

Sustainable Agriculture:

The Distribution of Biodynamics and Organics in Australia

John Paull¹ & Benjamin Hennig²

¹ University of Tasmania, Hobart, Tasmania, Australia, j.paull@utas.edu.au

² University of Iceland, Reykjavík, Iceland

13th Seminar on Science & Technology 2020

Environmental Development and Sustainability Beyond 2020



Biodynamic
Agriculture



Organic
Agriculture

Sustainable Agriculture

The 2 leading codified forms of Sustainable Agriculture

No
synthetic fertilisers

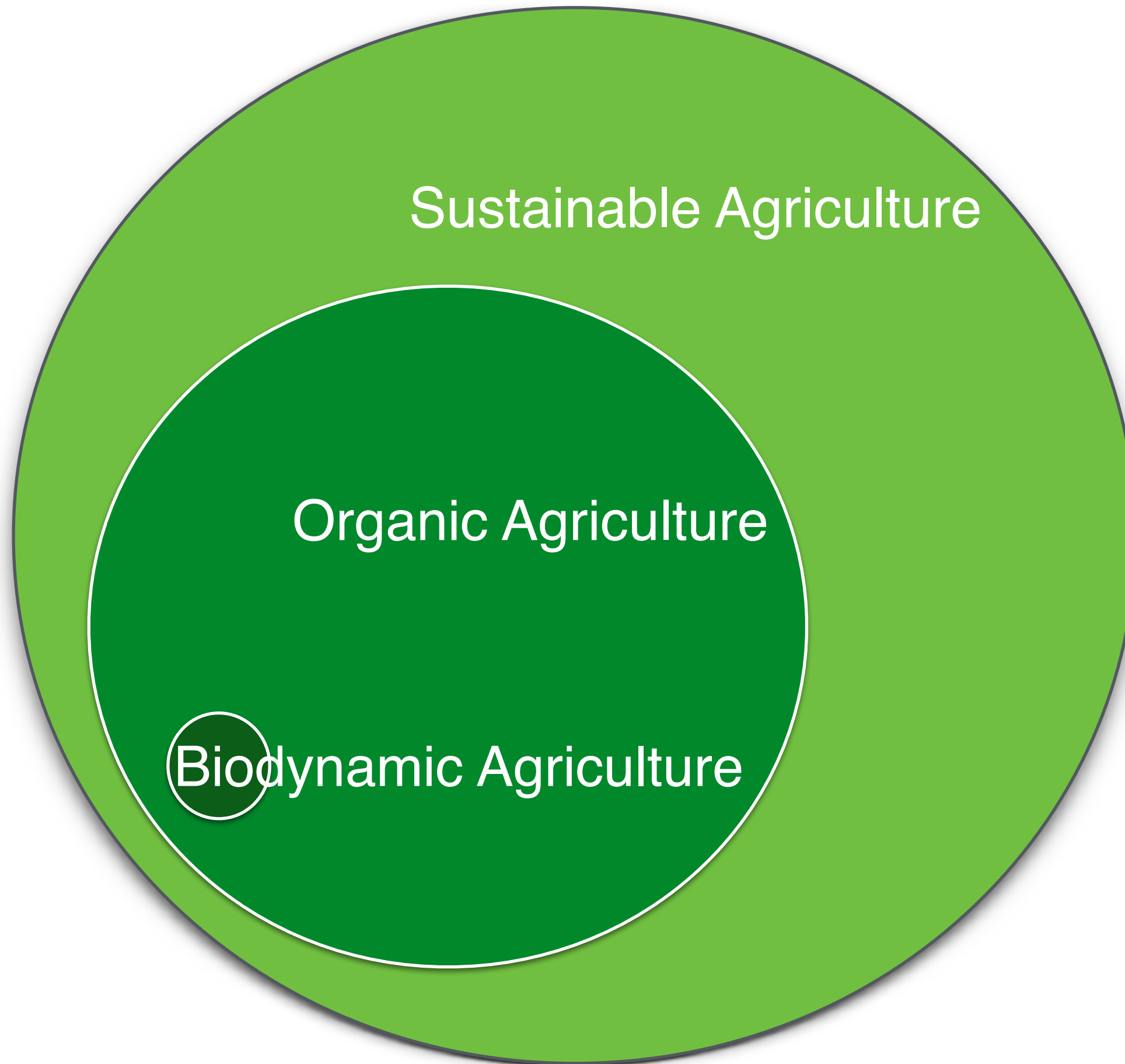
No
synthetic pesticides

Sustainable?

