



# Analysis, evaluation and implications of Rhode Island’s “2021 Act on Climate” for response to climate change

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Received: 10 July 2023 / Accepted: 10 January 2024 / Published online: 13 February 2024  
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## Abstract

The state of Rhode Island is responding appropriately to the climate crisis by enacting “the Resilient Rhode Island Act of 2014” and then preparing the revised “2021 Act on Climate.” Accordingly, Rhode Island strives to achieve carbon neutrality in 2050 by establishing and evaluating a climate change response plan and setting science-based climate goals through the Executive Climate Change Coordinating Council through consultation with the Advisory Board and the Science and Technical Advisory Board. Additionally, Rhode Island is committed to establishing industry support strategies to respond to climate change, considering future generations, including children, in the impacts of climate change, utilizing the knowledge of private experts at universities, and promoting public education on climate change response. However, matters that need to be supplemented and improved in the implementation of Rhode Island’s climate change-related legal policies include the fair and transparent selection of advisors from an organizational perspective and the securing of dedicated personnel and budget for practical work.

**Keywords** Climate change · Paris Agreement · Rhode Island’s 2021 Act on Climate · Implementing law · Carbon neutrality · Law and development

## 1 Introduction

This article focuses on the State of Rhode Island’s response to climate change and its implications. Rhode Island<sup>1</sup> in the USA has actively participated in the evolving international trend related to climate change adaptation and mitigation in accordance with the Paris Agreement. The Paris Agreement is a new climate change regime in which all countries, including developed and

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<sup>1</sup> The State of Rhode Island and Providence Plantations is the smallest state in the United States. Its economy shifted from manufacturing to services after the Industrial Revolution in the late 20th century, and tourism plays an important role in the state’s economy. Additionally, service industries such as healthcare have developed, and the state’s universities are centers of research and development. The oceanography research program at the University of Rhode Island is nationally recognized as one of the best.

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developing nations, participate, and it was adopted with the support of President Barack Obama. However, the Paris Agreement showed signs of weakening when President Donald Trump declared the US withdrawal from the agreement, prioritizing national interests over international cooperation. However, since President Joe Biden took office, the USA has returned to the Paris Agreement and is actively responding to the climate crisis. Interestingly, even during the Trump administration, 12 states in the USA, including Hawaii, California, New York, Washington, Connecticut, Delaware, Massachusetts, Minnesota, Oregon, Rhode Island, Vermont, and Virginia, demonstrated their willingness to comply with the Paris Agreement on climate change within their own states, regardless of the federal government's stance.<sup>2</sup> Among these 12 states, Rhode Island has been at the forefront of climate change response. Since the enactment of the Resilient Rhode Island Act of 2014, Rhode Island has established and operated the Executive Climate Change Coordination Council, which can be considered the core of the climate change response system, by preparing the 2021 Act on Climate to amend the Resilient Rhode Island Act of 2014. This Act is structured into 12 sections as outlined in Table 1, and the primary objective of this article is to analyze, evaluate, and provide insights into the key provisions of this Act. To achieve this, the article aims to review the positive aspects of the Act and, critically, examine the composition and roles of pivotal institutions, such as the Executive Climate Change Coordinating Council, the Advisory Board, and the Science and Technical Advisory Board.

The essence of this article underscores the importance of securing relevant professional personnel and adequate budget allocation to ensure the proper functioning of these institutions. It also advocates for diverse staffing within oversight bodies, the implementation of a regular reporting system, and the establishment of a public consultation mechanism to uphold transparency and fairness within these auditing entities.

## 2 Analysis of the 2021 Act on Climate

### 2.1 Establishment and members of the Rhode Island Executive Climate Change Coordination Council

To effectively respond to climate change, it is necessary to establish a central organizational body, either internationally or domestically, which can take responsibility and perform its role and functions properly.<sup>3</sup>

<sup>2</sup> This movement in the United States is called the United States Climate Alliance, which was formed on the same day that U.S. President Donald Trump decided to withdraw the United States from the Paris Agreement on June 1, 2017. The United States Climate Alliance is not a legally binding agreement, but rather a coalition of governors who share similar thoughts and intentions to comply with the Paris Agreement on climate change within their respective states; see Doosu Kim, "Resilient Rhode Island Act for Establishing Compliance System for Paris Agreement," *International Law Trends and Practice*, Vol. 19, No. 1 (2020), p.60.

<sup>3</sup> If we examine the role and functions of the Hawaii Climate Change Mitigation and Adaptation Commission under Section 5 of the Hawaii Climate Change Law (Bill Text: HI SB559, 2017), firstly, this Commission presents appropriate policy directions, promotion, coordination, and planning among state and county agencies, federal agencies, and other partners, establishes climate change mitigation and adaptation strategies and goals, and formulates planning and implementation guidelines for the entire state using the latest scientific analysis and risk assessment, monitoring and predicting climate change-related impacts at the regional, state, and local levels, identifying vulnerable populations, communities, industries, ecosystems, and potential economic impacts related to climate change, understanding existing climate change mitigation and adaptation efforts at the federal, state, and local levels, and preparing recommendations on how to meet or exceed Hawaii's state mitigation goals. Additionally, the Commission adopts an approach to minimize

In this context, Rhode Island has established the Executive Climate Change Coordination Council (EC4), which is composed of government officials responsible for assessing, integrating, and coordinating climate change efforts within the state government. The EC4 includes the heads of the Department of Environmental Management, Coastal Resources Management Council, state government officials, Department of Transportation officials, Department of Health officials, emergency management director, energy resources director, Department of Planning officials, and the secretary of Rhode Island commerce corporation. However, the EC4 is not limited to these members,<sup>4</sup> as it is important to include experts from various sectors, such as the advisory board of the EC4 and the Science and Technical Advisory Board. Through this, procedural transparency can be enhanced by gathering a diverse range of opinions from both the public and private sectors. This will allow for the incorporation of industry and environmental stakeholder perspectives, contributing to effective climate change responses.

