

From: [Celia Karp](#)
To: [Committee, Agriculture \(REPS\)](#)
Subject: Re: Submission on FOOD SECURITY
Date: Wednesday, 30 November 2022 9:09:17 AM

I believe Food Security to be effective needs to incorporate water security; they are interlinked.

I stress this submission is taken from the prospective of a landowner whose farm is contained within Petroleum Lease 198 and 238 for Coal Seam Gas extraction by joint venture partners of Shell/PetroChina and Arrow Energy. Our farm is dryland grain production. We do not irrigate.

I fully support the long overdue development of a Policy/ies which will contribute significantly to the food security of Australia, which will be exacerbated by climate change.

I will outline the issues in dot point form:

- Currently the important grain and cotton industry on the Darling Downs is under threat from the Surat Gas Project. This region is designated as Priority Agricultural Areas (PAA'S) under the Queensland Regional Planning Interests Act 2014.

- The Darling Downs region is critical for the health and economic security of agriculture and thus food production in Australia.

This region also forms part of the headwaters/catchment area of the Murray Darling Basin in itself a significant contributor to Australia's economy which encompasses agriculture, thus food and water security all under threat from climate change. (See below highlighted). In other words Australia will not have food security without strong policies protecting and conserving our precious agricultural lands and aquifers.

The Murray Darling Basin attracts visitors from around the world, with **tourism earning around \$11 billion each year**. Around 40% of Australia's agricultural produce comes from the Basin, including 100% of our rice, 74% of our grapes and 30% of our dairy.

- These aquifers in the Great Artesian Basin, which include the Surat Basin, are under threat from a rampaging coal seam gas industry, governed by weak and ineffective State and Federal legislation which appear to be powerless in the face of this gas onslaught!

- Water extraction figures relating to Surat Gas Project. Taken from Waterlines Report Australian Government National Water Commission 2011.

A single coal seam gas well in the Surat Basin can extract between (0.4ML) of water and (0.8ML) of water per day over a period of six months to a few years during initial phase of depressurisation the coal seam aquifer. Once the coal has been de-watered and de-pressurised, allowing gas to flow from the coal seam into extraction pipes around (0.1ML) of water is still required to be extracted from coal seam per day. In other words water extraction is required for the life of the well.

It is projected by 2035, there could be as many as 21,000 production wells within the Surat Cumulative Management Area.

- These water extraction amounts are cumulatively significant which originally would be expected to be retained by the Condamine Alluvium and which also add to flows in the Murray Darling Basin. This is an added risk to agriculture when combined with climate change, jeopardising food and water security in Australia.

As part of developing this policy/ies:

- Focus should be directed to encouraging more regional/local co-operatives between neighbouring properties to enhance cost sharing with the goal to reduce costs, share information and increase profits by cutting out the middle man. An advisory body could be set up which farmers could access for advice.
- Labour migration and freeing up the existing visa system, is another important component of introducing new ideas and innovation into agriculture. Some Middle Eastern countries have excellent farming skills and are hard-working. One example being Syria.
- Protecting soils and overall ecosystems from climate change would further enhance food security. For example the Vertisol soils of the Liverpool Plains and the Darling Downs areas, which include the rich productive black soil floodplains, have water-retentive qualities that enables a farmer to economically produce a crop in times of drought.
- These black Vertisol soils should be protected to safeguard food production/agriculture through the introduction of robust legislation at both State and Federal level. These black Vertisol soils should be classed as having environmental value whose impact by extractive industry such as coal and gas, would irreparably damage their productive values. Legislative protection should be incorporated into the Federal EPBC ACT. These valuable soils should also be recognised in State regional plans at the local level. For example the Toowoomba Regional Council in Queensland.
- Without adequate and robust State and Federal legislation, food and water security in productive agricultural areas will be vulnerable to the resources industry! Climate change will exacerbate this situation.
- Agronomy as a career should be encouraged in the high school years as well as TAFE and the establishment of agricultural colleges in regionally significant areas that already have an established and successful Agricultural presence.

I commend the Federal Government in seeking to formulate a strong and workable policy on food security which addresses climate change. Surely it must include water security; they are interlinked. It will necessitate Political Will to bring this goal to fruition.

Celia Karp,

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