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OVERCOMING EVIDENCE GAPS

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Food Insecurity and Food Assistance Programmes across OECD Countries: Overcoming Evidence Gaps

Céline Giner and Olivia Placzek

Food systems are expected to ensure food security and nutrition for a growing population. While food insecurity is more acute in developing countries, OECD countries are also affected. The current high-level of food prices could push more people into poverty and hunger. Governments have a role to play in easing impacts on households. They run or support food assistance programmes, such as school meal programmes, food voucher programmes and food banks' operations. Based on OECD countries' experiences, this paper provides a roadmap to identify and overcome evidence gaps on food insecurity and food assistance programmes to allow for a better targeting and improved efficiency of such programmes. This paper highlights the need for a coordinated effort by OECD countries to collect regular and comparable information.

This is one of four papers developing work on addressing evidence gaps on food systems in OECD countries (*OECD Food, Agriculture and Fisheries Papers 183 to 186*).

- Key words: Food security measurement, food systems, school meal programmes, food vouchers, food banks, COVID
- **JEL codes:** C80, Q18, D19, H53, I38

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Key messages

- Conflicts, climate variability and economic slowdowns are global drivers of food insecurity. According to FAO estimates, at least 7.5% of the OECD population suffered from moderate food insecurity over the 2018-2020 period. The current high-level of food prices could push more people into poverty and hunger.
- Tackling food insecurity is an important task for governments to ease impacts of elevated food prices on households. Food assistance programmes, such as school meal programmes, food voucher programmes and the provision of food products by food banks, aim to address directly food insecurity. Efforts to ensure that agri-food trade keeps flowing will also play an important role.
- Despite the availability of validated measurement approaches, most OECD countries do not collect food security data, preventing the agile development and implementation of evidence-based targeted food assistance programmes in periods of crisis.
- OECD countries should coordinate their efforts and collect comparable and regular food security data to enhance cross country learning about what enables effective targeting of food assistance programmes.
- OECD countries also need to develop better evidence on the effectiveness of food assistance
 programmes to be able to adjust policy responses when needed. The monitoring and evaluation
 effort should focus on the actual participation of eligible households, the nutritional outcomes of
 programmes, public spending and organisational aspects. Digital innovations can facilitate
 these efforts.

1. Introduction

One of the challenges that food systems are facing is to ensure food security and nutrition for a growing population (OECD, 2021_[1]). The United Nations' 2030 Agenda for Sustainable Development requires countries to work towards "ending hunger and ensuring access by all people to safe, nutritious and sufficient food all year round" (SDG Target 2.1) and to ending "all forms of malnutrition" (SDG Target 2.2). The evidence (Béné et al., 2021_[2]) (Swinnen and McDermott, 2020_[3]) (CFS, 2020_[4]), however, points to an increase in food insecurity prevalence as a consequence of the COVID-19 crisis. According to the FAO, 30% of the global population was faced with food insecurity in 2020 (FAO, 2021_[5]). This percentage is likely to increase as a consequence of the large-scale aggression by the Russian Federation (hereafter "Russia") against Ukraine.

While food insecurity is more acute in developing countries, OECD countries are also affected. Using the FAO Food Insecurity Experience Scale (FIES),¹ an estimated 7.5% of the population of OECD countries faced such insecurity over the 2018-2020 period. Yet the extent and drivers of this food insecurity and the associated policy responses are not widely understood, nor have they been analysed in any great depth.

This report focuses on evidence gaps associated with food insecurity in OECD countries and related policy responses. Section 2 presents an overview of facts, interests, and values as these relate to food insecurity and the associated policy responses. Section 3 proposes a roadmap to identify and overcome evidence gaps on food insecurity and food assistance programmes. Finally, Section 4 draws lessons related to the information collection process and the targeting of food assistance policies.

¹ See <u>http://www.fao.org/faostat/en/#data/FS.</u>

2. Food insecurity and food assistance programmes in OECD countries: Facts, interests and values

2.1. What is food insecurity?

The FAO defines food insecurity as the "lack of regular access to enough safe and nutritious food for normal growth and development and an active and healthy life" (FAO, 2022[7]). Food insecurity can be defined in relation to missing dimensions of food security. There are four main dimensions to food security (OECD, 2022[8]), all of which must be present simultaneously:

- Availability: Includes the physical existence of food, determined by the level of food production, food security stocks, and trade.
- Access: Having the resources to obtain food in sufficient quantity, quality, and diversity for a nutritious diet; includes economic and physical resources at the household, community, and national levels.
- *Utilisation*: How individuals make use of available and accessible food for sufficient energy and nutrients; includes decisions to purchase, prepare, consume, and allocate food for the household.
- Stability: Includes the availability, access, and utilization of food over time.

If one of these dimensions, such as availability of food or resources to obtain food, is not fulfilled, a population would be considered food insecure. Food insecurity can be experienced at different scales (UN, 2020[9]). People experiencing moderate food insecurity are typically unable to eat a healthy, balanced diet on a regular basis because of income or other resource constraints. Those facing severe food insecurity tend to run out of food or even go for a day, or days, without eating.

Multiple drivers of food insecurity exist. These relate to conflicts, climate variability, and economic slowdowns (FAO, 2021_[5]). Poverty and inequality amplify the negative impacts of these global drivers (EC, 2022_[10]) (WFP, 2020_[11]) (FAO, 2021_[5]). These drivers are not mutually exclusive as they interact by creating multiple, compounding impacts at many different points within food systems. Some have a direct impact on agricultural production and trade, with potential negative consequences on the affordability of food, including nutritious food.

The United Nations (UN) has initiatives linked to mobilizing and monitoring country efforts to address food insecurity. The Food and Agriculture Organization of the United Nations and member countries have been involved through the series of International Conferences on Nutrition (ICNs) that took place in 1992 and 2014. With respect to measuring progress for reducing food insecurity, the United Nations' 2030 Agenda for Sustainable Development provides an overarching framework of goals, targets, and indicators to monitor progress on fundamental well-being (UN, $2020_{[12]}$). Table 2.1 highlights all SDGs linked to food insecurity and the indicators related to food insecurity that must be tracked by countries as part of the United Nations Global Indicator Framework. Recent UN events have also generated momentum towards mobilizing food systems to address food insecurity.

The first United Nations Food Systems Summit held in September 2021 (UNFSS) resulted in the creation of two coalitions under Action Track 1 "Nourish all people": A coalition of Action for Achieving Zero Hunger² and the School Meal Coalition: Nutrition, Health and Education for Every Child.³

² <u>A Coalition of Action for Achieving Zero Hunger - Food Systems Summit Community.</u>

³ <u>School Meals Coalition - A healthy meal every day for every child.</u>

Table 2.1. SDG indicators related to food insecurity

Goal	rity and improved nutrition and promote sustainable agriculture Indicator
2.1 By 2030, end hunger and ensure access by all people, in	2.1.1 Prevalence of undernourishment
particular the poor and people in vulnerable situations,	2.1.2 Prevalence of moderate or severe food insecurity in the population (%)
including infants, to safe, nutritious and sufficient food all year round	2.1.2 Total population in moderate or severe food insecurity (thousands of people
yearlound	2.1.2 Prevalence of severe food insecurity in the adult population (%)
	2.1.2 Total population in severe food insecurity (thousands of people)
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age

Source: Based on authors' analysis of the UNstats Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development.

2.2. Insights on food insecurity in OECD countries

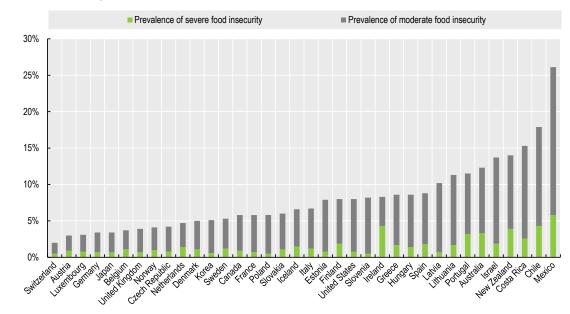
2.2.1. OECD countries are far from reaching SDG targets related to food security

Food insecurity affects populations in OECD countries, although to a lesser extent than in developing countries. Figure 2.1 presents the average prevalence of moderate to severe food insecurity across the OECD area over the 2018-2020 period based on the Food Insecurity Experience Scale (FIES)⁴. Moderate food insecurity was experienced on average by 7.5% of the OECD population over the 2018-2020 period. Moderate food insecurity prevalence across OECD countries ranged between 3% (Switzerland) and 35% (Mexico) of the population. Severe food insecurity is relatively rare in developed countries, ranging between 0.5% and 13% of the OECD population over the 2018-2020 period.

Countries' progress towards achieving the SDG targets varies widely (OECD, $2022_{[13]}$). This variation was explored using the Cohen & Shinwell ($2020_{[14]}$) standardised methodology to measure the distance between where OECD countries currently stand and their 2030 SDG targets based on the FAO FIES database for the 2017-2019 period. Figure 2.2 shows that on average OECD countries are far from achieving SDG targets related to moderate food insecurity, while close to the target on lessening the prevalence of severe food insecurity in the adult population. The right-hand panel highlights large differences among OECD countries, indicating that while some countries have reached the target, others are still far away.

⁴ FIES is described in detail in Section 2.