## 2.2 Purpose, role, and responsibilities of the Executive Climate Change Coordination Council

The EC4 is primarily responsible for the purpose, role, and function of the council. The council performs the following duties:

### 2.2.1 Comprehensive evaluation, integration, and coordination of climate change efforts by the state government

The EC4 evaluates, integrates, and coordinates climate change efforts of state government agencies, including vulnerability assessments, emission reductions, and enhancing the resilience of local communities.<sup>5</sup> In essence, the EC4 plays a supervisory role in overseeing the state of Rhode Island's comprehensive vulnerability assessment and response to climate change, as well as climate change efforts of state government agencies. Notably, the council places significant importance on identifying and evaluating vulnerable areas affected by climate change and objectively assessing climate change efforts of the state government for future implementation.<sup>6</sup> If the EC4 systematically successfully carries out the responses and evaluations of climate change stipulated in the Act, climate change coordination can be achieved at least within the state of Rhode Island.

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Footnote 3 (continued)

future risks to Hawaii residents and the Hawaii environment related to climate change and performs overarching or comprehensive responsibilities related to climate change, such as impact assessment, prediction, policy development, and review, serving as a central agency for climate change. Hawaii Climate Change Law(Bill Text: HI SB559, 2017), Chapter 2, Section 5 (f)-(i).

<sup>4</sup> 2021 Act on Climate § 42-6.2-1.

<sup>5</sup> Id. at § 42-6.2-2, (a)(1).

<sup>6</sup> Doosu Kim, *supra* note 2, p.61; Section 59 of the UK Climate Change Act 2008 (c.27) requires the Committee on Climate Change, established under Section 36, to include an "assessment of progress" towards meeting the objectives, proposals, and policies specified in the plans submitted to Parliament under Section 58 (Adaptation to Climate Change). These progress checks, conducted every two years, indicate that the UK is making efforts to plan and evaluate the content of its climate change response not only formally but also substantively in order to improve it and adequately respond to the impacts of climate change.

**Table 1** The contents of the 2021 Act on Climate

Title 42, State Affairs and Government Chapter 6.2, 2021 Act on Climate

Articles	Contents
§ 42-6.2-1.	Climate change coordinating council-establishment-members
§ 42-6.2-2.	Purpose of council (functions, roles, duties)
§ 42-6.2-3.	Support for the council
§ 42-6.2-4.	Establishment of an advisory committee-members
§ 42-6.2-5.	Establishment of a scientific and technological advisory committee-members
§ 42-6.2-6.	Requirement for information disclosure
§ 42-6.2-7.	Reporting
§ 42-6.2-8.	Powers and obligations of state authorities-implementation by the current administration
§ 42-6.2-9.	Statewide greenhouse gas emission reduction mandate
§ 42-6.2-10.	Enforcement
§ 42-6.2-11.	Liberal construction
§ 42-6.2-12.	Severability

Here, the EC4 can take various legal and policy measures to respond to climate change by taking into account various examples from other countries. Dublin, Ireland's "mass transit-oriented urban development" for climate change and Austria's legislation for "sustainable roads" in Vienna are good examples of these. In the case of Dublin, climate change consideration means creating a resilient city that can preserve the country or city's scale, function, and characteristics while complying with the principles of sustainable development that harmonize and balance the economy, society, and environment. From this perspective, the mass transit system being built and operated in Dublin City is aimed at promoting green transportation.<sup>7</sup> Likewise, in Vienna, Austria, in order to achieve sustainable roads, the city is implementing policies that restrict car use, promote public transportation, and encourage walking and cycling, and these policies for sustainable roads have been planned and executed integrally for a long time through the cooperation of various stakeholders. To achieve this, the city has effectively implemented the policy through active financial burden-sharing by the national and local governments.<sup>8</sup>

It is important to note that the state of Rhode Island should not simply adopt the policies of other countries as they are. According to the principles of law and developmental theory, a nation's laws must necessarily be country-specific, as they should reflect the unique local context and culture of that nation. This is due to the fact that adopting foreign legal policies often results in them not functioning effectively within the domestic context. Similarly, while Rhode Island may learn from the merits and significance of policies in Vienna or Dublin, when it comes to devising and implementing actual policies, it is imperative to seek out legal policies that are tailored to Rhode Island's regional distinctiveness and culture.

<sup>7</sup> Eunyol Oh, "A Study on the Transport-oriented Development(TOD) and Policy Implication considering Climate Change: Focused on Dublin Public Transport Policy, Ireland," *Journal of Industrial Convergence (JIC)*, Vol. 17, No. 4 (2019), pp.45-51.

<sup>8</sup> Eunju, Kim, "A study on the legal system for sustainable roads - Focused on Austrian legal theory and institutions -" *Environmental Law Review (ELR)*, Vol. 40, No. 2 (2018), pp.141-145.

## 2.2.2 Submission of greenhouse gas reduction plan by Governor and General Assembly

**Setting greenhouse gas reduction goals** The EC4 was instructed to submit a plan to the governor and general assembly by December 31, 2025, including strategies, programs, and actions to achieve greenhouse gas reduction targets as follows, which are updated every 5 years:

- A. By 2020, 10% below 1990 levels;
- B. By 2030, 45% below 1990 levels;
- C. By 2040, 80% below 1990 levels;
- D. Net-zero emissions by 2050.<sup>9</sup>

Additionally, the plan includes procedures and measurement criteria for periodically assessing progress and evaluating the potential for achieving higher targets through cost-effective measures.<sup>10</sup>

**Contents to be included in the plan** In preparing these plans, the EC4 will receive support from the Advisory Board and the Science and Technical Advisory Board.<sup>11</sup> This cross-check procedure will allow the EC4 to gather a variety of public and private opinions and achieve procedural transparency.<sup>12</sup> This procedural transparency will encourage industries and environmental stakeholders to actively participate in the opinion-gathering process, which lead to better responses to climate change.<sup>13</sup> In addition, this plan aims to pursue a just transition in addressing climate change to protect vulnerable populations from the impacts of climate change and address inequalities.<sup>14</sup> Furthermore, the plan should create clean energy jobs to address climate change and support groups that may be marginalized during the transition, including women, people of color, indigenous people, veterans, those with criminal records, and people with disabilities.<sup>15</sup>

<sup>9</sup> 2021 Act on Climate, § 42-6.2-2, (a)(2)(i).

<sup>10</sup> Id. at § 42-6.2-2, (a)(2)(ii).

<sup>11</sup> Id. at § 42-6.2-2, (a)(2)(iii); Mexico's Inter-Ministerial Commission on Climate Change performs tasks such as developing and promoting national policies for climate change mitigation and adaptation, publishing annual reports, and supporting climate change responses in both the social and private sectors, in accordance with Article 7 of the General Law on Climate Change. In addition, in accordance with Article 47-, which requires advice on policy, strategy, action, and objectives related to climate change, the Commission performs its functions by requesting advice from Climate Change Council, which is composed of at least 15 representatives from the social, private, and academic sectors, as specified in Article 51.

