



## LET'S FOOD

# A TERRITORIAL APPROACH TO ENSURE FOOD RESILIENCY: LESSONS TO LEARN FROM THE COVID19 HEALTH CRISIS

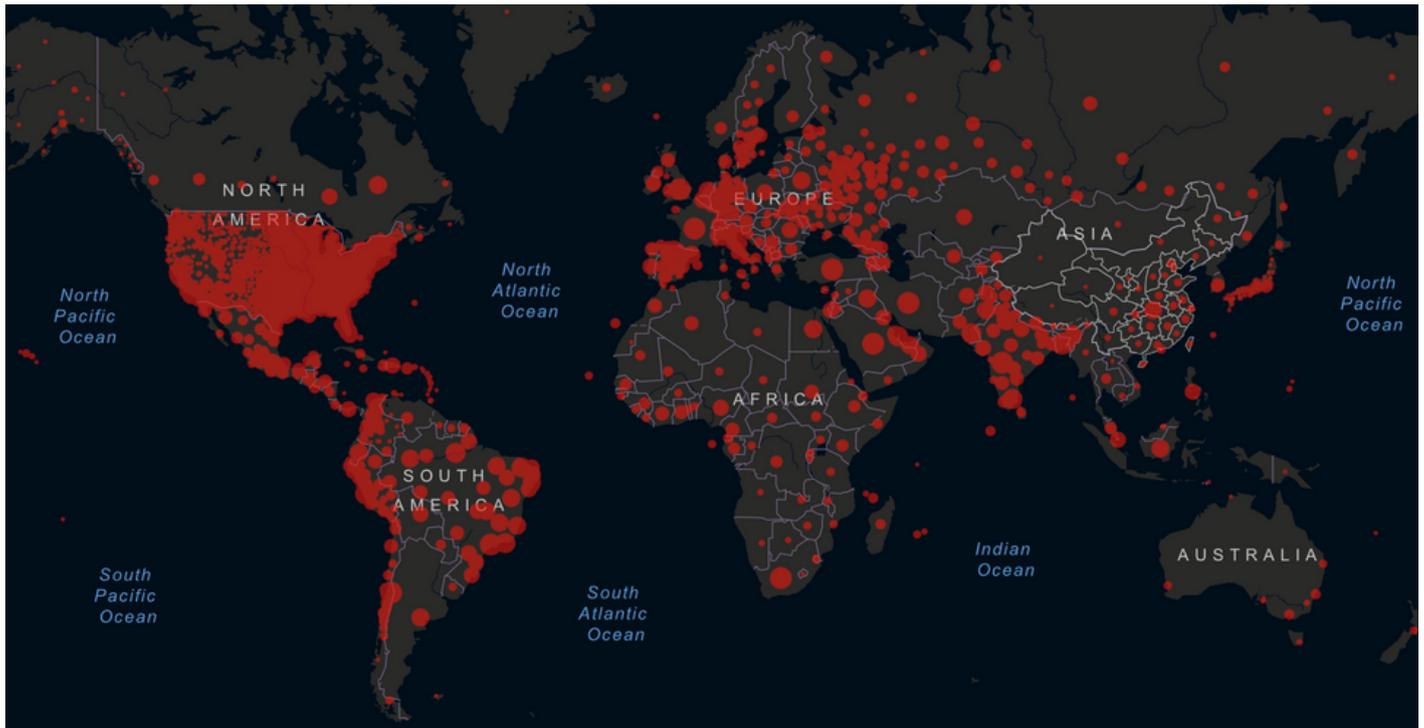
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RESULTS OF THE INTERNATIONAL COVID 19  
LET'S FOOD QUESTIONNAIRE  
JULY 2020

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# DISTRIBUTION OF CONFIRMED COVID19 CASES WORLDWIDE 06/07/2020



Source : COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins, 06/07/2020

## WERE CITIES PARTICULARLY IMPACTED?

COVID19 has brought a new series of challenges: Job loss, paralyzed industries -like tourism, cultural sector, small cafes, and family-owned businesses- loss of remittances, food shortages due to borders lockdown might come with a spike on prices and disruption in services. With more than half of the world's population and producing more than 80% of the global GDP (20), cities sit in the frontline of the current crisis.

In many countries, cities have often been the entry points for the virus and thus particularly affected by the COVID 19 crisis. If population concentrations, international connections (tourism, economic activities, etc.) and the difficulty enforcing certain barrier measures partly explain the higher risk of contagion and spread, an OECD study reveals that the main vector has been poverty and access to care, combined with population densities and the quality of housing. This explains in particular that certain disadvantaged neighborhoods were more impacted than others within the same city.

