



**Climate submission from a ecological farm and forestry perspective.**

Submitted? Y N

To whom it may concern,

Below I have given an account of some of the key Climate affecting areas that need to be addressed urgently if there is any chance that WA will survive the oncoming collapse scenarios or to lightly put it mitigate against the coming storms and fires.

**Fire:**

If nothing is done about the mosaic burning schedule, and the alternative that Dr Philip Zylstra proposed at Prescribed Buring Conference this August (see [http://www.pbc2019.com.au/abstracts/Phil\\_Zylstra\\_presentation.pdf](http://www.pbc2019.com.au/abstracts/Phil_Zylstra_presentation.pdf)) The preminant researcher on prescribed buring and canopy burns, is currently conducting research in the South West starting with the Tingle forests. However his research already shows conclusively that forests being not burnt after 20 years drop from a 7% chance of natural ignition, to a 0% chance of not being at risk of natural fires, particularly after 50 years, due to the recovery of the middle story and no understory build up of organic dry carbon matter. So if we want to reduce the risk of not burning all of our State Forests, which are the largest sequestors of carbon in the atmosphere, then we must halt all mosaic prescribed burns and reduce the risk of forest fires, and regional fire risks to rural and some outer suburban areas. As other researchers have already presented that there is no macro or micro mosaics left for prescribed burnings as DFES has already completed over the last 20 years most of all of the forests have been burnt. However the alternative to do nothing and allow for the protection only of the farm, forests, regional towns and urban areas may be of more use to protect these areas rather than force more forest fires by using out dated and irrelevant non climate change mitigating strategies.

**Water:**

The decrease in rainfall as previously mentioned, will mean that Perth's water supply's at the Dam's such as Mundaring Weir which is already well below half full, and is at one of it's lowest points in history according to Water Corporations data, indicates that the water security of the region of both Perth and all satelite regions that require or depend on the Perth central urbanised industry and economy, means that building a desalination plant has and is still in progress, however research by Dr Josh Byrne, in his PhD paper and other research papers found here (<https://research.curtin.edu.au/supervisor/dr-joshua-byrne-2/>) discusses the potential for subsidising water saving devices in all homes to reduce water usage by 70% to 90% in each home, thus allowing for what could be the same process as what the State Government did with the solar rebates, allowing for individuals in their own home to retro-fit (See, David Holmgren, Retro-Suburbia) at less cost that to subsidise large scale infrastructure such as desalination plants, that already have their own large scale ecological problems in the adjoining oceans. Comparitively compared to centralised water security systems, decentralised water security in each home, is by nature more safe, secure and resilient to catastrophy, I.e, blackouts, 100 years storms and cyclones, and floods, all which play havoc on centralised distributed infrastructure.

## **Food:**

### **South West:**

Food security is a major concern due to Anthropomorphic Climate Change. Food systems already are set to a severe risk of two days or weeks of food in supermarkets. An highly dense urban population, that relies on vehicles and fuel to reach their supermarket, and a trucking system that relies on distributing food to these systems, are at risk of collapse in emergency scenarios because there is no reliable local food region. There are market gardens in Wanneroo and Spearwood, and in some areas between Mandurah and Harvey, however these market gardens run on 70% irrigation from bores drawing from the Perth Basin. The largest underground aquifer, along with the Yarragidee aquifer, are slowly being depleted due to the water issue not being dealt with properly. However the South West Food region, may as previously mentioned is at risk of a severe decrease in rainfall. However using regenerative farming practices, can improve soil water holding capacity significantly and mitigate the decreased rainfall over the next 100 years. Regenerative farming, Permaculture, and Sustainable agriculture are good practices that have dealt with the driest continents in the world including having come from Australia's context because of it being the driest continent in the world. These adapted practices can and do provide all of the solutions easily to deal with all of the food security risks that are relevant to the future caused by climate change. Unfortunately the SFIS (Southern Forest Irrigation Scheme) that is privatising water in the Southern Forest Food region will force family farmers to sell up their property to large industrialists and corporations who will enforce industrial systems, that again are centralised, and not resilient due to not knowing the local social, cultural or environmental conditions. In particular they will in practise create further worsening conditions due to economising and the deregulation of their industries for further profit. However if the Donnelly Dam did not get approved small holder farmers will be more productive, resilient and have significant water security to provide food to a City as isolated as Perth through shorter transport chains.

### **Wheatbelt:**

The wheatbelt that provides surplus grain as trade incentives on a IMF, World Bank and WTO regional trade agreements internationally due to aid for votes at these levels of agreements, along with trade for other food and cash crops that Australia imports, the security of the wheatbelt, may or may not be the key to land regeneration on a mass scale. Farmers who can be transitioned to a semi tree, alley cropping, perennial grazing (see research by Dr Dean Revell from the CSIRO, <http://www.revellscience.com.au/revell-science--writing.html>) that doesn't rely on reliable annual rains, with some support of wind breaks, shading of crops from the hot winds and sun, also to decrease the height of stratified water tables rising creating salinity. Tree systems are well known to hold soil together and reduce erosion, which is the largest cause of replacement fertilising due to the mineral loss of topsoil each season after cropping and harvesting.

As already mentioned, solutions exist however it is political inaction and education that is stopping farmers from re-building the value of their land for future social and environmental security.

### **Forestry:**

Farm forestry and mismanagement of the South West Forests by FPC are two opposites that can join forces to create a better managed world class forestry system. The timber industry can provide

renewable resources forever, if the regeneration of farmlands through agro-forestry land regeneration and even if conducted on a large scale throughout the south west while stopping completely clearfelling of all of the remaining native forests in the south west, can increase cloud cover and precipitation as has already occurred in Borneo, by Sir Willy Smits after regenerating large scale land areas with the help of local farmers. The current research and plan being implemented in its early stages by Forests for Life (see [Forestsforlife.org.au](http://Forestsforlife.org.au)) has already researched the viability of native tree species and timber milling locations that can distribute timber from forest farms (agro-forestry) to processing facilities for a WA market, that requires significantly more timber than what is being currently produced through the state government managed FPC industry.

## **Energy:**

Timber is a fundamental element that provides energy, it is currently being used by the Alumina refinery in a woodchipped form. However I segway to how energy can be sustainably produced for Western Australia. Over a decade ago there was significant research put into renewable energy REN (renewable energy now) and other peak think tanks, there are now dozens if not countless more renewable energy plans available. However if inaction occurs, we will remain in a climate change emergency situation as the state government has already suggested with the demand of public submissions.

Kind regards,

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