<sup>12</sup> The Committee on Climate Change in the UK has a duty to advise on the preparation of the national report by the Secretary of State under section 56 of Climate Change Act 2008(c.27) according to Section 57 of the Act, and to ensure that this advice is provided to the Parliament no later than six months before the report is submitted by the Secretary of State (see Sections 56(2)-(4)), and that the advice is made public promptly and in an appropriate manner. In the case of Hawaii, the Climate Change Mitigation and Adaptation Commission has been established by Climate Change Act (Bill Text: HI SB559, 2017) under Section 5, which confers upon the Commission its functions, duties, and powers, and it is composed of members from various fields to gather diverse opinions.

<sup>13</sup> In the UK, under Section 62(1)-(3) of Climate Change Act 2008(c.27), the Home Secretary instructs reporting bodies to include in the national report the time schedule and progress evaluation of climate change impact assessment, adaptation goals, proposals and policies, as well as related implementation progress. If necessary, two or more reporting bodies may be instructed to prepare a joint report, and specific geographic areas may be included. On the other hand, Hawaii Senate Bill 559 Section 5(k) requires an annual report on efforts to mitigate and adapt to climate change to be submitted to the Governor and the Legislature (House of Representatives) at least 20 days before the convening of the Legislature, and under Section 5(n), this report is to be reviewed and updated.

<sup>14</sup> 2021 Act on Climate, § 42-6.2-2, (a)(2)(v).

<sup>15</sup> Id. at § 42-6.2-2, (a)(2)(vi).

### 2.2.3 Development of awareness and understanding of the impact of climate change

The EC4 should develop an awareness and understanding of the impact of climate change, including rising sea levels, coastal and shoreline changes, extreme weather events, vulnerability of critical infrastructure, ecosystems, economy, and health effects, including the impact of carbon pollution on children's health.<sup>16</sup> It is notable that the Act paid particular consideration of children's health in relation to the carbon impact on vulnerable populations and future generations.

This is comparable to the policies in the European Union (EU). The EU initially treated EU environmental policy as a secondary issue in the context of the economic goal of integrating the EU internal market. Therefore, the initial EU environmental policy aimed to remove barriers to the "free movement of goods" caused by the different environmental policies of each member state and implement "harmonious" environmental regulatory measures. However, in the twenty-first century, the EU pursued a "proactive" environmental policy, which became an opportunity for the EU to deal with environmental issues most actively, creatively, and constructively in the international community. The purpose of EU environmental policy is significant in this respect, as the Treaty on the Functioning of the European Union (TFEU) Article 191(1) sets out the promotion of measures at the international level to preserve, protect, and improve the quality of the environment, protect human health, ensure the prudent and rational use of natural resources, and address regional and global environmental issues, thereby linking "health issues" to "environmental issues" under the Treaty.<sup>17</sup>

In this sense, the most important aspect for the EC4 is the willingness to develop an overall understanding and awareness of the impact of climate change in Rhode Island. The fact that the Act requires the EC4's willingness to develop an overall understanding and awareness of the impact of climate change shows that the issue of climate change is not a problem only for future generations, but a current issue also that must be addressed by the current generation. Ultimately, considering a larger scale, timely response and resolution of climate change issues are not just Rhode Island's problems but an imminent challenge that must be addressed worldwide.<sup>18</sup>

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<sup>16</sup> Id. at § 42-6.2-2, (a)(4).

<sup>17</sup> Doosu Kim, "EU Environmental Law" (Korean Academic Information, 2012), p.146.

<sup>18</sup> Lavanya Rajamani & Jacqueline Peel (eds), *The Oxford Handbook of International Environmental Law* (Oxford, 2021), p.464.

## 2.2.4 Establishment of industrial encouragement strategies for climate change coordination

The EC4 should establish strategies that encourage businesses, organizations, and industries<sup>19</sup> to adapt to climate change,<sup>20</sup> as well as strategies that can have an impact on Rhode Island residents.<sup>21</sup> However, the key to pursuing a strategy that encourages industries to adapt to climate change lies in the methodology. As is already known in the literature, the main reasons for climate change are changes in surface conditions and an increase in greenhouse gases. Humans have continually changed nature through the use of fire, livestock breeding, and agricultural activities, and since industrialization, vast areas of forests have been destroyed at a rapid pace. This destruction of forests has become a major cause of climate change, not only affecting the reflectivity of the surface but also removing sources of carbon dioxide absorption. Above all, the sharp increase in greenhouse gases such as carbon dioxide, methane, nitrous oxide, and freon gas since the Industrial Revolution has caused the greenhouse effect, leading to a rise in global temperatures. However, it is uncertain how much possibility there is for humans, who have been highly industrialized and grown economically since the Industrial Revolution, to compromise economic growth for the protection of the global climate environment, and how effective incentive measures and support policies will work in the industry. Nevertheless, strategies that actively encourage and support industries to adapt to climate change should be pursued by the international community, and creative and effective methods should be constantly sought to elicit the response of residents who actively support these strategies.

It is crucial to actively encourage and support industries adapting to climate change, but it is equally important to develop strategies that operate within the bounds of international law agreements that the USA has already ratified. For instance, when considering financial support in the form of subsidies for specific industries, it is worth noting that this approach may raise concerns of violating subsidy agreement clauses in numerous Free Trade Agreements (FTA) in addition to the World Trade Organization (WTO) regulations.<sup>22</sup> While it is true that many countries are increasingly disregarding international economic norms by providing extensive subsidies, Rhode Island should carefully establish legal provisions for its support strategies while taking this into consideration.

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<sup>19</sup> Neil Craik, Cameron S.G. Jefferies, Sara L. Seck, Tim Stephens, *Global Environmental Change and Innovation in International Law* (Cambridge Univ. Press, 2018), p.102. There is currently ongoing discussion regarding the Anthropocene epoch in relation to industrial development, which has resulted in the rapid decline of the once-abundant biodiversity on land and in the oceans. The term Anthropocene refers to a geological epoch that marks the period in Earth's history where humans have had a significant impact on the environment. It is not an officially recognized geological epoch, but since 2016, the International Commission on Stratigraphy (ICS) has been actively considering whether to include it as one. The starting point of this era is debated to be either the Industrial Revolution of the 1800s when fossil fuel use rapidly increased or around the 1950s after World War II.

