

Application and utility of multi-year to decadal climate forecasts: the Tasmanian climate consortium perspective

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Tasmania, Australia, is forming a consortium of industries, government and social groups who are sensitive to the impacts of climate variability and change. The consortium is moving to understand their climate sensitivities, climate risks and climate information needs on a broad range of timescales. Here we report the outcomes of TasLab Engage, a project focused on engaging industry groups within the Tasmanian consortium. Our engagement particularly aims to elicit the climate information needs of the stakeholders on the annual to decadal timescale. Forecasts on this timescale bridge the gap between seasonal forecasts and climate change projections and are currently being delivered by CSIRO via their Decadal Climate Forecasting Project. Decadal forecasting is a relatively new area globally. To date there has been little work on understanding the types of decisions stakeholders might make on these timescales and how decadal predictions might be incorporated into operations. TasLab Engage contributes to this new research space with an Australian industry perspective. Here we present the outcomes of Tasmanian-based case studies in hydropower generation, wine production, emergency services and Antarctic operations. We identify multi-year lead strategic decisions in each sector, the climate variables these decisions rely on, and an assessment of their skill.