

Canada on Ensuring Radioactive Waste Management in Developing Countries

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I. Introduction

This paper was originally a position paper for the 2020 Whitney High School Model United Nations Conference, the IAEA committee. While this paper does not focus on a specific law or laws, this paper does provide Canada's legislature's stance and perspective on radioactive waste management in developing countries.

II. Sustainable Development Goal

The specific Sustainable Development Goal that is specific to this topic is goal 7, which is to ensure access to affordable, reliable, sustainable and modern energy for all. In order to achieve this goal, citizens from both developed and developing countries must have access to some sort of sustainable energy. Over the years, developed countries have turned to nuclear energy as one possible solution in achieving this goal and have done so with extreme safety precautions. In developing countries however, things are much different. Most developing countries don't have nuclear power but they use radionuclides for research purposes in minimal amounts. Although it's in small amounts, the radionuclides aren't taken care of properly in developing countries as they lack the resources and the facilities to do so. Hence, because these radionuclides could cause a potential threat, it only makes sense that anything that is radioactive should be barred from using.

However, for developing countries, there aren't any other sources of energy that they can turn to. Although the environment and the people are at risk because of nuclear sources, the demand for nuclear energy is only going up. This is because nuclear energy is the only source of energy that can realistically provide for millions of people. Cutting nuclear energy off

completely in developing countries would mean that they could potentially lose a source of energy that could be used to save lives. Therefore, keeping sustainable development goal 7 in mind, it is essential that regulations or solutions be added in developing countries to ensure nuclear safety while making sure nuclear energy can be a primary source of energy in the future.

III. Background

For a long time, nuclear energy seemed to be the answer to providing energy for millions, especially in developing countries. However, nuclear waste, or what's left of nuclear energy after its use, bursts out dangerous radioactive waste for years. This means that radioactive waste, if left without care, can cause serious environmental damage for years. Now while developed countries can rely on their resources to keep the radioactive waste safe from people, developing countries cannot do so. They lack the resources, the technology, and the professionals to properly fix these issues. While direct international aid may be able to solve this issue, the topic of radioactive waste mismanagement is something even developed countries struggle with and cannot be relied on as the primary solution. Therefore, keeping in mind that nuclear energy is basically essential in providing for millions while also keeping in mind that its often mismanaged, countries must find a solution to ensure radioactive management in developing countries.

IV. UN Involvement

Over the years, the United Nations has held seminars and conventions globally to help raise awareness of nuclear waste management. These seminars have encouraged governments

across the world to take a stronger stance in radioactive waste management including those in developing countries. Moreover, these conventions have allowed for the sharing of ideas between countries and nations have been able to communicate with each other more efficiently on the topic of radioactive waste management. The IAEA have also started programs that have been essential in establishing a solid foundation for radioactive waste management in developing countries. However, as of now, no direct actions such as passing strict limitations or regulations have been done. Most of the regulation work has been left for the respective countries to do. Once again, while the developed countries are doing relatively fine without the involvement of the UN, developing countries have serious trouble to face in the near future because of the lack of UN engagement.

V. Country Policy & Involvement

Over the years, Canada has come up with many ways to ensure safety when dealing with radioactive waste management. First, Canada has created the Canadian Nuclear Safety Commission to provide security in nuclear waste management. This commission is made up of professionals on nuclear energy, government officials, environmentalists, and economists all focused on ensuring safety with radioactive waste in Canada. Second, Canada has invested in creating massive underground facilities, deep underground and built in remote areas, to store radioactive nuclear waste for the time being. Because radioactive waste takes years to decay out completely, Canada plans to keep its radioactive waste in these storages until the radioactivity dies out. Third, Canada has started the process of reprocessing radioactive waste. This is a highly advanced method of dealing with radioactive waste as it must be done extremely carefully. The

general idea behind reprocessing is that unused uranium from spent nuclear fuel is extracted from fission products that cannot be reused. Therefore, Canada has turned to the creation of a safety commission, the building of underground storing systems, and the implementation of nuclear reprocessing to combat radioactive waste management within Canada. As for helping radioactive waste management in other developing countries, Canada has yet to act but looks forward to taking a bigger role on the problem.

VI. Possible Solutions

Canada has had great success with its nuclear safety program and suggests that developing countries model their radioactive waste management off of Canada's. First, developing countries can create their own nuclear safety commission that can officially create and regulate safety commissions regarding nuclear waste. The only problem with this is that most developing countries lack professionals in this field so developed countries such as Canada can send diplomats to developing countries to train professionals in the field of radioactive waste.

Second, developing countries can take part in creating underground storage facilities to store radioactive waste. Unlike Canada's massive storages, Canada suggested a recreated version of Canada's models that better suits developing countries. Keeping in mind that most radioactive waste produced by developing countries comes in small and minimal sources, Canada suggest that countries create unions to store nuclear waste together. A group of countries can join together and build one underground storage facility in one country (preferably one with remote areas) that can store all the radioactive waste produced by each member country. Because

multiple developing countries are taking part in storing nuclear waste together, funding will be much easier. International aid can also help in funding these facilities if needed.

Finally, Canada proposes that developing countries follow Canada's newest solution: nuclear reprocessing. First off, Canada is fully aware that developing countries cannot just start to reprocess their radioactive energy. Hence, Canada proposes that nuclear reprocessing be privatized by corporations in developed countries. In other words, corporations that are currently leading the way in nuclear reprocessing in developed countries will be encouraged to extend to developing countries. This "encouragement" will be done by lowering tax rates for nuclear reprocessing businesses in developing countries which will help these corporations make more money. In the end, developing nations will be able to have a radioactive waste safe country while corporate business reprocessing radioactive waste will be able to economically profit.

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