<sup>20</sup> In general, it is difficult to find a legally or semantically defined concept of "climate vulnerable groups" in terms of promoting industry response to climate change. This poses difficulties in providing support for these groups in the context of climate change. However, the meaning of vulnerable groups in the context of climate change may differ from the general concept and definition of vulnerable groups. Kyungho Choi, "A Study on Legislation and Policy for Support of Climate Change Vulnerable Class," *Ewha Law Journal*, Vol. 22, No. 3 (2018), p.229.

<sup>21</sup> 2021 Act on Climate, § 42-6.2-2, (a)(4).

<sup>22</sup> Peter Van den Bossche & Werner Zdouc, *The Law and Policy of the World Trade Organization*, 5 ed.(Cambridge, 2021), p.845.

## 2.2.5 Support the development of sustainable and resilient local communities

The EC4 should collaborate with local governments to support the development of sustainable and resilient local communities, including sustainable development.<sup>23, 24</sup> In Rhode Island, the EC4 should play a central role as the state's lead agency for climate mitigation and adaptation but ultimately achieve its goals through cooperation with local governments, who are the practical stakeholders. Particularly, the principles and methods for climate change response should integrate sustainable development, pursuing restoration of the damaged climate environment as the baseline. Therefore, the EC4 should provide support in a sustainable and resilient direction for the development of local residents.

One important aspect to consider in achieving sustainable and resilient development is the "prudent and rational use of natural resources." However, under international law, each country has sovereign rights to use domestic natural resources according to its environmental and development policies, and countries can reduce or eliminate inappropriate patterns of production and consumption for sustainable development. The "prudent use of natural resources" means the degree to which sustainable development can be achieved within the limits that the environment can bear,<sup>25</sup> and ultimately, the prudent use of natural resources is one of the conditions for achieving sustainable development.

## 2.2.6 Attempt to utilize various funding opportunities

The EC4 should identify and utilize federal, state, and private funding opportunities for Rhode Island's emissions reduction and climate change mitigation and adaptation efforts.<sup>26</sup> The issue is whether the EC4 can receive federal, state, and private funding for budgetary purposes with a reasonable climate change mitigation and adaptation program in place. To achieve this, the EC4 should demonstrate the ability to persuade funding sources by developing a rational climate change mitigation and adaptation program.

Given the recent prominence of climate change adaptation as a significant issue, the US government is likely to allocate more substantial budgets to this sector than in the past. Securing these budgets is expected to be less challenging. However, to obtain these funds, it is crucial to provide the government with a clear cost-benefit analysis, demonstrating precisely how much budget is needed and what outcomes can be expected. It is essential to provide a clear and compelling case for budget allocation. Specific persuasion strategies could include emphasizing the urgency of climate change adaptation, highlighting the economic benefits, and showcasing the potential for job creation through green initiatives.

<sup>23</sup> The sharp confrontation between developed and developing countries over development and environmental protection continues to this day, despite the fact that the preamble of the WTO agreement recognizes the objective of "sustainable development." As environmental norms are strengthened, the emphasis of sustainable development will likely to be further emphasized. Felicity Deane, *Emissions Trading and WTO Law* (Edward Elgar, 2015), pp.40-41.

<sup>24</sup> 2021 Act on Climate, § 42-6.2-2, (a)(5).

<sup>25</sup> Decision 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme(OJ 2002 L242/1-15); Article 21(f) of the Treaty on European Union (TEU), as amended by the Treaty of Lisbon.

<sup>26</sup> 2021 Act on Climate § 42-6.2-2, (a)(6).



### 2.2.7 Performing the role of a leader in solving climate change problem

The EC4 must advise the governor, legislature, and public on ways to ensure that Rhode Island continues to be a national leader in developing and implementing effective strategies to address climate change as the primary responsible agency for climate change.<sup>27</sup> At a time when many international organizations and institutions are addressing climate change through collaborative efforts, it is notable that one of the small states in the USA is taking the initiative to respond to this challenge.

### 2.2.8 Pursuing cooperation with other states

The EC4 collaborates with other New England states to explore mutual interest areas to achieve shared goals.<sup>28</sup> Coping with climate change is not a problem of a single city or country but a global challenge that cannot be solved by their individual efforts alone. Therefore, in a broader sense, it should be seen as a task that humanity faces together, which requires international cooperation and collaboration. In this regard, it is necessary to note that one of the objectives of EU environmental policy is to make international contributions to solving regional and global environmental problems.<sup>29</sup> EU environmental policy covers not only the EU's own environmental protection but also external environmental protection,<sup>30</sup> which shows that the EU has the perspective that environmental protection is not only important within the EU but also important globally.<sup>31</sup> However, considering the reality of the international community, if regional cooperation is fostered and expanded globally, it could bring about international synergies. To give an analogy, although the WTO's regime has been paralyzed, pursuing trade liberalization as pursued by the WTO is possible through FTAs between countries.

### 2.2.9 Promotion of education for the public

The EC4 confirms and promotes opportunities to educate the public about climate change and the efforts of government agencies and local governments to address it.<sup>32</sup> Like biodiversity conservation, climate change issues are still largely regulated by soft law norms, reflecting the fact that these issues are not yet recognized as urgent problems facing humanity. However, these issues should not only be viewed in terms of the immediate present but

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<sup>27</sup> Id. at § 42-6.2-2, (a)(7).

<sup>28</sup> Id. at § 42-6.2-2, (a)(8).

<sup>29</sup> TFEU Art. 191(1).

<sup>30</sup> The European Environment Agency (EEA), headquartered in Copenhagen, Denmark, was established under Council Regulation 1210/90/EEC to provide timely and high-quality environmental information and expertise to evaluate the environmental status and impacts in Europe, operating the European Environmental Information and Observation Network (EIONET) mainly among European countries. Although it does not perform a regulatory role, it is an open organization that includes the European Free Trade Association (EFTA), consisting of Iceland, Norway, and Liechtenstein, in addition to EU member states. This is because, under Article 19 of Regulation 401/2009/EC, the EEA allows other countries to join who share common interests with the EU and its member states in achieving the objectives of the institution, even if they are not EU member states. This demonstrates that environmental issues are already an international problem with a transboundary nature in Europe. Doosu Kim, *supra* note 17, pp.231, 245.