No
GMOs

No
irradiation

No
nanotechnology





Better for me



Better for family

Consumers buy Organic?



Better for environment



Better for animals

Haber-Bosch Process

Dr Fritz Haber

Fixing nitrogen from the atmosphere

Germany, 1913

The foundation for cheap & abundant explosives

The foundation for cheap & abundant synthetic fertiliser

Biodynamic

Dr Rudolf Steiner

“The farm is an organism”

Koberwitz, 1924

The genesis for differentiating Sustainable Agriculture

Steiner, 1924, Paull, 2020b

Organic

“Chemical versus organic farming”

Lord Northbourne

‘Look to the Land’, 1940

A manifesto of Organics

To Australia

Ernesto Genoni

Experimental Circle, 1928

“Demeter Farm”

Australia's first Biodynamic & Organic farmer





“War on War
Guerra alla Guerra”
Ernesto Genoni

World

Biodynamics:

- 250 thousand certified hectares
- 55 Countries

Organics:

- 71 million certified hectares
- 186 Countries

Australia

Biodynamics:

- 49,797 certified hectares

Organics:

- 35,645,037 certified hectares

Malaysia

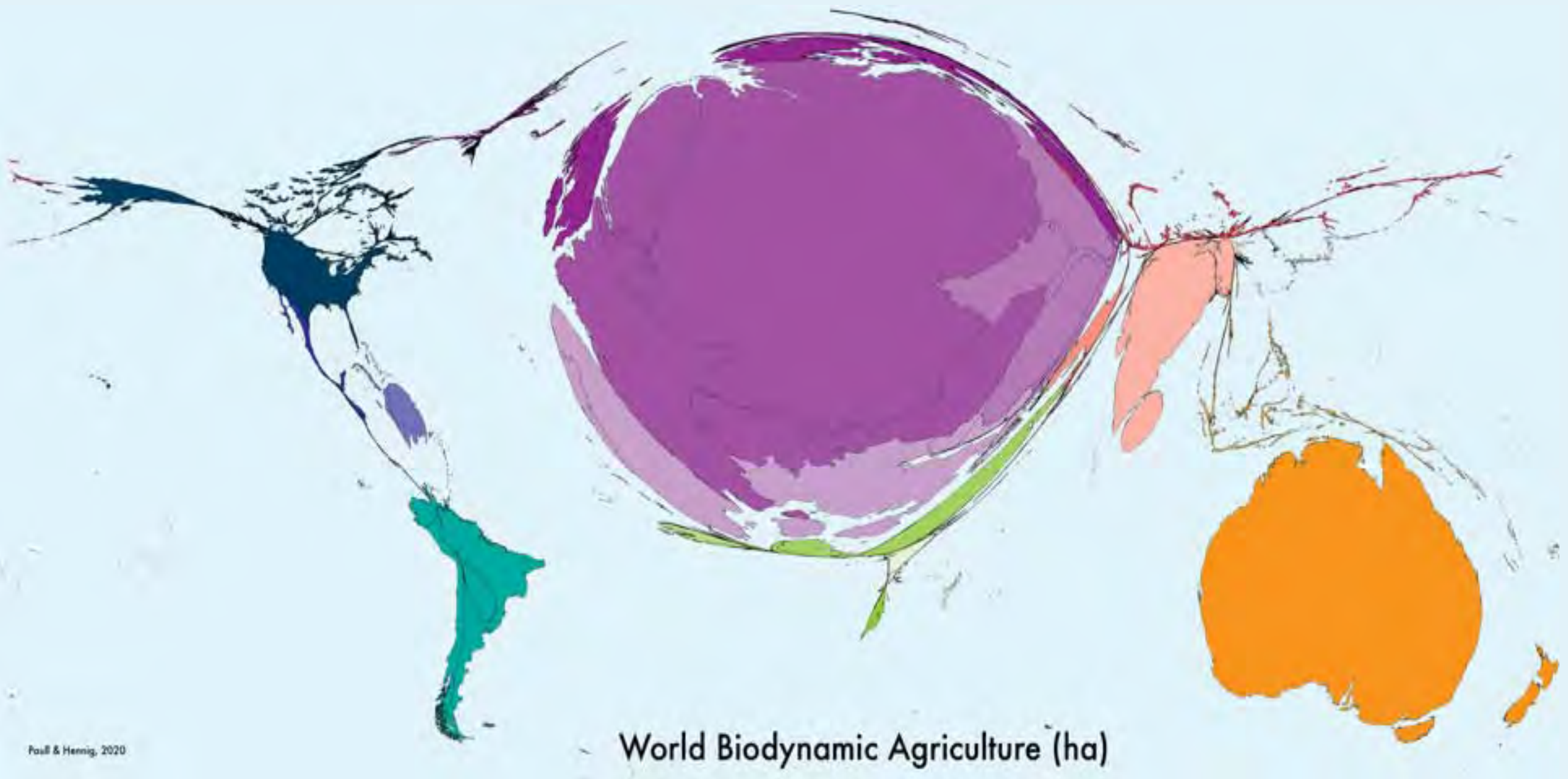
Biodynamics:

- 0 certified hectares

Organics:

- 9,576 certified hectares

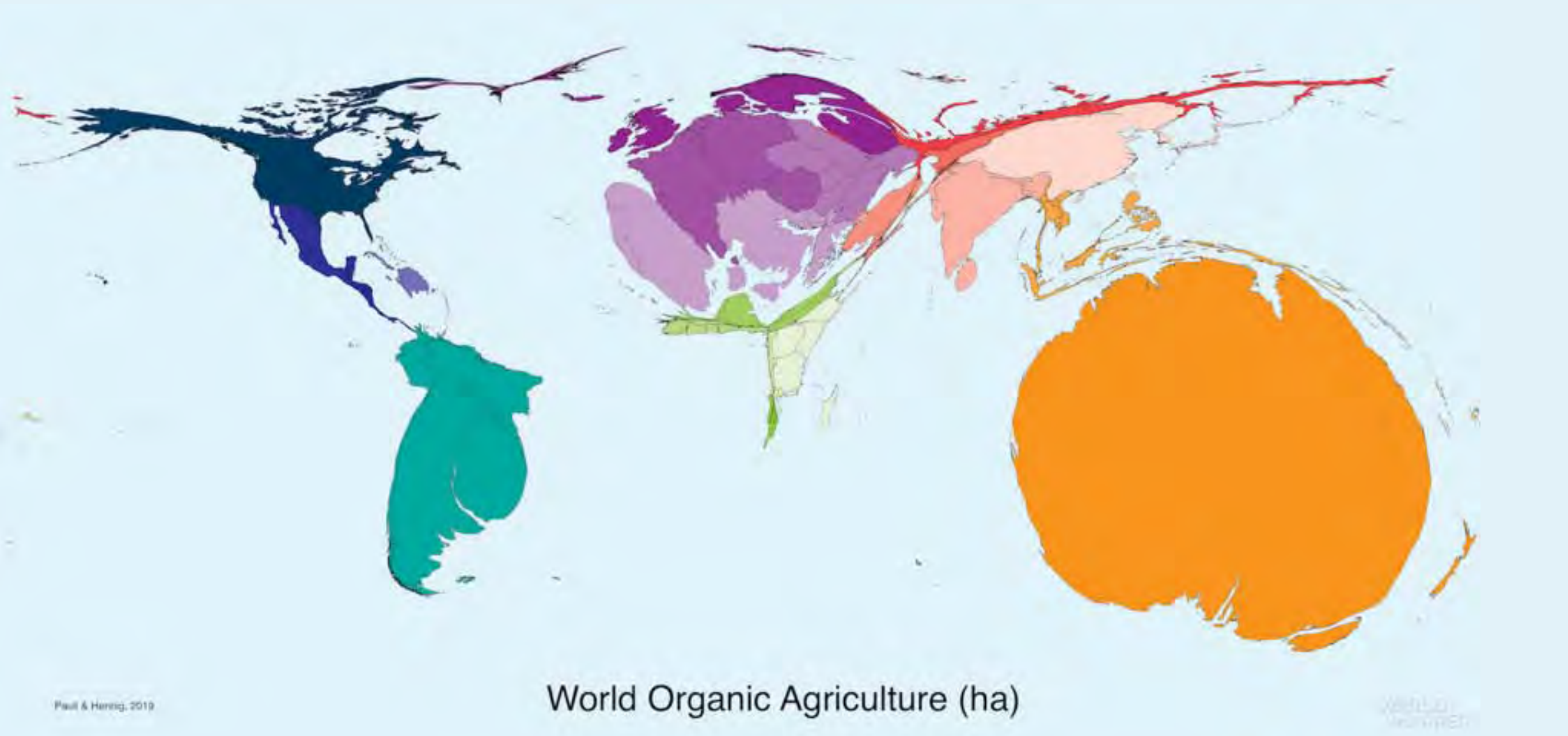
World Biodynamics



No 1. Germany = 34% of World total

No 2. Australia = 20% of World total

World Organics

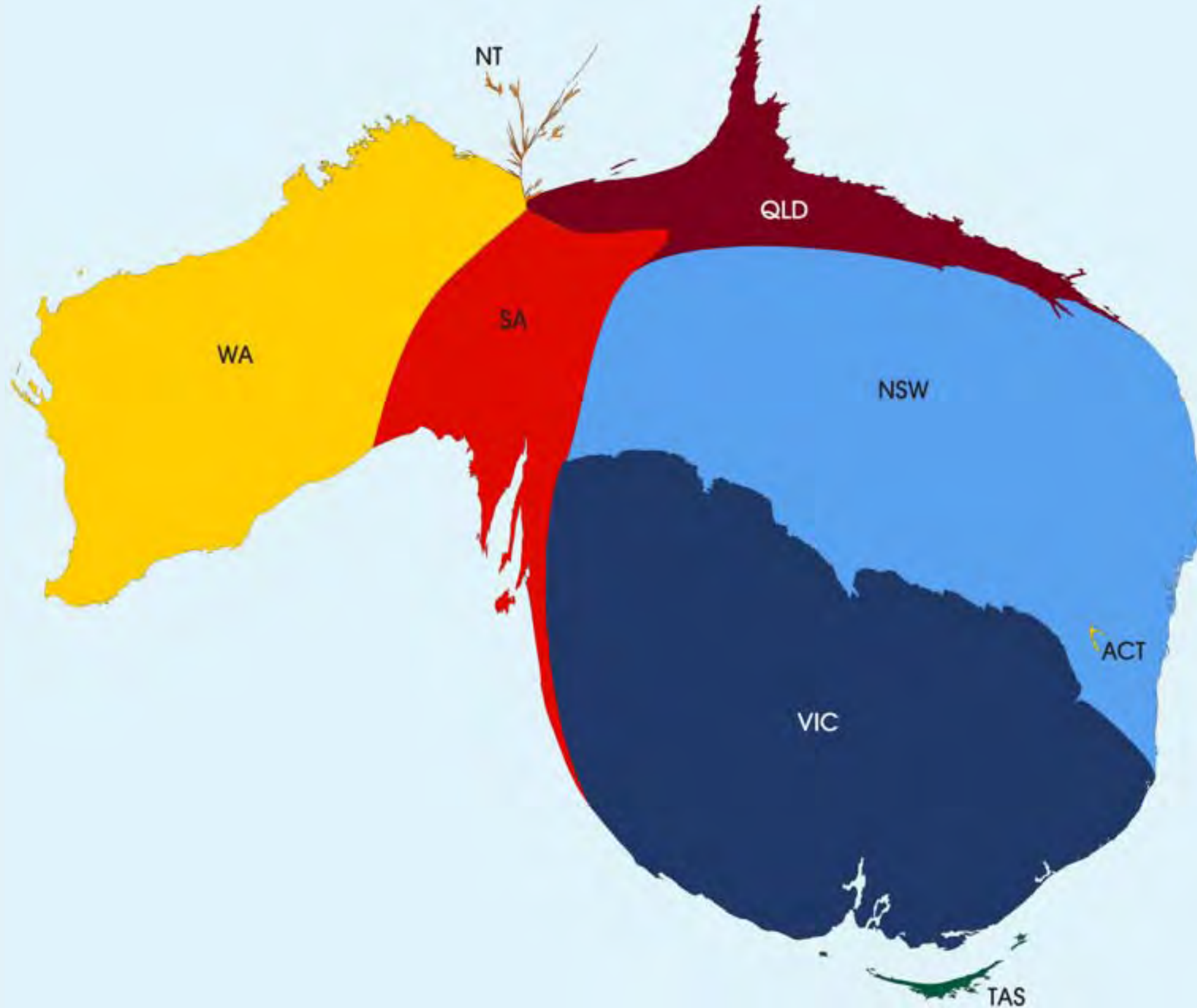


No 1. Australia = 50% of World total

The Distribution of BD & Organics across Australian States

| State/Territory | Biodynamic (hectares) | Organic (hectares) |
|------------------------------------|-----------------------|--------------------|
| Australian Capital Territory (ACT) | 0 | 2766 |
| New South Wales (NSW) | 15,209 | 3,601,789 |
| Northern Territory (NT) | 0 | 2,153,079 |
| Queensland (QLD) | 3081 | 10,667,052 |
| South Australia (SA) | 4164 | 14,102,866 |
| Tasmania (TAS) | 61 | 4,769 |
| Victoria (VIC) | 17,087 | 413,925 |
| Western Australia (WA) | 10,195 | 4,698,791 |
| Total | 49,797 | 35,645,037 |

Biodynamic Agriculture in Australia (hectares)