Figure 2.1. Moderate food insecurity affects OECD populations



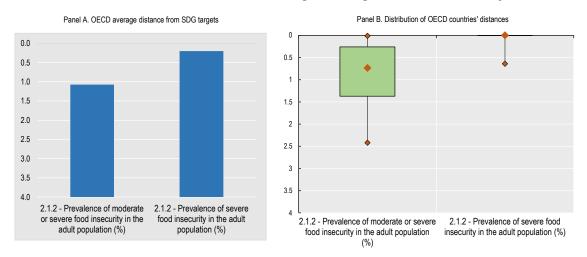
Average prevalence of moderate to severe food insecurity across the OECD area over the 2018-2020 period

Note: Information is unavailable for Colombia and Turkey.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: FAO Food Insecurity Experience Scale, http://www.fao.org/faostat/en/#data/FS.

Figure 2.2. OECD countries are still far from achieving SDG targets on food insecurity



Note: Detailed information on the methodology and standardised units is available in Annex A. Panel A shows the average distance that OECD countries, on average, need to travel to reach each target. Distances are measured in standardised units, from 0 (indicating that the 2030 level has already been attained) to 4, which is the distance most OECD countries have already surpassed on most targets. Bars show OECD countries' average performance against targets.

Panel B shows the distribution of OECD countries' distances to targets; distances are expressed in standardised units, while dots refer to the OECD median distance. Box boundaries indicate the first and third quartiles of the country distribution, while whiskers indicate the 10th and 90th%iles.

Source: Authors computations based on United Nations Global SDG Database, <u>https://unstats.un.org/sdgs/indicators/database/</u> and OECD Statistics, <u>https://data.oecd.org/healthrisk/overweight-or-obese-population.htm.</u>

2.2.2. Population groups in situation of vulnerability in OECD countries are affected by moderate food insecurity

Low-income households in OECD countries tend to be particularly vulnerable to food insecurity (Placzek, 2021_[15]). The employment status of households is related to food insecurity because of the impact on economic resources. Analyses of the COVID-19 impacts on food insecurity show that job losses had the strongest negative effect on food security status (FAO, 2021_[5]) (DEFRA, 2021_[16]). Whereas being unemployed is related to a higher risk of food insecurity, the majority of food-insecure households in the OECD includes an employed adult; which indicates the complex nature of the problem (Placzek, 2021_[15]).

Certain groups may be more likely to be represented in low-income households and thus more vulnerable to food insecurity. For example, households that include adults with disabilities have among the highest prevalence of food insecurity (Placzek, 2021_[15]). In addition, single-parent households face a higher prevalence of food insecurity, especially single women with children (TAD/CA/APM/WP(2022)5) (DEFRA, 2021_[16]). Some ethnic groups and Indigenous populations with lower average incomes also face a higher likelihood of food insecurity (Moran et al., 2020_[17]) (USDA, 2021_[18]) (USDA, 2002_[19]) (Bowden, 2020_[20]).

2.2.3. Food insecurity affects people's health and economic outcomes

Socio-economic groups that struggle with poverty and that face food insecurity often are limited to making unhealthy nutrition choices with consequences in terms of their health and economic outcomes (Placzek, 2021_[15]) (Giner and Brooks, 2019_[21]) (Afshin et al., 2019_[22]). This might be due to underlying constraints that these groups face including, for example, living in a food desert or having limited time or facilities to prepare meals. In Canada, for example, adults and adolescents in food-insecure households reported lower dietary intake of energy, macronutrients and micronutrients in comparison to their food secure counterparts (Kirkpatrick and Tarasuk, 2008_[23]). Food insecurity has also been linked to a variety of chronic illnesses; including arthritis, back issues, hypertension, diabetes, and cardiovascular disease. Illness and injury, commonly associated with undernutrition, can lead to chronic poverty (Lentz and Barrett, 2013_[24]).

Further, food insecurity has a long-term impact on children's health, with research conducted in Ottawa correlating early childhood food insecurity to an increased risk of asthma and depression in adolescence and early adulthood (Rizvi et al., 2021_[25]). Research has also found an association between food insecurity, adverse childhood experiences, and increased risks of anxiety, depression and obesity, with food insecurity also negatively affecting academic and social outcomes (Chilton, Knowles and Bloom, 2016_[26]) (Shankar, Chung and Frank, 2017_[27]).

2.2.4. Disruptions in food supply chains expose more households in situations of vulnerability to food insecurity

Evidence is missing on how the COVID-19 crisis impacted the food security status of households in situations of vulnerability across OECD countries. The OECD COVID-19 and Well-being Report (OECD, 2021_[28]) presents the results of the Eurofound Living, Working and COVID-19 e-survey conducted in 22 OECD countries between April and June 2020. In this survey, 28% of respondents said they had to compromise on the quality of their diets because of the crisis. The United States Household Pulse Survey (HPS) measured food insufficiency⁵ throughout the COVID-19 period. Between the period ranging 23 April – 5 May 2020⁶ and the period 9–21 December 2020, food insufficiency increased by 23% (U.S. Census Bureau, 2022_[29]). However, due to the large assistance packages and scaling up of food assistance programmes during COVID-19, USDA analysis indicates that prevalence of food insecurity in 2020 in the United States compared to 2019 remained stable at 10.5% (Coleman-Jensen et al., 2021_[30]).

The participation rate in food assistance programmes is often used to approximate food insecurity estimates when official data are missing (Placzek, 2021[15]). Several major food bank networks reported

⁵ Food insufficiency means that households sometimes or often did not have enough to eat. In the HPS, food insufficiency is measured in the last seven days (USDA, 2021_[148]).

⁶ This is the first period for which data was available from HPS.

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an increase in demand for emergency food aid, ranging from 25% to 50% in 2020 in comparison to 2019.⁷ Meals on Wheels networks also reported similar increases in home-delivery meals to low-income elderly people in the United States (MOW, 2020_[31]) and Australia (MOWA, 2020_[32]). Research evidence from Canada however suggests that food bank usage is a poor indicator of food insecurity (Loopstra and Tarasuk, 2015_[33]) (Men and Tarasuk, 2021_[34]). In Canada, only 7.4% of food insecure individuals reported using emergency food assistance programmes in the early stages of the pandemic with food banks used as a last resort after other resources have been exhausted (Men and Tarasuk, 2021_[34]).

Whereas food supply chains across OECD countries demonstrated their resilience with mostly short-term disruptions across food systems (OECD, $2021_{[35]}$) (OECD, $2020_{[36]}$) (OECD, $2021_{[37]}$)⁸, some population groups were vulnerable to the impacts of the deteriorating socio-economic conditions which undermined their food security status. These groups included in particular workers who lost their jobs and self-employed, older people (OECD, $2020_{[38]}$), households with children, single-parent households (OECD, $2020_{[39]}$)), students (OECD, $2020_{[39]}$), and migrants (OECD, $2020_{[41]}$). These groups had less money to spend on food due to revenue losses or to delays in receiving social benefits, and were hence more likely to experience food insecurity (Food Foundation, $2020_{[42]}$).

Groups in situations of vulnerability faced additional challenges in accessing adequate nutritional food given measures that were taken to control the spread of COVID-19. More meals had to be taken at home because of lockdowns, school closures, social distancing rules, and employment losses. This transition in some cases led to a decrease in food quality and/or quantity for poorer households and greater incurred costs for families (Connors et al., 2020[43]).

The disruptions from the COVID-19 pandemic have been compounded by the large-scale aggression by Russia against Ukraine. The conflict in Ukraine has driven global food and energy markets into turmoil, raising elevated food prices even further. Given that on average the cost of a healthy diet was estimated to be 60% more than the cost of a diet that just meets requirements for essential nutrients (FAO, 2021_[5]), this could have potential health consequences across OECD countries (such as a possible worsening of overweight and obesity prevalence). As lower income households tend to spend a higher proportion of income on food and tend to adopt less healthy diets (Placzek, 2021_[44]) (DEFRA, 2021_[16]), high food prices over the short- to medium-term could imply that poorer households across the OECD area are at risk of making compromises on the quality of their diets. Box 2.1 describes the potential impacts of the situation in Ukraine on food security across the world and in the OECD area.

Box 2.1. The large scale aggression by Russia against Ukraine is a threat to food security

In the first quarter of 2022, the consequences of the COVID-19 pandemic and high inflation levels for population groups in situations of vulnerability across the world created challenges for achieving food security SDG targets. The war Russia is waging on Ukraine has exacerbated this threat to food security. UN Secretary-General António Guterres warned on 14 March 2022 of a global hunger meltdown¹ related to rising food and energy prices and a major refugee crisis.

The OECD Economic Outlook Report June 2022 (OECD, 2022_[45]) stresses the consequences of the war on economic growth, with weaker prospects by about 1.5 percentage point compared to December 2021 projections. Inflation projections in OECD countries are twice the level of previous projections. The report highlights the consequences of the war on energy and food markets, with deeper

⁷ For Europe, The European Food Banks Federation (FEBA) estimates the increase in food aid demand at 30% compared to pre-COVID-19 crisis level (FEBA, 2020[144]). In the United Kingdom, the Trussel Trust (Trussel trust, 2020[145]), a nationwide network of food banks, reports an increase of 18% for the number of beneficiaries and of 50% for the number of distributed parcels between 2019 and 2020. Feeding America (Feeding America, 2020[146]), the major food banks' network in Northern America, also estimates the increase in emergency food aid at 50% over 2020.

