A collaborative and national approach for understanding the distribution of weeds in Australia

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Summary Invasive weeds have significant impacts on biodiversity, ecosystem services, social amenity and agricultural industries. However, lack of reliable data is a barrier to quantifying both the distribution of priority weed species and the extent of their impacts. While distribution information is available across the country, an up-to-date, compiled national dataset is not currently available. Further, how distribution data are collected across the country varies in terms of protocol, geographic scale, and temporal frequency.

ABARES is running a project in collaboration with jurisdictions, CSIRO and other partners, to address these fundamental data gaps and challenges to provide a better understanding of weed distributions nationally. Data is being collated from many sources, including formal surveys, control activities, and citizen science programs. The distribution data collated by this project will also inform robust estimation of economic impacts, which allows us to see who benefits from weed management and allocate resources efficiently.

Preliminary results show that the variety of approaches used to collect and store distribution data do not allow for simple comparisons between regions. We are developing modelling approaches to integrate data from diverse sources into national distribution maps. Collaboration through data and information sharing is also essential in creating a nationally consistent dataset, and will enable weed managers to make more effective management decisions. This presentation will cover the opportunities for collaboration and coordination within the weeds community, and identify what is required to build a national understanding of the distributions and impacts of weeds in Australia.

Keywords Distribution, map, modelling