

Analysis of the International Community's Response Strategies to Japan's Illegal Nuclear Wastewater Discharge into the Sea

Qia Gao¹, Jing Lin² and Qizheng Tang^{3,*}

¹Department of public Administration, Zhongnan University of Finance and Economics, Hubei, China

²Department of criminal law, Northwest University of Political Science and Law, Shanxi, China

³Zheng Zhou Middle School, Henan, China

*Corresponding author: 1811000324@mail.sit.edu.

Abstract. International law has been gravely violated by Japan's discharge of nuclear waste, but different sovereign states have different responses to this action. China and South Korea, as Japan's neighbors, are opposed to it. The U.S. supports this conduct, and many nations' stances on the matter reflect both their own views and the unwritten system of international law. The main objective of sovereign states in international relations is to protect their own national interests, but when dealing with environmental contamination crises that have global implications, those nations should also respect the legitimate interests of other nations. The concept of a community of human destiny, which stressed that each State had a responsibility to protect the environment while respecting the independence of each sovereign State, may offer direction for how to handle the incident involving the leak of nuclear wastewater from Japan into the ocean.

Keywords: Nuclear wastewater; International conventions; International law; Community of human destiny.

1. Introduction

The Fukushima Daiichi nuclear power station in Japan had a nuclear leak on March 11, 2011, as a result of an earthquake and tsunami. When it comes to April 13 in 2021, as the storage capacity was exhausted, the resolution was made by the authorities of Japan to set free radioactive effluent towards the sea. The world's biosecurity, political, and economic concerns have been examined by recent study, however the majority of the papers highlight the negative effects of this activity. Unquestionably breaking international law is the illegal discharge of radioactive waste into the water off the coast of Japan, but it is clear that the international community does not have the same attitude towards Japan's behavior. The main reason is that different nations have distinct interests in Japan's nuclear wastewater emissions, and the break of international law poses a threat to treaty conflicts that provide the interests of nations a legal foundation. But as economic globalization intensifies, it becomes increasingly clear how interconnected and integrated the financial and social advancement of different nations is. In recent years, the black swan events such as the new crown pneumonia and other black swan events make human economic and social development suffered unprecedented impact, all mankind is experiencing the crisis brought by the superposition of risks in multiple fields such as economy, politics, environment, resources, population, health, security, etc. To create a perfect international legal system in this situation, it is essential to maximize both the interests of individual nations and the shared interests of human society. This can be done by enhancing international cooperation and communication among all nations while reserving space for differences. In order to balance the interests of all parties, achieve global agreement on the same international event, and better support the economic and social development of all countries, this essay is devoted to analyzing the international community and international law's problems that are reflected behind the various perceptions of countries regarding the Japanese nuclear wastewater discharge.

2. The Unlawfulness of The Fukushima Discharges

Two parts make up a globally wrongful conduct, according to the United Nations International Law Commission's 2001 Draft Articles on State Responsibility for globally Wrongful Acts: (1) the conduct is imputable to the State, and (2) the conduct violates an international obligation [1] The ability of the head of state, governmental, parliamentary, judicial, and other authorities to represent the state is acknowledged by the world community.2021 On April 13, 2021, the Cabinet Meeting of Japan approved the decision to discharge nuclear water waste into the ocean, and the Prime Minister of Japan simultaneously made the announcement. As a result, this action must be viewed as a Japanese governmental act. The pertinent international legal norms that Japan has broken will be discussed individually.

2.1. Principles For Foreign Environments

2.1.1 The Meaning of The Foreign Badlands Principle

In the area of the environment, the concept of State sovereignty is expressed in two ways: first, as sovereignty over the resources located on the State; and second, as the exercise of power by one country shall not harm the environment of another country. The principle is represented in several treaty provisions, and the International Court of Justice frequently uses it as a pertinent foundation for its rulings. According to some academics, this idea primarily calls for States to have limitations on their own behavior in order to prevent or lessen their impact on other States' environments. According to Part XII of the United Nations Convention on the Law of the Sea, a State is required to notify the affected State and consult with the State in question regarding reasonable measures to reduce the likelihood of environmental damage if the national environmental impact assessment results indicate the presence of cross-border risks. Such notification aids the State which has been affected in addressing and reducing the effects of the risk in question [2].