⁸ During the lockdown phases, disruptions concerned farm labour as well as processing, transport and logistics along the food chain. In addition, stockpiling behaviour at the beginning of the first lockdown resulted in momentous shifts in demand.

consequences on the poorest population groups across the world. Russia and Ukraine are major producers and exporters of basic food staples, providing nearly one third of the world's wheat and barley exports. Since Ukraine is also a major supplier of sunflower oil, the production of these commodities for global supply is also being jeopardized.

Due to the conflict in Ukraine prices for many agricultural products monitored by the FAO are exceeding the historic highs experienced during the food price crises of 2007 and 2011.² Prices reached an all-time high in February 2022 due to high demand, input and transportation costs, as well as port disruptions (WFP, 2022_[46]). If Ukrainian farmers cannot plant in 2022, the next harvesting season will be endangered, with consequences for the African and Middle Eastern countries that are heavily reliant on Ukrainian imports

High food prices can have major impacts on households in situations of vulnerability across the world and on low-income countries, potentially pushing those least able to cope further into poverty. In addition, more than four million refugees³ have left Ukraine mostly for a small number of neighbouring countries. These people have lost their possessions and incomes, and are vulnerable to acute food insecurity. Others have been displaced within Ukraine or are trapped with little access to food or water creating an urgent humanitarian crisis.

The OECD $(2022_{[45]})$ recommends that governments ease the impacts of price rises on consumers as the poorest countries and households spend the highest share of their incomes on energy and food. The OECD calls for targeted, temporary, and means-tested support to help people in situations of vulnerability and refugees and for ensuring that agricultural trade continues to flow.

This recommendation reinforces the call of this deep dive to better measure food insecurity across OECD countries and to identify households in situations of vulnerability so that targeted food assistance policies are implemented. Regular and comparable data collection of food insecurity is key for these programmes to be effective.

- 1. See https://news.un.org/en/story/2022/03/1113882.
- 2. See https://www.fao.org/worldfoodsituation/foodpricesindex/en/.
- 3. See https://data2.unhcr.org/en/situations/ukraine.

2.3. Responses to food insecurity

As highlighted in Table 2.2, responses to food insecurity might focus on livelihood assistance such as increasing universal social security payments or providing cash transfers or universal basic income or direct food assistance to food insecure households via food assistance programmes. Direct food assistance programmes target food insecurity by providing food to people who are unable to access sufficient food, often with a particular focus on infants, children, students, people in situations of vulnerability and elderly people. The needs of groups in situations of vulnerability differ; this implies diverse forms of policy responses depending on geographical, institutional, and socio-cultural circumstances (Hebinck et al., 2018^[47]).

Food assistance programmes may be run by public authorities at the local or national levels or by civil society not-for-profit organisations that operate with or without public funding. Historically, religious and charity organisations fed hungry populations during times of war and depression. In the United States, for example, around 1 870 private charity organizations established the first soup kitchens as part of the widespread Charity Organization Movement. In 1939, the United States Department of Agriculture implemented the first food stamp programme (Caswell and Yaktine, 2013^[48]).

Food assistance programmes can be approached based on the four dimensions of food insecurity: availability, access, utilisation and stability. They often focus on access and stability issues, but some also include interventions such as nutritional education and counselling programmes (Lentz and Barrett, 2013_[24]). The COVID-19 crisis has in addition highlighted the importance of the availability dimension in view of the problems created by lockdowns and school closures.

Programmes	Aim	Instruments	Impacts on food insecurity
Livelihood support programmes	To provide livelihood support	Cash transfers	Indirect via poverty reduction
Food assistance programmes	To provide food to population groups in situations of vulnerability	Provision of meals	Direct
		Provision of food vouchers	Direct
		Provision of food parcels	Direct

Table 2.2. Responses to food insecurity

2.3.1. Food and human rights

As for any food systems' topic (OECD, 2021_[1]), interests and values affect the debate on how to address food insecurity in OECD countries. An important aspect of this debate is the right to food, which is specified in the 1948 Universal Declaration of Human Rights (United Nations, 1948_[49]) as part of the right to an adequate standard of living (Article 25). According to this Declaration, states have the obligation to respect, protect and fulfil the right to food (UN, 2015_[50]).⁹ While the right to food places legal obligations on all states to overcome hunger and malnutrition, and to provide food security for all, states may differ in the strategies they adopt to achieve this goal.

Another aspect of this debate relates to the different types of responses to food insecurity and to the role of governments. In this regard, food assistance programmes remain contested and the debate often focuses on ethical issues associated with the provision of food assistance. Some people see the increasing reliance of groups in situations of vulnerability on food assistance as an ethical problem related to poverty, and they call for the need to address the root causes of poverty. Others articulate the dilemma in terms of "engaging as admitting". In other words, supporting food assistance programmes is seen as an acknowledgment of the weaknesses of food and social systems more generally (Galli, Hebinck and Carroll, $2018_{[51]}$) (Hebinck et al., $2018_{[47]}$).

The debate also deals with the ethics of food redistribution (Placzek, 2021_[15]). Surplus food management is more widely recognised today as a tool to mitigate food insecurity. The recovery of surplus food fulfils multiple objectives, on the social, economic and environmental dimensions of the triple challenge that food systems are facing. However, people report experiencing stigma, embarrassment, frustration and shame when accessing a food bank because they often receive food that is left over or unsold, and past the best-before date (Galli, Hebinck and Carroll, 2018_[51]) (Hebinck et al., 2018_[47]) (Placzek, 2021_[15]) (Rizvi et al., 2021_[25]). Concerns also exist regarding the nutritional value of food products provided by food banks, which mainly consist of long shelf-life products (Bazerghi, McKay and Dunn, 2016_[52]) (Placzek, 2021_[15]) (Fanzo, 2015).

2.3.2. How do food assistance programmes operate?

This section is based on information collected by the OECD on food assistance programmes implemented in Chile, Finland, France, Korea, New Zealand, Spain, the United Kingdom, and the United States via interviews and a semi-structured questionnaire (Annex B). Annex C provides some details on the food assistance programmes and initiatives highlighted in this report, namely school meals programmes, food vouchers and food banks.

Each type of food assistance programme has a specific objective and target group. For example, the provision of school meals represents a long-term commitment to children and students, while food vouchers, by making food accessible and available to population groups in situations of vulnerability, aim to fill a basic need. Food banks were initially developed as an emergency tool for a hungry population and they still play a major role for food insecure households in many OECD countries and across the world. Other food assistance programmes seek to fill short term food needs that arise due to natural disasters. Box 2.2 describes the experience of Japan with emergency food assistance programmes for victims of natural disasters.

⁹ The mandate of the Special Rapporteur on the right to food (UN, 2022_[143]) addresses the need for an integrated and coordinated approach to promote and protect people's right to food. It is endorsed by the Human Rights Council.

Box 2.2. Japan's experience with emergency food assistance programmes for victims of natural disasters

When a natural disaster occurs, local governments might face difficulties in procuring quickly and efficiently food supplies to feed victims. This might be due to the time required to obtain accurate information on the situation and/or to the reduced supply capacity of private sector's stakeholders.

Based on the lessons learnt from the Great East Japan Earthquake that took place in March 2011, Japan has developed a framework for providing emergency food assistance to victims of natural disasters that is organised around two main consecutive steps.

Initially, the national government provides "push-type support" to overcome the chaos created by the natural disaster. The national government procures essential food supplies, mainly to support evacuation centres and evacuees, without waiting for a specific request from the affected local governments. The government then organizes the emergency transportation of the food products to the affected areas.

"Push-type support" was first implemented following the Kumamoto Earthquake in 2016. Following the Hokkaido Eastern Iburi Earthquake that took place on 6 September 2018, a total of more than 260,000 food and beverage products were provided to the affected population in less than a week. The items were delivered to evacuation centres and other locations via primary collection points designated by the Hokkaido government. One difficulty in this emergency step is to assess the needs of victims to avoid a mismatch between emergency food supplies and victims' needs.

In a second step only, the Government switches to "pull-type assistance": Relief food supplies are provided in response to the actual requests of victims.

Source: Japanese Ministry of Agriculture, Forestry and Fisheries.

School meal programmes

The provision of school meals by governments contributes to meeting the Sustainable Development Goals (SDGs) by giving children equal opportunities to maximise their education attainment regardless of their families' economic situation (FAO, $2019_{[53]}$) (FRAC, $2022_{[54]}$) (Illøkken et al., $2021_{[55]}$). School meal programmes, traditionally referred to as school feeding programmes, are defined by the FAO as programmes that regularly provide meals to schoolchildren. These programmes make use of various operational models (including procurement and preparation) and can be implemented in tandem with complementary interventions, such as nutritional education, deworming, or nutritional supplementation (FAO, $2019_{[53]}$).

A key goal of these programmes is to reduce food insecurity (Placzek, 2021_[15]) and to address health inequalities that impact children's well-being, behaviour, and ability to learn (Burns and Gottschalk, 2020_[56]). Furthermore, school meal programmes contribute to strengthening support services to families (OECD, 2021_[57]). They are important for student health and well-being, especially for low-income children, as they guarantee children receive the required nutrients.

