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Self and Society in the Corona Crisis

Perspectives from the Humanities and Social Sciences

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The resourcefulness of Luxembourg's food system as put to the test by the Coronavirus lock-down

Rachel Reckinger

Moments of crisis like the current one sparked by COVID-19, engage social, economic, cultural and political institutions of a society and stress-test their resourcefulness, while individual and collective food supplies become primary concerns. Where does even the wealthiest of EU member States stand when it comes to food sovereignty and specific vulnerabilities, what needs to change and which food policies are needed to facilitate a sustainable food system–both locally and internationally? Combining qualitative, empirical research methods to textual and statistical analysis, as well as transformative research, I focus on key areas of Luxembourg's food system presenting challenges–specific ones and structural ones intertwined with issues in other countries–and discuss current and planned pathways of optimisation. I will start out with an analysis of agricultural and commercial specificities of a food system with low self-sufficiency rates, linked to meat and dairy specialisations, but also to market accessibility and market structure issues, leading to heavy imports. I will then shed light on pathways currently put into practice by the State, by economic actors, by educational actors and by social movements and coalitions of the willing, advocating ecological, ethical and qualitative production methods. Finally, I will show how the first Food Policy Council at national level that Luxembourg is currently founding is favoring a deliberate shift towards a multi-stakeholder-lead effective food policy.

1. Introduction

Moments of crisis like the current "total social fact" (Mauss 1925) sparked by the SARS-CoV-2 virus, engaging all social, economic, cultural and political institutions of a society, all of a sudden reveal existing social structures' performance in glaring clarity, while putting their resilience and resourcefulness[1] to a stress-test. This is very much the

1 MacKinnon and Derickson have shown how "resilience thinking has become implicated within the hegemonic modes of thought that support global capitalism, providing a further source of naturalization [...] of global capitalism. It is the 'internal' workings of this 'system' [...] that generate disturbance and instability and shape the uneven ability of communities, cities and regions to cope with crisis. Our fundamental problem with the mobilizing discourse of resilience is that it places the onus squarely on local actors and communities to further adapt to the logics and implications of global capitalism and climate change. This apolitical ecology entails the subordination and corralling of the social within the framework of socio-ecological systems" (2012: 266). Like them, I favor the more active and socio-culturally rooted concept of resourcefulness, which allows to grasp with more acuity disruptions such as power imbalances, situated vulnerabilities and unequal opportunities within and between communities and also "maintains an openness to the possibilities of community self-determination through lo-

case in the COVID-19-situation, with imminent concern for national health care services and for individual health anxieties and major emergencies. But it is also the case for ongoing and oncoming more general crises like the rapid acceleration of climate change and biodiversity loss, yielding even more world hunger, violence and human rights issues as already occurring now. In such times of upheaval, people worldwide return to basics, among which the individual and collective food supply is an essential and vital cornerstone.

Research is key to understand vulnerability and resourcefulness of food systems, and find pathways to increase their sustainability. At the University of Luxembourg's Faculty of Humanities, Education and Social Sciences (FHSE), the sociological research project Sustainable Food Practices (https://food.uni.lu) is empirically studying Luxembourg's food system and its current transitions, to highlight the challenges and opportunities within governance, production, retail and consumption. The aim is to strengthen sustainable perceptions and practices within the foodscape, with a particular sensitivity for social inequalities and everyday subjectivations and elaborate scientific recommendations for more socially and environmentally just food systems. Developing sustainable food systems in times of prosperity is imperative to their resourcefulness in times of crisis.

This article will focus on key areas of Luxembourg's food system presenting challenges - specific ones and structural ones intertwined with issues in other countries - and discuss current and planned pathways of optimisation.

I will start out with an analysis of agricultural and commercial specificities of a food system with low self-sufficiency rates, linked to meat and dairy specialisations, but also to market accessibility and market structure issues, leading to heavy imports. I will then shed light on pathways currently put into practice by the State (by using legislative tools to shape public tenders in a more sustainable way, among other initiatives), by economic actors (by setting up cooperative-run food hubs and transregional partnerships that go beyond national, protectionist understandings of regionality), by Education actors and by social movements. In the transition to an agricultural model based on diversified agroecological systems, a greater workforce and knowledge-pooling is key, as are market incentives and political warranties for farmers. Also, in food sovereignty processes, social movements, civil society initiatives and coalitions of the willing among larger food actors play a key role in advocating ecological, ethical and qualitative production methods. Luxembourg's government is tackling some of these areas in a sectoral approach, but not (yet) as a coherent national food policy. Finally, I will show how Food Policy Councils favour a deliberate shift towards effective multi-level governance of food sys-

cal skills and 'folk' knowledge" (ibid.: 267). MacKinnon and Derickson argue with Swyngedouw (2007) that thinking around the conservative notion of resilience (transposed to social sciences from natural and physical sciences) is resulting in the evacuation of the underlying and fundamentally political question of "what kind of communities and social relations we want to create", while merely focusing on the "imperative of transition" (MacKinnon/Derickson 2012: 266). In short, "a politics of resourcefulness highlights the material and enduring challenges that [...] communities face in conceiving of and engaging in the kinds of activism and politics that are likely to facilitate transformative change. Unlike resilience policy and activism, the concept of resourcefulness emphasizes the challenges [...] in terms of organizational capacity" (ibid.: 265).

tems - particularly the first Food Policy Council at national level that Luxembourg is currently founding.

2. Materials and Methods

Findings presented in this paper combine qualitative, empirical research methods to textual and statistical analysis, as well as transformative research my team is engaged in. Analysed texts were submitted to a "synoptic qualitative content analysis" (Mayring 2007), with the aim to condense the material to the essential findings without limiting content. Within the framework of the research project *Sustainable Food Practices* (2016–2022; project manager: Dr. Rachel Reckinger; project team: Dr. Diane Kapgen, Dr. Helena Korjonen and several external experts, https://food.uni.lu), semi-directive interviews are being conducted with relevant stakeholders from Luxembourg's food system, leading to in-depth understanding of actors' constraints and world views; their interrelations (of cooperation, but also of power imbalances) will be qualified in an interactive infographic by 2021. Additionally, qualitative field work on labelling scheme negotiations and procurement issues, as well as on transregional supplies for out-of-home-catering is currently being undertaken, and we are conceptualising indicators for a mobile sustainable shopping app, based on literature and previous research on Luxembourg's consumers priorities (Reckinger 2020; 2016; 2011; Reckinger/Régnier 2017). Our role as founding members engaged in participant observation processes of Luxembourg's Food Policy Council at national level gives us additional insights via participant observation into current policy processes.

