & Osofsky, 2020). In other words, scientific causation and legal causation are related but are not identical.

To avoid two opposing errors, liability should not, on the one hand, be imposed solely on the basis of temporal coincidence or a general association with climate change; on the other hand, the standard of proof should not be made so demanding that the multicausal nature of the harm effectively eliminates access to justice. Adjudication may be structured around several sequential questions: Was the general risk and the type of harm scientifically known? Did the defendant's conduct contribute meaningfully to creating or aggravating that risk? Has the claimant demonstrated specific and assessable damage? Is the local evidence consistent with broader models and datasets? Can alternative or intervening factors explain the causal relationship? This framework is not an existing statutory formula, but rather an analytical model for organizing expert evidence and judicial reasoning.

6. Fault, Risk, and Proportionate Liability

In climate-related cases, exclusive reliance on individual fault may prove inadequate, particularly where the risk results from activities that individually make only a small contribution but collectively produce significant consequences. Under such circumstances, factors such as foreseeability, capacity to prevent harm, compliance with technical standards, knowledge of harmful effects, and the extent of participation in creating the risk become important. Nevertheless, the recognition of risk-based liability or strict liability requires a clear legal basis and cannot be established merely by reference to the severity of the damage. Under Iranian law, the general rules of civil liability and any special rules applicable to hazardous activities must be examined separately according to the subject matter concerned (Driesen, 2024).

Proportionate liability may be proposed as a legal policy option for situations in which multiple actors contribute to harm and the precise causal share of each actor is difficult to distinguish. Under this model, the extent of contribution to the creation of risk, the volume of emissions or relevant activity, the timing and duration of the activity, existing knowledge, and the capacity

to control the risk may be considered in determining each party's share of liability. However, a share of global emissions does not, by itself, correspond to the legal share of responsibility for every local loss; a sufficiently close connection must be established between the activity, the pathway through which its effects operate, and the damage claimed. The design of such a model should prevent unlimited and disproportionate liability while also ensuring that the multiplicity of contributing actors does not create a compensation gap (Rezaei, 2019).

7. Compensable Damage and Methods of Compensation

Climate-related damage may be actual, gradual, continuing, or, in certain circumstances, imminent. Damage assessment should distinguish among reconstruction costs, diminution in property value, the costs of reasonable preventive measures, demonstrable loss of income, and non-pecuniary harm recognized within the applicable legal framework. The estimation of future losses depends on climate scenarios, the relevant time horizon, the discount rate, the probability of occurrence, and adaptive capacity. Expert assessments should therefore disclose their underlying assumptions and uncertainties. Probabilistic estimates should not be converted into definitive monetary figures without explaining the methodology used to calculate them (Ramezanpour, 2023).

Individual compensation through civil litigation is insufficient for every form of climate-related harm. Some losses are widespread, involve numerous affected persons, and entail high evidentiary costs for each individual claimant. Accordingly, complementary mechanisms such as compensation funds, risk insurance, consolidation of qualifying claims, targeted adaptation assistance, and systems for early warning and damage registration may be considered. Such mechanisms do not automatically replace the liability of the party responsible for the harm; rather, they may operate alongside it to reduce the interval between the occurrence of damage and the provision of assistance. The design of a public compensation fund should establish transparent eligibility criteria, sustainable financial resources, independent auditing, and the possibility of recourse against responsible actors so that costs are not unjustifiably transferred to the general public or low-income groups (Azizi, 2013).

8. International Framework and Comparative Lessons

Article 8 of the Paris Agreement recognizes the importance of averting, minimizing, and addressing loss and damage associated with the adverse effects of climate change and identifies areas such as early-warning systems, emergency preparedness, slow-onset events, insurance, and community resilience (Farber et al., 2022). Nevertheless, recognition of loss and damage within this instrument does not, by itself, establish a comprehensive system of private civil liability or an automatic right to claim compensation from states or corporations. A distinction must therefore be maintained between international cooperation mechanisms and domestic rules of civil liability.