Whether rural or urban areas, it is clear that very few of them were prepared to face such a crisis. Local governments have been at the forefront of responding to growing social needs. They will be even more so tomorrow in the face of the economic and climatic crisis and this in the context of reduced financial resources.

What COVID19 has brought to light, despite being studied and documented, is the increasing disparity and inequality among and within territories. The roar of "stay at home" could not apply to all, in countries like in Mexico where 57% of the population works in the informal sector (21), stay at home equals no money that day, and potentially skip at least one meal. In light of that, among the main recommendations of the OECD:

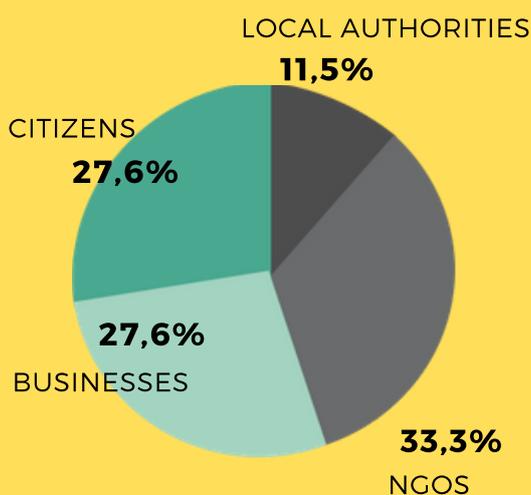
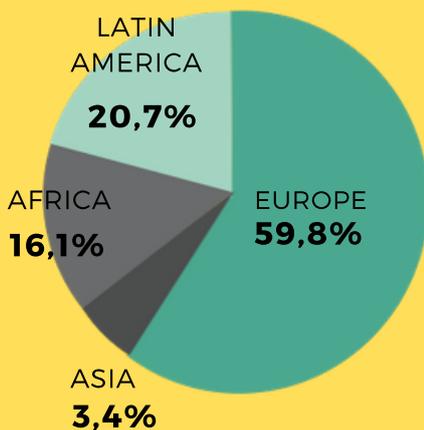
- while ensuring the territorial equality of public service, States must strengthen their financial support to local authorities so that they can support the most vulnerable populations
- local authorities at all scales must cooperate in order to coordinate and optimize the use of resources
- we must strengthen cross-border and international cooperation between territories in order to offer coherent and beneficial responses to all. (19)



## SHARE GOOD PRACTICES

The Let's Food association analyzes territorial food systems around the world and supports multi-stakeholder approaches to develop resilience, sustainability and food security at the local level. In order to speed up the transition, the exchange of good practices from NGOs, businesses and institutions is essential. Faced with the global health crisis, the Let's Food association surveyed local authorities and civil society organization from 5 continents on the impacts and solutions implemented in order to build on collective intelligence. Which food systems were most resilient? How were the different food system stakeholders able to innovate? How did producers, artisans, the food industry or even school canteens, supermarkets adapt their activities to the shortage of labor, stocks and marketing opportunities? Stuck at home, did consumers rediscover the complexity of food chains which normally allow them simple and permanent access to too inexpensive food that does not internalize social and environmental costs? Did they change their eating habits, rediscover the value of food, the importance of nutritional balance, culinary know-how? What are the individual but above all structural changes that need to be implemented urgently?

**87 respondents**



# OUR FOOD SYSTEM IS VULNERABLE



The COVID crisis revealed the multiple vulnerabilities faced by urban areas in terms of food security. It also showed the adaptation and resilience capacities of civil society organizations and some local authorities committed to sustainable food. In Durban, Fez, Cork, Ho Chi Minh City, Azuay or Lyon, cities today face similar issues: they have delegated the responsibility of feeding their population to a multitude of actors more or less distant and more or less guided by the general interest.

As a consequence of a food system based on the multiplication of trade agreements and the agricultural specialization of the countries, the food supply of the urban centers depends today largely on the imports coming from distant territories, disconnected from the local rural areas whose productions are also intended for export. By closing the borders and interrupting food flows, the COVID19 crisis revealed extreme interdependencies and risks regarding the food availability of urban centers.