3. Results and Discussion

3.1 Global interconnectedness

At the onset of confinement, we witnessed momentary shortages on Luxembourgish supermarket shelves, tensions among customers and towards overworked staff, closure of alternative food retail outlets for small producers[2] (such as markets or on-farm

2 However, many of them have been trying to find alternative ways to get to customers, as shown in the spreading of online-shopping possibilities and delivery by small retail actors, such as *Lëtzebuerger Geméis* (https://letzshop.lu/de/campaigns/32 or the newer *Alavita* or*Nala* (Now Act Local Association), who responded with an online shop during lockdown in spring 2020, or even the student initiative freschkescht.lu. Others now offer the possibility for delivery in their area (cf. www.editus.lu/fr/guide-pratique/restaurants-267t/covid-19-vos-commerces-sont-ouverts-1225a?fbclid=IwAR17a7ce-JA0ck1lTnimkLPJy5i4xU59oVOTmly8w8mZ5SswO08ut-jgYsZw). Similarly, restaurants switching over to delivery services during closure stepped forward (www.editus.lu/fr/guide-pratique/restaurants-267t/decouvrez-les-restaurants-actuellement-ouverts-1211a). Box schemes of complete or ready-to-cook meals are facing increased demands (such as *Yeswecook*, *Lenelife*, *GroupLunch*, *WeDely*, *Foostix*, *Lunchtime* etc.). Well established delivery services were completely overused during Lockdown (like *Luxcaddy*, www.rtl.lu/news/national/a/1487115.html, who were even trying to recruit more staff during lockdown). Others again use Letzshop.lu to propose their food in crisis adapted packaging, e.g. https://letzshop.lu/de/products/berdorfer-family-package-6df1e2). Represented retailers have dou-

shops), reduced numbers of customers allowed inside supermarkets who, then, did panic hamster purchases rather than well-planned bulk buying (to avoid renewed exposure to the promiscuity of supermarkets, while not depleting stocks) as well as overload of online ordering facilities (even large ones like www.auchandrive.lu). This suddenly goes to show how *artificial* the sheer abundance of foodstuffs which we are so used to in 'normality' is.

Abundance comes - as most consumers actually know but prefer to forget - at the price of complex, international logistics and long food supply chains with many intermediaries (all of which try to be economically viable, entailing an uneven distribution of gains, and value accruing "to a limited number of actors, reinforcing their economic and political power, and thus their ability to influence the governance of food systems" [iPES Food 2016: 3]). It also comes at the price of compensation of seasonality by long distances, of eviction of indigenous crops, their genetical diversity, and intercropping systems in favour of large, yet unvaried monocultures demanded in a globalized world market (such as soy in Central America for the European and US meat sector). Internationally increasing demands for cheap meat have lead to highly industrialised and intensive practices of livestock rearing in some countries, controlled by multinational corporations, entailing animal suffering and difficult working conditions for staff, but also outbreaks of severe zoonoses from pathogens mutating in, and emerging out of, these specialised agro-environments.[3] If such extreme husbandry systems are not the universal norm, the concentration of slaughtering facilities is a general trend in most of developed countries; their invisibilisation and social devalorisation has been an underlying issue, to which were recently added staff shortages due to COVID-19-related absences in a context of chainwork in close proximity. Corporate, powerful agribusiness dominates large parts of branded foodstuffs and thus economically orients large parts of food systems by perpetuating, intentionally or not, structural injustice, inequity and hunger.[4] Finally, this abundance requires a concentration of Europe's intensive horticulture in Mediterranean countries, impoverishing soils, relying on extensive watering and contributing to hyper-precarity of seasonal fruit and vegetable pickers, many of whom are illegalised migrants, etc. – thereby perpetuating global poverty.

A legitimate question is *how resilient and even resourceful a given food system is* when internationalised (if not globalised) supply interdependencies are delayed[5] – like now by

bled on this website since March 2020 and just before Easter, the volume of orders was 55 times higher than normal (Luxemburger Wort, May 5, 2020)

3 See Wallace (2016) for a detailed analysis of how many dangerous new infectious diseases in humans can be traced back to food systems based on intensification of genetically identical animals, "resulting in a monoculture that selects for such disease"—among them Campylobacter, Nipah virus, Q fever, hepatitis E, and a variety of novel influenza variants. There is a growing number of critical voices expressing that the origin of the current COVID-19 pandemic may be related to the industrialisation of China's food system since the 1990s, marginalising smallholders and pushing them into previously undisturbed ecosystems to farm 'wild' species carrying unknown viruses—while agribusiness is fuelled by international investments, urbanisation and political as well as economic struggles for wealth (Wallace et al. 2020; Spinney 2020a and 2020b; Lynteris/Fearnley 2020; Shah, 2020).

4 See iPES Food (2020) for a poignant summary of these intricacies in the particular COVID-19 context of spring 2020.

the various State measures to contain the spread of COVID-19 - or altogether disrupted - which may be the case in the coming months, depending on the prolongation of shutdowns[6]. Which vulnerabilities transpire, even in the wealthiest of Western European food-secure countries? EU member States since the beginning of the CAP had subsidiary leeway to shape their national food sectors (and also to some degree their protectionist responses to the competition among each other); but the rapidity with which borders even inside the Schengen space closed in March 2020 makes the focus on national performances eerily primordial and with it the question of States' food sovereignty.