In addition, risk notification has been a crucial factor in recent environmental law cases. Following an EIA, if a country's actions are found to pose an environmental risk, that country must not only notify the impacted countries but also actively work with it to mitigate the risk.

The Trail Smelter Arbitration established the broad principle that "no State may cause transboundary harm to a neighboring State" as the first transboundary environmental dispute. No State may hurt a neighboring State over international borders. Subsequently, as the jurisprudence continued to evolve, the International Court of Justice, in its advisory opinion on the Legality of the Threat or Use of nuclear weapons, attached increasing importance to the protection of the environment. There is a general obligation on States to regulate that acts within their own jurisdictions do not affect the environment outside their areas of control. After nearly three decades of refinement, the principle of non-impairment of the environment of foreign States is recognized as a fundamental principle [3]; Some even see it as international jus cogens [4]. As a "meta-rule" of international law in the field of the environment, this principle is constantly cited in various declarations and treaties.

2.1.2 Japan's Violation of The Principle of Environment Abroad

However, the Government of Japan didn't notify its neighboring countries before his discharging, and as a State party to the United Nations Convention on the Law of the Sea, Japan has both the obligation to protect the marine environment and to take the necessary means to ensure that the domestic marine environment is complete and to supervise the pollution of the domestic environment, which means that there is a need to ensure that a domestic pollution incident produces the spread of non-essential pollution to the sea areas of other countries as well as to the high seas [5]. Japan should "observe, measure, estimate and analyze the risk or impact of the environment using recognized scientific methods", and notify the International Atomic Energy Agency (IAEA) and all potentially affected countries in advance of the discharge plan. This is because the discharge of nuclear wastewater could have a significant impact on the sea areas of neighboring countries.

2.2. Risk Prevention Principle

2.2.1 Connotation

States are required to conduct environmental assessments when performing acts that have a transnational impact on the environment, which is an international environmental law obligation undertaken by the State. In the Espoo Convention [6] and the Objectives and Principles of EIA [7] contain specific provisions on transboundary environmental impact assessment, while the Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, issued by the International Law Commission (ILC) in 2001, reaffirms the importance of the EIA regime and related guidelines. All of the above treaties refer to the relevant systems of public notice and consultation on EIA. The Espoo Convention even emphasizes that the public should be consulted on transboundary EIA. In the case of transboundary environmental pollution, the state should take preventive measures to stop or control the occurrence of damage. Fulfillment of the obligation not to harm the environment abroad [8]. At the same time, the "polluter pays principle" can also serve as a basis for this principle. The polluter must take precautions to avoid foreseeable adverse consequences.

The precautionary principle requires States to take active steps to prevent harm from happening rather than passively resolving it after it has already happened. The International Court of Justice had extensively outlined the precautionary principle at the level of international justice, stating that the parties had a duty of continuous care at all times to avert transboundary harm. In the *Uruguayan Paper Mills* case and in the *International Liability for Naval Exploitation* case [9] The obligation of States to prevent transboundary pollution has been recognized by both the International Court of Justice and the International Court of Justice. In the *Rhine Railway* case, the Permanent Court of International Arbitration had held that States all have a general obligation to take necessary measures to prevent the occurrence of cross-border pollution. In terms of treaty law, the *Rio Declaration on Environment and Development* formally recognizes the precautionary principle as a cornerstone of international environmental law and authoritatively establishes its essential meaning. The notion has so far been represented in numerous international laws, including article 4 of the *Convention on Nuclear Safety*, which requires parties to take statutory, administrative, and other means to uphold their obligations. Article 16 stipulates that parties shall ensure that nuclear installations have on- and off-site emergency plans and that such plans are regularly inspected [10]. The principle is embodied by the *Joint Convention on the Safety of Spent Fuel Management* and on the *Safety of Radioactive Waste Management* [11] and *Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter* [12] and so on.

2.2.2 Japan's Violation of The Precautionary Principle

In conclusion, the state must conduct environmental assessments and timely disclosure before making decisions that may have a significant impact on the global ecological environment. Before deciding to release nuclear effluent, the Japanese government must perform an effective environmental evaluation. Although Japan has conducted an environmental impact assessment of the conduct, the results of the assessment have not yet been made public, and its authority and validity are not convincing to the outside world based on the information provided by the International Atomic Energy Agency and the Japanese government. At the same time, Japan is required to implement a number of measures to reduce the negative consequences that the discharge of radioactive wastes on other nations will have. Whether or not Japan has "taken measures" means whether or not the Japanese side has alternatives. In the face of more environmentally friendly measures, such as underground injection, steam release, hydrogen release and underground burial programs [13], Japan is not obliged to take any measures to minimize the adverse effects of nuclear waste water dumping on other countries. Obviously, the precautionary principle is widely used and has far-reaching effects, and should be observed by all countries at present.