<sup>31</sup> Id. at 154.

<sup>32</sup> 2021 Act on Climate, § 42-6.2-2, (a)(9).

should also be approached on a macro level with a long-term perspective. Therefore, we should actively pursue measures to support education and promotion for the public on climate change, and not neglect the importance of such initiatives.<sup>33</sup>

### 2.2.10 Encouragement of utilizing expertise in the universities

The EC4 encourages the utilization of expertise from universities and colleges specializing in climate change mitigation and adaptation to assist the government. In particular, universities and colleges should provide scientific and technical information that can be best utilized, such as analysis, modeling (standardization), map-making, application to on-site situations, technical support, expertise on public education and community service, and ultimately, provide the best assistance for the EC4's mission.<sup>34</sup> Encouraging the utilization of university expertise in this sense does not limit it solely to the EC4, but rather aims to reflect the expertise of private experts in climate change mitigation and adaptation, as the council is mainly composed of bureaucrats and receives advice from advisory committees or scientific and technological advisory committees. This means that climate change response should be executed in a more objective, rational, and transparent manner, rather than being driven by discretionary policy or strategic dimensions that consider the economic interests of the industry. Furthermore, this is consistent with Rhode Island's declaration as a member of the US Climate Alliance and its commitment to adhere to the Paris Agreement on climate change within its borders.

## 2.3 Support for the Executive Climate Change Coordination Council (EC4)

Although the 2021 Act on Climate establishes and structures the EC4, and assigns various roles and functions to the EC4, the support at the state level is critical in order for the EC4 to fulfill its substantive duties properly. Therefore, the Act mandates that state agencies support the EC4 by ① providing overall support for the EC4 to comply with the provisions of this chapter (chapter 42-6.2),<sup>35</sup> ② developing short- and long-term greenhouse gas reduction strategies and tracking the progress of such strategies,<sup>36</sup> ③ purchasing alternative fuels, hybrid and electric cars that minimize greenhouse gas emissions as much as possible, recommending the use of sustainable transportation alternatives, including reducing the use of government vehicles and using public transportation systems,<sup>37</sup> ④ implementing programs to achieve energy savings in state and local buildings to reduce greenhouse

<sup>33</sup> Mexico's General Law on Climate Change, in Article 2 (Purpose) ④, stipulates that it aims to "reduce the vulnerability of the nation and ecosystems to the negative impacts of climate change, and cultivate and enhance national capacity to respond to climate change." In Article 7 (Federal Government's Authority) ④, it specifies that the government should promote education and cultural dissemination on climate change adaptation at all educational levels, and carry out campaigns for education and information provision to raise public awareness of the negative impacts of climate change. By clearly specifying the 'negative impacts' of climate change, Mexico is addressing them directly. Meanwhile, Art. 5 (o) of the Hawaii's Climate Change Act (Hawaii Senate Bill 559) aims to enhance public capacity by requiring the annual report to address 'public opinion' and 'attract attention.'

<sup>34</sup> 2021 Act on Climate, § 42-6.2-2, (b).

<sup>35</sup> Id. at § 42-6.2-3, (1).

<sup>36</sup> Id. at § 42-6.2-3, (2).

<sup>37</sup> Id. at § 42-6.2-3, (3).

gas emissions, energy expenditures, and encourage economic and job development,<sup>38</sup> ⑤ expanding the deployment of renewable energy and energy efficiency within the state,<sup>39</sup> ⑥ supporting efforts to expand Rhode Island's green economy and develop green infrastructure,<sup>40</sup> ⑦ assessing the vulnerability of infrastructure to climate change, including roads, bridges, dams, and wastewater and drinking water treatment facilities, and recommending strategies to protect such assets from climate change impacts,<sup>41</sup> ⑧ collaborating with relevant academic and federal agencies to assess the threat of sea level rise, erosion, and storm surges, and notifying state agencies and affected communities of such assessments and threats and tools to address them,<sup>42</sup> ⑨ developing plans, policies, and solutions based on the latest science to ensure that the state government can continue to maintain a vibrant coastal economy, including the protection of critical infrastructure,<sup>43</sup> and ⑩ documenting the scope of health impact assessments related to climate change and developing climate and health profiles that identify the most vulnerable residents.<sup>44</sup> In addition, the Act encourages ⑪ integrating climate change adaptation into local hazard mitigation plans and promoting application of hazard mitigation projects where possible,<sup>45</sup> and ⑫ taking positive measures to avoid duplicate work through consistent coordination among government agencies and programs, collecting funds in the most cost-effective manner, and providing the most effective services.<sup>46</sup> ⑬ Furthermore, it is necessary to promote public transparency by establishing a plan to disclose emissions reductions and energy source tracking so that they can be checked online, and this should be updated every year.<sup>47</sup>

To successfully implement support for EC4, there is a critical need for smooth and harmonious collaboration among government departments. Within the government, there are diverse departments responsible for transportation, greenhouse gas management, education, budgeting, public health, and more. In many cases, these departments fail to collaborate effectively. Each department has its own priorities, which often leads to delayed responses to requests from other departments. For instance, budget departments tend to adopt a conservative approach and may be hesitant to commit sufficient funds.

To foster smooth and harmonious collaboration, strong leadership at the government level is essential to encourage cooperation among these relevant departments. If the importance of climate change adaptation and the significance of EC4 support are recognized, I believe that organic collaboration among these departments is achievable

## 2.4 Establishment and composition of Advisory Board

Rhode Island EC4 recognizes the need for advice to perform its duties effectively.

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<sup>38</sup> Id. at § 42-6.2-3, (4).

<sup>39</sup> Id. at § 42-6.2-3, (5).

<sup>40</sup> Id. at § 42-6.2-3, (6).

<sup>41</sup> Id. at § 42-6.2-3, (7).

<sup>42</sup> Id. at § 42-6.2-3, (8).

<sup>43</sup> Id. at § 42-6.2-3, (9).

<sup>44</sup> Id. at § 42-6.2-3, (10).

<sup>45</sup> Id. at § 42-6.2-3, (11).

<sup>46</sup> Id. at § 42-6.2-3, (12).

<sup>47</sup> Id. at § 42-6.2-3, (13).