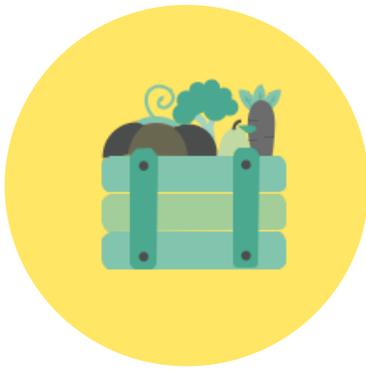
In the short, medium and long term, the food availability of all territories is questioned today. Our globalized agriculture has suffered and still suffers from its inconsistencies in the face of limited movement of goods and workers. European farmers lack foreign (and cheap!) labor to be able to ensure the harvest and the new plantations, other territories like Vietnam or Tunisia had their exports (and their incomes!) interrupted by the closing of borders without always having anticipated storage capacities.

By centralizing demand, multiplying intermediaries and lengthening distances, the risks have gradually increased for all the actors of the food chain in the event of an outbreak.

The second impact of the COVID19 crisis, which is hitting urban centers hard, is the increase of the deterioration of the socio-economic situations of households. There is an intrinsic relation between income and food affordability/access. COVID19 deepens this by those whose incomes have collapsed with the interruption of activities. Dependent on their purchasing power to get food, urban populations are today particularly affected by rising prices\* and the difficulty of ensuring their food security. The requests for food aid, mainly from associations and local authorities, have exploded on the territories: in France but also in South Africa, England or Italy. In France, the NGO "Les Restos du Coeur" estimates that the number of beneficiaries was multiplied by in the first month of confinement (1).

The crisis finally reveals the health consequences of the changing diets, particularly in cities in recent years: faced with a deregulated explosion of supermarkets, fast food restaurants, ultra-processed products and ubiquitous advertising, the consumption of high-in-fat, salty, sweet products has increased at an alarming pace, such as the rates of obesity, diabetes, cardiovascular disease. These diet-related chronic diseases weaken the immune systems and have become fatal handicaps in the face of the virus. In France, in April 2020 at the height of the crisis, 83% of people in intensive care were overweight (3). To fight against current and future pandemics, access to healthy food for all is an essential preventive remedy whose benefits largely lack media coverage.

\* In France, between March 2, 2020 and April 11, 2020 the average price of fruits and vegetables increased by about 9%. In times of crisis and closed borders, France had to stop importing and refocus on French products, which were necessarily more expensive but of better quality (2)



# IMMEDIATE MEASURES TO ADDRESS THE RISKS OF FOOD INSECURITY IN URBAN CENTERS

Faced with the difficulty of States to respond to the specificities of each territory, cities have taken action to ensure food security and put in place emergency measures. Civil society actors as well as some committed municipalities, in the continuity of their actions, have often strengthened their efforts to fulfill their mission.

The measures aimed above all at facilitating the meeting of local supply and demand while subsidizing access to fresh products for the most vulnerable.

## ENSURING FOOD SECURITY FOR VULNERABLE POPULATIONS

By funding food aid organizations or by purchasing and distributing local products directly, local authorities have played the role of conscious intermediaries, buying local products at fair and equitable prices and offering healthy food for free or at an affordable price to the most vulnerable populations.

### MARSEILLE, FRANCE

The Aix-Marseille-Provence Metropolis and Pays d'Arles Regional Food Project implemented an emergency procedure by mobilizing 7 service providers to deliver 27,000 baskets of local fruit and vegetables to 130,000 beneficiaries for 4 weeks (1 basket for 4 people on average). For this, they mobilized a wholesaler from the public wholesale market of Marseille, a logistics platform dedicated to school meals in Aix-en-Provence, 5 groups of producers in the department in Saint-Rémy-de-Provence, Eyguières, Saint-Andiol, Tarascon and Arles, bringing together around 20 producers.

### SAIGON, VIETNAM

Local authorities distributed bags of rice free of charge to the most affected populations.

### AZUAY, ECUADOR

Through the public company Agro Kawsay, the Azuay prefecture purchases products from local producers who produce in an agro-ecological way in order to sell it at reasonable prices in the form of agro-ecological baskets. Some solidarity baskets are distributed free of charge to those who need it most. Between March and April 2020, 30,000 were delivered.

### LECCO, ITALY

A food card system has been put in place to provide more affordable food prices for the most vulnerable families. Thanks to a partnership between local authorities and large retailers, food card holders can benefit from discount prices on certain products in supermarkets.

