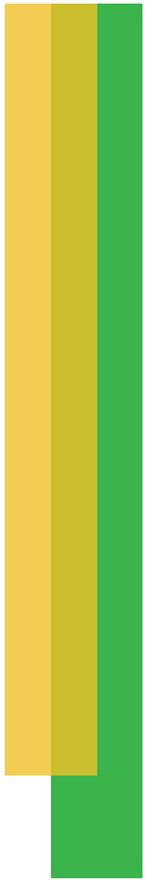


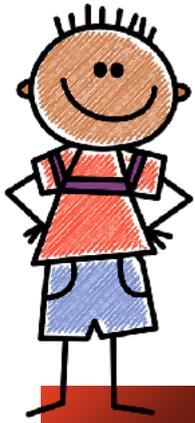
**UK PREPAREDNESS
FOR FUTURE
FOOD SYSTEM SHOCKS**

ONE SCENARIO

**BUFFER
CONTINGENCY
FOOD STOCKS**

**BIRMINGHAM
FOOD COUNCIL**
NOVEMBER 2020





PREFACE

FOOD

- The global competition for safe, nutritious food, already intense, will only increase. This means much higher prices and price hikes in times of shortages and scarcities.
- Along with the inevitability of more expensive food, there will also be additional costs in storing sufficient supplies of safe, nutritious buffer contingency stocks. It is commercially unfeasible without intervention.

PEOPLE

As with food systems across the world, ours is a commercial system. There is no escape from this. Be thankful it exists; it manages to deliver safe, nutritious, delicious tasting food to billions of people.

But it comes at a price. As well as damage to planetary health, human health is damaged when people are denied access to a healthy diet if they don't have enough money to buy good food.

If the UK Government is to meet its responsibilities under the 1996 Rome Declaration,^{1,2} they have three courses of action to take:

- ☑ Ensure that all citizens have sufficient income from employment or the State to buy the food they need for an active and healthy life.
- ☑ Subsidise the provision of safe, nutritious food *and* set up a Food Resilience Levy to fund this and system change for the future
- ☑ Take action against the corporations that make and promote 'food' and beverages that damage human and planetary health, including the imposition of an Excise Duty in order to, *inter alia*, price their products above those of safe, nutritious food.



[now to the story about one scenario:](#) →

UK PREPAREDNESS
FOR FUTURE
FOOD SYSTEM SHOCKS

ONE SCENARIO

INTRODUCTION

Covid-19 exposed fragilities in the UK food supply system, and the powerlessness of city-level organisations, including local government, to ensure everyone in their area had access to sufficient supplies of safe, nutritious food.

HM Government has ultimate responsibility for the nation's food security.³ Yet they were unprepared for food supply disruption caused by the pandemic,⁴⁻⁶ and the much greater existing threats to the system for which they are still unprepared.⁷⁻⁹ This unpreparedness, surprisingly, covers widely-reported Brexit-related supply disruptions which will be exacerbated gravely by a midwinter trading regime change.^{10,11}

From early March, we began talking with people within the food system to help inform our Covid-19 commentary¹² on supply system changes, and our two Submissions to the Commons EFRA Select Committee.¹³

In one of several conversations with the director of a large fresh produce wholesaler, he asked us if the UK had organised food reserves, i.e. a buffer capacity for a crisis such as this pandemic. The answer is no.

Should the UK, however, have a buffer capacity? We switched our focus to ask professionals across the food supply system this very question. All agreed there should be.

We pressed them, what would a buffer contingency system look like?

By July, we'd drawn up a 'thought experiment' buffer model,¹⁴ based on what we'd heard. Over the summer, we tested this model during more conversations and, crucially, through three workshops with people with different professional food sector expertise and experience.

This document is the story of how that thought experiment model morphed into this **one scenario**.



ONE SCENARIO

WORKSHOP BRIEF

The workshop participants were given this post-crisis brief set sometime in the mid to late-2020s:

- ➔ Covid-19 economic fallout was profound, despite a largely successful vaccination programme by end 2021.
- ➔ A tougher fallout from Brexit than Johnson's Government had anticipated and extreme weather events led to fresh produce rapidly being more expensive, and there was a sudden drop in UK livestock & dairy production.
- ➔ The new Government tasked your team to put in place a buffer stock system. Fortunately it was in place before the unanticipated flu strain caused another pandemic affecting mostly young & middle-aged adults.

You are reviewing the buffer system to decide what elements worked well, and those that proved problematic *and how you overcame those problems.*

THE GOOD NEWS

All participants agreed that setting up a buffer contingency stock system, i.e. having reserves of nutrient-dense tasty foods for when people can't access sufficient food for whatever reason, is the only way to build resilience into the system, and thereby be better prepared for future food system shocks.

Their view, too, was that setting up and managing such a buffer system is not only **desirable**, but **essential**. And **feasible** too.

So what does their buffer contingency 'one scenario' look like?