### 2.4.1 Composition of the Advisory Board

The EC4 Advisory Board consists of a total of 13 members. Five members are appointed by the Governor of Rhode Island, including four representatives from city or town governments, one of whom must be from a city with a population of at least 50,000 and one from a town with a population of 50,000 or less. At least one member must represent a low-income and/or minority community organization. The advisory board's diverse membership reflects the EC4's commitment to gathering a range of opinions on various aspects, including population distribution and vulnerable populations.

In addition, four members are appointed by the President of the Senate, considering their expertise in areas such as economic policy and/or workforce development, management and protection of natural and cultural resources, energy planning and development, and engineering and design. Four members are appointed by the Speaker of the House, taking into account their expertise in education, public health and safety, and housing, or representing and serving youth or elderly organizations.<sup>48</sup>

### 2.4.2 Purpose and obligations of the Advisory Board

The Advisory Board performs its obligations for the following purposes: (1) providing "advice" to the EC4 on all matters related to the mission and authority of the EC4, including the evaluation and recommendation of plans, programs, and strategies related to climate change mitigation and adaptation;<sup>49</sup> (2) supporting the EC4 by improving the accessibility and understanding of the most useful scientific, technical, and other information related to climate change, mitigation, adaptation, and promoting the resilience of local communities, to lead to public support and participation;<sup>50</sup> (3) serving as a channel to deliver information from the EC4 to the local community and voters (constituencies) to hear opinions about the EC4 at the community level;<sup>51</sup> (4) assisting in ensuring transparency and accountability during the EC4 meetings;<sup>52</sup> (5) reporting to the EC4 at each regular meeting of the EC4;<sup>53</sup> (6) preparing an annual report of the EC4, which includes enhancing the effectiveness of mitigation, adaptation, and public information programs from a local community perspective, promoting the ability to achieve the objectives and goals of the EC4, including effective interagency cooperation and public-private partnerships, and taking additional actions necessary to promote the purpose of the EC4 and this Act.<sup>54</sup>

As mentioned earlier, according to the field of legal development, it is essential that laws and policies not simply adopt the legal policies of other countries or regions, but rather, they should reflect the uniqueness and culture of the specific region. In this perspective, I believe that the tasks of the advisory committee mentioned above play a critical role in the successful implementation of EC4 policies.

The processes of monitoring the actual implementation of policies, assessing the responses of local residents, and evaluating the status of program execution, while

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<sup>48</sup> Id. at § 42-6.2-4, (a).

<sup>49</sup> Id. at § 42-6.2-4, (f)(1).

<sup>50</sup> Id. at § 42-6.2-4, (f)(2).

<sup>51</sup> Id. at § 42-6.2-4, (f)(3).

<sup>52</sup> Id. at § 42-6.2-4, (f)(4).

<sup>53</sup> Id. at § 42-6.2-4, (f)(5).

<sup>54</sup> Id. at § 42-6.2-4, (f)(6).

identifying any issues, are ultimately instrumental in finding climate change adaptation policies that effectively reflect the immediacy and locality of Rhode Island.

### 2.4.3 Establishment of the concept of environmental justice

Environmental justice means treating all individuals fairly and ensuring their meaningful participation regardless of their race, skin color, national origin, English proficiency, or income, in relation to the development, implementation, and enforcement of environmental laws and policies.<sup>55</sup> By establishing this concept of environmental justice, it can be seen that the basis for solving problems that may arise while applying this Act has been prepared.

While the likelihood of actual disputes may be minimal, introducing the concept of environmental justice can be seen as establishing a compass and framework for potential legal disputes related to 2021Act on climate. If, in the process of implementing various policies required by law, there are clear instances of bias based on race, skin color, or national origin, this would indicate a departure from the policies mandated by the 2021 Act on Climate. In such cases, should legal disputes arise, the concept of environmental justice would play a significant role in shaping the assessment of the case. It would serve as a guiding principle for determining the fairness and equity of the policies and actions in question, particularly when evaluating potential disparities in their implementation.

## 2.5 Establishment and composition of the Science and Technical Advisory Board

### 2.5.1 Composition of the Science and Technical Advisory Board

In addition to the general Advisory Board, Rhode Island EC4 receives advice from a separate “Science and Technical Advisory Board.” The Science and Technical Advisory Board consists of nine members appointed by the Governor with the advice and consent of the Senate. Four members must be affiliated with the state’s higher education institutions, two must be from research institutions located in the state, and three must be affiliated with state agencies responsible for professionally handling climate change-related issues.<sup>56</sup>

### 2.5.2 Purpose and obligations of the Science and Technical Advisory Board

The Science and Technical Advisory Board has the following obligations in order to achieve its objectives. Firstly, it ensures the continued operation of the EC4 to prevent falling behind in the critical development of scientific and technological information related to climate change and resilience.<sup>57</sup> Secondly, it advises the EC4 on major policy and management decisions by coordinating academic research on climate change and resilience issues.<sup>58</sup> Thirdly, it evaluates scientific and technological tasks performed by public and private sectors in order to list them, increase their efficiency, save resources, and provide

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<sup>55</sup> Id. at § 42-6.2-4, (g).

<sup>56</sup> Id. at § 42-6.2-5, (a).

<sup>57</sup> Id. at § 42-6.2-5, (f)(1).

<sup>58</sup> Id. at § 42-6.2-5, (f)(2).

better services by integrating or coordinating them.<sup>59</sup> Fourthly, it recommends or provides policy advice to the EC4 on the necessity, priority, resource allocation, and fundraising opportunities related to research.<sup>60</sup> Fifthly, it supports the EC4 in disseminating scientific and technological information to major user groups and the general public.<sup>61</sup> Finally, it evaluates whether the policies and programs of the state government aimed at mitigating and adapting to climate change are supported by the best scientific and technological information and produces an annual report on the activities of the EC4.<sup>62</sup>

## 2.6 Government information disclosure requirements

Climate change response policies and plans must be carried out transparently. This is because the credibility of efforts to address climate change has declined domestically and internationally due to economic policies that take into account the industrial sector. In this context, Rhode Island is pursuing the disclosure of information at the state government level regarding climate change response. As such, the EC4 and the Advisory Board must comply with relevant provisions of the Open Meetings Act, the Access to Public Records Act, and the Administrative Procedures Act.<sup>63</sup>

## 2.7 Issuance of reports

Rhode Island requires the EC4 to issue an annual report on the results of its investigation, recommendations, and progress towards achieving its operational goals. The publication of this annual report and its evaluation will lead to the practical development and performance of Rhode Island's climate change response policy.<sup>64</sup>

## 2.8 Strengthening of legal responsibility

Achieving the goals specified in § 42-6.2-2(a)(2)(i) of “the 2021 Act on Climate” is a legal obligation of the Rhode Island state government. Therefore, the state government must establish plans for achieving climate goals and carry out greenhouse gas emission reductions throughout the state.<sup>65</sup> If the state fails to do so, it may be sued as a defendant in court at least after 2026.<sup>66</sup> This Act pursues the achievement of substantive climate goals by imposing legal responsibility on the state government for responding to climate change. This ultimately demonstrates that achieving carbon neutrality by 2050 is a critically important task that is directly linked to the survival of the residents. Such awareness of the crisis posed by climate change and active responses to it should be pursued not only by other states in the USA but also by all members of the international community.