This significant mobilization of civil society organizations once again reveals the crucial role of associations in the territories to ensure access to food for the most vulnerable. Some municipalities have chosen to provide exceptional support to these organizations.

### VALPARAISO, CHILE

Chile was also affected by COVID19 with almost 70,000 cases confirmed in June 2020 (14). In an already very unstable economic and political context, confinement measures have reinforced the extreme poverty in which a large part of the population already is. Another important vulnerability factor, 74% of the Chilean adult population were overweight or obese in 2019 (13). The state distributed "healthy food baskets" to nearly 2.5 million families, these were made up of pasta, legumes, flour, or oil, and were distributed locally by the municipalities in partnership with local NGOs, in particular the "Ruta Saludable" Foundation.

## VIENNA, AUSTRIA

The municipality has worked with food aid associations, Caritas, to supply the poorest as well as possible and provide a delivery service to those most vulnerable to the virus.

## DURBAN, SOUTH AFRICA

A coalition has been formed in each province of the country, bringing together nearly 300 organizations and neighborhood networks in solidarity with COVID19. The aim of this coalition is to coordinate the collection of donations and the purchase of fresh and local products from local producers. The products are then distributed to the NOSH Food Rescue organization and to the "Kitchens with Compassion" network which distributes to the most vulnerable.

## TOULOUSE, FRANCE

The VRAC association has strengthened its actions of purchasing groups in poorer neighborhoods by reaching new local producers and by collaborating with other food aid associations in order to meet growing demand.

### ||| SECURING NEW MARKETS FOR LOCAL PRODUCERS

By relying on their role as territorial organizer, the municipalities put producers in contact with consumers and job seekers through representation structures (Chamber of Agriculture for instance, in France).

The first task was to list the producers, identify and multiply the selling points then to inform the consumers. Held by municipalities (Bordeaux, Lyon, Marseille, in France) or civil society organizations (in Colombia, Guanajuato in Mexico, Valparaiso in Chile, Italy), online platforms to connect local supply and demand have sprung up all over the world.

## LYON, FRANCE

In order to ensure more substantial market opportunities, Lyon Metropolis reached regional supermarkets to encourage them to source locally, then put them in touch with producers looking for markets opportunities through the Chamber of Agriculture and ARDAB (association of organic producers from the Rhône and Loire regions).



To make up for the lack of agricultural labor, online platforms have also been used to connect producers with job seekers:

In France, the "Des Bras pour Mon assiette"\* platform gives everyone the opportunity to offer its services to farms in the region.

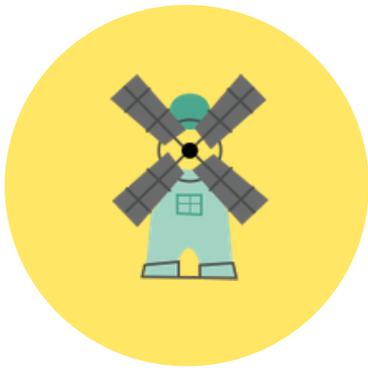
At the local level, some municipalities decided to work in a transversal way: the metropolitan area of Lyon (France) worked with the Metropolitan Organizations for Employment and Integration (public interest group) to connect companies and farms in need of labor, with job seekers through a dedicated web page.

## BERNAY, FRANCE

In Bernay, the inter-communal structure collaborated with the Normandy Chamber of Commerce and Industry in setting up an online platform so that producers can publish their needs in terms of labor.

This crisis also underlined the importance of "network players" who have built up a good knowledge of the territory and local food system stakeholders while developing their visibility and their contacts with the general public. These actors, such as the Hummingbird Association (in France and Mexico, for instance) or Slow Food (in South Africa, in Chile, for instance) also played the role of platform, facilitating the meeting of local food needs and offer. In France, for example, the "Cité de l'Agriculture" in Marseille has helped relay local producers' labor needs.

\*In English: "Arms for my plate"



# EMERGENCY MEASURES OR URGENT MEASURES? SOME AREAS ARE MORE FOOD RESILIENT THAN OTHERS

Supporting local producers in identifying fair market opportunities, maintaining food belts around cities, guaranteeing everyone's access to healthy and sustainable food, raising awareness about responsible consumption, creating partnerships and support financially local actors, putting in place transversal local public policies ... some territories have already been working for a few years on the implementation of a sustainable food strategy and have been able to activate, strengthen and innovate in the construction of sustainable territorial collaborations. These territories have demonstrated their food resilience in the face of the COVID19 crisis by mobilizing and strengthening their achievements.