8.1. Legal Recommendations

First, the legislature may provide in legislation concerning crisis management, environmental protection, water resources, and urban development for mandatory climate-risk assessments and disclosure of risk information concerning properties located within designated zones. Second, severe restrictions on property rights should be accompanied by procedures for prior notification, opportunities for objection, periodic review, and clear compensation criteria. Third, procedures governing judicial expert evidence should standardize the manner in which attribution data are presented, levels of confidence are expressed, baseline risk is distinguished from the effects of climate change, and intervening factors are evaluated. Fourth, the establishment of a national climate-loss database, subject to protection of personal data, could support prevention, insurance, and judicial decision-making. Fifth, for diffuse and collective harm, the possibility of bringing claims through qualified entities and establishing collective compensation mechanisms should be examined alongside safeguards against abuse.

8.2. Institutional and Executive Recommendations

At the executive level, risk maps should be periodically updated, and the data maintained by meteorological agencies, natural-resource authorities, land-registration bodies, crisis-management organizations, and municipalities should be made interoperable. When issuing construction permits or approving changes in land use, reliable information concerning flooding, land subsidence, water stress, and erosion should be taken into account. Insurers and public institutions may also employ financial incentives to support building resilience, soil conservation, water management, and voluntary relocation from areas exposed to extremely high risks. Compulsory relocation should constitute a measure of last resort and should be accompanied by adequate information, resident participation, appropriate compensation, and preservation of social ties. Climate justice requires that the burden of adaptation not be placed exclusively on low-income property owners and communities dependent on natural resources.

9. Discussion

The present analysis demonstrates that climate change does not eliminate property rights; rather, it makes the conditions governing their exercise and protection more complex. In some circumstances, natural hazards reduce the value and usability of property without any single identifiable person being independently responsible. In other cases, human decisions, failures to maintain infrastructure, development within known risk zones, or pollution may intensify the resulting harm. The law must distinguish among these situations. Not every climate-related loss necessarily gives rise to civil liability, just as not every protective measure adopted by the state necessarily constitutes a taking or requires compensation. The outcome depends on the applicable legal basis, the available evidence, the severity of the effect, foreseeability, the conduct of the parties, and the relevant legal rules.

An appropriate balance can be formulated through three principles. The first is reasonable prevention and precaution: where a risk is serious and foreseeable, the absence of complete certainty should not invariably justify inaction. The second is proportionality and accountability: public intervention should extend no further than necessary, and decision-makers should disclose their reasons, data, and available avenues of challenge. The third is fair compensation: whenever harm is attributable to legally responsible conduct or an exceptional burden imposed upon a particular individual is established, an effective compensation mechanism should be available. These principles can simultaneously strengthen the security of investment and property rights and prevent the unjustified transfer of climate-related costs to vulnerable persons.

9.1. Distributive Justice and Differences in Property Owners' Vulnerability

Climate-related losses are not distributed uniformly. Two properties exposed to a similar hazard may experience markedly different consequences because of differences in construction quality, geographical location, access to insurance, household income, and capacity to relocate. A wealthier owner may be able to climate-proof a property or transfer assets to a lower-risk location, whereas a low-income household may have no practical option but to remain in a high-risk area. Accordingly, the analysis of property rights should not be confined to the formal relationship between an owner and property; it should also consider the effective capacity to enjoy and defend that right (Moeinian et al., 2020). This consideration does not imply the creation of unregulated privileges for any particular group; rather, it entails the design of equitable criteria for prioritizing assistance and preventing the disproportionate transfer of costs.

In compensation policy, economic need alone is insufficient to establish the civil liability of a defendant; however, it may play a role in designing public assistance, subsidized insurance, resilience grants, and voluntary relocation programs. By contrast, liability-based compensation should remain grounded in damage, attribution, and a recognized legal basis. Distinguishing between these two pathways prevents the conflation of social justice with individual liability and makes it possible both to provide emergency assistance to affected persons without unnecessary delay and, once the dimensions of liability have been clarified, to consider appropriate recourse against the party responsible for the harm.

9.2. Contracts, Insurance, and Climate-Risk Disclosure

Climate change also affects contracts relating to real property and land use. Sellers, buyers, landlords, tenants, contractors, and insurers may dispute the extent of knowledge concerning risk, duties to disclose information, allocation of resilience costs, or the consequences of an unforeseeable event. Although not every climate-related event can automatically be characterized as force majeure, the increasing foreseeability of certain hazards may affect the assessment of force-majeure clauses, precautionary obligations, and contractual breach (Moradi & Ali Mohammadi, 2021). An important criterion is the state of available knowledge at the time the contract was concluded and the nature of the obligations assumed by the parties. From a legal-policy perspective, establishing a standardized system for disclosing climate-related risk in property transactions within designated zones could reduce information asymmetry. Disclosure should be based on reliable data, be comprehensible, and be subject to challenge; attaching a risk label without explaining the methodology and date of the underlying data could unfairly reduce property values or generate false confidence. In the insurance sector, risk-based pricing can create incentives for prevention, but if implemented without accompanying protective measures, it may render insurance coverage inaccessible to vulnerable households (Mousaghi & Mahmoudkhah, 2026). Combining insurance with resilience standards, targeted assistance, reinsurance, or risk-pooling mechanisms may help achieve a balance between financial sustainability and broad access.