A DISTRIBUTED BUFFER CONTINGENCY STOCK SYSTEM

The scenario players recognised that any buffer contingency system is more robust when stocks are distributed. Such a system, they suggested, would flourish under **Seven Pillars**:

- 1** The **State commits in law** to meet their responsibilities under the 1996 Rome Declaration to ensure food security for all citizens **in perpetuity**.
- 2** A **Committee on Food Security**,¹⁵ an independent body set up by statute, advises each Government how to meet these responsibilities in the light of their assessment of the risks to UK food supplies.
- 3** HM Treasury sets a **Food Resilience Levy**, similar in remit and purpose to the Climate Change Levy, and an **Excise Duty** on companies that make ‘food’ & beverage products carrying standard-rate VAT.¹⁶⁻¹⁹
- 4** The monies raised from the above used to **expand capacity & capability for fresh produce production, preservation & storage facilities plus management and distribution technologies** in order for every household to have access to reserve supplies for *x*-weeks’ meals within 10km.²⁰
- 5** **Buffer stocks** comprise nutrient-dense foods; i.e. fresh produce (fruit, vegetables and animal products preserved as necessary),²¹⁻²⁶ acquired through donated surpluses from the retail and hospitality sectors, supplemented with wholesale purchases. NOVA 4 products and products carrying standard-rate VAT **are prohibited**, as is any kind of relationship with companies that make or promote any of them.²⁷
- 6** **Distribution and logistics** planning, partnerships, networks, technologies and frequent testing to meet community, regional and national needs, supported by **annual reports on regional risk & resilience** open to public scrutiny and submitted to the **Committee for Food Security**.²⁸
- 7** **Contract and compliance wrap** for (4), (5) and (6).

4

Food required for 1m people/week ²⁹

14 billion kcal	2.1m kg protein	700 million portions fruit & veg
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UK production, preservation & packaging capacity needed to meet **nutrient** requirement



5

Local food stock acquisition & storage ³⁰

protected supplies	mass catering provision	anchor institutions
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ambient, chill & cold storage facilities rotated, plus inspected & tested for safety & assurance



6

Management, logistics, distribution ³¹

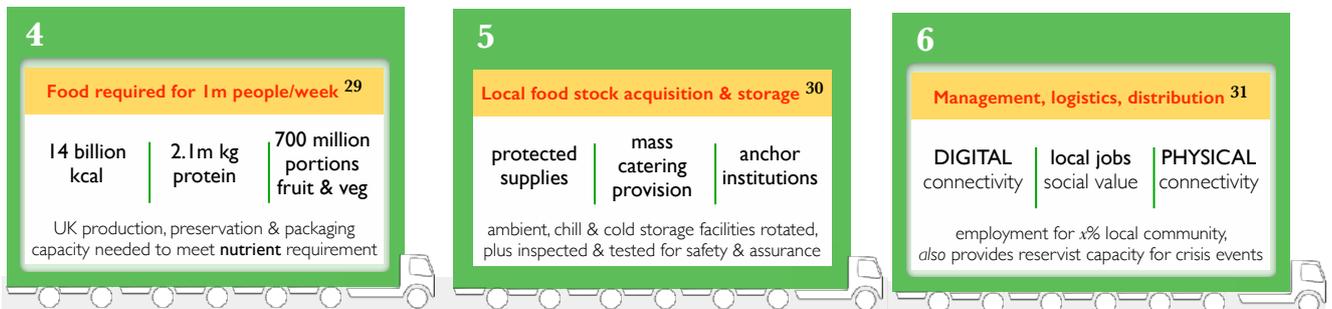
DIGITAL connectivity	local jobs social value	PHYSICAL connectivity
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employment for *x*% local community, also provides reservist capacity for crisis events