3. Attitudes of the International Community Towards Japan's Behavior and The Problems Reflected Therein

3.1. Attitude of the International Community Towards Japan's Behavior

With regard to Japan's discharge of nuclear wastewater, although its behavior has clearly violated international conventions, countries still hold different attitudes. China and the Republic of Korea have expressed their opposition to this, arguing that Japan's act violates a series of international conventions such as the United Nations Convention on the Law of the Sea, the Convention on Nuclear Safety, the Convention on Biological Diversity and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter[14], and it has not conducted open and transparent water quality tests and issued authoritative test reports to the international community, and has discharged nuclear wastewater without international consultation, seriously jeopardizing the interests of all countries[15].

The United States is supportive of this action, believing that Japan has released test results of nuclear wastewater that meets discharge standards and has adopted treatment methods that comply with globally recognized nuclear safety standards [16]. Japan also claims that its discharge of nuclear wastewater is in compliance with international regulations. Japanese scholars use the term "treated water" in the relevant literature, but not "nuclear wastewater" or "contaminated water", which is consistent with the terminology mentioned in the information publicly released by the Government of Japan. This is consistent with the statements made by the Japanese government in its public releases [17].

Regarding this issue, Russia adopts a neutral approach. The Russian side is hoping that Japan will release a more thorough report and explanation of the nuclear wastewater discharge as well as, if required, permit external monitoring of the radiation situation in the region. In addition, the Ministry of Foreign Affairs of the Russian Federation stated that the Government of Japan should responsibly and rationally dispose of nuclear wastewater and take measures to dispose of it in a way that minimizes harm to countries and the environment, and that does not jeopardize the interests of other countries [18].

3.2. Problems Reflected in The Different Attitudes of The International Community

The previous explanation makes it clear that Japan's act of dumping nuclear waste into the sea is illegal, but different national societies' perceptions of that same act of dumping nuclear waste into the sea are a reflection of other issues with the international community and international law.

3.2.1 International Decision-Making by Countries Is Still Based on Their Own National Interests, Which Leads to Confrontation and Conflict.

Despite the fact that nations are actively seeking collaboration, they continue to prioritize their own national interests and hold various perspectives on Japan's actions. As Japan's neighbors, China and South Korea are opposed to Japan's discharge of nuclear effluent because it offers a larger risk of harming their fisheries and ecosystems and because doing so would protect their own national interests. Given its location in the Americas, the United States is less immediately impacted by nuclear waste. Additionally, it is politically aligned with Japan, thus it supports Japan's actions regarding nuclear sewage discharge and thinks that it adheres to international standards. Japan, the incident country, issued a public statement claiming that it complies with the international convention as an excuse to avoid accepting the corresponding responsibility under international law. However, in order to protect its own interests, Japan refused to disclose the actual test data. Due to divergent national interests, China, South Korea, Japan, and France all applied the same standards of international law to the same circumstances. The upshot is that there will inevitably be conflict and violence between nations.

3.2.2 Fragmentation of International Law

In recent years, the international community's legislative activities have been more lively than ever before, the conflict of international law to highlight the problem, western international law scholars will be named "international law fragmentation". It refers to the conflict of laws between different rules of international law, i.e., disharmony and lack of consistency between them[19]. The fragmentation of international law with regard to the incident of Japan's discharge of nuclear wastewater into the ocean is mainly manifested in the fact that the relevant organizations, led by the International Atomic Energy Organization (IAEO), have stipulated that Japan's wastewater treatment plan is "technically feasible and in line with international practice", and that the controlled discharge of wastewater into the sea is a "conventional practice" for the operation of nuclear power plants globally, following an assessment of the safety and environmental impacts[20]. The pertinent articles of international law, such as those found in the United Nations Convention on the Law of the Sea, the Convention on Early Notification of a Nuclear Accident, and the Convention on Nuclear Safety, acknowledge that Japan's actions are unlawful. A legal and combative foundation for nations with divergent interests is provided by the clash between pertinent International Atomic Energy Organization (IAEO) provisions and international laws and regulations like the Convention on Nuclear Safety.