Organic Agriculture in Australia (hectares)



Paull & Hennig, 2018

Paull & Hennig, 2018

Growing fast!

Doubled in
10 years

No. 2 in World

Conclusions...

Australia is a World leader in Biodynamics

Australia is a World leader on Organics

No. 1 in the World

The distribution across
Australian states is uneven

Conclusions...

World Biodynamics - 251,842 certified hectares

World Organics - 71,514,583 certified hectares

Growing fast!

World Organics doubled in 10 years

Growing fast!

Growth x6 in 10 years

Conclusions...

Malaysia: 9,576 certified Organic hectares

Malaysia: 0 certified Biodynamic hectares

Opportunity

Thank you ...

Questions

Dr John Paull

j.paull@utas.edu.au

john.paull@mail.com



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Abstract:

Australia is a global leader in sustainable agriculture. Australia accounts for 20% of the world's certified biodynamic agriculture hectares (viz. 49,797 hectares; 55 countries account for a global total of 251,842 certified biodynamic hectares). Australia accounts for 50% of the world's certified organic agriculture hectares (viz. 35,645,037 hectares; 186 countries account for a global total of 71,514,583 certified organic hectares). This paper presents a map of the geographic distribution of biodynamic agriculture in Australia, which is the first accounting and analysis of biodynamics data in Australia. The biodynamic distribution across the states and territories of Australia is compared to the distribution of organic agriculture. Biodynamic agriculture is the 'original' organic agriculture and sustainable agriculture, and it dates from 1924. Organic agriculture has grown out of the biodynamics movement and the term 'organic farming' dates from 1940. World maps of the global distribution of organics and biodynamics reveal Australia's leadership in sustainable agriculture.



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