3.2 Food sovereignty and risk-aversion

Food sovereignty[7] (Pimbert 2018; Brem-Wilson 2015) in a given country is characterised by the largest possible *diversity* of produced foodstuffs among staple food categories,[8] drinking water from the tap and recreational beverages (sparkling water, juices, wine, beer, spirits, etc.). At the same time, it is characterised by the highest degree of *autonomy* possible from international imports and transportation where local possibilities exist (i.e. apart from locally unavailable produce[9]) – in a democratic context ensuring equity and participation of producers and citizens.

5 Luxembourg's largest wholesaler, *La Provençale*, was suddenly under pressure due to market closures of its main clientele, the restaurant sector, while facing increasing demands from supermarkets and households. The company issued a press release arguing in particular the price increases and logistical difficulties in the typically longer supply chains of fruit and vegetables from Southern Europe, where shortages of manpower in harvesting as well as closed logistical facilities and border closures in transportation are described as pressing issues (https://today.rtl.lu/news/luxembourg/a/1487853.html). Similarly, industry leaders in the UK have launched an appeal for British citizens to come and work as harvesters on farms, in replacement of labour shortage of the usual migrant seasonal fruit & vegetable pickers due to the coronavirus pandemic (www.fwi.co.uk/business/coronavirus-urgent-appeal-for-brits-to-work-on-farms).

6 While Italy was paying a particularly high toll in the Corona pandemic, particularly in spring 2020, adding up to a political system quite distinct form the one in countries like Luxembourg, the more devastating social effects of food shortages are already being observed (Guiffrida/Tondo 2020; Mangano 2020).

7 "Food sovereignty, agroecology and biocultural diversity have inspired smallholder producers to contest the dominant paradigm and to reimagine agricultural production, ecological stewardship and economic development that is at once empowering and sustainable. Food sovereignty aims to counter globalization of food systems" (Pimbert 2018: 1).

8 Dairy products and eggs; fruit, vegetables and legumes; cereals, flour and bread; fish and meat from various, locally bread animals, but also transformed produce such as honey, jams, vegetable conserves etc.

9 It should be noted though that the possibility of local production and hence the degree of autonomy also depends on the way we define our consumption habits. For example, local alternatives to imported cane sugar exist in form of beet sugar; cereal-based coffee is not dependent on coffee bean import; herbal tea can be produced locally. Our daily habit of products that have in the past half century become ordinary as well as much-loved (such as black and green tea, cocoa beans and chocolate, tropical fruit etc.) should not occult that they remain in fact 'extra-ordinary' imports relying on a multitude of actors, on modern logistic facilities and on petrol. Besides commercial opportunities for producer countries, they tend to remain embedded, for the largest part, in postcolonial extractive relations of power and gain imbalances, and in indigenous sociocultural and socioecological, as well as ecosystem disturbances.

When looking at Luxembourg's situation in terms of food self-sufficiency, one has to consider that Luxembourg is a grassland region (52.6 % of land is agricultural surface - subdivided half and half into permanent pasture and fields - and 32.5 % are forests), which lends itself to cattle grazing. Yet relatively small-scale agricultural initiatives have shown (Altieri et al. 2012; FAO 2018), oftentimes with agroecological methods[10], that a remarkable diversity and intensity of mainly vegetable production is possible in horticulture on comparably small surfaces, requiring however a high input of manpower and, often, water supply[11]. Notwithstanding, combined crops, trees, pasture and domesticated animals in the sense of agroforestry are rare. Currently, Luxembourg has a self-supply ratio in *production* of 114 % and 99 % of its needs in beef and dairy respectively[12], but only 67 % for pork, 35.5 % for eggs and 1.4 % for chicken, as well as 3-5 % of vegetables and < 1% of fruit[13] (MAVDR 2019; https://agriculture.public.lu/de/lebensmittelsicherheit-qualitatszeichen/lokal-saisonal.html). In the *transformation* sector, the vast majority of goods are imported. Even though an increasing number of small food manufacturers produce a high variety of foodstuff (like cheeses, yoghurts, ice-cream, pasta products, jams, spreads, confectionary etc.) – and the country has a handful of larger companies in the transformation sector (among which a large dairy and a large grain mill active on the world market), the product range is insufficient to cover the national demand. For example, there is not yet a 'légumerie' on Luxembourgish territory, which could supply customers with non-perishable vegetable and fruit products, like conserves or compotes[14].

In food sovereignty processes, social movements and civil society initiatives, but also coalitions of the willing among established, larger food actors play a key role, yet they represent, for the moment, only a small proportion of alternative or civic food networks (Goodman et al. 2014; Renting et al. 2012) in Luxembourg. Initiatives such as the German *Mundraub* to set up a citizen-driven, participatory inventory of fruit trees or wild shrubs with comestible berries that are growing in nature or on public spaces, and to organise collective harvesting and processing of their yields[15], are not yet estab-

10 See in Luxembourg www.krautgaart.com or www.terra-coop.lu, among others. The website www.solawi.lu regroups all those initiatives.

11 "The world needs a paradigm shift in agricultural development: from a 'green revolution' to an 'ecological intensification' approach. This implies a rapid and significant shift from conventional, monoculture-based and high-external-input-dependent industrial production towards mosaics of sustainable, regenerative production systems that also considerably improve the productivity of small-scale farmers" (UNCTAD 2013).

12 For milk, the self-sufficiency ratio is an even more theoretical and complex calculation as for other agricultural produce, because imports, exports, reimports have to be further balanced by coefficients of conversions on the proportion of raw milk in transformed products such as yoghurts, cream, butter cheeses etc. Therefore, such a figure is merely a guideline of a general tendency. Here, it is composed of fresh dairy products (116.8 % for drinking milk, fermented and acidified milk, cream, other fresh dairy products), butter (56.1 %) and cheese (28.3 %) (provision by courtesy of SER, 3 April 2020).

13 Legumes for human consumption (such as peas, lentils etc.) seem to be currently so insignificant that no statistical data on them is available.

14 There are small companies making various pickles, the organic farmers' cooperative BIOG has developed a range of such produce etc., but all in all this sector still has a lot of potential for expansion.

