

Statement of Interest – Australia WAS*IS Workshop
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Being formally trained in the physical sciences, I have always been acutely aware of the need for strong and robust science and the use of sound methods that attempt to provide understanding of aspects of the world in which we live. However, as I move further into my career as a physical scientist, I am discovering that the context and relevance of scientific problems is often neglected. Science is often performed without considering the needs of specific user groups to which the information is often the most valuable. I believe this is where approaches, such as those used by WAS*IS, are of great benefit to both the scientific community and community and government groups who utilise this information.

My primary area of interest is climatic extremes and I am currently undertaking Ph.D. studies on this topic. The focus of my study is on both past and future changes to hot and cold temperature extremes as well as floods and droughts. The science behind my Ph.D. thesis could be considered relevant to a number of sectors including agriculture, water resources, health sciences and economic and government policy. I believe all of these sectors could benefit from an approach to the problem of the style that WAS*IS aims to provide. Simply examining the science of the problem may not yield results that could be best applied to any one of these areas. For example, a continent-wide study of changes to climatic extremes may not be appropriate for a farmer who is only concerned with changes occurring within their farm or catchment area. In contrast, a small-scale assessment may not be appropriate for a government policy maker more concerned with understanding changes in a broader context. I believe knowledge and information required by the end user is often also assumed, sometimes incorrectly. Therefore, I believe further involving the end-user in structuring the information to be pertained from a study is of the utmost importance. Consultation with the end user is paramount to provide relevant information, as well as communicating this in a context that will be properly understood.

Studies I wish to pursue in the future mainly involve detecting shifts in the climate system arising from human induced climate change. I also wish to determine how these changes will impact social, environmental and economic sectors. It is obvious to me that it is in these situations, the integration of the physical and social sciences will greatly benefit my work by allowing me to recognise problems relevant to a user group and to communicate these problems in the best way possible. I believe that in the end, science is performed to not only enhance our understanding, but also to provide important information that will help society best cope with issues arising from changing weather and climate, including abrupt changes and extreme events. I believe the establishment of appropriate methods to utilise our science through consultation and communication with end users is of unparalleled importance for any scientist. For this reason I wish to enhance my skills for a multi-disciplinary approach toward my science through an opportunity for inclusion in the Australian WAS*IS Workshop.