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<sup>59</sup> Id. at § 42-6.2-5, (f)(3).

<sup>60</sup> Id. at § 42-6.2-5, (f)(4).

<sup>61</sup> Id. at § 42-6.2-5, (f)(5).

<sup>62</sup> Id. at § 42-6.2-5, (f)(6).

<sup>63</sup> Id. at § 42-6.2-6.

<sup>64</sup> Id. at § 42-6.2-7.

<sup>65</sup> Id. at § 42-6.2-9.

<sup>66</sup> Id. at § 42-6.2-10.

### 3 Evaluation and implications of the 2021 Act on Climate

#### 3.1 The necessity for securing dedicated personnel and relevant budget

The Paris Agreement replaced the Kyoto Protocol and is considered a more comprehensive regime, as it includes not only 37 developed countries but also all developed and developing countries, totaling 195 countries and accounting for about 90% of global greenhouse gas emissions.<sup>67</sup> Under international efforts to address climate change,<sup>68</sup> the 2021 Act on Climate's response to climate change is significant in that it actively addressed climate change even under the Trump administration, which withdrew from the Paris Agreement. The Act's mechanisms, such as the EC4, Advisory Board, and Science and Technical Advisory Board, which were established to address climate change, as well as the evaluation and improvement of step-by-step climate change response, strengthening of legal responsibility, diverse input processes, consideration of future generations, support for relevant industries, cooperation with other states and the international community, and other specific contents, could be beneficial for reference by the international community.

However, to ensure the proper functioning of such specific legal provisions, they must be underpinned by relevant institutional support. The mere existence of laws does not guarantee their alignment with their intended purpose or their effective operation. In fact, there has been widespread criticism that the EC4 lacks sufficient authority in practice, necessitating a substantial grant of authority to address this issue.<sup>69</sup> To address such criticisms, it is imperative not only to establish regulations governing the role of EC4 but also to provide the necessary institutional support, including qualified professionals and adequate budget provisions, to ensure the effective implementation of these regulations. It is of paramount importance to enhance the capabilities of the EC4 by bolstering its professional workforce and securing the practical availability of budgets. This will enable the EC4 to operate more effectively not only in theory through legal regulations but also in practice on the ground. Particularly concerning Rhode Island's changing marine ecosystem due to rising temperatures in the Eastern USA<sup>70</sup>, and the damage to forests caused by the increase in invasive forest pests due to climate change,<sup>71</sup> prompt and practical responses aligned with the Act's intent are imperative.

Empowering EC4 with substantial authority and facilitating its operations through the recruitment of qualified professionals and increased budget allocation is vital, as non-compliance with this law can lead to the imposition of legal sanctions by the Act itself.

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<sup>67</sup> Despite this, the Paris Agreement faces many challenges that the international community must address going forward, such as the adjustment of nationally determined contributions (NDCs) to include the reduction targets set by each country after the agreement's implementation, ensuring the fulfillment of each country's mitigation obligations, establishing and operating international carbon markets, securing the effectiveness of financial support for developing countries, and establishing mechanisms for monitoring and verifying compliance with the agreement.

<sup>68</sup> According to Article 21 of the Paris Agreement, it was ratified on November 4, 2016, after fulfilling the condition of membership by 55 countries and an estimated 55% of global greenhouse gas emissions.

<sup>69</sup> See <https://ecori.org/2018-12-19-state-climate-council-is-falling-behind-says-new-report-dem-responds/> (accessed on August 30, 2023).

<sup>70</sup> M. Conor McManus, "Impacts of a Changing Climate on Rhode," Rhode Island Department of Environmental Management—Division of Marine Fisheries, June 21, 2023, Public Meeting Materials, The EC4).

<sup>71</sup> Fern Graves and Alana Russell, "Climate Change in Rhode Island's Forests," May 11, 2023, Public Meeting Materials, The EC4).

Simply put, when not adhering to this Act properly, Rhode Island could potentially face legal action from relevant stakeholders. Therefore, they must actively fulfill the legal obligations mandated by this legislation. In a comparative context, states such as Hawaii have enacted and executed supplementary provisions to ensure the adequate acquisition of staff and budget allocation. Rhode Island should consider adopting similar measures to guarantee the effective execution of the role of the EC4.<sup>72</sup>

### 3.2 Comprehensive and transparent advisory role performance and supplementary requirements

Looking at the composition of the EC4, which is primarily responsible for implementing the Paris Agreement under the 2021 Act on Climate, it includes the head of the environmental management department, the secretary of the coastal resources management council, the head of the transportation department, the head of the health department, the head of the emergency management agency, the director of the energy office, the head of the planning department, and the secretary of Rhode Island commerce corporation. In addition, the Act allows for the participation of private sector experts and strengthens its support functions through the Advisory Board and the Science and Technical Advisory Board. This can help ensure procedural transparency and incorporate diverse opinions from the private sector to promote effective climate change response. Furthermore, the Act actively utilizes the best professional knowledge from universities and other institutions, ensuring a wide range of advisory functions.

Here, it is important to note that, in the composition of the Advisory Board, it is essential to adhere to the provisions outlined in the “2021 Act on Climate,” which mandates the appointment of representatives from various demographics, including but not limited to population segments, low-income communities, minority groups, seniors, and youth. Additionally, appointing individuals with diverse expertise in fields such as environmental studies, economics, culture, energy, engineering, and design as advisory members would contribute comprehensively to the achievement of climate goals.

