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## Securing Small Modular Reactor Development in Remote Areas: Case Studies and Cultural Analysis in Indonesia

Indonesia is committed to achieving Net Zero Emissions by 2060, and one of its strategies involves the construction of a nuclear power plant (NPP). In collaboration with the United States, Indonesia plans to commence the construction of a 462 MW facility in 2023. This facility will utilize NuScale Small Modular Reactor (SMR) technology, representing a significant step towards advancing the clean energy transition in the country. Compared to conventional nuclear power plants, the construction of SMRs offers several advantages, notably in terms of flexible land requirements and a smaller footprint. Moreover, SMRs incorporate advanced safety features designed to withstand extreme weather conditions and various seismic events. Importantly, these reactors can be tailored to meet the specific needs of a country's power grid and scaled up as required. One of the primary objectives of deploying SMRs in Indonesia is to ensure widespread access to electricity across the nation. The initial phase of SMR development is planned for West Kalimantan, with the intention of expanding into other remote areas in the future. However, the implementation of SMR projects in remote regions necessitates thorough security assessments. This paper aims to analyze potential security threat scenarios associated with SMR development in remote areas of Indonesia. Through case studies and cultural analysis of Indonesian society, the study seeks to assess the impact of local culture on nuclear security and identify strategies to mitigate potential risks.

### Country OR International Organization

Indonesia

### Email address

alfitri.meliana@brin.go.id

### Confirm that the work is original and has not been published anywhere else

YES

**Author:** Ms MELIANA, Alfitri (National Research and Innovation Agency)

**Presenter:** Ms MELIANA, Alfitri (National Research and Innovation Agency)

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