Food Security - Ireland and the World

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What we'll cover

Ireland is quite food secure - for now.

We take away from the food security of the world with our resource intensity

This is all the more serious with war and other crises

We are very exposed on feeds and fertilizers

N derogation = lynchpin to our expansionism

What we can do to reduce this exposure (via CAP and other routes - cooperation projects; organics; mixed farming; horticulture groups, fruit;)

Learning from places trying to live within boundaries (e.g. Cloughjordan)

Ireland scores well globally on Food Security

Global ranking	Country	Overall score	Affordability	Availability	Quality and Safety	Natural Resources and Resilence
1st	Ireland	84.0	92.9	75.1	94.0	74.1
2nd	Austria	81.3	90.5	75.2	91.2	65.7
3rd	United Kingdom	81.0	91.1	72.7	89.6	69.0
4th	Finland	80.9	91.7	66.2	93.8	75.1
5th	Switzerland	80.4	89.0	76.9	86.4	65.1
6th	Netherlands	79.9	89.7	73.7	92.2	61.2
7th	Canada	79.8	87.6	77.7	94.5	54.4
8th	Japan	79.3	90.0	75.7	83.4	61.9
=9th	France	79.1	90.3	67.0	92.1	67.5
=9th	United States	79.1	88.7	71.0	94.3	61.3
11th	Germany	78.7	90.1	69.3	87.8	66.0
12th	Israel	78.0	90.6	75.2	90.7	47.6
13th	Sweden	77.9	91.0	62.7	92.3	67.3
14th	Czech Republic	77.8	88.3	69.1	81.4	70.9
15th	Singapore	77.4	87.9	82.9	79.1	46.7

Ireland has scored well globally on Food Security

Global a	Country \$	2012	2013	2014	2015	2016	2017	2018	2019	202	0 2021	Last 10 Year change \$
1st	Ireland	80.0	0.6	-0.2	0.5	1.7	1.1	1.1	-0.1	-0.2	-0.5	+4.0
2nd	Austria	79.6	-0.6	0.0	0.9	-0.3	-0.4	-0.5	0.5	0.9	1.2	+1.7
3rd	United Kingdom	74.9	1.8	0.6	2.9	-0.5	0.4	-0.8	1.3	0.0	0.4	+6.1
4th	Finland	80.6	-1.0	0.6	1.7	2.2	0.0	-0.2	0.6	0.7	-4.3	+0.3
5th	Switzerland	78.9	0.0	-0.4	-0.8	1.1	-0.5	2.8	-1.4	0.5	0.2	+1.5
6th	Netherlands	77.5	0.2	-0.8	1.6	0.5	-0.3	2.3	0.2	-1.2	-0.1	+2.4
7th	Canada	73.7	0.7	0.3	-1.6	0.2	0.3	2.0	2.2	0.2	1.8	+6.1
8th	Japan	77.1	1.0	0.1	0.4	0.4	0.8	0.0	0.0	0.5	-1.0	+2.2
=9th	France	79.1	-0.4	0.3	0.7	-1.1	2.1	-1.1	-1.1	-0.1	0.7	0.0
=9th	United States	77.8	0.1	2.1	-2.3	2.1	0.2	-0.5	-0.2	0.7	-0.9	+1.3

Food Security Metrics (Global Food Security Index)

Affordability

Availability

Quality and safety

Natural resources

(explore <u>here</u>)

score / 100 Strengths (13) 100 Change in average food costs 100 Food safety net programmes 100 Sufficiency of supply Nutritional standards 100 Micronutrient availability 100 Protein quality 99.7 Proportion of population under global poverty line 98.8 Food safety 93.9 Food loss Market access and agricultural financial services Inequality-adjusted income index 78.7 Political and social barriers to access 78 Agricultural research and development "Strengths" are defined as any indicator score above 75.0

Where we fall down

Irrigation Infrastructure (down 18.1%)

"A measure of the percentage of cultivated agricultural area which is equipped for irrigation.