9.3. Burden of Proof and the Role of Judicial Expertise

In climate litigation, an expert should not merely present a definitive conclusion without identifying the relevant uncertainty. An appropriate expert report should specify the data used, the temporal and geographical scope of the analysis, the model or inferential method employed, the principal assumptions, the margin of uncertainty, and alternative causal factors. Courts should likewise distinguish scientific uncertainty from an absence of evidence. The existence of a range of uncertainty does not, in itself, demonstrate the absence of a causal relationship, just as the existence of statistical correlation alone does not establish legal causation. IPCC reports and attribution studies may provide a general scientific foundation, but in a specific dispute they should, as far as possible, be linked to local evidence and the particular type of damage involved (Dastyar et al., 2020).

From a procedural perspective, equal access to expert evidence is particularly important because individual claimants may lack the resources necessary to retain costly specialists, whereas large institutional or corporate defendants may possess significantly greater financial capacity. Measures such as independent court-appointed experts, opportunities to submit supplementary questions, disclosure of methodologies, provision of comprehensible summaries of findings, and, where appropriate, public funding of part of the expert costs may improve the quality of judicial decision-making. Such measures should not result in prejudgment against defendants; their purpose is to improve the quality and evaluability of evidence (Razmkhah, 2020).

9.4. Legislative Reform Priorities

Legislative reform should preferably proceed incrementally and address clearly defined problems. As a first step, the definitions and responsibilities of institutions that produce and maintain risk data should be clarified, and public access to reliable risk maps should be expanded, subject to security and privacy considerations. As a second step, legislation relating to urban development, crisis management, water resources, and environmental protection should be reviewed for consistency in identifying risk zones, notifying property owners, issuing permits, and compensating losses. As a third step, rules governing expert evidence and judicial proceedings could establish guidelines for presenting attribution evidence and assessing gradually developing losses. Only after the effects of these measures have been evaluated should consideration be given to establishing a new liability regime or an independent compensation fund. Any proposal to amend Article 30 of the Civil Code or to add a specific provision to the Civil Liability Act should be approached cautiously. Any amendment should clarify its relationship with general rules, special legislation, the competence of public institutions, and compensation standards. In particular, broad expressions such as “ecological resilience,” if incorporated into legislation without definitions, operational indicators, and clear limits on administrative discretion, may generate ambiguity and unpredictability. Policy concepts should preferably first be

translated into measurable obligations, technical standards, and decision-making procedures before being incorporated into statutory or regulatory texts.

9.5. Indicators for Evaluating Policy Effectiveness

The effectiveness of reforms cannot be assessed merely by the enactment of legislation or the establishment of a compensation fund. Indicators such as the time elapsed between the occurrence of damage and the payment of assistance, low-income households' access to insurance, the number of properties with up-to-date risk information, reductions in construction within high-risk zones, the percentage of expert recommendations implemented, and the number of disputes resulting from inconsistencies between maps may be used to evaluate policy performance. Data should be disaggregated by region and social group so that aggregate averages do not conceal inequalities in the distribution of support. Periodic reporting and independent evaluation may enhance public trust. Indicators focused exclusively on the number of lawsuits or the amount of compensation paid should also be avoided. An increase in litigation may reflect an increase in harm, improved access to justice, or both. Likewise, a reduction in compensation payments does not necessarily signify a reduction in losses and may instead result from excessively restrictive eligibility standards. Evaluation should therefore incorporate a combination of indicators concerning prevention, compensation, access to justice, data quality, and the social distribution of benefits. Such an approach enables the legislature to revise policies in light of evidence rather than continuing their implementation solely on the basis of initial assumptions.

