

Country: Indonesia

Committee: UNDP

Topic: Fostering Resilience In the Face Of Increasing Incidents Of Natural Disasters

Natural disasters have devastated the earth for hundreds of thousands of years. From earthquakes to landslides, natural disasters have a tragic impact on people's lives. While these disasters may daunt every country, it is clear that developing countries suffer much more damage and devastation because of their lower vulnerability. The vulnerability stems from the lack of safe housing—the way it's built and the location, the lack of transparent money—the money flow to the people through government regulation, and how prepared the country is to be resilient towards a disaster—having medical, food, water, and money supplies ready and organized. Poverty is both a driver and a consequence of disaster risk (particularly in countries with weak risk governance) because economic pressures force people to live in unsafe locations. Those individuals' water systems and agricultural-based land and livelihoods are already hard to come by. The frequent occurrence of disasters ruins the chances to establish proper lives, like establishing safe water systems, because they are constantly being destroyed. Funding and money continue to disappear, making it more difficult to maintain effective financial management. Climate change affects the increase of greenhouse gasses in the atmosphere and will boost temperatures over most land surfaces. The combined result of increased temperatures over land and increased humidity could result in increasingly intense cycles of disasters, not just in a single area but a combined series over multiple areas. This adds to the unpredictability of both preparing for and tracking natural disasters.

Indonesia, a country prone to all types of natural catastrophes, deals with these difficulties regularly. Indonesia is a cluster of 17,000 islands lying on the Ring of Fire, under three major tectonic plates. This area is prone to volcanic eruptions, earthquakes, tsunamis, floods, landslides, droughts, and forest fires. Indonesia has one of the highest natural disaster rates in the world, with at least one major natural disaster occurring in Indonesia every month since the 2004 tsunami. It is one of the most vulnerable countries to disasters and has a very profound drive to foster resilience against them. This is only increasing with hydro-meteorological hazards such as floods occurring more frequently in Indonesia over the last decade, with more than 78% of these types of disasters being recorded from 2005 to 2015. This is a result of climate change which has caused a rapid rise in global temperatures, generating sea surface temperature anomalies that give rise to longer rainy seasons, thus causing major floods and landslides. Indonesia has established various resilience strategies to make specific places less vulnerable to catastrophes by modernizing infrastructure, organizing funds, and enhancing readiness before a disaster occurs. Indonesian government has been implementing new technologies to improve hazard warning, forecasting, and mitigation.

On a global scale, Indonesia is actively involved in disaster prevention and risk reduction, has developed several initiatives in collaboration with other countries, and is committed to fully implementing the Sendai Framework 2015-2030 and incorporating these values into the framework of all future development programs. The Indonesian government is working with regional disaster management agencies, the Indonesian Red Cross Society, non-governmental groups, the United Nations, and international donors to coordinate efforts.

Indonesia believes the best route to improving preparedness and creating long-term solutions for countries all around the world is to establish resilient housing. Given the increase in natural disaster losses in recent decades and the expected increase in the frequency and severity of natural hazards, policymakers must have reliable information about both local natural disaster risks and effective risk mitigation measures and policies. Such information helps identify potentially vulnerable structures that could pose a risk to families. Data is collected to calculate the vulnerability of a particular home or area and effectively create construction plans and viable insurance plans for each home, with an inexpensive retrofit to not put a strain on the budget and overall economy. This new data summarizes the conditions of each home and whether or not further detailing is needed in them. Retrofitting offers a simple and strong process that supports small and medium-sized construction and financial businesses while also providing households with a cost-efficient and practical option to living in risky houses or moving to whole new communities. Along with the implications of resilient housing technology, new technology can be put in place to improve the predictability of natural disasters or at least give people enough time to be alerted and evacuated. Artificial Intelligence (AI) can be used to help collect seismic data to analyze the phenomenon of earthquakes and decipher where the next one is most likely to happen.

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