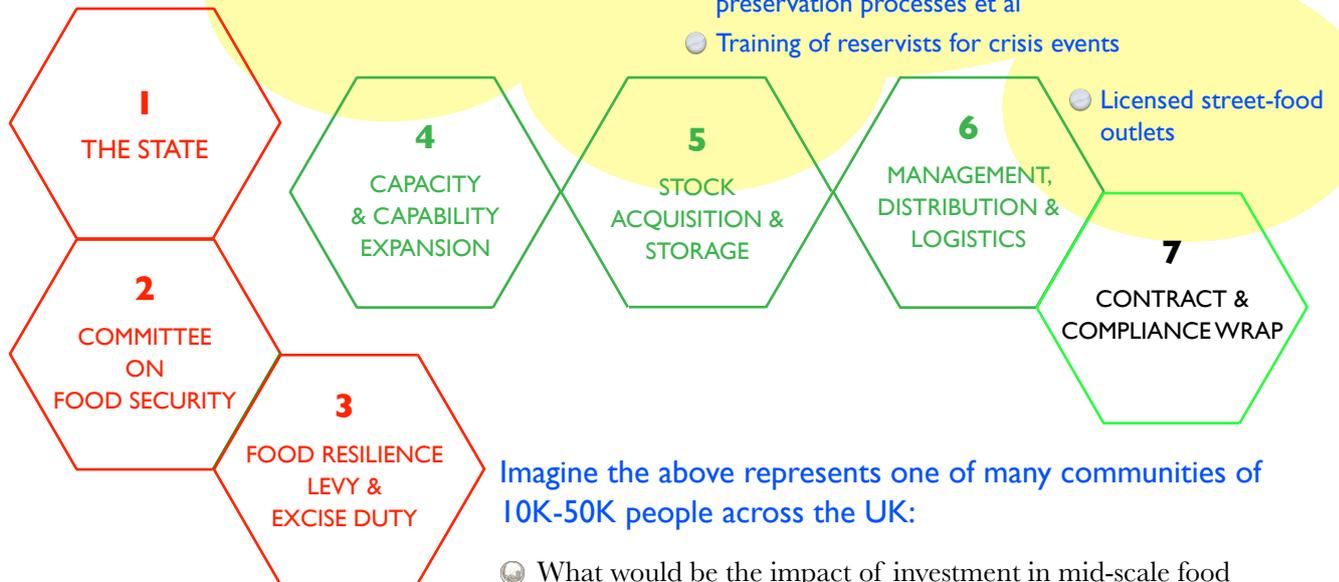
ONE SCENARIO

SUMMARY a buffer contingency stock system



EATING OUT THE NEW NORMAL FOR EVERYONE
ASPIRATIONAL, AFFORDABLE, NUTRITIOUS, CONVENIENT³²

- Professionally equipped & managed community-owned kitchens, with storage facilities for x-weeks' supplies
- Investment in small-scale food preserving facilities; e.g. drying, curing, pickling, cheese making, composite meal preparation et al
- All anchor institutions: freshly-prepared on site meals at cost for staff & visitors *and*
- Free meals for all under-18 students in schools and colleges
- Sure Start free meals provision for infants & their carers
- Minimum one full-time EHO per 25K people for food inspection, surveillance and sampling
- Communal meals provision open to all, attractive to all
- Protected supply chain for retail surplus stocks wholesale purchases & at-cost buffer stock rotations
- Sociable, friendly meals-on-wheels delivery provision for time-rich households, as well as efficient fulfilment of on-line orders
- Click'n'collect storage network for ambient, chill and cold produce
- Local training schools in food hygiene, preservation processes et al
- Training of reservists for crisis events



Imagine the above represents one of many communities of 10K-50K people across the UK:

- What would be the impact of investment in mid-scale food production and preservation, and associated training be within each community, its region and across the UK? (#4)
- What would be the local economic & cultural impact of the exclusion of NOVA 4 & standard-rate VAT products? (#5)
- How would subsidised healthy fresh produce, including mass catering affect communities, anchor institutions & local businesses? (#5)
- How would community risk & resilience planning, to include stock retention and rotation, affect regional and UK-scale crisis planning from farm to fork (#6) *and* UK food security?
- What and where are the trade-offs between buffer stock rotation and stock release? (#6)
- What are the governance, regulatory and legal issues and any other conflicts of interest? (#7)

4

Food required for 10K people/week only

140 million kcal	21,000 kg protein	700,000 portions fruit & veg
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UK production, preservation & packaging capacity needed to meet **nutrient** requirement

1 CHRONIC THREATS

- ⊕ Economic inequality in a commercial system
- ⊕ Unfettered commercial opportunities to make and promote low-protein, low micro-nutrient addictive products
- ⊕ The impact on human & planetary health of companies that make & promote products carrying UK standard-rate VAT
- ⊕ People with diet-related morbidities exhorted to change behaviour, rather than given support and action taken against drug-food companies (as happens for smokers and to tobacco companies)
- ⊕ Malnutrition during an infant's first 1000 days from conception
- ⊕ Inadequate food inspection & testing, made worse by Covid-19 regulation relaxation

2 CURRENT THREATS

- ☐ The stresses Covid-19 and lockdowns here and across the world put on the system
- ☐ Brexit, including the prospect of a poor or WTO trade relationship with EU27
- ☐ Both of the above through winter, the latter in mid-winter when the UK heavily depends on imported fresh produce

3 GLOBAL THREATS

The global competition for safe, nutritious food, already intense, will increase owing to:

- 🌍 Climate change
- 🌍 Resource depletion & degradation (land, soils, air, water, energy & crop pathogen antimicrobial resistance (AMR))
- 🌍 Population pressures