3.2.3 Lack of an International Organization to Coordinate the Implementation of International Law

The international community lacks a unified legislative and judicial body. The trend of diversification of organization of states and the increasing number of international judicial bodies have made international treaties more and more subject to a "multi-disciplinary" approach [21]. In practice, each legislative body tends to formulate international legal rules in its own favor, which has led to fierce conflicts between international treaties. At the same time, the absence of a unified international judiciary has left the interpretation and application of international treaty rules to be carried out in specific cases by various global or regional judicial bodies. According to the "International Courts and Tribunals" project, to date, approximately 125 international organizations have independent international dispute settlement bodies [22]. The fragmentation of these bodies does not allow for uniformly recognized criteria for the adjudication of international cases, which raises the issue of conflict.

4. Recommendations and Measures: Strengthening International Communication and Coordination to Build a Community of Human Destiny

A Community with a Shared Future for Mankind, which aims to consider the legitimate concerns of other countries while pursuing their own national interests and promoting common development for all countries while pursuing the development of one's own country, was introduced by General Secretary Xi Jinping in November 2012. We should promote a sense of "community of human destiny" because there is only one Earth for humanity and all nations coexist in one earth. To effectively address the above issues, the following concrete measures can be explored under the framework of the community of human destiny:

4.1. Strengthening Cooperation Among Countries

Maintaining national interests is of course the primary goal of sovereign states in international relations, but when dealing with environmental pollution incidents with transnational impacts, the countries concerned should respect the legitimate interests of other countries, and other countries should make objective judgments on the rights and wrongs. They shouldn't only consider their own national interests without taking into account those of other nations. In the situation of Japan's discharging nuclear wastewater into the ocean, we can actively urge the Japanese side to take into account the negative effects of the discharge on other nations and the global environment and to

dispose of the nuclear wastewater appropriately. We can also actively urge all nations to oppose and condemn such acts that jeopardize the shared interests of all nations from the perspective of the world's environment. The concept of a community of human destiny, which is based on safeguarding the common interests of humankind and emphasizes the obligation of all countries to protect the global environment while respecting the independence of each sovereign State, can provide guidance for the proper handling of the Japanese nuclear wastewater discharge incident.

4.2. Active Consultation On Issues

Conferences and gatherings can assist in resolving and settling international legal concepts or controversies. For instance, there are discrepancies between the subject matter of responsibilities in the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy and the 1963 Vienna Convention on Civil Liability for Nuclear Damage. International transportation of nuclear materials has become challenging as a result. The States parties to those two treaties had taken the opportunity of the 1971 meeting of the International Maritime Consultative Organization (IMCO) to hold discussions and formulate new principles that had resolved the problem in a very targeted manner[23]. It is thus clear that controversial international issues can be dealt with and resolved through the sharing of information, comparison of results, and formal and informal discussions among the countries or organizations concerned, and through the holding of relevant meetings at the appropriate time.

4.3. Organization Of a Unified International Legislative and Judicial Organization

The issue of various judging standards for the same case in various nations can be substantially reduced with the development of a worldwide renowned unified legislative and judicial organization. Using the WTO and IMF as an example, the restoration of the post-World War II international economic system led to the creation of two significant, universally applicable international economic organizations: the WTO oversees trade policies while the IMF handles monetary matters. The two are mutually reinforcing, so that issues related to the international economy are well organized by them. The same was true of international law, where disputes between States regarding international conventions could be successfully settled by having a specialized agency draft and evaluate a unified system of international law that governed all States according to the same standards and whose implementation was overseen by all States.

5. Conclusion

Despite the fact that nuclear wastewater released from Japan is unlawful, the need for improved cooperation and communication across nations in order to create a community of shared destiny has never been more pressing. This essay begins by examining the legality of Japan's actions, uncovers the causes and issues surrounding various nations' stances, and simultaneously puts forth specific recommendations and actions to improve global cooperation and communication and create a community of shared human destiny. Future efforts should focus on strengthening international law and preparing for inclement weather so that all nations can prosper within its bounds.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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