Volatility of agricultural production (down 21.9%)

"A measure of the fluctuations in agricultural production, as captured by the standard deviation in the growth rates of cereal and vegetable production over the most recent 5-year period for which data are available."

Flooding (down 10.9%)

"A measure of extreme precipitation under climate change" (using mid level IPCC projections)

Grassland (down 19.7%)

"A measure of greenhouse gas emissions from the drainage of organic soils"

Oceans Rivers and Lakes (down 7.7%)

Eutrophication (down 16.8%)

Food import dependency (down 16.4% - cereals is the metric)

Food Security agency (down 32.7%) (an assessment of whether the government is responsible and can be held accountable for food security)

already we see the pressure coming from over-specialisation

So even though we're top of the class,

So even though we're top of the class, already we see the pressure coming from over-specialisation (e.g. import dependency in cereals, flooding, lack of hort infrastructure for dealing with climate change etc)

More Caveats

Being best of a bad lot isn't great - billions are obese or malniurished in a world of plenty. We're 3rd for "natural resources and resilience" globally overarching category globally - yet only score 70% overall here (very low in many categories e,g, drought, eutrophication)

Country by country is a limited metric (e.g. climate refugees will try to go to stable places, global shocks happen)

They use an overly optimistic neo-liberal paradigm (e.g. we're not on target for "mid level IPCC predictions from 2014" for global climate performance - we're on target for far worse, based on actual behaviour - not based on promises that haven't previously been kept,m based on the business plans of MNCs and the behaviour of Putin, Bolsonaro etc)

security crises it means

War in Ukraine doesn't mean a a food

War in Ukraine doesn't mean a a food security crises it means an animal feed and mineral fertilizer exposure situation that needs a transition towards sustainable numbers/breeds/farming practices

More caveats

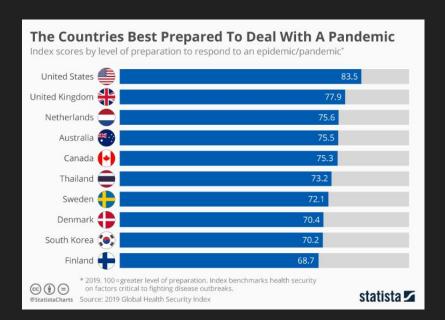
See Covid 19 stats for neo-liberal optimism - compare US to Vietnam.

WEF - <u>US is most prepared county globally</u> for a pandemic - November 2019 (Vietnam was around 100th)

As well as being rich, being especially free market orientated and having access to the global economy was presumed enough for US to be number one in pandemic preparedness

US population 327 million covid deaths 1,024,546 Vietnam's population 97 million covid deaths 43,056.

aka - public (state) vs private (neo-liberal) approaches helps in an emergency...we are in an emergency!



More Caveats

Our regressing areas are still declining - and CAP (til 2027) won't help much

Worsening crises - especially war in Ukraine - further compound these issues - and our exposure.

Our export based model is completely dependent on increasingly expensive inputs of feeds, fertilizers and fossil fuels, leading to...

bailouts (pig meat) and emergency responses (silage fodder crops, previous fodder crisis)

while avoiding a genuine transition towards more sustainable options

"For three years straight, Ukraine has been the biggest supplier of maize into Ireland, shipping 284,908 tonnes here in 2021.

Many farmers in Ukraine, the world's sixth-largest exporter of soya, have been unable to plant this season's crops amid military bombardment.

Sanctions against Russia will also have an impact. Russian fertiliser accounted for 22% of Ireland's total fertiliser imports in 2020, the last year for which figures are available." (March 2022)

As long as there is an N derogation, <u>v few</u> people will transition to organic dairy.

Conventional with N derogation is more profitable.