## THE AGRICULTURAL DIRECTIONS OF THE TERRITORY

Some urban centers have built close cooperations with their rural areas by maintaining a diversified local agriculture historically intended to supply the main consumption centers (Ho Chi Minh City in Vietnam and Cork in Ireland, for example). Tensions on food availability were much less significant in these territories. Likewise, the predominance of family farming, in Ireland for example, much less dependent on foreign labor, demonstrated its resilience and was less affected by the COVID19 crisis.

Urban residents who have kept urban or even peri-urban agriculture, mainly dedicated to self-consumption, have suffered less from the price rise of fruit and vegetables (Sfax in Tunisia, for example, thanks to the presence of "jnens": food gardens around the city).

## THE COLLECTIVE ORGANIZATION OF PRODUCERS



Les Jnens, urban gardens and food belt around the city of Sfax, Tunisia. Photo credit: Let's Food

The existing connections between producers and cooperatives in some territories have facilitated the reorganization of the food distribution in a united manner in order to ensure a minimum and fair income for all producers.

In France, the wholesale markets (public or private), local logistics platforms, also played an important role. In Marseille, for example, the wholesale market was made available to local producers for the preparation of food baskets then delivered to consumers.

## HUDIMESNIL, FRANCE

In Hudimesnil, the Bois Landelle farm market has been maintained. In solidarity, the market welcomed new organic vegetable producers from the region who had difficulty finding outlets following the closure of open-air public markets.

## TUNIS, TUNISIA

In Tunis only certain producers obtained authorization to move around. The producers then came together to organize deliveries to intermediaries and consumers directly.

## **SELLING POINTS FOR FRESH AND LOCAL PRODUCTS ACCESSIBLE TO ALL**

At the initiative of local authorities and the civil society, some territories have been developing and strengthening for many years a resilient and healthy food supply and distribution network, based on local and sometimes organic production. These territories, which were little impacted, have simply adapted the distribution methods to the constraints imposed by COVID19 and confinement: exemptions to keep the markets open in accordance with social distancing measures, limitation of the number of sellers, multiplication of the moments of distribution of food baskets.

Some retail chains have also strengthened local partnerships: "Grow with Aldi" in Ireland, "Alliances Locales" for the Leclerc brand in France.

## **SCHOOL CANTEENS: A FOOD SAFETY NET**

School canteens give children the chance to benefit from a full and healthy daily meal. This framework often subsidized by the state or local authorities, is deployed in many countries to fight against children food insecurity and thus improve performance at school. School canteens in particular give children from the most disadvantaged families the chance to benefit from healthy and regular food at low cost, thanks to an adapted pricing scale (in France for example) or total support by the State for the price of the meal (in South Africa for example).

The closure of schools and school canteens because of COVID19 has revealed their role in the food security of certain families. In order to ensure the continuity of this service, local authorities paid the beneficiaries, in a financial form by distributing the equivalent of the price of all the meals not distributed (in Marseille and Paris in France for example), or else distributed food baskets directly to families (in Birmingham, Cork or Durban for example).

## **FRANCE**

All of the CROUS (Regional Center for Universities and Schools) in France have set up an exceptional system of financial aid for students who have been impacted by the crisis (€ 200 distributed per student upon request).

### **PARIS, FRANCE**

To compensate for the suspension of school canteens and the loss of income suffered by many modest families, the City of Paris has decided to financially support the families who need it most. A total of 3.5 million euros was distributed to beneficiary families.

## **THE INTER-KNOWLEDGE OF STAKEHOLDERS: THE CONSTRUCTION OF A SHARED GOVERNANCE AT LOCAL LEVEL**

The establishment of local governance is essential to build a resilient food system: local stakeholders must know each other, it must develop their capacity to create synergies and partnerships but also build trust relationships and solidarity in case of crisis. Some territories have created more or less formal and institutionalized bodies specifically dedicated to collective decision-making around the challenges of sustainable food. These organizations have been particularly useful in proposing and coordinating responses adapted to the territory in the face of the COVID19 crisis.

### **BIRMINGHAM, ENGLAND**

Through its Food Policy Council, the City of Birmingham has set up a body to coordinate food aid organizations and actions in order to best respond to food supply challenges.

### **METROPOLIS OF LYON, FRANCE**

Thanks to the construction of its Territorial Food Project and the creation of a dedicated job position, the Metropolis of Lyon has strengthened its relations with the Rhône Chamber of Agriculture, the Chamber of Commerce, associative actors, enabling effective management of the crisis.