15 Cf. https://mundraub.org. For now, only https://inter-actions.lu/ensemble-esch-nouveau-projet-recoltensemble recently started to develop this practice.

lished. Zero waste movements, the cooking up of "rescued food", public fridges with restaurant and canteen surplus cooked meals to pay for on a self-responsible basis, discounted prices for perishable foods close to the "use before" date, partnerships of supermarkets and restaurants to cheaply sell or donate unused merchandise to charities providing food banks for the poorest, community gardens in urban settings, often managed by grassroots transition-minded citizen groups, more technological and/or larger options of professional urban farming, 'do-it-yourself' and 'grow-your-own' community initiatives etc. are in place or burgeoning, but they are not yet systematic. Because field vegetables such as carrots, various salads, potatoes etc. grow well and can be integrated without major structural shifts into machine-based farming techniques and exploitations, there are increasing partnerships with wholesalers, public out-of-home-catering and commercial restaurants as well as retailers to buy such produce. In parallel, horticulture companies or cooperatives are developing. While they have high and diversified yields even on small surfaces of land and hardly any large machine usage (such as tractors or ploughs), they require more manpower. Private households access such regional produce to some degree in their local supermarkets, or via a membership in weekly box schemes or a yearly subscription to a community-supported agriculture group, or else on local markets (which are, however, much more scarce than for instance in France) or in on-farm outlets. There is also increasing interest by community gardens as well as private individual households in ancient seed varieties[16], that are open-pollinated, evolve with the local peculiarities of their environment and show higher risk-resistance, as opposed to genetically identical hybrids.

Together, these examples of existing and emerging initiatives show that there is potential to drive Luxembourg towards more food sovereignty, while maximising its natural potential of grassland region both for ruminant livestock systems and for scaling-up agroforestry.

3.3 Alternative and transregional partnerships among food supply chain actors

As a small country, Luxembourg would lend itself to shorter supply chains and more flexibility to adapt to changing circumstances (such as the extreme case of the current pandemic[17]) - but only if the food supply were diverse enough and also included more transformed produce that were made available in a plurality of independent outlets, not

16 See the Luxembourgish network SEED, that promotes the development and exchange of indigenous seeds with a non-commercial goal for private and community gardens (cf. http://seed-net.lu/)

17 Luxembourg's second largest wholesaler exclusively distributing fruit and vegetables, reacted quickly to the coronavirus pandemic by opening an online delivery shop for composed mixed fruit and vegetable boxes according to their supplies. They explicitly use *#flattenthecurve* as a legitimation for delivery free-of-charge over the national territory (www.fruitathome.lu). This fast pop-up store was probably made possible by their already existing logistical infrastructure for the service http://fruitatoffice.com/fr that they provide in normal circumstances. The Chamber of Commerce's recent initiative for local yet online shopping, featuring specific, branded products in various food and non-food categories, www.letzshop.lu, has created an emergency branch for foodstuffs of prime necessity for the alleged Corona-risk groups, www.corona.letzshop.lu. It conveys a message of austerity that at least the younger generations are totally unfamiliar with, by only featuring generic foodstuffs, such as "milk" presented in a white carton, without the option of choosing neither a brand nor a product type (organic, local, full-fat etc.).

just by supermarkets with their long-standing suppliers and central purchasing bodies. Quantities are a general issue. On one hand, small producers have fluctuations and cannot easily guarantee constant or large supply of clients such as restaurants, canteens or supermarkets. Here, a cooperative-run platform or food hub[18] provisioned by a number of small producers but functioning as a one-stop-shop for professional buyers (also tenders of public markets) receiving their regional produce as composed by various producers, but via a central platform, would be helpful. Indeed, international case studies have shown that "politicized farmer/peasant organizations and cooperatives can be highly influential, particularly if they combine cooperative marketing functions"[19] (iPES Food 2018: 6). On the other hand, larger companies in Luxembourg (such as wholesalers, local supermarkets or dairies) do indeed offer commercial partnerships and purchase guarantees to producers who accept to invest into specific, missing products or production lines. Yet, for those initiatives to be truly profitable, a larger market than Luxembourg's national territory would be useful[20]. Here, transregional partnerships[21], for instance in the Greater Region or beyond, would help put into practice regional food in a supranational sense - including the tricky aspects of fiscality regimes, legal frameworks and price policies, to be negotiated in cross-border cooperation. For example, the Interreg project AROMA[22] is currently setting up a Competence and Resource Centre for such cases, going beyond nationalistic and protectionist understandings of regionality (as they tend to prevail in larger countries less dependent on cross-border

18 "One primary means to relocalise food system infrastructure is through the development of food hubs. Food hubs are local or regional facilities that aggregate, store, process, distribute, and/or market locally produced foods. They have gained in popularity as a way of re-regionalizing food processing and distribution for the benefit of local producers and consumers. Food hubs are multi-functional, by rebalancing value along the supply chain, creating local job opportunities, and providing space for greater social interactions and education around food. They support small- and medium-size farmers by aggregating processing and retail facilities for year-round distribution and may contribute to reducing packaging and plastic use in the food chain via direct marketing. Food hubs—especially those located in peri-urban or urban areas—can also improve access to healthy food for low income groups, and contribute to social integration by acting as community food centres (e.g. merging the physical space usually reserved for food banks with farmers markets, community kitchens, and spaces dedicated to educational activities relating to food). Lastly, as food hubs allow multiple producers to aggregate production volumes, public institutions should be encouraged to connect to their local food hubs for easier access to local produce. This would allow local and regional authorities to meet the green public procurement targets as defined in municipal and regional strategies" (iPES Food 2019: 92). A recent example of a privately owned, small food hub working as a start-up addressing private households is www.labelterroi.lu.

19 Such relocalising of food and farming systems involve a "reconnection to local markets, culture, and community [...]. This included a focus on home gardens, farmers' markets, CSA schemes and other forms of direct sales, local public procurement, as well as steps to source inputs within the farming communities. This did not come at the expense of external trade: actors were able to negotiate better terms on national/international markets on the basis of the new organizational capacities developed through the transition initiatives. With its own infrastructures, extension agents and retail circuits, organic agriculture provided a key focus in many of the cases and helped to secure local and distant markets, as well as political support and funding, as farmers shifted their practices" (iPES Food 2018: 6).