FAO (2019_[53]) calls on governments to establish cohesive and context-driven school meal programmes to address nutrition, education, health, and food security both simultaneously and effectively. As many as 161 countries have school meal programmes, and many schools across the world provide students with access to meals through national school breakfast and lunch programmes. In this context, students may be eligible to receive free or reduced-price meals with public funding. Box 2.3 describes school meal programmes in Chile, France and the United States.

Box 2.3. School meal programmes in Chile, France and the United States

Chile

The state finances meal services, coordinated and implemented by the National Council for School Assistance (JUNAEB), during the school year to the 60% of lowest-income students attending state funded schools. The goal of this programme is to provide healthy, nutritious, tasty and free meals to students in situations of vulnerability so that they can engage effectively at school. The Programme benefits 1 786 000 students, with around 3 780 000 meals served per day in almost 9 000 schools with a yearly budget of USD 833 million. This number represents more than 50% of the enrolled students. The meals served at school are breakfast (sandwich and glass of milk) and lunch (salad, hot meal, dessert and glass of water). For 2022, the average breakfast cost is CLP\$ 720 (USD 0,83) and the average lunch cost is CLP\$ 1.327 (USD 1,53).

JUNAEB outsources and centralises a service model, through private companies that provide homecooked meals that are prepared from scratch and served at school. These companies are bound by contract to comply with food quality, nutrition and safety standards. Meal guidelines follow WHO recommendations —including added sugar restriction to 5% of total daily calories—,the enactment of new Chilean Labelling Law which deals with the nutritional composition of food and advertising, and food sanitary regulations by the Ministry of Health.

During the pandemic, JUNAEB continued providing food to students even though in-person classes had been cancelled. Over the course of 2020-2021, JUNAEB distributed over 24 million food baskets to ensure that students who depended on the school meals programme would continue to receive food they would normally be served at school. The logistics of this operation included 12 600 distribution points, 36 000 food handlers, 26 companies with bid contracts, and the participation of local authorities, civil society organizations, school staff, the Armed Forces, and the Ministry of Education.

France

Almost all French pupils go to the canteen in the course of their schooling: approximately 75% of the 12.9 million French schoolchildren eat at least once a week in the canteen, and 60% eat there at least four times a week. School catering fulfils a social role by providing meals at an affordable price. The financial participation of families in public school meals is set by the competent authorities (municipality, department or region). In France, more than 75% of municipalities with more than 10 000 inhabitants apply a social pricing system, most often based on family income. The state has put in place financial support to encourage smaller municipalities to also adopt social pricing.

School meals consist of a starter, a main course, a dairy product and/or a dessert, reflecting the French food culture. Since 2011, the composition of meals in school catering is regulated, and since 2019, a weekly vegetarian menu is mandatory. At least half of starters and desserts have to be raw fruits or vegetables and half of the main course garnish has to be vegetables. More than 7 000 official controls are carried out every year to ensure a high level of health safety.

Since 1 January 2022, new ambitious targets are implemented with the obligation to serve 50% sustainable and quality products, including 20% from organic farming. The «Taste classes» scheme, deployed in schools throughout France since 2012 under the joint aegis of the Ministry of National Education and the Ministry of Agriculture, has been revitalised. The aim of this training tool is to promote pupils' curiosity about food and to prevent obesity and children's apprehension about some types of food.

United States

The National School Lunch Program (NSLP) (USDA, 2022_[58]) is the second largest food and nutrition assistance programme in the United States. It operates in about 100 000 public and non-profit charter schools for a total cost of USD 14.2 billion in 2019. Meals served through NSLP meet federal nutrition standards. Local school districts set their own prices for paid meals. Children from families with incomes at or below 130% of the Federal poverty line are eligible for free school meals, representing on average

more than 20 million lunches per day pre-COVID. Those with incomes between 130% and 185% of the Federal poverty line are eligible for reduced price meals, representing on average 9 million lunches per day. In total, NSLP provided low-cost or free lunches to 29.6 million children each school day in 2019.

Because of the COVID-19 pandemic, which forced the closure of many schools beginning in March 2020, NSLP participation in 2020 averaged only 22.6 million children each school day and total expenditures amounted to USD 10.4 billion. In response to these disruptions and to meet rising food needs during the pandemic, USDA issued waivers allowing for flexibilities in the implementation of the NSLP.

Prior to COVID-19, the School Breakfast Program (SBP)) (USDA, 2022[58]) served school breakfasts to 14.77 million students each day, including 11.8 million free breakfasts, with an average daily participation of over 90 000 schools or institutions. In 2020 because of the COVID-19 pandemic, SBP participation averaged 12.4 million children each day.

USDA (Ralston et al., 2017[59]) found that the NSLP is associated with significantly lower rates of food insecurity for households with children, after accounting for assistance programme eligibility and increased likelihood of food insecurity among low-income households. The Food and Resource Action Center estimates that the NSLP reduces food insecurity by about 4% among participants (FRAC, 2022[54]).

Some school meal programmes are subject to national nutritional guidelines and requirements which are intended to positively influence student food selection and consumption, particularly encouraging consumption of fruits and vegetables (FRAC, 2022_[54]) (USDA, 2019_[60]). The FAO (2019_[53]) underlines there is no one-size-fits-all model of nutritional standards for school meals, given that different countries and programmes have different objectives and target groups. FAO also highlights that emphasis should be placed on setting upper limits for saturated fat, sugar and sodium. In addition, the cultural, social and environmental value of foods and meal experiences can support the contribution of school meal programmes to a number of Sustainable Development Goals (Parker and Koeppel, 2020_[61]).

Food vouchers

Food voucher programmes aim to improve access to food for households in situations of vulnerability and thereby food security. Food vouchers can be used to buy food or certain types of food products. Depending on organisational arrangements, food vouchers can be exchanged in any shops, markets, or in designated shops. The vouchers may be denominated in cash, commodity, or service value. According to the World Bank (2017_[62]), this form of support is widely used in low- and middle-income countries. OECD member countries also use these programmes. This section describes how such programmes are defined and operate in practice, based on information gathered on food voucher programmes in Chile, Korea, the United States, and the United Kingdom. These programmes are presented in Annex C.

In terms of targeting, the eligibility to food vouchers' programmes often depends on household income and personal situation. Certain programmes target particular household categories, including households with a pregnant woman and young children, single-parent households, households with children, students or elderly people. Box 2.4 describes how the Food Scholarship for Higher Education (FSHE) programme operates in Chile. This programme targets students.

Box 2.4. The Food Scholarship for Higher Education Programme in Chile

The aim of this scholarship is to provide the means for the students to have healthy and adequate nutrition to meet their educational requirements. The assistance method is an electronic voucher (EBT card) usable for online and offline food/meal shopping. The card only allows to buy healthy food products. Students can prepare their meals by buying groceries in registered retail shops or they can buy healthy meals at fast-food chains or at their college/university cafeteria; these healthy meals are pre-approved by JUNAEB before being sold to the public and they usually cost the allocated daily amount which is equivalent to USD 2. President Boric has pledged an increase of the monthly amount of about USD 5,8 in June 2022.

Out of more than 1.1 million higher education students in the country, more than 500 000 students are benefiting from this scholarship. It is awarded to them through the Ministry of Education (MINEDUC), exclusively to the 60% most-vulnerable students. The annual budget is USD 230 million. JUNAEB outsources and centralizes a service model, through private companies that provide the cards, the loading of said cards, their replacement, customer service, nutritional education, the registration of food retailers across the country, technology and innovation

Source: Consultation with Mariana Paulina LIRA MORENO and Eduardo Esteban CANDIA AGUSTI, JUNAEB.

In terms of operational mode, food voucher programmes are increasingly digitalised. Korea, the United Kingdom and the United States use digital technologies to issue electronic benefits to populations in situations of vulnerability (Baragwanath, 2021_[63]). In Korea,¹⁰ as part of the second Korean Food Voucher Assistance Programme (FVAP) pilot, food vouchers have been made available to households as electronic vouchers (EBT cards) that can be used for online and offline food shopping. This instrument was found to be not only effective in increasing food consumption, but also in lowering the possibility of using the vouchers for unintended purposes. The electronic voucher offers low operational costs and a monitoring function, making data analysis possible.

Finally, some barriers may prevent the actual use of food vouchers by eligible households. First, potential beneficiaries may not be aware of the programmes, of their eligibility, and of the application process. Second, they may not have access to registered physical or online retailers¹¹ and may not be willing to spend their vouchers because of their low monetary value or high delivery costs (Grocery Dive, 2021_[64]). Third, people report experiencing stigma, embarrassment, frustration, and shame when using food vouchers (Rizvi et al., 2021_[25]). Some countries structure programmes to overcome this problem. For example, solidarity grocery stores are being developed in France. These are set up like a local convenience store, with products on the shelves that are freely accessible. Prices are displayed and visible, with market value and, if possible, actual reduced purchase value. Access to these stores is granted for a fixed, and possibly renewable, period of time.

