



THE CRAWFORD FUND
For a Food Secure World

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MEDIA RELEASE

Media are welcome to attend

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BIG DATA SHOWS SIZE DOES MATTER: SMALL FARMS VITAL FOR FOOD AND NUTRITION SECURITY

Small and medium farms around the world are our food supply's nutrient powerhouses, according to researchers in a global project which used big data to map farm sizes and types, and their role in food and nutrition security.

This will be a key message by Dr Herrero, Chief Research Scientist for CSIRO's Agriculture Flagship, lead author of a report that used big data analytics to focus on farm size and food and nutrition security. He will be speaking at *'Transforming Lives and Livelihoods: The Digital Revolution in Agriculture'*, the 2017 Crawford Fund annual conference in Canberra on 08 August at Parliament House. It will be opened by The Hon Barnaby Joyce, Deputy Prime Minister.

"While large-scale plantation agriculture is expanding, small farms should be protected because they produce more diverse and nutritious food than large farms. This is difficult with the lack of land title and land rights for so many small farm owners," said Dr Herrero.

"Farms smaller than 50 hectares produce more than half of the food globally, and farms of less than 20 hectares provide more than 80 per cent of essential nutrients in Sub-Saharan Africa, Southeast Asia, South Asia, China, and the rest of East Asia Pacific," said Dr Herrero.

"In our efforts to increase yields, we cannot ignore diversity and sources of key essential nutrients as part of a sustainable food system, and this means we must protect and support smaller farming enterprises," said Dr Herrero.

"Australia, like North and South America, is dominated by farms over 50 hectares producing 75-100 per cent of all cereal, livestock and fruit in those regions."

Dr Herrero explained that by analysing global datasets to estimate the production of 41 major crops, seven livestock products and 14 fish groups, researchers were able to map how much calcium, folate, iron, protein, vitamin A, vitamin B12 and zinc is produced on farms of different sizes and how much each farm type contributed to the production of different agricultural commodities and associated nutrients.

"Globally, an estimated 51-77 per cent of major food groups, including cereals, livestock, fruits, pulses, roots and tubers and vegetable, comes from farms smaller than 50 hectares, and these small and medium farms had greater agricultural diversity, with the majority of global micronutrients (53-81 per cent) and protein (57 per cent) produced in more diverse agricultural landscapes," said Dr Herrero.