# RETHINKING THE FOOD RESILIENCE OF TERRITORIES: CRISIS INNOVATIONS TO MAINTAIN?

## LESSONS LEARNED?

Health crisis, economic crisis, climate crisis : the food crisis seems inevitable. We must now rethink our ways of feeding ourselves and capitalize on the lessons learned. Some measures have been the subject of advocacy for many years by a wide variety of actors. There is an urgent need in:

### 1. ADDRESSING THE CAUSES OF THE PANDEMIC

The industrialized food system, and in particular intensive farming, is one of the main causes of the loss of habitat for wild animals and the transmission of new viruses (4).

### 2. PUTTING SUSTAINABILITY AT THE HEART OF OUR AGRICULTURAL AND FOOD CHOICES

It is necessary to rethink the organization of territories to set up territorial food systems which contribute to the local economy while respecting ecosystems. We need to preserve local soils and seeds, reduce our consumption of water and chemicals, preserve biodiversity.

### 3. STRENGTHENING COMMUNICATION AROUND THE IMPORTANCE OF HEALTHY DIETS IN SOLVING MANY CURRENT ISSUES

For a better quality of life but also to reduce health-related expenses on an individual as well as a collective level.

### 4. ENCOURAGING FOOD RESILIENCE AT THE TERRITORIAL LEVEL BY PROMOTING A DIVERSIFICATION OF PRODUCTION WHILE ENSURING THE CAPACITY OF EACH CITIZEN TO PRODUCE PART OF THEIR FOOD:

Develop mutual understanding and mutual aid at neighborhood level, around shared gardens and skills exchanges. At the same time, strengthening peri-urban production, facilitating access to markets within cities.

### 5. DEVELOP TERRITORIAL COOPERATION TO ENSURE BALANCE AND LIVE TOGETHER AT ALL LEVELS:

... on an international scale in order to preserve a fair share of trade, to reduce specialization and speculation on food products but also to promote the exchange of information which will allow each territory to accelerate its transition.

... at the national level by developing new cooperation between territories, by rethinking geographic areas and food complementarities. .... at the local level in order to rebalance living spaces between urban and rural environments, preserve production spaces while ensuring living together.

### 6. ADVANCE TO JUST AND EQUITABLE FOOD SYSTEMS

The physical and economic access capacities are not the same, and the crisis has shown this. Access and affordability of healthy, sustainable food is necessary for all social strata. Like the fair conditions for producers and the labor force, moving towards a food democratization.

## NEW TOOLS FOR STRUCTURAL AND LASTING CHANGES?

### DIGITALIZE EVERYTHING: GOOD OR BAD IDEA?

The market share of the online food trade has increased considerably in recent years. In France, it increased from 4.9% in 2017 to 7.4% in early 2020. In April 2020, due to the constraints imposed by the limitation of movements, online commerce reached 9.5% of market share (5). Globally, forecasts indicate that by 2024, 70% of consumers will use the internet for food purchases, up from 25% today (17).

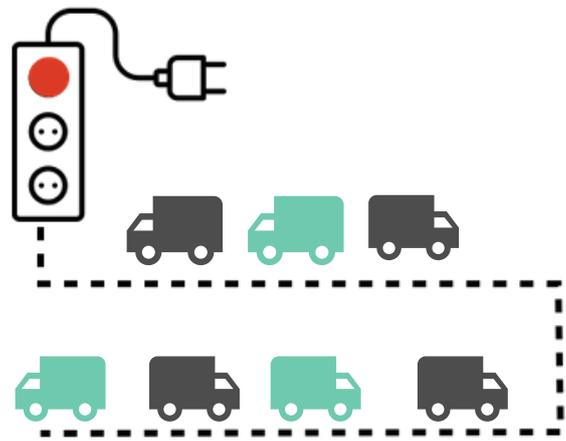
Are these digital solutions good news for the planet, for everyone's access to quality food, should we encourage them? On the one hand, it democratizes access to local products by facilitating ordering and delivery, on the other, it accentuates the digital divide. Internet access is sometimes limited to certain older, less fortunate populations. It poses the risk of gentrification of sustainable food.

17% of the French population does not have access to the internet and / or does not know how to use digital tools (6). In South Africa, this represents 36.2% of the population: the price of data is a major obstacle for the most vulnerable populations (7).