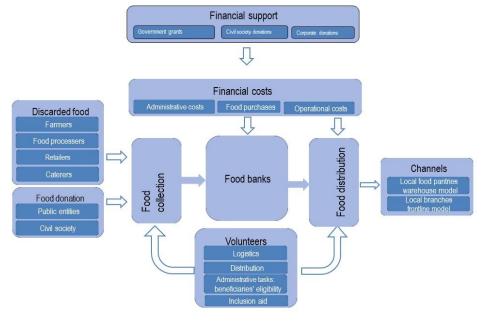
Food banks

Food banks are not-for-profit organisations that collect and distribute food to people struggling with food insecurity. Box 2.5 provides an overview of major food bank networks across OECD countries. Although food banks fill a demand for emergency food assistance (Bazerghi, McKay and Dunn, 2016_[65]), they are often established as long-term support providers. The different actors involved in such organisations are highlighted in Figure 2.3. Beneficiaries include families, students, migrants, and elderly people with low incomes (CRS, 2021_[66]) (FEBA, 2021_[67]). Indigenous Peoples also benefit from food bank assistance as shown by the experience of New Zealand (Box 2.6).

¹⁰ The Korean Food Voucher Assistance Programme (FVAP) is based on the USDA Supplemental Nutrition Assistance Programme (SNAP). Developed as a pilot, it expanded from 1 600 households in 2018 to 18 000 households in 2020.

¹¹ In Korea, for example, a limited set of stores is accessible to eligible households because it is necessary to manage the purchase history of each item of the voucher programme.

Figure 2.3. Organisation of food banks' operations



Source: OECD.

Box 2.5. Major food banks' networks and links to food loss and waste

The European Food Banks Federation (FEBA) is an umbrella not-for-profit organisation that brings together 335 food banks operating in 29 European countries. The daily mission of FEBA members consists of recovering, collecting, sorting, storing, and redistributing safe and nutritious food for free to charities that assist families and people in need. In 2020, over 37 000 workers (85% volunteers) for Food Banks of the FEBA network recovered a total of 860 000 tonnes of food, which were redistributed to 12.8 million people in situations of vulnerability across Europe (FEBA, 2021_[68]).

In the United Kingdom, Trussell Trust Food Bank Network plays a prominent role (Lambie-Mumford Hannah and Silvasti Tiina, 2021_[69]). Over the 2 200 food banks operating in the country, 1 300 are run by The Trussell Trust, with the remainder operated by the Independent Food Aid Network (IFAN) (Lambie-Mumford Hannah and Silvasti Tiina, 2021_[69]). Private food donations from individuals as part of local or national food drives are a key source of supply for Trussel Trust. Fareshare handles the redistribution of food industry surplus.

Feeding America is a non-profit network of 200 food banks in the United States, including Second Harvest Heartland and 60 000 partner food pantries and meal programmes. Feeding America secures donations from national food and grocery manufacturers, retailers, shippers, packers and growers, and from government agencies and other organizations. It organises the shipping and storage of food donations to food pantries, which then distributes it to people in need. Feeding America served more than 6.6 billion meals in 2020 (Feeding America, 2021_[70]).

At the global level, the Global Food Banking Network (GFN) works with a network of 56 000 organisations in 44 countries, representing 811 food banks (191 000 volunteers serving 16.9 million people). The GFN's mission is to alleviate global hunger by developing food banks in communities in need and by supporting existing food banks.

The operations of food banks are supported by public authorities via different channels. In particular:

- In-kind food donations: The European Union and the United States have major in-kind food donation programmes. In the European Union, the Fund for the European Aid to the Most Deprived (FEAD)¹² is used to buy food products that are then donated to partner organisations and distributed locally to people in situations of vulnerability. In 2019, 12.5 million people received FEAD food assistance. In the United States, the Emergency Food Assistance Program (TEFAP) is a food assistance programme run by the US Department of Agriculture (USDA) Food and Nutrition Service (FNS). Domestically-produced food commodities are purchased by USDA and distributed to the states. The food is then provided to households by food banks according to eligibility criteria defined at the state level. TEFAP funding increased from USD 711.1 million in 2018 to USD 1 865.5 million in 2019 (CRS, 2020_[71]). Food donation programmes in the United States (USDA, 2020_[72]) and in the European Union (FEBA, 2020_[73]) were strongly supported during the COVID-19 crisis.
- Facilitation of food donation by food systems stakeholders: Food donations to food banks can be encouraged or even made obligatory by public authorities. In France, food donation leads to tax reduction (60 % of the value of the donation). Moreover, in several countries, including France, Canada and the United States (OECD, 2020[74]) (Food Banks Canada, 2016[75]), farmers can donate products that would otherwise be lost and in return receive a tax reduction. In France, such donations are notably facilitated by SOLAAL, a non-profit organisation supported by the Agriculture Ministry. The 2018 European Directive (EU)2018/851 on waste states that Member States should provide incentives to facilitate food donations as well as the collection of unsold food products and their redistribution to charities. In France, the destruction of edible food is illegal. Furthermore, there is an obligation to offer a partnership to a food aid association for the distribution sector (if the store's size is greater than 400m²), food and drink industry (if the turnover is greater than EUR 50 million), collective catering (if it serves more than 3000 meals each day) and wholesale sectors. To address the imbalance between supply and demand of food products that has been more pronounced since the beginning of the COVID-19 pandemic, Japan supports food systems' stakeholders that donate food products to food banks. This support takes the form of assistance for transportation and delivery costs, as well as of mechanisms that facilitate the donation of food products to food banks.

Food assistance provided by food banks to households in situations of vulnerability contribute to the sustainability dimension of the triple challenge by its impact on reducing food loss and waste¹³. The Global Food Banking Network (GFN, presented in Box 2.5) estimates that food banks (including the cumulative impacts of Feeding America food banks, FEBA food banks, and GFN member food banks) contributed towards preventing the emission of 10.54 billion kilograms of greenhouse gases (GHG) and the loss and waste of 2.68 million metric tons of nutritious food in 2019 (GFN, 2019_[76]).

The Platform on Food Losses and Food Waste (FLW Platform) addresses this issue at the European level, and in 2019 published its Recommendations for Action in Food Waste Prevention, (FLW Platform, 2019_[77]). At the inaugural meeting of the EU Platform on FLW under its second mandate (2022-2026), it was agreed that a subgroup would be established in order to support the work of the Commission and all Platform members in relation to food donation and food waste prevention. The terms of reference for this sub-group are now finalised (European Commission, 2022_[78]).

In the context of lowering GHG emissions in the United States, California and New York have passed recent laws to require certain food businesses to arrange to donate food that would otherwise be wasted

¹² In 2014, the FEAD, a social programme, replaced the European food aid programme for the most deprived (MDP); The MDP programme, implemented in 1987 as part of the Common Agricultural Policy, aimed to donate European agricultural surpluses to populations in situations of vulnerability.

¹³ There are strong synergies between the food insecurity and the environmental sustainability dimensions of the triple challenge that food systems are facing. Redirecting food waste to food assistance can be a powerful policy instrument to achieve both food security and environmental sustainability goals. More systematic and detailed evidence on food waste could feed into food assistance policies. This requires coordination across food system stakeholders at the subnational, national and international levels.

(State of California, 2022^[79]) (New York State, 2022^[80]). A potential future dilemma for food banks, however, relates to their dependency on surplus food streams and how the move towards reducing food losses and waste across food systems in order to decrease its environmental impact will affect their operations (UNEP, 2021^[81]) (Galli, Hebinck and Carroll, 2018^[51]).

Because of a lack of comparable data, a comparison of food banks' supply sources is not straightforward. The origin of meals served by the French network *Banques Alimentaires* (Banques alimentaires, $2020_{[82]}$) and the United States' Feeding America (Feeding America, $2019_{[83]}$) network were analysed. Based on these sources, food donated by public entities represents over 25% of food bank supply, while food donated by food chain stakeholders accounts for about 65% of food supply; food donated via appeals for food donations account for the remaining 10%.

Box 2.6. Food banks and Indigenous Peoples in New Zealand

Indigenous Peoples represent about 5% of the world's population, but comprise 15% of the world's extreme poor and one-third of the rural poor (OECD, $2019_{[84]}$). In New Zealand, 16.5% of its population is of Māori descent (Stats NZ, $2019_{[85]}$). Food insecurity in New Zealand is higher for Indigenous Peoples, with an estimated one in four Māori children reported to live in households where food runs out sometimes or often compared to the national figure of 14% (New Zealand Ministry of Health, $2022_{[86]}$)

The Kore Hiakai Zero Hunger Collective brought together six social service agencies. It is connected to over 300 foodbanks across the country and is an adviser on food security to the Ministry of Social Development. Its Mana to Mana practice of community food distribution guidelines for foodbanks takes into account the ethical challenges associated with Indigenous Peoples and how to improve food assistance provided to Indigenous food insecure households.

2.3.3. The COVID-19 crisis highlighted the importance of food assistance programmes for households in situations of vulnerability

The COVID-19 pandemic and its economic and social consequences have shed new light on the importance of food assistance programmes for households in situations of vulnerability across the world, including in OECD countries. Many countries deployed public emergency food assistance measures to prevent a rise in food insecurity, and which complemented other livelihood support measures to contain the pandemic's socio-economic consequences, and thus the spread of poverty across OECD countries (OECD, 2021_[35]).

