
NZ Climate Measurement Standards Initiative (CMSI): Seamless Integration for Foreseeable Future

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Abstract

Foreseeable future information systems are essential at global, national, and regional scales for extreme events, such as floods, droughts, storms and wildfires. The potential increase in occurrence and intensity of extreme weather events as a result of climate change, coupled with increasing population in vulnerable areas reinforces the need for foreseeable future information systems. As the effects of climate change and extreme weather become more apparent, the need for improved prediction and forecasting of these events is increasing. This allows for enhanced risk reduction measures to be implemented, as well as providing readiness for emergency responses. Understanding a foreseeable future would enable more informed decision making, allowing users the opportunity to put appropriate prevention in place. As climate-related financial disclosure for insurers approach, the importance of accurate and timely climate data for decision-making increases. At the same time, different climate impacts do not necessarily occur in isolation. Therefore, our disaster and climate action plans must be organised to manage concurrent disaster risk and their compounding impacts. Climate intelligence, combined with hazards assessment, will provide scenario-based risk assessment options for decision-making for various climate risks. Improved understanding of the physical risks relating to climate change will support an impact assessment of the core elements of a recommended climate-related financial disclosure (governance, strategy, risk management, and metrics and targets).

Keywords: climate risk, weather, water and climate data integration, early warning

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