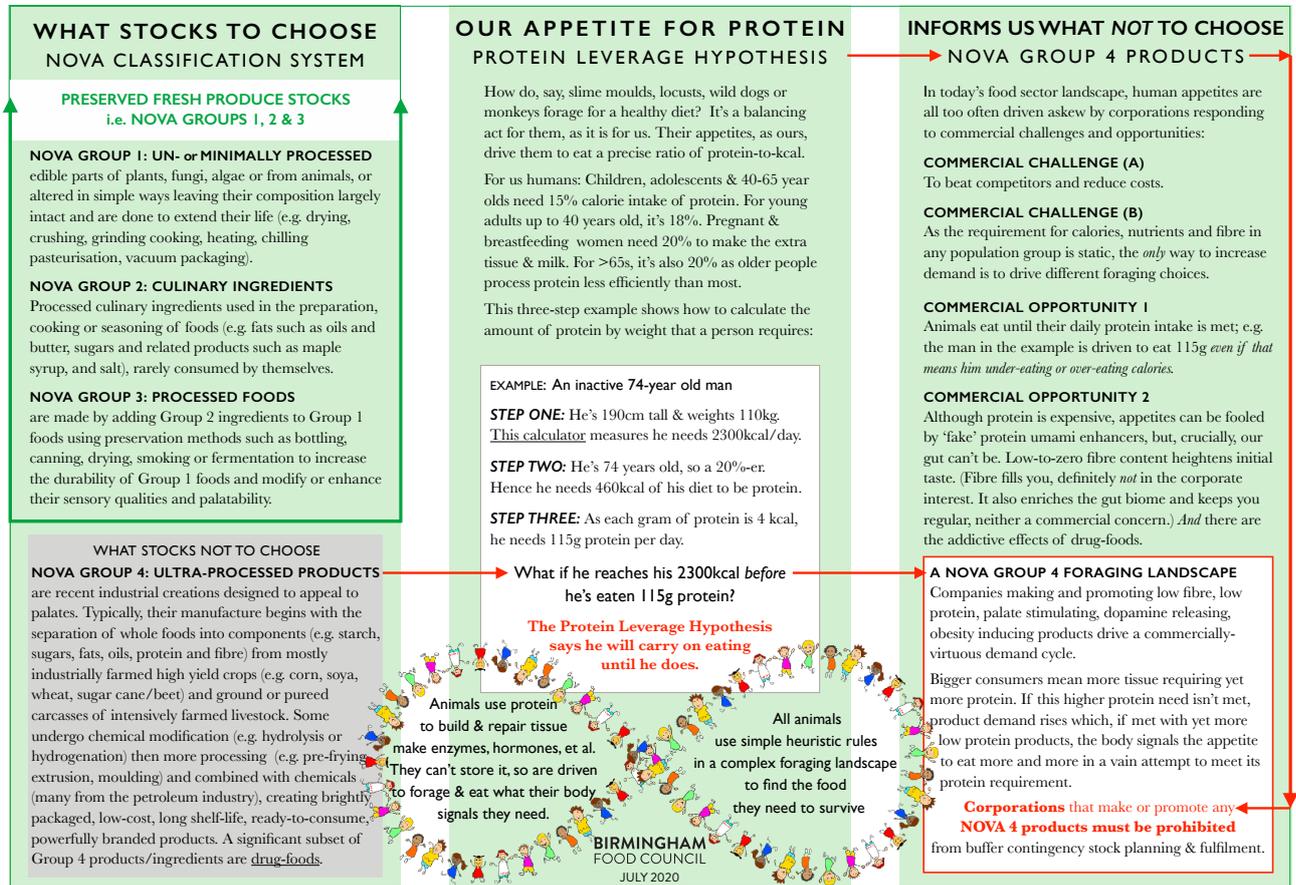
These three factors are compounded by geopolitical responses to them *and* the likely unpreparedness, either here or overseas, for the next pandemic or other food system shock.

WHAT NOVA GROUP 4 PRODUCTS ARE

The infographic below is taken from our July 2020 report (p4): UK preparedness for future food system shocks: A thought experiment.

We're grateful to Professors David Raubenheimer & Stephen Spender for their helpful comments on earlier versions of our highly compressed account of their appetites-protein-leverage-meets-ultra-high-processed scenario taken from their book: Eat like the animals (2020).

More information about the NOVA classification system can be found in the 2019 UN FAO report by Carlos Montiero et al: Ultraprocessed foods, diet quality and health using the NOVA classification system.



UK Government & food security

1 The UK Government and many others were signatories to the World Food Summit Plan of Action, set at a United Nations Food and Agriculture Organization meeting held in Rome in November 1996. It is commonly known as the 1996 Rome Declaration, and defines food security thus: **Food security exists** when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

2 It should be noted that HMG was reminded of this definition in the recent EFRA Commons Select Committee Report on Covid and food supplies and have been reminded of their responsibilities under the Rome Declaration several times by us; see for example, our Submission to the EFRA enquiry (paragraph 3.1), and our Submission to the Call for Evidence for the National Food Strategy (paragraph 2).

3 *ibid.*

4 See this post written in April 2020: 13 features of our pre-Covid food system ... which contributed to the UK's lack of preparedness.

Covid-19 was not a severe threat to food supplies

5 Resilience in the face of crisis is often assessed by a matrix plotting impact vs probability. It is arguably more useful to plot **preparedness vs severity**. The severity of the Covid-19 food supply crisis is small compared to the threat Brexit (let alone a no-deal Brexit) poses to the UK food supply system from 1st January 2021.

The UK was & is unprepared for minor disruptions

6 The evidence of failure to ensure food security for all households is found in the Food Foundation You Gov surveys on household food insecurity (the latest here, published September 2020). It must be noted, however, that pre-Covid food insecurity for many households has been a feature of the UK food system over the last decade. Since lockdown on 23rd March 2020, food insecurity now affects twice as many households, and looks set to increase further without economic support for the increasing number of households facing lower incomes, coupled with higher prices to meet our basic physiological needs of shelter, warmth, water and food.

major disruptions likely soon

7 The impact of Covid and Brexit pale in significance compared to the high probability of far more severe disruptions soon owing to the slow-onset impact of climate change, resource depletion, population pressures and rapidly changing geopolitics; see our horizon scanning report Back from the Future (2018), our subsequent report Global risks to UK food supplies (2019), and this post supporting our Submission to the National Food Strategy Call for Evidence: The global competition for safe, nutritious food (October 2019).