We can also wonder about the sustainability of the development of an ultra-connected society and the multiplication of delivery services. Indeed, the energy cost of the internet is significant: computers, cables and hard drives are all digital technologies that must be manufactured and supplied.

According to ADEME\*, the IT sector is responsible today for 4% of global greenhouse gas emissions, and the sharp increase in usage suggests that this carbon footprint will double by 2025. The number of users worldwide (from three billion today to more than four billion in 2030) and our personal data consumption and the main responsible (8).

\*ADEME : French government agency for ecological transition



Ecommerce also implies a multiplication of delivery services. The environmental impact of the latter depends on different criteria: if the pooling is good, especially at the local level (a distribution of 30 food baskets avoids 30 consumers to come individually with their car at a collection point), other actors of the delivery, whose activity is much more substantial, favor ultra-fast deliveries over pooling and rarely consider the related environmental impacts.

### FOOD RESILIENCY THROUGH A SECURITY LENS

Strengthening the decentralization process and in particular the transfer, at the local level, of food expertise and associated funding appears essential in order to think food resilience at the territorial level. The rebalancing of urban and rural spaces as well as territorial cooperation must also be at the center of food projects.

Stéphane Linou, pioneer of the locavore movement in France, in his book "Food resilience and national security", suggests that food security must be now in the mandate of municipalities in order to anticipate the geopolitical, IT and climate risks that weigh on food supply and distribution systems. This would lead to empowering each municipality on its own capacities to feed its population in times of crisis and to take the necessary measures at the local level in order to guarantee public security: protection of agricultural land, constitution of food stocks, or training of populations in agriculture for example (9). Directly inspired by the work of Stéphane Linou, a draft resolution was tabled in December 2019 in France by Senator Françoise Laborde entitled "Food resilience of territories and national security" (9).

## TOWARDS A SOCIAL PROTECTION FOR FOOD SECURITY ?

In addition, the crisis has revealed the extent of food insecurity, particularly in so-called "developed" countries whose food security is no longer a political priority today. However, 5.5 million people were beneficiaries of food aid in France in 2017, i.e. 8% of the population (10).

Faced with the magnitude of the social crisis, new ideas and means of action have also (re) surfaced in order to propose a partial overhaul of national solidarity.

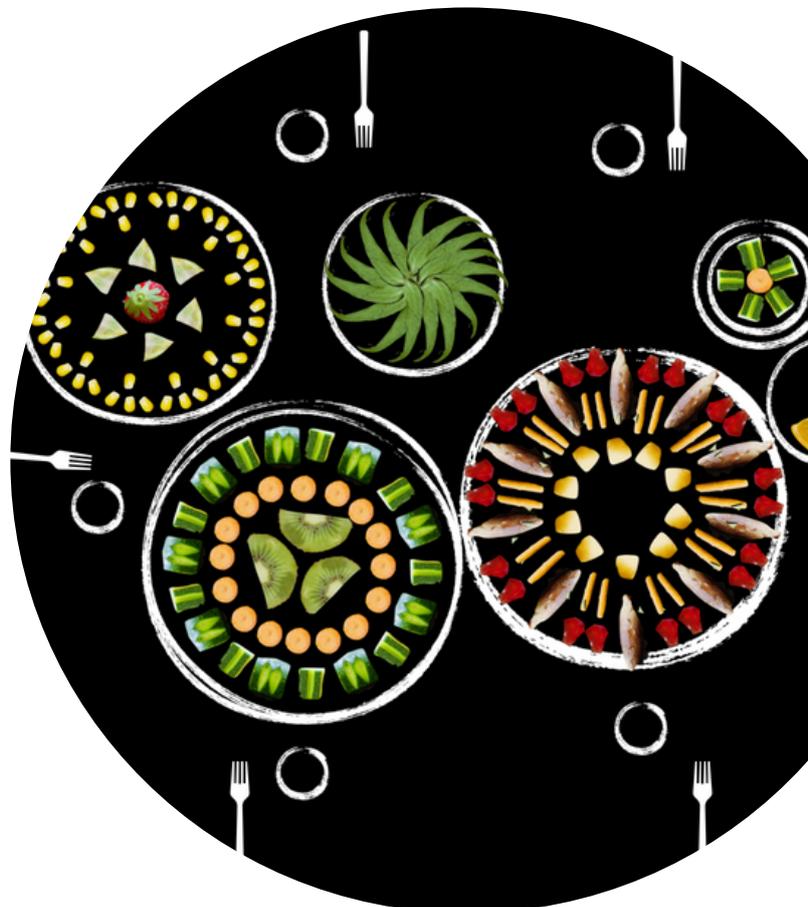
In France, the concept of social protection for food security is gaining ground. Supported since 2019 in particular by the NGO Engineers without Borders, social protection for food security would be a budget dedicated to food of 150 euros per month and per person, integrated into the general existing social security scheme. This budget would be made up of contributions and managed by local funds. In order to favor local producers and respect for the environment, the 150 euros would be earmarked for certain approved products. If the system resurfaced in the societal debate during the COVID19 health crisis, integration into the political agenda still seems unlikely (11).