10. Conclusion

Climate change, through its effects on land, buildings, water resources, and infrastructure, places pressure on both the practical scope of property rights and the rules governing compensation for damage. In the field of property law, the principal challenges include the destruction or diminished functionality of property, changes in natural boundaries, conservation-related restrictions, and conflicts between private and public interests. In the field of civil liability, the multiplicity of contributing factors, temporal and geographical distance, and the probabilistic nature of attribution science complicate the establishment of causation. Nevertheless, existing rules of Iranian law, including Article 30 of the Civil Code, Article 1 of the Civil Liability Act, and Articles 40, 45, and 50 of the Constitution, provide a basis for interpreting property rights, the prohibition against causing harm, and environmental protection in a coordinated manner. An appropriate response to the climate crisis does not require the creation of unlimited liability or the weakening of property rights. An effective approach consists of combining existing legal rules with more precise evidentiary standards, transparent scientific expertise, risk registration and disclosure, fair procedures governing public intervention, proportionate compensation, and complementary insurance-based and collective mechanisms. Proportionate liability, a climate-loss compensation fund, and transferable development rights have been introduced in this article as proposals for legislative consideration, rather than as rules currently and generally established under Iranian law. Ultimately, the legal system can adequately respond to climatic realities only if it guarantees legal certainty and access to justice while simultaneously distributing the costs of risk among responsible actors, public institutions, and society in a transparent and equitable manner.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all who helped us through this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

Azizi, S. (2013). The Status of Article 119 of the United Nations Charter in General International Law. *Islamic Jurisprudence and Law*, *4*(7), 12-122.

Bakhshandeh, A. (2019). *The Role of Intellectual Property Rights in Promoting Green Technology*

Dastyar, V., Heydari, Z., & Poursedighi, S. (2020). *Disabled City and Uncertain Rights: Inappropriate Urban Space for Persons with Disabilities in Addition to Their Vulnerability to Climate Change* Fourth International Conference on Humanities, Social Sciences and Lifestyle,

Driesen, D. M. (2024). *The Economic Dynamics of Climate Change Law*. MIT Press.

Eslamifard, M. (2022). States' Obligation to Ensure Safe and Sustainable Settlements in Confronting Climate Change within the Framework of International Law. *Geography and Regional Planning Quarterly*, *46*(12).

Farber, D., Freeman, J., & Carlson, A. (2022). *Environmental Law: Cases and Materials*. West Academic.

Farber, D. A., & Chen, C. P. (2023). *Disaster Law and Policy*. Aspen Publishing.

Lloyd, E. A., & Shepherd, T. G. (2021). Climate Change Attribution and Legal Contexts: Evidence and the Role of Storylines. *Climatic Change*, *167*(3), 28.

Moeinian, A. R., Lotfi, H., Rahimi, M. M., & Jourablu, K. (2020). Foundations of Tourism in International Law. *Geography (Regional Planning)*, *10*(2), 141-164.

Moradi, Z., & Ali Mohammadi, M. (2021). *The Impact of Climate Change on Peace, Security and Human Rights and Domestic and International Legal Approaches to Addressing It* Second International and Fifth National Conference on Protection of Natural Resources and the Environment, Ardabil.

Mousaghi, H., & Mahmoudkhah, M. (2026). Effects of the Use of Clean and Renewable Energies on Controlling Climate Change from the Perspective of International Environmental Law. *Modern Jurisprudence and Law Quarterly*, *15*(26).

Pashapour Mazraeh, Z., Pashapour Mazraeh, R., & Movahedi, V. (2024). *The Impact of Climate Change on Human Rights and International Law* Fourth International Conference on Humanities, Social Sciences and Law,

Peel, J., & Osofsky, H. M. (2020). Climate Change Litigation. *Annual Review of Law and Social Science*, *16*(1), 21-38.

Power, E. R., & Mee, K. J. (2024). *Housing and Climate Change: Property Rights in a Warming World*. Routledge.

Ramezanpour, H. (2023). *Harmful Effects of Greenhouse Effects and Climate Change on Human Rights Violations and Strategies to Address Them* First National Conference on Health Promotion and the Legal and Medical Challenges Facing It,

Razmkhah, N. (2020). *Climate Change and Achieving Sustainable Development within Public International Law with an Approach to Sinking Territories* Second National Conference on Humanities and Development,

Rezaei, H. (2019). *Environmental Insurance and Climate Change*

Susskind, L. E., & Kim, A. J. (2022). *Managing Climate Change Risks: Infrastructure and Property Rights*. Anthem Press.