Nevertheless, in the process of selecting these advisory members, ensuring transparency and fairness is pivotal. One approach to guaranteeing transparency and fairness is to establish “best practices” for the internal workings of the Advisory Board in advance. When necessary, the qualifications of advisory members can be evaluated, taking into account their research and practical experience. Furthermore, enhancing the ethical conduct of advisory members and utilizing conflict-of-interest procedures during the selection process can help exclude potential advisory candidates with conflicts of interest. Through these measures, it is possible to anticipate a more equitable and transparent execution of advisory duties.

In addition to the measures mentioned earlier, it is imperative to establish regular and publicly accessible reporting mechanisms. These reports should comprehensively outline the advisory member selection process, their qualifications, and any potential conflicts of interest. Such transparency not only assures the public of the impartiality in the selection process but also fosters accountability among decision-makers. Moreover, to ensure a more comprehensive representation, collaborating with pertinent community organizations and

<sup>72</sup> Hawaii Climate Change Law (Bill Text: HI SB559, 2017), Part III, Section 7 & Section 8; <https://legis.can.com/HI/text/SB559/2017> (accessed on August 13, 2023).



advocacy groups can be invaluable. This collaborative effort allows for the identification of potential candidates with diverse backgrounds and viewpoints, enriching the board's diversity.

Conducting periodic reviews of the Advisory Board's composition and performance can also prove beneficial. These evaluations, conducted by impartial entities, can assess the board's effectiveness in representing the requisite demographics and expertise. Additionally, they can gauge the extent to which advisory members adhere to ethical standards and contribute effectively. Finally, engaging in public consultations and actively seeking input from stakeholders is essential. Initiating open forums or surveys provides a platform for the community to voice concerns and offer suggestions regarding the composition and functioning of the Advisory Board. This inclusive approach not only fosters trust but also ensures the board remains responsive to evolving community needs and priorities.

### **3.3 Explicit mention of children's health policies due to climate change**

One of the impressive roles of the EC4 is to directly regulate "children's health," in preparing climate change response plans. This is a very important aspect in that climate change has a significant impact on future generations beyond the current generation. Ultimately, this demonstrates that the problem of climate change is an urgent issue that must be addressed by the current generation domestically and internationally. Therefore, the international community should refer to it to accurately understand how climate change affects children's health in the present and future, and prepare for it in advance. Rhode Island State is showing progress in the field of health, in addition to the tourism industry, even in the USA. It is noteworthy that they are leveraging the characteristics and advantages of the region in addressing climate change response.

### **3.4 Harmonization with the industry, international cooperation, and raising public awareness**

Rhode Island is pursuing supportive policies while considering the understanding of the industry affected by climate change and promoting the development of sustainable and resilient local communities. They are also performing a leadership role in effective and practical climate change mitigation and adaptation within the USA while utilizing opportunities for various funding support and cooperating with international climate change responses. Additionally, they are not neglecting public education to ensure that these domestic and international efforts are realized. This is very important in that it is necessary to raise public awareness that the problem of climate change is an urgent task facing humanity and to actively involve them in solving the problem to produce tangible results.

### **3.5 Need to strengthen the role of the Science and Technical Advisory Board through the provision of special advice**

The EC4 receives advice from the Advisory Board to perform its duties, and in particular, the EC4 receives advice from the Science and Technical Advisory Board, a separate advisory body, to obtain professional advice down to more detailed sectors. Environmental issues such as climate change and biodiversity are closely related to "science." The development of "science and technology" has brought about an improvement in the quality of

human life through industrialization, on the one hand, and has caused climate change due to increased greenhouse gas emissions resulting from industrialization, on the other hand. In order to urgently and appropriately respond to these environmental issues, the relevant policy makers can play an important role in formulating and implementing environmental policies through scientific and technical analysis and prediction. In other words, science and technology can play a significant role in accurately assessing the fundamental causes of existing or emerging environmental problems and deriving appropriate solutions in a timely manner. Sufficient professional knowledge of scientific and technological reasons and grounds for appropriateness and rationality in setting reasonable emission standards, environmental standards, and handling methods or prevention facilities can provide a justifiable basis for problem solving. This can contribute to the resolution of environmental problems, the provision of legal legitimacy for regulation, and the securing of fair enforcement means.

### **3.6 Need to strengthen the practical function of reporting and evaluation in response to climate change**

Rhode Island EC4 evaluates the efforts of the state government agencies in responding to climate change in order to improve related policies. These contents are being carried out through the State of Rhode Island Climate Change Vulnerability Assessment and Adaptation Report. Such practical response and evaluation of climate change will systematize the response to climate change within Rhode Island in a macroscopic dimension. This can be considered appropriate for climate change response for future generations, beyond a short-term perspective on climate change response. Moreover, this objective and transparent reporting and evaluation process needs to be continuously advanced with patience in a developmental dimension.

This type of effort is also found in Article 59 of the UK Climate Change Act, as the UK Climate Change Committee submits a report that includes an assessment of the goals, proposals, and policy implementation specified in the plan submitted to the UK Parliament. This “implementation review” of the UK’s climate change response, which is conducted every 2 years, has been a successful model in terms of advancing the UK’s climate change response and international cooperation.

It is crucial to emphasize that these assessments and checks must not remain merely formalities but should result in tangible progress. If climate change adaptation continues to be influenced by the logic of economic growth, it would constitute a highly irresponsible approach to the issue of human survival. These evaluations and reviews must be conducted rigorously and pursued with such strength that they can hold those responsible accountable for the failure to achieve climate goals in a substantive manner.

## **4 Conclusion**

Rhode Island acknowledges the severity of climate change and has taken active steps through the 2021 Act on Climate. The EC4, in collaboration with advisory and scientific boards, plays a pivotal role in formulating climate response plans and policies. While efforts have been made to gather input from stakeholders and consider the interests of vulnerable groups, there are limitations in achieving climate goals. Enhancing institutional authority, legal accountability, resource allocation, advisor selection, and reporting

procedures are essential to improve Rhode Island's climate response, contributing to the global fight against climate change, a shared challenge for the international community.

**Author contribution** DK drafted the text and TJP reviewed the text.

**Funding** Open Access funding enabled and organized by KAIST. This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2022S1A5B5A16052838). This work was also supported by the National Research Foundation of Korea under Grant (RS-2023-00245361) and (2021H1D3A2A03097768).

**Data availability** Not applicable.

## Declarations

**Ethics approval and consent to participate** Not applicable.

**Consent for publication** Not applicable.

**Competing interests** The authors declare no competing interests.

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