## RETHINKING OUR RELATIONSHIP TO TIME AND WORK

Confinement has also revalued, for those who have been able to benefit from it, this specific good that is time. The time to garden, the time to cook, the time to learn and discover, the time to listen and to open up to others, the time for others ... today we need to keep this time to allow a individual, territorial, global transition. Universal basic income - tested in Finland or Alaska - in order to respond to the economic crisis and a rapidly changing labor market, is a social tool at the service of everyone's development. It must end the interconnection between our existence, quality of life, the survival of the labor market from the salaries ones receive. Allow to be and to choose (12).

## RETHINKING OUR RELATIONSHIP TO FOOD

As discussed, COVID19 has shown several fails of the global food system, but above all has proven the weak relationship towards food, and in major extend, to the food system. Food, intrinsically, has a multi-dimension value: cultural and heritage, natural resource, health and nutrition, a human right, or as a commodity and price market ruled. Vivero-Pol (18) argues that the values given to food are, as a social construct, the ones that shape the policy options. Currently, the market-oriented value is the one that dominates. Therefore, reshaping the narrative around food, out of the private/economic realm could lead to the development of a food commons, where the resources are governed collectively by people for a common good. COVID19, like any other shock (i.e. climate change effects), proves the need to consider novel approaches that contest the current business as usual. During these times, people have come to realize the importance of local food systems and the low resilience of the global system, but on the flip side, has sprout examples of collaboration, cooperation, and co-creation from different stakeholders.



# RESSOURCES

- (1) Couvelaire L., 2020. Dans Le Monde: Aide alimentaire : le gouvernement annonce une enveloppe de 39 millions d'euros.
- (2) Gully H., 2020. Dans Les Echos: Coronavirus : pourquoi le prix des fruits et légumes a augmenté.
- (3) Cabut S., 2020. Dans Le Monde: Coronavirus : les personnes obèses représentent une proportion très élevée des patients en réanimation en France.
- (4) Le Monde, 2020. La pandémie de Covid-19 est étroitement liée à la question de l'environnement.
- (5) Bouaziz D., 2020. Dans eCommerceMag: L'e-commerce alimentaire atteint un nouveau palier.
- (6) INSEE, 2019. Dans Vie Publique: Fracture numérique : l'illectronisme touche 17% de la population selon l'INSEE.
- (7) Statista, 2020. Internet user penetration in South Africa from 2017 to 2023
- (8) ADEME, 2019. La face cachée du numérique.
- (9) Linou S., 2019. Résilience alimentaire et sécurité nationale.
- (10) Sénat, 2020. Aide alimentaire : un dispositif vital, un financement menacé ? Un modèle associatif fondé sur le bénévolat à préserver.
- (11) Ingénieurs sans frontière, 2019. Pour une sécurité sociale de l'alimentation.
- (12) France Culture, 2020. Le Covid-19 relance le débat sur le revenu universel : va t-il changer notre rapport au travail ?
- (13) El Mostrador, 2019. Chile se convierte en el líder internacional de obesidad tanto en adultos como en niños.
- (14) Villiers-Moriamé A., 2020. Au Chili, le coronavirus progresse et alimente la colère sociale
- (15) Le Bars S., 2020. Coronavirus : aux Etats-Unis, l'obésité, un facteur aggravant qui pourrait être dévastateur
- (16) OCDE, 2019. Statistiques de l'OCDE sur la santé 2019
- (17) Nielsen, 2019. What's next in e-commerce.
- (18) Vivero Pol, J. L. 2015. Transition towards a food commons regime: Re-commoning food to crowd-feed the world.
- (19) OCDE, The territorial impact of COVID-19: Managing the crisis across levels of government, June 2020
- (20) World Bank. 2020, Urban development.
- (21) INEGI. 2019. Actualización de la medición de la economía informal, 2013-2018.

