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DEFINITION OF AGRICULTURE PROPERTY

AGRICULTURAL PROPERTY
DEFINITION & INSIGHTS
FROM CONSULTATION

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Executive Summary

Digital integration of real time information for Australian producers presents a massive value uplift for informed and timely decision making on a property. At a fundamental level, enabling digital information to be integrated for producers requires a consistent spatial property database containing accurate boundaries of Australian agriculture producing properties. Currently, no complete and maintained dataset exists in Australia. In addition, no unified definition of agricultural property exists which would act as bounds within which to create this dataset.

This Agricultural Property Definition report analyses the findings from stakeholder consultation in the form of workshops, phone interviews and an online survey. Insights from the analysis have enabled the proposal of a realistic definition of agriculture property for Australia. The proposed definition is supported by description of the terminology used within it (and closely associated with it) and statement of a clear purpose and value proposition for the definition and dataset.

Driver and Value Proposition

All methods of the stakeholder consultation conducted (workshops, phone interviews and online survey) highlighted biosecurity as the key use case for a national agricultural property definition, data model and dataset. These results have established biosecurity as the key driver for this project. It has the broadest set of requirements of any application hence necessitates a very broad, inclusive definition of agricultural property. For the purposes of biosecurity, the size and scale of a farming operation are not important, rather the locations of all crops and even single livestock are important for traceability and the management of pests and diseases. It should be noted however that biosecurity is a very significant issue that this definition and dataset alone will not solve. Such a broad driver introduces the risk that requirements become too broad and complex and inhibit the development of the dataset. Hence, sub-classes have been adopted for the definition which are associated with stages of development along with levels of completion and accuracy.

A nationally consistent definition of agricultural property and an associated data model will improve efficiency, minimise risk, and increase profitability for countless agricultural use cases by creating an accessible, authoritative source of current, consistent and complete agricultural property data. Agricultural property data is a foundation dataset enabling many applications. Ultimately, the industry benefits are economic, but this is comprised of process and system improvements.

KEY DRIVER

Biosecurity

VALUE PROPOSITION

A nationally consistent definition of agricultural property and an associated data model will improve efficiency, minimise risk, and increase profitability for countless agricultural use cases by creating an accessible, authoritative source of current, consistent and complete agricultural property data.

Proposed Definition of Agricultural Property

The overarching, broad definition proposed for agricultural property is:

An agricultural property is a land parcel, or a collection of land parcels, with common ownership and an agricultural usage.

As biosecurity is the key driver of the definition of agricultural property in this report, the term "agricultural usage" is adopted within the overarching definition instead of "primary production". For this purpose, agricultural usage is broader than primary production and encompasses all existing and emerging sectors of agriculture, businesses and hobbies, with no minimum property size or value output, including for example hobby farms, peri-urban and urban properties with single livestock, fruit trees and vegetable gardens, farmers markets and travelling stock routes etc. Common agricultural usage means operating as a single farm, although areas within a property may have varied uses such as grazing and crop rotation. The agricultural usage can also change over time.

With biosecurity as the key driver, the definition of agricultural usage must be inclusive of all sectors of agriculture as well as both agricultural businesses and hobbies. However, as capturing information on backyard vegetable patches and single livestock kept as pets will be extremely difficult (if not impossible) unless mandated (e.g. through regulation or legislation), limits will still be required for both livestock and crops. It is suggested the limits be achieved with the three sub-classes

'Primary production', 'Moderate/Hobby Agricultural Usage' and 'Casual/Urban Agricultural Usage' highlighted below. These classes will have different levels of accuracy and completion for the initial minimum viable data product. However, without key regulation and legislation such as the PIC reform, the necessary inputs to enable this dataset won't be available. Hence the dataset would likely be incomplete, expensive to maintain and consequently unsuccessful over the longer term.

OVERARCHING DEFINITION

An agricultural property is a land parcel, or a collection of land parcels, with common ownership and an agricultural usage.

DEFINITION SUB-CLASSES

- Class 1 – Primary production
- Class 2 – Moderate/Hobby Agricultural Usage
- Class 3 – Casual/Urban Agricultural Usage

Stakeholder Consultation Insights

An initial expression of interest (EOI) stakeholder communication was sent out to a curated database of 657 contacts. 86 responses were received and subsequently, 23 phone interviews were conducted, three workshops were held with one each in Perth, Canberra and Brisbane, and the online use case survey was released. The interviews, workshops and use case survey responses provided insights into stakeholder's experiences with and use cases for agricultural property definitions and data, the potential benefits of a nationally consistent definition and dataset, and stakeholders' requirements for the new agricultural property definition and data model. These insights facilitated the development of the proposed definition of agriculture property along with the supporting terminology and driver. The key insights from interviews, workshops and survey responses are summarised below.

WORKSHOP KEY INSIGHTS

- Broad, inclusive definition that can be filtered down to the detail
- Clear descriptions of terminology, driver, value proposition and terms of use
- Build the dataset based on the benefit to those required to input data rather than to users of the data

USE CASE KEY INSIGHTS

- The principal use case is Biosecurity and Compliance
- Grazing, Cropping and Intensive Animal Production are the main agricultural activity types
 - The primary basis for current definitions and data are the Cadastre and PIC
- The main frustrations are the inefficiency of accessing, collating and using data from different sources, especially if non-spatial and/or from different jurisdictions
 - The key benefits will be increased efficiency and enablement of many applications

DEFINITION KEY INSIGHTS

- Broad definition, inclusive of all agricultural activity types, kept as simple as possible
- Keep it simple yet comprehensive; an overarching definition with sub-classes
- Important complications to be aware of are privacy, uptake and maintenance

DATA MODEL KEY INSIGHTS

- Data model should align with the cadastre and the PIC reform
- Property boundaries are key, parcel and paddock boundaries would also be useful to a lot of stakeholders
- Key attributes should be part of the model, which should also consider compatibility with existing datasets
 - Data history is important but not critical to most applications, currency is more important
 - Data contributors should be minimised to reduce complexity in creation and maintenance
 - Access levels are essential, with a level of open data recommended
 - As much metadata as possible should be included, adopting an existing standard
 - MVP that can be accurately created and maintained, leverage existing data