

AGRICULTURE AND LAND SECTORAL PLAN
SUBMISSION FROM “DOCTORS FOR THE ENVIRONMENT AUSTRALIA”
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Agriculture at present is heavily fossil fuel dependent, and therefore unsustainable. Producing one calorie of food in our current system, often requires up to six or more calories of fossil oil or gas for tilling, seeding, spreading, harvest, processing, refrigeration, packaging, and distribution. The long-term goal should be to reverse this situation. Reducing dependence on fossil fuels, while reversing soil degradation, water contamination, water over-extraction, reckless land and forestry clearing, and encroachment by the coal and gas industry, would lead to reduced emissions and a better future for everyone. The opportunities are all around us.

WHAT ARE SOME PRIORITIES FOR AGRICULTURE IN AUSTRALIA

-increase investment in education and scientific research. The current low level is alarming. Only 0.49 per cent of Australia's GDP is spent on scientific research. Universities Australia chief executive Catriona Jackson said the decline in spending was “seriously jeopardising our ability to advance as a nation”. She said that “a key driver of this is falling government spending on R&D, which has slumped to its lowest-ever share of GDP at 0.49 per cent in 2022-23”. In the past it was at least 2% GDP, and in line with most other OECD nations.

-reduce the amount of land dedicated to cattle and sheep grazing by encouraging an overall reduction in red meat consumption at the national level. Ruminant grazing covers 50% of our landmass but contributes only a small fraction of total population protein intake. It is responsible for 25% of human methane emissions and is a destructive and highly inefficient use of our precious land and water. Australians are amongst the world's highest consumers of red meat.

The land freed from ruminant grazing can then be left to revegetate and rebuild soil carbon stores. Farmers can use the carbon credits to generate a reliable annual income.

- reduce use of broad acre NPK fertilisers. Nitrogen fertilisers alone contribute 2% to overall global greenhouse gas emissions, and in Australia, 80% is imported from overseas. During manufacture, each tonne of synthetic nitrogen fertiliser generates around 2 tonnes of CO₂. Transitioning to locally produced "green" ammonia from renewably generated electricity would reduce agricultural GHG emissions while reducing Australia's reliance on fossil fuels and overseas manufacturing. Companies like Jupiter Ionics (Monash University) are already looking at green ammonia in Australia.

- transition to "Agroecological " farming models, which build soil carbon and reduce GHG emissions, and require far fewer expensive inputs such as fertilisers, herbicides, and pesticides. They may be a little less productive per hectare, but the farm profit margin is significantly increased.

- our long food chains are vulnerable, inefficient, and heavily reliant on imported fossil fuels. Encourage local "food hubs" which favour food grown within each region as far as possible.

- encourage and subsidise local community kitchen gardens and organic waste recycling programs.

- integrate food production into urban and suburban residential areas. Bring food production closer to where it is being consumed, and re-useable organic waste is being generated.

- start teaching gardening, food production and preparation to children at kindergarten and primary school. Give children the confidence, skills, and the knowledge to get involved with healthy food from a young age.

--The climate is heating up. We need to urgently rethink what we are growing and how and where we are growing it. For example, cotton crops in the Murray Darling basin consume vast amounts of water and are inefficient compared to innovative fibre crops such as native grasses, hemp and bamboo.

-immediately reduce or discontinue existing gas and coal extraction, including on productive rural land, in water catchments such as the Artesian, Gunnadah and Beetaloo basins, and on undeveloped and heritage rural landscapes.

SOME EXAMPLES OF INNOVATIVE SOLUTIONS

“Jupiter Ionics” (Monash University) produces modular units for green ammonia fertiliser production.

“Gelion” (Sydney University) produces 20kw non-flammable batteries suitable stand-alone rural energy.

“Agroecology”. This growing method aims at reducing off farm synthetic inputs, such as fertilisers, pesticides, and herbicides, while increasing soil carbon and fertility, and increasing soil water retention. Production intensity is lower, but input costs are significantly reduced, leading to better and more sustainable profit margins for primary producers. “Regenerative Agriculture”, and “Permaculture”, have similar goals and advantages.

Western Australia's “Stand-alone Power Systems” (SPS) for remote and rural locations. These generate green electricity, via solar and wind, reducing reliance on large, centralised fossil fuel electricity generation and its long, vulnerable, and inefficient power line networks. SPSs have been shown to continue operating during bushfires and extreme weather events and are cheaper to operate and to maintain.

“Local Food Hubs”, such as The Canberra Regional Food Collective, and the Open Food Network, encourage and develop local food production and consumption, increasing local employment and food resiliency.

“FutureFeed” and others, are researching algal feed additives to reduce ruminant methane emissions.

THE ROLE OF GOVERNMENT

Food, forestry and fibre production are multi-faceted operations spanning multiple portfolios, and overlapping Commonwealth, State and Regional jurisdictions. This leads to thinking in “silos”, without a broader perspective on the wider picture, including climate, soils, health implications of what foods we are promoting, and the well-being and viability of farming communities. There is also serious undue influence on decision makers from multiple interest groups including retail associations, soft drink producers, meat producers, the logging industry, and of course, the fossil fuel industry. An overarching national body with significant legislative power, operating for the benefit of all Australians (not just lobbyists), is long overdue.

Policies and programs need to be enduring and stable, and not subject to needless change every few years as new administrations come and go.

Government must heed the science, and immediately wind down and cease fossil fuel extraction, while banning any new fossil fuel mining or gas extractive operations. Renewables are the proven and ultimately cheaper and more democratic way to produce power in the long term. The science and economics is very clear that this is the way forward.

Government should reintroduce a serious price on carbon. This would send a strong signal to the market, make us more globally competitive, and expedite the transition to a low carbon, sustainable future.

Governments must continue to provide high quality weather and climate forecasting, despite physical threats and political attacks on the Bureau of Meteorology in Australia, as well as NOAA and even NASA in the USA, from various groups disputing the science of climate change.

Government must also continue to support rural communities via secure, durable, and affordable infrastructure, including transport, and telecommunications, and access to first world health and education. Favouring rail over road transport would reduce emissions while improving safety and traffic flow.

END NOTE

Thank you for the opportunity to have input into the Australian Government "Agriculture and Land Sectoral Plan". It is encouraging that the current Federal Government is seeking help and ideas to deal with the multiple threats we are facing. We hope that positive effective change is underway, and not subject to needless alteration under subsequent administrations. Doctors for the Environment Australia is one of several health groups including "Climate and Health Alliance" (www.caha.org) and the "Planetary Health Alliance" (www.planetaryhealthalliance.org) deeply concerned about the current threats to human health from a deteriorating planetary environment. Our motto: "Healthy Planet Healthy People" is self-explanatory.

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