20 Pointing at the same time to potential difficulties in economic viability of food sovereignty attempts.

21 As well as social science research on the barriers and levers they face.

22 Approvisionnement Régional Organisé pour une Meilleure Alimentation (AROMA). Vers une organisation transfrontalière d'approvisionnement alimentaire local pour la restauration hors domicile en Grande Région (www.aroma-interreg.eu).

trade). The AROMA consortium focuses on transregional, short supply chains of high-quality agricultural produce, aiming at making it more easily available for out-of-home-catering actors in the four territories of the Greater Region. Besides the concrete creation of facilitation tools for actors, AROMA provides a qualitative study, researching the involved actors' motivations and constraints, but also the appropriations and resistance processes of such a socio-technical innovation tool as a whole. AROMA also issues an underlying study on the quantitative needs of various food categories for the entire sector of out-of-home-catering in the Greater Region and establish a relation with the quantities of the same product categories as currently being produced on the same territory. The result is that, apart from fish, chicken and tomatoes, all reviewed product categories[23] are already being produced in sufficient quantity to cover the Greater Region's out-of-home-catering sector's needs for self-sufficiency, and even in surplus: the amount of onions produced in the Greater Region corresponds to 48 times the demand of its out-of-home-catering sector; the amount of carrots produced corresponds to 11 times the demand, and that for beef is 18 times. Yet at the moment, only a minority of these foodstuffs are served in canteens of the Greater Region - which points to the fact that food sovereignty is less an issue of natural resources or production constraints than a logistical and political one of supply chain management, market orientation, various national legislative regulations and fiscal regimes.

3.4 Knowledge, market incentives and political guarantees

All in all, experts point to the necessity of a model of agriculture that is based on "diversifying farms and farming landscapes, replacing chemical inputs, optimizing biodiversity and stimulating interactions between different species, as part of holistic strategies to build long-term fertility, healthy agro-ecosystems and secure livelihoods, i.e. 'diversified Agroecological systems'" (iPES Food 2016: 3). However, such a sustainable and resilient agricultural system is quite labour-intensive - the current ratio of 0.6 % of Luxembourg's active population working in agriculture (STATEC 2019), as the first step of the food circuit, is insufficient, particularly given the fact that Luxembourg's farmers leading main businesses work on average 60 hours per week (SER, 2016: 7): with this workload, they cannot easily take on more diversification tasks[24]. In a transition to more resource-friendly production systems for the livestock, the ecosystem, the population and the farmers themselves, there is a need for more human work forces, also in the form of neo-peasantry and lateral entrants to the farmer profession. This entails a situation where knowledge diffusion and exchange are key to success. Guidance from best practices in (international) peer groups suggests "promoting farmer-to-farmer knowledge sharing" (iPES Food 2019: 52), experimenting with active entrepreneurship to reduce pathway dependencies, and making sure of political backing when displaying in-

23 They are, in descending order: milk, wheat, potatoes, beef, onions, carrots, pork, apples, eggs, green beans, peas, salads, courgettes, pears, cucumber, strawberries (AROMA 2019: 5).

24 The research project SustEATable at the IBLA research institute, that we are partnering, is currently analysing farm practices and conditions, in relation to food system scenarios, in further detail (www.ibla.lu/susteatable).

ventiveness to downsize exponential areas in favour of underdeveloped niche products with significant added value. Indeed, if there were more market incentives and political guarantees, such shifts would be less risky for farmers—particularly but not only in the case of the shift from conventional to organic production. Luxembourg's Organic Action Plan *PAN-Bio 2025*, presented in March 2020[25], has set a target to make 20 % of agricultural surfaces organic by 2025. The Ministry of Agriculture, Viticulture and Rural Development has been allowing for extended exchanges (of experience, knowledge and concerns), by organising participatory workshops with agricultural actors and related experts around this new Organic Action Plan, but also around an ongoing SWOT analysis of the sector focussing on the two CAP pillars (in the context of the CAP reform for the period 2021 to 2017), combined with a future National Strategy Plan[26] (MAVDR 2020). Nevertheless, for the moment, "the benefits diversified farming brings to society are barely rewarded by current subsidies and support measures under the CAP. This calls for a wholesale shift in these incentives in order to facilitate a transition in agriculture[27]" (iPES Food 2016: 2). "Rather than focusing primarily on regulat-

25 Cf. www.wort.lu/de/politik/landwirtschaftsministerium-stellt-bio-aktionsplan-vor-5e629c33da2cc1784e357beb.

26 The three domains of Climate, water and resource protection; Rural and communal development; Food, health, sustainability and animal welfare, are organised into nine key objectives. The publication of a first draft of this national strategy plan is scheduled for June 2020. It will be coordinated with the European Commission and subsequently transposed into national law by 2022 (https://agriculture.public.lu/de/actualites/dossiers/2020/gemeinsame-europaische-agrarpolitik-2021-2027.html).On 30th October 2020, the Minister of Agriculture presented a relaunch pack for agriculture, composed of 2 mio. € (as already announced in June 2020, in favour of those farms with a business-model based on welcoming the public, that suddenly lost their income during lockdown, i.e. horse stables, paedagogical farms and wine tasting venues). In autumn, then, additional 3 mio. € were added for lifestock-rearing farms producing beef and for wine-growers, due to very limited opportunities to sell meat and wine to restaurants and hotels, as they were initially closed, and then reopenend with restrictions. Besides these consolidation measures, a digitalisation platform aiming at centralising data from agriculture, was announced to be funded (https://agriculture.public.lu/content/dam/agriculture/publications/ma/actualités/201030-paquet-de-relance-covid19/201030-Mesures-paquets-de-relance-1+2.pdf).