Concerning school meal programmes, the COVID-19 pandemic brought global recognition to the important role of school meals to support the health and wellbeing of children and adolescents in situations of vulnerability. In March 2020 as schools around the world closed their doors to limit the spread of COVID-19, more than 1.5 billion children were suddenly deprived of in-class schooling; this meant that 370 million children missed out on the nutritious school meals they relied upon. According to the World Food Programme (WFP, 2020_[87]), school children in both rich and poor countries shared this experience.

School nutrition professionals quickly adapted their operations to ensure that hungry students continued to have access to healthy school meals. In the United States, for example, thanks to federal regulatory waivers, schools offered free meals to all children through the Summer Food Service Program (SFSP) and Seamless Summer Option (SSO). Schools distributed grab-and-go meals, with parents able pick up multiple days' worth of such meals at a time.¹⁴ Furthermore digital technologies were used in some countries to facilitate access to food for children who usually received free meals at school, but who were unable to do so due to closures. For example, in the United Kingdom digital supermarket vouchers were made available to families eligible for free school meals (Baragwanath, 2021_[88]). At the United Nations Food System Summit held in September 2021, 60 countries – led by France and Finland – launched the

¹⁴ <u>School Meal Trends & Stats (schoolnutrition.org).</u>

School Meals Coalition: Nutrition, Health and Education for Every Child¹⁵ in a quest to provide a healthy meal every day to every child.

Some OECD countries have also reinforced existing food vouchers programmes and eased eligibility criteria in response to COVID-19. The United States has used digital technologies to issue electronic benefits to some population groups in situations of vulnerability and to provide information on food assistance packages to which households could be entitled (Baragwanath, 2021_[89]). USDA expanded the SNAP Online Purchasing Pilot¹⁶ which allows SNAP recipients to spend their SNAP benefits on online grocery shopping during the COVID-19 pandemic. More than 1.5 million American households took part in this pilot programme.

Finally, food banks had to respond to growing emergency food aid demand (Ziliak, 2020_[90]) despite the challenges the pandemic posed to their operations: food, although abundant, differed from the type of food supply normally received in the past¹⁷ and food banks were faced with a lack of staff¹⁸. In many cases, eligibility conditions were eased as more people lost their incomes, were waiting for emergency social benefits, or were affected by school canteen closures. The COVID-19 crisis highlighted the need for public support to provide visibility to food bank operations (GFN, 2020_[91]). To help food banks with the continuation of their operations, OECD countries provided different types of support measures (Annex D):

- Operational and financial support: Operational support was mostly offered by local authorities to
 enable continuation of food bank operations despite the pandemic. Local authorities provided
 storage, cooking and distribution facilities, as well as staff and protection materials. Several
 governments also provided financial support that covered food purchases and additional
 operating costs related to sanitary protocols (OECD, 2021_[35]).
- Flexibility in existing programmes' implementation: The rules behind food banks' public support
 were relaxed because of the COVID-19 pandemic. In the European Union, the CRII+ made it
 possible to provide food assistance indirectly via food vouchers for food banks supported by the
 FEAD. Rules regarding co-financing by Member States as well as the provision of social inclusion
 help by food banks were also revised.
- Food donations: This support was mostly provided by Ministries in charge of Agriculture when lockdowns were decided. Ministries were involved in food recovery programmes for food products that were supposed to be served in schools or in restaurants. In the United States, USDA via the pre-existing Emergency Food Assistance Programme (TEFAP) and the new Farmers to Families Food Box Program was involved in the purchase of domestically-grown food products (worth USD 3.85 billion) to be provided to population in situations of vulnerability (OECD, 2021_[35]) (Placzek, 2021_[15]).

The European Food Banks Federation (FEBA, 2021_[67]) has developed recommendations for food banks based on lessons learned from the COVID-19 pandemic. Food banks need monetary reserves to respond to sudden shocks. They need to develop partnerships with food system stakeholders and to engage in fundraising activities. In addition, food banks need to hire paid staff with predictable availability so that their operations do not depend solely on volunteers. Finally, food banks need to go digital as this would facilitate administrative tasks, warehouse management, and fundraising operations.

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¹⁵ <u>School Meals Coalition: Nutrition, Health and Education for Every Child.</u>

¹⁶ See <u>https://www.fns.usda.gov/snap/online-purchasing-pilot</u>.

¹⁷ Given lockdowns and restaurant closures, fresh food products that normally would have been used by the catering industry were donated in large quantities, posing associated logistic issues. In parallel, some long shelf life products were lacking because of household stockpiling behaviour.

¹⁸ Most food banks volunteers are retirees, directly at risk of developing severe forms of COVID-19.

The United States has also used the lessons learned from the COVID-19 pandemic to improve the way that food assistance is delivered in emergencies. In 2021, USDA announced an investment of up to USD 1 billion to support and expand the emergency food network so states, food banks and local organizations can reliably serve their communities. USDA will enter into cooperative agreements to more efficiently purchase food from local producers and invest in infrastructure that enables partner organizations to more effectively reach underserved communities (USDA, 2021_[92]).

In France, the COVID-19 crisis pandemic highlighted the key role that territorial food project (PAT) mechanism could play in territories to foster resilience in the event of a crisis. The PAT mechanism was set up in 2014 by the law on "the future of agriculture, food and forestry". It aims to build a strategic and operational framework for the development of local and sustainable food systems in a concerted manner with voluntary stakeholders in a given territory. The actions carried out within a PAT cover a wide range of issues and must have economic, environmental and social objectives. This last dimension was particularly reinforced in the context of the COVID-19 pandemic. Food systems' stakeholders in territories that had set up PAT were accustomed to work together. They were able to quickly and effectively set up ad-hoc supply chains, making it possible to provide aid to households in situations of vulnerability. Reflecting on this, the France Relance plan, the post-COVID recovery plan, comprises a strengthening of the state's support for the deployment of PAT. As of 1 April 2022, there were more than 370 PAT in the country.¹⁹

3. Food insecurity and food assistance programmes in OECD countries: Identifying and closing evidence gaps

Some evidence gaps related to food insecurity measurements and food assistance programmes were highlighted during the OECD Food Chain Analysis Network (FCAN) meeting that took place on 7-8 September 2020 to discuss new policy approaches for food insecure households. Box 3.1 provides insights on this meeting.

Box 3.1. Information on the OECD Food Chain Analysis Network Meeting (FCAN), 7-8 September 2020, New Approaches for Food Insecure Households

The FCAN is the expert group of the OECD Trade and Agriculture Directorate specialised in agro-food system analysis in particular with regard to food consumption and the data sets necessary to develop evidence based food policy. The FCAN met virtually in September 2020 to discuss new policy approaches for food insecure households.

The meeting was organised around four sessions; which aimed to highlight countries experiences in dealing with food insecurity and overcoming evidence gaps.

The first session set the scene regarding food security and nutrition and policy approaches to address household food insecurity in OECD countries and build resilience with healthy diets. It was centred on the experiences of the United Kingdom, Chile and Israel in handling the COVID-19 crisis and responding to emergency food assistance needs.

The second session provided examples of policy approaches in Finland, Canada and Portugal taking into account socio-economic characteristics and how these impact food choices in populations in situations of vulnerability, including co-development of initiatives with Indigenous Peoples.

¹⁹ More information on PAT is available at <u>https://agriculture.gouv.fr/plus-de-370-projets-alimentaires-territoriaux-</u> reconnus-par-le-ministere.

The third session focussed on digital opportunities for demand-side policies to improve consumers' health and the sustainability of agri-food systems including with data collection. The experiences of Korea, the United States and the United Kingdom were presented.

The fourth session concluded with insights on methodologies for measuring food insecurity used in the United States, France and the United Kingdom. All participants pointed to the need for additional research on the topic.

All the presentations given at the meeting as well as the meeting's summary record are available on the FCAN website: <u>https://www.oecd.org/agriculture/topics/food-chain-analysis-network/</u>.

3.1. Evidence gaps on food insecurity measurements

The United Nations (UNStats, 2021_[93]) stressed the importance of collecting timely, quality, open and disaggregated data and statistics. The success, or failure, of policies and programmes to promote food security and better nutrition rests largely upon strengthening capacities of countries to collect, analyse, and use quantitative and qualitative data for planning, policy formulation, and investment (CFS, 2021_[94]).²⁰

Routine monitoring in a national household survey is important for quantifying the scale of food insecurity in the population, tracking how the problem changes over time, and identifying groups in situations of vulnerability. Two main scales capturing self-reported experiences of food insecurity have been validated around the world: The Food Insecurity Experience Scale (FIES) developed by the FAO and The USDA Household Food Security Survey.

3.1.1. The Food Insecurity Experience Scale

The Food Insecurity Experience Scale (FIES) is at present the only household or individual food security assessment method that ensures global comparability of measures due to the possibility of calibrating these measures against a global reference standard (FAO, 2021_[95]) (FAO, 2020_[96]) (Saint Ville et al., 2019_[97]). It is the official instrument used by the FAO to produce estimates of food insecurity prevalence in the context of SDG Target 2.1 monitoring. FIES is an eight-question survey designed to be administered face to face to gauge a respondent's access to adequate food. The FIES questions ask about varying degrees of access to food, including worry/anxiety about having enough food or reducing portions, to ultimately skipping meals or not eating for an entire day (FAO, 2021_[95]) (FAO, 2020_[96]) (Saint Ville et al., 2019_[97]).