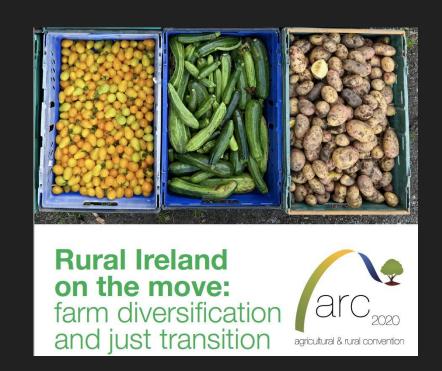
Over-specialisation

From Rural Ireland on the Move pg 36

"Overall production of the three main cereals (wheat, oats and barley) decreased from 2,396,000 tonnes in 2019 to 2,013,000 tonnes in 2020 (-16%)...combined drop in the production of all three main winter cereals (-47.7%), despite a combined rise in the production of all three main spring cereals."

"rapid loss between 2014 and 2018 of our self-sufficiency in feed grain, from 41% to 21%, because of imports. Presciently, the Teagasc report Crops 2030 warned that, "in the context of Origin Green, this deficit highlights a significant vulnerability concerning authenticity of Irish food exports when such a large proportion of our animal feed is reliant on imports".

CSO March 2022 - overall cattle numbers were up 44,300, with dairy cow numbers making up 36,800 of this...meanwhile...



(See pg 49-50 for Ireland & fruit security)

Avoiding Transition

we have targets to decrease emissions on between 21-30% in agriculture by 2030. (note these are overall, absolute targets - efficiency of production of highly resource dependent products is not enough)

While dairy vision group has made interesting noises of late, in reality we continue with emergency measures and have extended the Nitrates Derogation - 6000 farmers can continue to grow numbers and feed and fertilizer use.

(only 4 MS still use this, Ireland is increasing its use of it - European Court of Auditors noted)



Charlie McConalogue @ @McConalogue · Mar 17

Great news today that we have secured the Nitrates Derogation until 2025 with a midterm review in 2023.

The Derogation is an important tool to support productive farming.

The new Derogation has a range of measures with higher levels of ambition to improve our water quality.



Figure 16 – Evolution of the Irish areas under derogation from the Nitrates Directive and associated number of animals



*recalculated by ECA (in 1 000 livestock units)

Source: ECA based on Nitrates Derogation Review 2019: report of the Nitrates Expert Group, July 2019, p. 12.

Avoiding transition

"without the Nitrates Directive, total N2O emissions across the EU in 2008 would have been 6.3 % higher, mainly due to the increase in total nitrogen leaching in ground and surface waters. However four member states – **Belgium, Denmark,** Ireland and the Netherlands – have obtained a derogation from the Nitrates Directive: "and these four countries are among the highest greenhouse gas emitters per hectare of utilised agricultural area". Worryingly "since 2014, in Ireland, the area under derogation has **increased by 34%** and the **number of animals in farms with** derogations grew by 38%. In the same period, emissions from chemical fertilisers increased by 20%, emissions from manure applied to soils by 6% and indirect emissions from leaching and run-off by 12 %"(ECA quoted in ARC2020)

Avoiding Transiton





Avoiding Transiton

CAP won't help much

Threats to a Just Transition

We are about to agree a CAP that will embed BAU until 2027

Some good elements (cooperation projects, eligible acres, some minimal redistribution) but mostly...

No climate targets

Unambitious eco-schemes (by design)

Doesn't meet its own environmental assessment



Threats to a Just Transition

European Commission Assessment of Ireland's CAP plan: "the Commission has doubts about the effective contribution of the CAP strategic plan" to the general CAP objective on environmental protection – one of three overarching CAP objectives. It is in this context that "further improvements and more ambition are required for the Commission to approve the CAP strategic plan" as the letter states.





Note - these is still (just about) time to change some things - eg eco-schemes are "stipulated" to show ambition and measurability. Ireland has avoided this so far, but Commission has earmarked this.

CAP livestock payments in organic also need to be higher (still time!) - lower stocking rate, no fertilizers, less feed imports.

Ireland is kinda food secure, within a limited and flawed paradigm, but we make the world less food secure by using up huge levels of resources in an overly destructive manner.

In short

Thanks for your attention!