“no realistic scenarios”

8 Despite these threats, local risk and resilience planning, a statutory obligation under the Civil Contingencies Act (2004), did not take food security matters seriously. The then-most recent West Midlands Plan (dated 2014) was, and to our knowledge still is, out of date. On page 17, it contains this statement, remarkable in its confident insouciance written less than two years after severe floods and a tanker drivers' strike in 2012: *There are no realistic scenarios within the UK which would lead to a shortage of food supplies.*

The Game stood us in good stead

Deeply concerned by this state of affairs, we invented **The Game**, a scenarios exercise for decision-makers. In the first few weeks after lockdown, several Players called us to say that *nothing is surprising*, because they had played **The Game**; they felt ahead of the 'game' being played out in the food sector. In contrast, a senior City Council director reported at the same time: *What has surprised us is how fragile the food supply system is, and how powerless we are to do anything about it.*

Our scenarios-based approach also stood us in good stead during this consultation process in how buffer food capacity can better prepare the UK supply system for future shocks.

three significant threats to UK food safety

9 The UK had one of the safest food systems in the world, now threatened by

(a) An accelerating pace of an erosion and fragmentation of food safety systems

(b) Brexit-related relaxation in regulations

(c) Relaxation in regulations in response to Covid-19, and put in place without a time-frame for review.

We've learned that there has been a halving of the number of samples sent for testing, as there aren't enough EHOs, particularly experienced EHOs to take them. The now-virtual auditing is perceived by the unscrupulous and the criminal to be *de facto* suspended, likely

in all likelihood leading to seasonal workers being exposed to Covid infection, labour exploitation and modern-day slavery. We also heard uncorroborated stories of illicit use of chemicals to control pests.

In 2016, 30% of UK food came from EU27

of which, 70% veg and 40% fruit & nuts

another invitation to the unscrupulous and the criminal

UK 2020 wheat harvest down ~40%

Committee on Food Security

Food Resilience Levy food system reconfiguration

2012 estimate Coca Cola's H₂O use = needs of 2bn people

10 Reported by many from the House of Lords EU Committee report, [Brexit: deal or no deal](#) (Dec 2017) to the [UK in a Changing Europe's What no deal would mean?](#) (Sept 2020).

11 The UK currently imports 40-50% of the food we eat, the amount dependent on many factors, including harvests here. In 2016, we imported 30% of our food from the EU, of which 70% was vegetables and 40% fruit and nuts; see this [2018 Gro-Intelligence report](#). Given home growing seasons, and the lack of investment in vegetable and fruit production, the UK will be greatly affected by food trade disruptions in the winter months.

Worryingly with regard to both bureaucracy burden and food safety and assurance, [current Government arrangements](#) for 1st January 2021 are that traders of *high-risk live animals and high-priority plants and plant products* will need to be prepared for submitting additional documentation and checks taking place at point of destination; i.e. will be waved through customs. From April 2021, they will need to submit pre-notification and the relevant health documentation and only in July 2021 said full customs will be in operation. although many business people are doubtful it can happen then. (For regular updates, see the [EU Exit Food Hub](#), a partnership of food sector trade organisations.)

Moreover, a 'no-deal' Brexit will mean tariffs averaging 18%; see this [Bloomberg report of 25 October](#). Remember, too, its timing in midwinter. One of the many challenges of the UK-wide Covid-lockdown in March 2020 was that it occurred in the 'hungry month', the time between harvest stocks running short and the UK growing season yet to begin. This next year may well be more challenging owing to poor harvests in this year; wheat yields, for example, are nearly 40% down owing to flooding during the usual planting time, followed by drought after late sowing; see [Defra Farming Statistics](#).

12 Our [Covid-19 commentary series of posts](#) began in early March 2020, based on interviews with people working across the food supply system, and with those providing professional services (including food safety and assurance plus agri-food insurance, legal services, banking investment, facilities equipment providers and trade organisations, also agri-food research) as well as keeping up-to-date with the trade media.

13 Our [first Submission](#) was made on the first deadline of 1st May 2020. Our [second Submission](#) was made on their extended deadline of 22nd May 2020, taking into account continuing impact of Covid-19 through the previous three weeks.

14 [UK preparedness for future food system shocks: A thought experiment](#). July 2020.

15 For more about a Committee on Food Security, an independent body set up by statute to advise the Government, see this post: [Future System Shocks: A Committee on Food Security?](#) August 2020.

16 A **Food Resilience Levy** would play a major role in reconfiguring our food supply system through using funds for investment in expanding the UK's currently limited capacity and capability in growing and preserving fresh produce.

The need for this expansion was starkly illuminated with the overnight shutdown of the hospitality sector with the March 2020 UK lockdown. Capacity issues with cold storage soon arose, as did large-scale dumping of products as there were no means to preserve or store perishable produce. For example, in [the UK as in the States](#), milk was literally poured down the drain. In other regions, spray-drying facilities near dairy herds allowed a lighter, more easily stored nutritious product to be available on world as well as local markets.