The FIES measurement system enables the assessment of household or individual food insecurity across two levels (namely severe and moderate) that can be compared across countries. Being able to quantify the degree of food insecurity is very relevant as highlighted by the COVID-19 crisis: shocks can have different impacts not only across countries, but also across subpopulation groups within countries (FAO, 2021_[95]). Used together with traditional measures of food consumption, dietary quality and nutritional status, the FIES has the potential to contribute to a more comprehensive understanding of the causes and consequences of food insecurity, including its nutritional and dietary impacts (Ballard et al., 2014_[98]).

3.1.2. The USDA Household Food Security Survey Module

The second commonly used scale is the USDA Household Food Security Survey Module (USDA, 2021_[99]). This module is used routinely in the United States and Canada, and has also been used in populationbased surveys in the United Kingdom, including the Low-Income Diet and Nutrition Survey and the Food and You Survey (DEFRA, 2021_[16]).

The USDA Household Food Security Survey 18-item module classifies households as being food secure or insecure. Food security levels range from high, marginal, low, to very low (USDA, 2021[99]) (Moran et al., 2020[17]). A household is considered food insecure if they score in the low or very low categories. The

²⁰ Less than half of FAO member countries on average are able to officially report their basic statistics on food and agriculture to the FAO. As a result, food security and nutrition data are usually outdated and unable to provide in a timely manner actionable intelligence to address complex sustainable development challenges (CFS, 2021[147]).

module collects information about the household, and its adult and child members. Variations of the survey include the adult food secure 10-item module and a 6-item short form. Countries choose to use the different modules depending on considerations such as survey respondents' burden. For example, the last two surveys of the British Food Standards Agency's "Food and You" survey included the 10-item module questions, and France used the 6-item module in its 2014-15 national food consumption survey (INCA3) (Placzek, 2021_[15]).

3.1.3. Food insecurity prevalence is however often not comparable across countries

Countries often collect their own data on food insecurity and not the global scales described above, which prevents comparability across countries (Paul Harvey, Karen Proudlock and Susanne Jaspars, 2010_[100]). Researchers point to a lack of routine measurement and incompatible definitions across countries (Jones et al., 2013_[101]) (Pollard et al., 2021_[102]). Countries commonly use semi-regular dietary surveys that are based on different methods ranging from qualitative approaches to quantitative techniques to ascertain food insecurity. Some use household income and expenditure surveys (HIES) to assess the consumption levels and welfare of a population through the amount of food acquired, while others use food intake surveys (FIS) to evaluate the amount of food consumed by individual members of a household over a determined period.

Table 3.1 provides an overview of different food insecurity measures across selected OECD countries; highlighting important differences with FAO FIES estimates.

Country	Estimates	Survey methodology	Link to data
United States	10.5% (2020)	Food Security Supplement to the US Census Bureau December monthly Current Population Survey	Household Food Security in the United States in 2020 (usda.gov)
	8% (2018-2020)	FAO FIES Estimate	FAO (FAO, 2021 _[5])
New Zealand	14.9% of children (2020/21)	Response from the NZ Health survey: 'food runs out often or sometimes' question.; key indicator used for food security in the child and youth wellbeing strategy	https://minhealthnz.shinyapps.io/nz-health- survey-2020-21-annual-data-explorer/ Indicators Child and Youth Wellbeing (childyouthwellbeing.govt.nz)
	14% (2018-2020)	FAO FIES Estimate	FAO (2021 _[5])
United Kingdom	16% (2021)	Food and You 2 Survey, Scottish Health Survey	Food and You Food Standards Agency https://www.food.gov.uk/research/food- and-you-2/food-and-you-2-wave-2
	14% (financial year 2019- 2020)	Family resources survey	Family Resources Survey: financial year 2019 to 2020 - GOV.UK (www.gov.uk)
	3.9% (2018-2020)	FAO FIES Estimate	FAO (2021 _[5])
Canada	10.6% (2019)	Canadian Income Survey (CIS)	Food insecurity by age group and sex (statcan.gc.ca)
	50.8% of First Nations On- Reserve Adults (2015-2016)	First Nations Regional Health Survey	FNIGC (2022[102])
	5.8% (2018-2020)	FAO FIES Estimate	FAO (2021 _[5])
Australia	Between 4% and 13%; + 22% to 32% of the Indigenous population	Australian Health Survey	Understanding food insecurity in Australia Child Family Community Australia (aifs.gov.au)
	12.3% (2018-2020)	FAO FIES Estimate	FAO (2021 _[5])
Chile	12% (2021)	COVID-19 Social Survey	(Chilean Ministry of Social and Family Development, 2021[104])
	17.9% (2018-2020)	FAO FIES Estimate	FAO (2021 _[5])

Table 3.1. Measurement of food insecurity across the OECD area

Source: OECD and FAOSTAT.

3.1.4. Developing better evidence

The COVID-19 pandemic has highlighted the importance of monitoring the prevalence of food insecurity and the areas where better data is needed to respond to crises and build resilience for the future. For example, the Global Food Banking Network calls for more consistent food insecurity measurement practices to facilitate comparisons across countries (GFN, 2020[105]).

It is also crucial to develop better evidence on where people in situations of vulnerability are located and the extent to which this population group is impacted by shocks if better food assistance policies are to be developed. A concrete example is the recent expansion by New Zealand of the Ka Ora, Ka Ako school meal programme, which aims to reduce food insecurity by providing access to a nutritious school lunch every day. Initially, this programme was piloted with primary and intermediate (or middle school) aged students, targeting the 20% most socio-economic disadvantaged, in 120 schools across three regions of New Zealand. Given the promising impact on students' food security status and in the context of the COVID-19 pandemic, the programme was expanded from the three original regions to the whole country. It now includes high schools and targets the 25% most socio-economic disadvantaged. It currently provides lunches in 921 schools to over 211 000 students each day (NZ Ministry of Education, 2022_[106]). The programme's longer-term impacts will be analysed, especially with regard to attendance and improvements in learning outcomes.

To provide valuable policy insights, food insecurity surveys could be undertaken using a consistent methodology more regularly, for example on a monthly or trimestral basis. Chile has run different rounds of the COVID-19 Social Survey to understand how the pandemic affected the socio-economic situation of Chilean households (Observatorio Social, 2021_[107]). This survey had a food insecurity component, which was FIES based, along with other components covering economic impacts, well-being and mental health and the family situation. Figure 3.1 describes the evolution of moderate to severe food insecurity prevalence in Chile in the course of the COVID-19 crisis. This information was used to create the Chilean Food Security Plan in March 2021 that included a series of short and medium-term measures that were designed to mitigate the effects of COVID-19 on food insecurity by intervening at different levels of food systems (Chilean Ministry of Social and Family Development, 2021_[104]). This plan was designed and coordinated by the Ministry of Social and Family Development with the participation of the Ministries of Agriculture, Health, Economy, and Education, of the FAO and of government agencies including the National Council for School Assistance (JUNAEB).

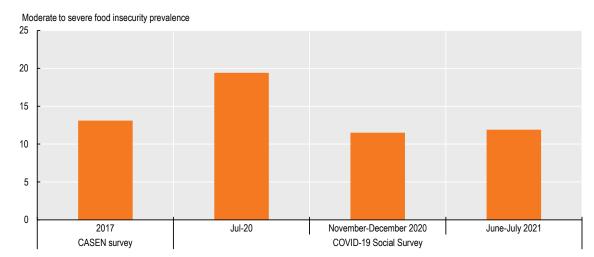


Figure 3.1. Evolution of moderate to severe food insecurity prevalence in Chile over the course of the COVID-19 crisis

Note: the CASEN survey and the different waves of the COVID-19 Social Survey are not directly comparable. The CASEN survey is a FIESbased food security survey that was undertaken in 2017. It asked households about their food security status over the last 12 months while the different rounds of the COVID-19 Social Survey asked about households' food security status over the last month. The CASEN survey will continue in the future. CASEN surveys have been run since 1990.

Source: COVID-19 Social Survey, Ministry of Social and Family Development.

Another option would be to implement real-time monitoring of food-insecurity prevalence. Countries could develop weekly or bi-weekly surveys following the example of the US Census Bureau's Household Pulse Survey.²¹ This survey has tracked the real-time evolution of food insecurity prevalence since the beginning of the COVID-19 crisis (Placzek, 2021_[15]). The US Census Bureau, in collaboration with multiple federal agencies, produces data on the social and economic effects of the COVID-19 pandemic on American households. Data have been disseminated in near real-time to inform federal and State response and recovery planning. The survey measures core demographic household characteristics, as well as ask about education, employment, food sufficiency, household spending, housing security, and physical and mental health. It is designed to be a short-turnaround instrument to provide valuable data to aid in the pandemic recovery (U.S. Census Bureau, 2022_[29]).

3.2. Evidence gaps on food assistance programmes

This section builds on OECD countries experiences presented in Annex C to illustrate evidence gaps related to food assistance programmes and their implications. It proposes a roadmap to address these gaps.