27 At EU level, the former UN special rapporteur on the right to food, Olivier de Schutter and the research team iPES Food (International Panel of Experts on Sustainable Food Systems) lobby for introducing an EU-wide 'agroecology premium' as a new rationale for CAP payments, incentivizing nitrogen-fixing legumes, pastures and agroforestry, putting independent farm advisory services in place, promoting farmer-to-farmer knowledge sharing, and ultimately phasing out the routine use of chemical inputs [...]. The EU must reform public procurement and VAT rules, and comprehensively restrict junk food marketing, in order to shift the incentives in favour of healthy and sustainable diets. Furthermore, the EU should require Member States to develop Healthy Diet Plans (covering public procurement, urban planning, fiscal and social policies, marketing, and nutrition education) as a condition for unlocking CAP payments" (iPES Food, 2019: 52 and 68). Besides the CAP, "EU agri-trade policies continue to promote the interests of powerful export industries, including in the high-emitting meat and dairy sectors. Taking advantage of power imbalances, the EU has pushed through trade agreements that lock developing countries into socially and environmentally harmful export commodity production, while undermining their ability to pursue sustainable development pathways (e.g. via investor protections and restrictive IP rules). Urgent steps are therefore required to remove trade-distorting CAP incentives, to strengthen sustainability clauses in trade agreements, to make food importers accountable for ensuring their supply chains are free from deforestation, land-grabs and rights violations ('due diligence'), to remove investor protections ('ISDS') in trade agreements, and to provide accessible complaints mechanisms for farmers and civil society. Ultimately, free trade agreements must be re-

ing markets and supporting farmers through standardized EU-wide policy tools, the EU must find ways to encourage local food initiatives, which are increasingly circumventing conventional markets and supply chains" (iPES Food 2019: 36). Complementary to bureaucratic supranational regulations, this could be achieved via trusted local institutions (NGOs, educational establishments, local food policy councils etc.) and funding opportunities.

3.5 Food literacy

The more that high-quality, ethical and sustainable local foodstuffs are made available and hence become the 'normal', default choice (the so-called *Ökoroutine*, see Kopatz 2016) - particularly for captive audiences in out-of-home catering (at schools, hospitals or companies) - the more sensitivity consumers will develop for local contingencies, ethical *and* high-quality, possibly organic food, seasonality, production constraints etc. This virtuous loop would be enhanced if a responsible food literacy were embedded in mandatory Education for Sustainable Development (EDG) programmes for children, pupils and students[28], where the conditions and intricacies of the Global North countries' "imperial way of living" were pedagogically and experimentally addressed and learned. "Daily life in capitalistic economies is largely made possible by exploiting other world regions' natural and social resources, namely by the unlimited access to work capacity, natural resources and natural sinks (ecosystems that absorb more of specific substances than they emit to their environment)"[29] (Brand/Wissen 2019: 43). More, the "imperial" abundance here is based on fundamental inequity and exclusivity: "it presupposes that not all humans have equal access to the Earth's resources - only then may the costs of exploitation be externalised in space and time"[30] (ibid.: 122).

A way to a more socially and environmentally just and resilient food system is hence sufficitarian consumption. Consumption could be reduced, "not to bare essentials but to a sensible and meaningful proportion. An insight from the current crisis could be to no longer access as many cheap products from the world market as possible"[31] (Brand/Högelsberger 2020). The twist here is to convey that ethical, sustainable, responsible,

placed by sustainable trade agreements, i.e. a new model in which trade liberalization is no longer the primary goal" (ibid.: 94).

28 Such as the new *Ecole du Goût* (www.naturpark-our.lu) targeting primary school children or the Centre Hollenfels—centre sur le développement durable (www.hollenfels.snj.lu/education-au-development-durable) targeting secondary school-age youth. The integration of food literacy competencies into the regular school curricula is an additional necessity.

29 Personal translation of : "[...] dass das alltägliche Leben in den kapitalistischen Zentren wesentlich über die die Gestaltung der gesellschaftlichen Verhältnisse und der Naturverhältnisse andernorts ermöglicht wird: über den im Prinzip unbegrenzten Zugriff auf das Arbeitsvermögen, die natürlichen Ressourcen und die Senken—also jene Ökosysteme, die mehr von einem bestimmten Stoff aufnehmen, als sie selbst an ihre Umwelt abgeben".

30 Personal translation of: "Sie setzt voraus, dass nicht alle Menschen gleichermaßen auf die Ressourcen und Senken der Erde zugreifen. Nur dann lassen sich ihre Kosten in Raum und Zeit externalisieren".

31 Personal translation of: "[...] nicht auf das Nötigste, sondern auf das Sinnvolle. Eine Einsicht durch die aktuelle Krise könnte sein, nicht mehr auf möglichst viele und billige Produkte vom Weltmarkt zuzugreifen".

healthy food production and consumption choices are not an imposed austerity constraint, but an affirmative and hedonistic pleasure of 'clean' and tasty food.

3.6 Political governance

One way the State has to incentivise the production, the distribution and the consumption of such produce is via labelling schemes that certify various types of quality (from sustainable via nutritious to ethical), both for individual consumers' priorities and for public procurement actors' legal framework in selecting sustainable or ethical foodstuffs.

Governance-led quality certifications can indeed enhance food literacy and more sustainable purchases in private households or more sustainable procurement behaviour among public buyers[32]-but only if these labelling schemes transparently *show* their added-value (instead of merely claiming it) and if they are backed by laws that make defined sustainability criteria *mandatory* (instead of merely recommending them) (Reckinger/Kapgen/Korjonen 2020). In this sense, Luxembourg's upcoming law on a national label *agrément* [33] is a meaningful step, but only if the defined sustainability criteria go ambitiously above and beyond the legal standard and are verifiable, and if the labelled produce's performance is communicated to consumers via a factual and transparent logo. Such underlying yet efficient action can be combined with direct recommendations to public institutions and private households (Reckinger/Régnier 2017), providing analytical, top-down information and appealing to individual responsibility.[34] Also, empirical data from previous studies (Reckinger 2016) show that customers operate a selective internalisation of the perceived recommendations in a proactive yet pragmatic posture of personal responsibility. Which goes to show that such indirect incentives only bring about slow and partial change.