17 All nutritious food is zero-rated, while **standard-rate VAT is charged on the so-called 'drug-foods'**. For more information about this, and the quirk in British history that led to it, see this post: [Drug foods and their specific risks to the food supply system](#).

The impact of drug-foods on human health is well known. Less well-known is their impact on planetary health as these two examples illustrate:

(a) Coca Cola's water consumption in 2012 was enough to meet the annual needs of over two billion people (see Chapter 1, footnote 1 in [Citizen Coke: The making of Coca Cola](#)



Capitalism by Bartow J Elmore), a figure greater than the UN Food and Agriculture Organization (FAO) estimate that, by 2025, 1.8 billion people will be living in regions with absolute water scarcity, and two-thirds of the global population in water-stressed regions (which includes SE England; East Anglia is in a second decade classed as semi-arid) *and* (b) In 2018-19. PepsiCo used 6% of the UK potato crop to make Walker's crisps; see endnote 26 in this post: What does this food sector balance sheet tell us? in which there are more data about the human and planetary costs of corporations that make and promote products that carry standard-rate VAT.

Should other edible products carry standard-rate VAT? Commercially-made cakes, for example? (excluded in the VAT-forerunner 1940 Purchase Tax as, until the late 1960s, cakes could not be manufactured). Ultra-high processed breakfast cereals? (Notice how cereal producers promote their wares through, for example, Holiday Kitchen; nutritionally better by far for children *and* their families would be a glass of milk, with an egg plus high quality hot buttered toast say, cut into soldiers for yolk dipping! Sure, such a breakfast is more expensive to buy and store (nutrient-dense foods cost and most are *perishable*), and older kids or adults will need to be helping younger kids; eating together, after all, is social glue.)

eating together
is social glue

VAT product
producers subject to
Excise Duty

18 An Excise Duty is an indirect tax on companies designed to discourage the purchase of particular goods. Although the end consumer is not responsible for paying the tax, they do cover its cost by paying more for the product (see also endnote 26 below).

19 Setting up a new Levy and Excise Duty is no mean task. Which companies will be liable? How is either calculated? Do any get reductions and, if so, under what conditions? How will they be calculated? By calculating the environmental costs? The costs of diet-related morbidities on human health, mostly locally borne?

feliciously termed
'micromorts'

The latter could be calculated through two existing metrics, the first being the **value of statistical life**, (which can be measured in the felicitously termed 'micromorts'); see Tim Harford's free-to-read Financial Times April 2020 article How do we value statistical life?

The second comprises two means by which public health professionals measure quality of life, as described in this European Food Information Council (update 2011) Measuring the burden of disease: The concepts of QALYs and DALYs.

In this recent Economics Observatory post, Joanna Coast & Sabina Sanghera suggest these two metrics could be combined, in this instance with regard to Covid-related policy.

20 All workshop players saw social potential in the current (perhaps permanently) under-used spaces and buildings since lockdown in urban centres with good public transport and digital connectivity. Our second workshop scenario players also noted a distributed buffer system could build on third sector supply system expansion in response to Covid-related disruption and, moreover, involve setting up hyperlocal fresh produce processing and catering facilities, thereby aiding response readiness *and* contributing to community health and well-being in 'normal' times, matters further discussed in the third workshop (see p5 'possibility space' for their ideas).

"there are
only 9 meals
between mankind
and anarchy"

no-one riots for a
multi-coloured mix of
fruit'n'veg

21 Many assume that food reserves are about grain silos and thereby the provision of sufficient calories for the population. Nutrients? Rarely considered. Why is this so?

One argument is summed up in the adage coined by the journalist A H Lewis: *There are only nine meals between mankind and anarchy.* It's true to say that the prospect of food riots looks likely if people suppose their calorie source is threatened. If they don't rise up by the third day of starvation, most could only stagger to the barricades on the fourth.

With agriculture, political elites had a means to store calories in the form of grains, often to the detriment of the health and wellbeing of many citizens; see latter half of this post: The natural environment cannot be restored — and what's natural about it anyway? about how the barbarians lost out against the grain ... and the human population soared, as happens with any domesticated animal, until their calorie source fails. (Remarkably, since the mid-70s, famine is increasingly uncommon; for that story, see this post: Food System Transformation #7: Loaves don't grow on trees.) We need to get our calories from nutrient-dense food. But alas, no-one riots for plates piled high with a multi-coloured mix of fruit and veg; the different colours, by the bye, indicators of the nutrient range we need for a healthy life.



wild critters have ways of knowing what to eat

obesity? eating proteins & the 15% kcal rule

Fibre? Yup. But not in the interests of fast-food companies

GDP ROI & diet during our first 1000 days

22 All living entities need energy, measured in **calories**. Although I've used WHO figures about average calorie use on the #4 truck-infographics on pp3-5, there's growing evidence flying in the face of many a slimming diet, that calorie counting 'doesn't add up' (to Tim Spector's chapter 3 title in Spoon-fed: Why almost everything we've been told about food is wrong). As Spector explains, it isn't a simple matter; even if the metric were reliable, which it isn't. Getting energy (and nutrients) during the digestive process is a complex, largely unknown ever-changing interplay between the mix of foods we've eaten and when, the microbe trillions in our gut, our genes, epigenetic factors and much else besides.

23 All living creatures are made of **proteins**, so all need them to function. Yet as none can store them, it shouldn't be surprising that critters living in the wild have ways of finding and consuming them every day. How, wondered a pair of entomologists, Professors David Raubenheimer and Stephen Spender; do locusts 'know' what to eat to get their daily protein quota? It turns out they carry on eating until they've consumed all the proteins they need. And only then do they stop eating. Intriguingly, it's a precise calculation for all living creatures, slime moulds, locusts, cats, cows, crocodiles, cod, you name it. Us, too.

For the average human, we need to get our proteins from 15% of the calories we eat. If we don't get enough protein within this calorie band, we carry on eating until we have. And by eating more calories, obesity can result; see Annex 2 for this intriguing story, known as the *protein leverage hypothesis*, that the Profs unravelled.

Because all living creatures are made of proteins, the easiest way to obtain all we need is to eat animal products. Healthy vegetarians and vegans show how a careful mix of plant-balanced proteins do the same job.

Protein deficiencies in the UK are rare, perhaps in part because the UK terrain and climate lends itself to livestock production as well as arable produce such as cereals, beets and root vegetables. (It's less suited to horticultural production, perhaps part of the explanation for the UK's low fruit and veg consumption; see note 26a below.)

24 The other set of nutrients we need are **micronutrients** (proteins are macronutrients). If we eat a varied diet with **lots of fruit and veg**, we get all the chemicals (vitamins, trace elements et al) we need; see 26a below. (There's a worryingly large unregulated industry set to persuade us otherwise, and to take their pills and potions in quantity.)

25 **Fibre** is an important part of our diet, although it doesn't contain calories or nutrients. It comprises (for humans) indigestible plant cell walls, so it isn't tasty to us at all. Its purpose? It fills us up. It enriches our gut biome (in ways we don't understand *and* is important for human health). Plus it keeps you regular — three aspects of its quality not in the interests of, say, fast-food companies. Among others.

- 26 A **nutrient-dense** buffer contingency stock system needs to respond to, *inter alia*
- (a) The scale of what's required; see this post: Food System Transformation #5: The scale needed for our five-a-day which, among other matters, point to the latest research showing **the ideal diet has ten portions of fruit and veg a day**, with more veg than fruit. and that the average per person consumption in the UK is 3.8 portions.
 - (b) The **perishability of fresh produce**, whether animal or plant in origin.
 - (c) Hence the requirement for expansion in preserving, packing and storing produce in forms that minimises nutrient loss while maintaining food safety.
 - (d) **Nutrients are expensive**, thus a healthy diet currently costs more than an unhealthy one. Without government intervention, the price gap will increase further owing to the ever-increasingly intense global competition for safe, nutritious food.
 - (e) The old need more nutrients, as they don't process food as well as younger people.
 - (f) The young, too, need more nutrients as they are growing. Indeed, robust evidence shows the diet during our **first 1000 days of life** *from conception* has life-long impact and, moreover; investing in maternal and infant diet has GDP payback; see endnote 9 in this note for the incoming WMCA Mayor, Andy Street, in 2017: Why food and drink matters.

27 A challenge in excluding NOVA group 4 foods will be the difficulty to define the products come in under this category; see Annex 2 for a summary of the categorisation system.



drug-foods, the precision of VAT & corporations

Using standard-rate VAT as a means of identifying products, however, is a **precise mechanism to identify both** the so-called 'drug'-food **products** and the **corporations** that make and promote them.

This [Rapid Response to a BMJ article](#) (Sept 2020) by two former Birmingham Food Council Directors, Jim Parle, [Emeritus Professor of Primary Care](#) and Professor John Middleton, the immediate past President of the [Faculty of Public Health](#), plus the Executive Director, Kate Cooper, puts forward a rationale for taking action against drug-food companies contains these words as a warning: *Just as the tobacco companies have in the past endeavoured to subvert public health messages, so today we must take radical action to curb corporations producing drug-foods. We must not, however, underestimate corporate power lobbying governments.*

disingenuous imagination & lockdown heroes

Tobacco company influence is curbed by Excise Duty and by prohibitions on advertising, promotion (including products packaging and placement), sponsorship and partnerships, including research partnerships. It took, however, over 50 years from Richard Doll's 1956 paper with its irrefutable evidence of the link between smoking and lung cancer and the 2007 ban on smoking in public places in England. It's five decades we don't have with the drug-foods makers, yet their hold on our collective psyche is deep and powerful, witness the disingenuous imagination in the relationships Coca Cola and Mondelez have with two 'lockdown heroes', [Marcus Rashford](#) and [Captain Tom](#) respectively.

learning from Exercise Cygnus

28 Learning from the failure to publish the Exercise Cygnus report, the 'wrap' (pillar 7) need include a statutory requirement for risk and resilience planning to include reports every x -years (five?) on how well these plans have been tested through scenarios exercises.