But now, in the urgency of the pandemic, "commands and prohibitions have become a matter of course, yet politicians have not yet dared to do so when it comes to climate protection measures. Incentives, awareness-raising and market regulation have been the promoted solutions – but have largely been failing. With Corona, it becomes conceiv-

32 Namely by making the EU "voluntary instrument" Green Public Procurement (GPP) mandatory for member States (www.ec.europa.eu/environment/gpp/index_en.htm).

33 This is a State-controlled, external approval system and controlling mechanism of all national quality labelling schemes, that will be rated according to indicators.

34 With a colleague, I examined the implementation of nutritional recommendations in France and Luxembourg. Each of them has promoted at governmental level a public health campaign regarding food consumption and daily diet. We first assessed the overarching goals as well as the dietary norms these two programs promote, in terms of similarities versus particularities both of the recommendations' content and of the way they are communicated; we then examined the perception of these norms. The comparison France/Luxembourg shows that socio-cultural logics override national ones: the way in which individuals perceive the recommendations and appropriate them reflect more the social affiliation than the national one; gender and the events of the life cycle, particularly parentality, are also relevant to the reception of dietary recommendations. Transversal to all social milieus and in both national contexts, interviewees operate a selective internalisation of the perceived recommendations in a proactive yet pragmatic posture of personal responsibility. Which goes to show that such incentives only bring about slow change (cf. Reckinger/Régnier 2017).

able that an efficient climate policy can definitely be more stringent and must state prohibitions in the face of a crisis. [...] When urgent action is necessary, no one leaves the solution of the problem to the 'market': the government and the public sector have to act. Admittedly, under democratic and transparent conditions"[35] (Brand/Högelsberger 2020). Stringent and encompassing governmental action could hence act as a lever in transitions to more resilient and sustainable food systems. Democratic and accountable governments, communicating in a factual, transparent and timely way, contribute to bring about a "self-motivated and well-informed population", who interiorise these facts and thus tend to act more responsibly. Yet, "to achieve such a level of compliance and cooperation, [...] people need to trust science, to trust public authorities and to trust the media" (Harari 2020). Such trust is, however, equally built on concrete, meaningful societal action: citizens need to see that publicly-funded science is useful, providing (even if considered inconvenient) guidance through complexity, foster participative social learning for various actors and thus have a potential transformative effect, while staying independent and critical. Citizens also need to see that their governments demonstrate a fair degree of equity to all citizens by its institutions such as education, infrastructures, social security, healthcare etc., and also international solidarity in fair sharing of assistance[36]). And citizens need to see that the media provide well-sourced coverage, but also 'solution journalism' (focussing on local and atypical innovations that might be helpful or inspirational at a broader level).

3.7 Multi-level and multi-stakeholder shared governance at local, regional, national and EU level

In such cultural contexts, conditions are optimal for a "deliberate shift towards effective multi-level governance" (iPES Food 2019: 24) of food systems. Social movements and civil society can bloom and experiment creatively with innovations (Andrée et al., 2019). As success sets in gradually, such emerging local food initiatives move away from the margins[37] - the fast rise of the Transition Movement[38] is one example, but there are many more, oftentimes lead by civil society or NGOs - and they can engage with "formal legislative processes at EU and national levels. This could take the shape of a new

35 Personal translation of: "[...] wird völlig selbstverständlich auf Gebote und Verbote gesetzt, was sich die Politik beim Klimaschutz bislang nicht traut. Anreize, Bewusstseinsbildung und der Markt sollten es regeln—und versagen weitgehend. Mit Corona wird denkbar, dass auch eine ernst zu nehmende Klimapolitik durchaus strenger sein kann und angesichts der Krise Verbote aussprechen muss. [...] Wenn dringendes Handeln notwendig ist, überlässt niemand die Lösung des Problems dem 'Markt', sondern Regierung und öffentliche Hand müssen agieren. Allerdings unter demokratischen und transparenten Bedingungen".

36 In a way, governments themselves need to display responsible citizenship, by not giving in to hamster purchases or disunity—in general, and particularly in the current Corona-context, where there is a tendency of competitively hoarding equipment and medical staff.

37 Such initiatives are not usually fit for upscaling, but rather for mushrooming by multiplication, or by ubiquitous spreading and exemplarity (Reckinger 2017: 10). Still, "a series of modest steps can collectively shift the centre of gravity in food systems" (iPES-FOOD 2016: 3).

38 Cf. https://transitionnetwork.org, and for Luxembourg www.cell.lu/fr/all-project-list/transition-luxembourg.

mechanism for systematic coordination, practice sharing, and learning at EU level on local and territorial food initiatives, including urban and regional food policies. (iPES Food 2019: 36). One supra-national example is the Farm to Fork strategy, issued by the EU in 2020, as one of the strategies within its Green Deal program, aiming at making Europe climate neutral by 2050. This strategy integrates a larger number of actors from the food system than the classical agrifood supply-chain, yet is does not have a strong focus on including vulnerable stakeholders nor on trade policies.

A more *profound* transformative view is put forward in the proposition for a Common *Food* Policy, prioritising public participation and experimentation at EU, national, and local levels (iPES Food 2019). It aims at systemically enhanced coherence, ethics and aligned objectives among all food-related policies, instead of focussing on individual sectoral policies. It is currently being advocated for by 400 experts in farming, food entrepreneurship, civil society, academia and policymaking. Such an overarching and integrated EU-wide framework for a comprehensive, ethical and sustainable food policy would be an ideal case[39], restoring "democracy and accountability for food systems" (ibid.: 7).

The setting up of food policies by EU member States complement this approach, particularly if they support "local, multi-actor, territorial-scale innovation" (ibid.: 80). Optimally, robust food systems are, food sovereign ones underpinned by systemic ethics (Bui et al. 2019), meaning that actors are dedicated to sustainable change in their values and daily lives. In order to put into practice the ideal of food sovereignty, one needs food democracy structures. This does not mean simply that elected politicians should be in the service of the public interest relating to food (De Schutter 2017), but that specific bodies should be established, in which various stakeholders of the territorial food system co-create a diagnosis, guidelines and actions for transformation.

Food sovereignty needs a collaborative governance (Andrée et al. 2019), which includes the engagement of stakeholders in a more transformative and dialogic structure, based on common problem-solving, consensus, trust and the recognition of power and resource asymmetries. This goes beyond multi-stakeholderism, where participants merely have a consultative role.

Such bodies complement representative democratic structures by dialogic ones (Callon 2009). They include minority views and thus facilitate the emergence of systemic food ethics. Among them, in particular, Food Policy Councils are innovative and efficient tools for multi-scale governance and innovation, chiefly because they connect governmental action, business initiatives and grassroots innovations, as the three main pathways for reform. However, those three domains cannot individually bring about

39 Our research project participated in May 2018 at the conference *EU Food and Farming Forum* (www.eu3f.com), along with 400 other experts, activists, researchers in order to discuss and fine-tune the European Economic and Social Committee's (EESC) call for a comprehensive European food policy (published subsequently in iPES-FOOD, 2019). To the EESC, such a policy should aim at "providing healthy diets from sustainable food systems and linking agriculture to nutrition and ecosystem services while ensuring supply chains which safeguard public health for all people in Europe. [...] The current EU framework does not suffice for a transition to more sustainable food systems" (www.eesc.europa.eu/en/news-media/press-releases/eu-needs-comprehensive-food-policy). iPES Food suggests such a Common Food Policy should extend and replace the current Common Agricultural Policy (CAP).

change: they require coordination, regular co-operation and equity – which Food Policy Councils are able to provide.

Luxembourg is currently founding a national Food Policy Council. Hopefully, this multi-stakeholder platform will aim for a collaborative governance. This would truly allow for independent co-operation as equal partners from the following three sectors: 1. Policy and administration; 2. Research and civil society; 3. Production, transformation, gastronomy and trade. Additionally, a participant observant yet critical academic monitoring should assess the processes and impacts. The potential for Food Policy Councils to develop new approaches and enhance existing ones, is both unprecedented and timely. Here, social learning accelerates and can result in the mushrooming of many-small initiatives with sociocultural and economic exemplary value.

4. Conclusion

To sum up, an optimally sustainable and resourceful food system is "socially just, ecologically regenerative, economically localised, and [it] engage[s] a wide range of people across food systems" (Andrée et al. 2019: VII). It provides food security with high-quality, ethical and sustainable foodstuffs for its entire population (not only the wealthy fringes), in a larger regional (not rigidly national) context, by shortening supply chains in a regionalised and cooperative way that is economically viable for all professionals involved, also the small ones[40]. Its relative food sovereignty is based increasingly on local diversification and innovations - be they in production, transformation, retail and public procurement for canteen food, but also in the political governance. This involves many collective learning processes in a democratic setting allowing for participation and equity.

Practices of diversified agroecological farming[41] are most adapted for this goal of resourceful food and farming systems with low vulnerabilities, as are cooperative (even transregional) food hubs, initiatives for direct marketing among producers and individual consumers, but also political decisions "to ensure the purchasing of local agroecologically-produced/organic foods" (iPES Food 2019: 92). These new forms of cooperation and knowledge-creation help to develop "new market relationships that bypass conventional retail circuits" (iPES Food 2016: 3); they explicitly aim at reducing socially and ecological exploitative practices and negative externalities in developing countries (Brand/Wissen 2019). It is not enough to focus on national agricultural policies nor on the European Common Agricultural Policy, but rather on effective policy coherence (or on systematically reducing policy incoherences). National as well as EU policies should

40 Currently, the EU-wide situation tends to be darker: "The standardization, consolidation and globalization of supply chains has come at a major cost to farmers (who face high costs and a declining share of values), foodworkers (whose working conditions are driven down), the environment (through an explosion of food waste and packaging), and consumer health (through chemical exposures in food/packaging)" (iPES Food 2019: 80).

41 They offer an "exit from the treadmill of industrial agriculture"—even large-scale ones. In the EU like in Luxembourg, there is a preoccupying trend for the closure of farms (SER 2016a), and with them the losing of peasant knowledge.

incentivise alternative and civic food networks (Goodman et al. 2014; Renting et al. 2012), based on a multi-level governance, that includes "learning mechanisms and increased support for local experimentation (by managing complexity & building complementarity" (iPES Food 2019: 33). In order to achieve that, there needs to be a collective understanding that transformative action is not only needed at the level of food supply circuits, but in the transition of the entire system of actors that revolve around food, in their various domains of expertise.

There needs to be a shared understanding of governance models based on equity and ethical values among professional actors and in food democracy structures dedicated to food sovereignty, such as Food Policy Councils. At various levels, Food Policy Councils can collectively spring innovations, test them with their various partners and communicate them more widely.

This piece of critical, social science research is providing food for thought about the complexity and interdependencies within food systems. It is intended to act as advocacy for local food system actors, empowering their extended experiences, innovative ideas, collaborative knowledge, continued or start-up entrepreneurship and policies, in order to expand the resourcefulness of Luxembourg's food system in general terms of sustainability, and in particular terms of crisis.

Of course, Luxembourg with its small size cannot alone achieve the considerable societal challenges involved in the shifting of its food system, embedded in EU and global intricacies, to a truly resilient and resourceful one, socially and ecologically just, as well as economically sovereign. But because of its small size and its unique multi-cultural population, it can provide a favorable site for experimentation with, and research on[42], sustainable innovations at the local or transregional level: namely, it can build a multi-stakeholder-led effective food policy - spanning agriculture, trade, social inclusion, education, public procurement, education, (circular) economy and international cooperation, with cohesion among the various sectoral policies. Luxembourg will then be equipped to use its considerable political and economic international weight to push such best practices for food sovereignty forward.

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42 There is a need for independent social sciences research on sustainable food systems, to analyse foodscape complexities, the involved actors' priorities, interests and latitudes for action. Informed policy decisions can, then, be founded on such findings. Social sciences, in particular, are useful to provide a critical view on the policy coherence of existing and newly created legislative tools, on their appropriations by actors and on their effects on various timeframes and levels.

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