29 The figures in this **pillar #4 truck infographic** are illustrative of the scale of what's required to reflect the nutrient requirement of a population of one million people; see also notes 22-26 above. A running public account of *national* buffer stocks in the distributed system needs to be made, as does the UK capability to ramp-up production, preservation and packaging capacity in times of need.

30 This endnote unpacks the elliptical words on **pillar #5 truck infographic** thus:

(a) **protected supplies**: A new community food supply system requires protection for two reasons: (i) some stocks will be donations of surpluses from within the commercial systems and some might be subsidised by national or local government, thus the value of the stocks as a whole will be *de facto* lower than those outside the system *and* (ii) such protection will prevent predatory behaviours by the large retailers as happened during the first lockdown (when retailers poached another supply chain, that of corner and community shops when theirs led to empty shelves, leaving some local shops, including village shops unable to provision local households)

(b) **community mass catering**: Players in the second and third workshops worked out that encouraging eating out at scale would be a fine means to develop physical, mental and social health and wellbeing *as well as* provide multiple spaces for food preservation and storage; see also page 5 for their 'possibility space' scenario.

(c) **anchor institutions** are not-for-profit institutions that once established tend not to move location. As such, they can play a large part in local economies. They include schools, colleges and universities, also hospitals and clinics, faith institutions such as churches, mosques, gurdwaras and temples. Over the last few decades, many such structures have been dismantled or privatised; for example, Post Offices, rail stations, cottage hospitals, hyperlocal surgeries and clinics and the means to access healthy foods through, for example, luncheon vouchers, subsidised works canteens et al.

Could venues for food storage and meals out become the **new anchor institutions**?

(d) The perishability of fresh produce is an issue as stated in 26(b) above. Hence stock **rotation**, plus investment in **appropriate facilities** for both ambient and temperature controlled **storage** is essential.

(e) **Regular inspection and testing for safety and assurance** is also crucial (s.a. 9a above), with all community food premises to have a **Food Hygiene Rating (FHR) of 4 or 5**.

possibility space ...

new hyperlocal anchor institutions?



expansion of EHOs, TSOs and training provision

invaluable local knowledge held in a robust distributed food system

new friendships through stigma-free access to a healthy diet

greatly improved crisis response

- (f) Our understanding is that the issue is not a matter of laboratory testing capacity, but not having enough Environmental Health Officers (EHOs) to inspect food premises, take samples to be analysed and manage the local FHR system.

To be safe, a buffer contingency stock system requires **more EHOs working full-time** in the food sector with **supporting Trading Standards officers**, plus substantial investment in **food safety and hygiene training provision** for recruits into the sector. *note:* For the pre-Covid state of affairs regarding food safety, assurance and integrity, see page 6/12 of our [Response to the draft London Food Strategy](#) (July 2018), compiled after input from the [Association of Public Analysts](#).

- 31 The **pillar #6 truck infographic** represents the heart of the efficacy and efficiency of any system set up to respond to crisis or emergency; i.e. the management, logistics and distribution of whatever resource is needed. As with the fragilities of food supplies during lockdown, there was more food within the system than could be accessed by people who needed it.

A *distributed* system is more robust *and* regular system testing (see 28 above) will reveal where breakdowns are likely to occur. Additionally, when organised and delivered by people within a community, their local knowledge will be invaluable in identifying people and households vulnerable to shortages in sufficient supplies of safe, nutritious food.

- 32 It might seem counterintuitive to imagine a future when community eating out is the new normal, as the UK responds to the second Covid-19 wave and the hospitality sector looks set for further devastation. It also runs counter to oft-repeated notion that people 'should' prepare their own and family meals, even though such specialisation has been unusual in human history *and* puts considerable onus on people living in small or single households.

Nonetheless, such a future set alongside the other possibility space suggestions, would contribute to UK preparedness for future food system shocks in many ways, including:

- (a) A collective understanding of dietary needs as well as preferences, and the benefits that accrue to society as well as to individuals of having a well-fed population.
- (b) Vibrant, welcoming places to eat well and cheaply, open to everyone, generating new social connections and friendships. This is especially important for single-occupancy households; ONS figures show a 16% increase in people living alone between 1997-2017 to 7.7m of us, with a 53% increase for those in the 45-64 age bracket, with the estimate that there will be 10.7m of us living alone by 2039.
- (c) Stigma-free access to a safe, healthy diet for everyone and, when a crisis occurs, the burden of a poorer diet, if necessary, would fall on those with least physical need.
- (d) Greatly improved crisis response owing to
 - i) Expansion of hyperlocal storage and preservation capacity.
 - ii) Crisis distribution and logistics capability through local knowledge of people and local geography, and regular scenarios testing.
 - iii) A community better able to withstand assaults on their health (whether a virus such as Covid-19, or sudden shortages of particular nutrients) with all the knock-on economic impacts of inadequate diet in the long as well as the short term.

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They come from the public, the private and the third sector, all employed in the food sector in one way or another, either directly in production, processing, logistics and the supply systems, or indirectly through the provision of agri-food professional services, research or media.