3.2.1. Participation of eligible households to food assistance programmes

Gaining better insights on the actual participation of eligible households to food assistance programmes would enable policy makers to tailor such programmes, for example by finding the right set of incentives to ensure they actually attain their objectives. Most food assistance programmes are subject to eligibility criteria that are defined either by public entities at the national or local levels, or directly by not-for-profit organisations that run the programmes. It appears difficult to monitor the actual number of beneficiaries of food assistance programmes and the number of people who could qualify to benefit from them but who do not apply.

These concerns are important for school meal programmes. Research undertaken by Cohen *et al.* (2021_[108]) shows that targeted school meal programmes that are only offered to low income students have low participation rates due to stigma and are unsuccessful in reaching broader health goals. Given their contribution to the nutritional intakes of food insecure children. In addition, programmes that involve means-testing require significant expense and administrative work for governments to assess student eligibility (Oostindjer et al., 2017_[109]).

In the United States, USDA tracks annually participation to the National School Lunch Program (NSLP) and to the School Breakfast Program (SBP) (USDA, 2020_[110]). USDA (2008_[111]) highlighted the difficulty in getting eligible children to actually eat the free or reduced-price healthy lunches served through the NSLP. Indeed, there are barriers to consumption of healthier foods among children who participate in NSLP and SBP, including taste preferences, appeal and presentation. In addition, parents may not register their children because of cumbersome registration processes or the fear of stigma. Similar problems related to the actual participation of children to school meal programmes are also reported in Chile and Finland. Both countries have undertaken studies and have developed new initiatives to improve participation.

Chile: The national school meal programme (*El Programa de Alimentación* – PAE) was subject to several reviews to evaluate impacts. The 2011 evaluation led to a redesign of the programme (SCI Econometrics, 2013_[112]). The 2016 review highlighted a low meal acceptability. The study led the National Board of Student Aid and Scholarships (JUNAEB) to set-up of a Gastronomic Laboratory where a team of chefs provides support for the improvement of PAE, through training, recipe development (JUNAEB, 2017_[113]). The study was replicated in 2019 and found that meal acceptability increased by 7.9% for students in middle schools and by 4.6% for students in high-schools (JUNAEB, 2020_[114]). JUNAEB will soon undertake another study of students' acceptability of the meals served at schools to assess the impacts of the COVID-19 crisis. Schools already report lower school meal acceptability that they relate to a higher consumption of processed food at home.

²¹ See <u>https://www.census.gov/programs-surveys/household-pulse-survey/data.html.</u>

• *Finland*: Free school catering is part of the national effort to establish good nutrition and to promote health, educational achievements, and well-being. According to the Finnish recommendations for school meals, a complete and nutritionally balanced school meal should cover one-third of a student's total daily energy requirement (Tilles-Tirkkonen et al., 2021_[115]). In practice, however, and despite the Everybody Eats! programme (National Nutrition Council of Finland, 2017_[116]), a complete and balanced school meal is eaten by no more than one in ten students (Tilles-Tirkkonen et al., 2021_[115]). In that context, the RuokaTutka (FoodRadar) programme was set up. This is an extensive food education campaign, with the goal of educating children on healthy eating habits and on the origin of food mainly through different digital applications and other materials that can be used in schools. In 2021, RuokaTutka was ranked best Public Administration and (non-profit) Organisation communication campaign by the Finnish Communication Awards.

The provision of food assistance by food banks to eligible food insecure households is even more complicated to monitor. Compared to government-led policy instruments, the decentralized nature of food bank organisations makes it difficult to aggregate information at the local, national, and international levels. The Global Food Banking Network provides a global estimate of beneficiaries for food banks affiliated to the network, FEBA and Feeding America in its annual report on the State of Global Food Banking (GFN, 2018_[117]) (GFN, 2019_[118]) (GFN, 2020_[105]). The 2020 report provides information on the significant COVID-19 related increases in demand for emergency food assistance. To improve this monitoring, FEBA encourages the digital transformation of its members to develop and share a standardised and consistent methodology for data collection (FEBA, 2022_[119]) (FEBA, 2021_[67]); such transformation might be a challenge as food banks are mainly volunteer supported with limited resources and more immediate pressing concerns. In 2019, FEBA (2019_[120]) had already called for a clear monitoring of the number of active food banks, charities served, and end beneficiaries.²²

3.2.2. Budget devoted to food assistance programmes

The monitoring of the actual budget allocated to nutrition and food assistance across OECD countries is complicated. Annex C provides an overview of spending by public authorities to food bank operations in 2020 in selected countries. Although several OECD databases present budgetary information for food assistance programmes, there is no single repository for this information.

The OECD Agricultural Monitoring and Evaluation (OECD, 2022[121]) uses a comprehensive system for measuring and classifying on an annual basis support to agriculture — the Producer and Consumer Support Estimates (PSEs and CSEs) and related indicators. Table 3.2 presents estimates for non-commodity specific transfers to consumers across countries covered in this report. Some food assistance programmes are included in this category for Canada, Mexico, New Zealand, the United States, and the European Union. However, given different organisation structures of assistance in other countries, all OECD food assistance programmes do not actually show up in the PSE database.

The OECD Directorate for Employment, Labour and Social Affairs is responsible for the Social Expenditures Database (SOCX) (OECD, 2022_[122]). It is not possible with this database to isolate spending devoted to food assistance programmes as they fall under the "Other Social Policy areas / Benefits in kind" category. Nor, in some cases, is it possible to identify social expenditures at the programme level within the SOCX framework. For example, FEAD spending on food assistance does not appear in the SOCX database for European Union Member Countries because the assistance is delivered to end-beneficiaries through national partner organisations and NGOs.²³

A final OECD database with the OECD Development Centre tracks food aid programmes (OECD, 2022[123]).

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²² The number of beneficiaries is a derived calculation based on quantity and frequency of food delivery.

²³ The European Commission and Member States share the responsibility to evaluate FEAD. Managing authorities perform the evaluations at the national level supported by guidelines on monitoring and evaluation developed by the Commission. The Commission performs the evaluation at the European level, with the latest evaluation undertaken in 2019 (European Commission, 2019_[149]).

Table 3.2. Food assistance programmes reported in the OECD PSE database

Country	1990	2000	2010	2015	2020	Food assistance programmes taken into account
Canada	-	-	1	0	150	Surplus food purchase Program; Surplus Food Rescue Program (since June 2020)
Mexico	1	1	157	528	100	SEDESOL's Food Programme (Programa Alimentario) (2012-2018)
New Zealand	-	-	-	-	19	Assistance to food banks (COVID-19) 2020
Norway	-	-	34	24	25	-
Switzerland	240	6	1	3	6	-
United States	12,538		40,913	46,674	49,076	Supplemental Nutrition assistance Program (SNAP ; previous Food Stamp Program) ; State Child Nutrition Programs ; WIC Nutrition Programs ; Commodity Assistance Program
European Union	1,314	816	1,030	260	485	Distribution of agricultural products to the most deprived persons in the Community (1988-2011, 2013); free distribution of fruits and vegetables (1996-2010); school fruit scheme (2010-2017); consumption aid - School schemes (from 2017))
OECD	14,256	19,033	42,102	47,479	49,852	

Non-commodity specific transfers to consumers across OECD countries, USD million

Note: Food assistance programmes are part of non-commodity specific transfers to consumers.

3.2.3. Organisation of food assistance programmes

Comparative information on how food assistance programmes operate is also missing; this may prevent analysing the effectiveness of these programmes and of public spending in reducing food insecurity. This gap might be due to the variety of stakeholders involved or to the difficulties in identifying appropriate models for their operations. This section focuses on school meal programmes and food banks.

Recent initiatives are taking a closer look at school meal programmes. The newly launched School Meals Coalition takes a targeted approach to ensure that every child has the opportunity to receive a healthy, nutritious meal in school by 2030 by improving the quality of nationally owned school meal programmes and strengthening school meal systems globally. The Research Consortium for School Health and Nutrition²⁴, the evidence-generating arm of the Coalition, is establishing a ten-year research agenda to develop four communities of practice focusing on overcoming evidence gaps in terms of impact and evidence, analytics and metrics, good examples and nutrition measurement. In addition, the World Food Programme leads the Data Monitoring Initiative (DMI), which aims to define and collect a set of indicators related to the organisation and efficiency of school meal programmes around the world. The OECD as a knowledge partner to the UNFSS process hosted a webinar in February 2022 on "Making better policies for school meals"²⁵ to raise awareness on the need to overcome evidence gaps on how school meal programmes operate.

In addition, not-for-profit organisations involved in food banks are trying to improve the evidence base on how they operate. Food bank operations depend on the volume of food donated, rescued and purchased, and they have developed data systems to track this information and to make sure their food supply can meet demand.

An example is the collaboration between Second Harvest Heartland, Minnesota's largest food bank, and McKinsey to develop over the course of 2020 a food assistance demand model. Both organisations ran best case and worse case scenarios for future food assistance demand based on the potential evolution of poverty, unemployment, and other macroeconomic variables (Fiocco et al., 2020_[124]). The scenarios were used to ensure that Second Harvest Heartland was able to respond to the COVID-19-induced increase in beneficiaries.

²⁴ <u>Research Consortium for School Health and Nutrition.</u>

²⁵ More information on the webinar can be found online: <u>https://www.oecd.org/agriculture/events/howtomakebetterpoliciesforschoolmeals.htm</u>.

Another example of how stakeholders address evidence gaps is the project "Quantifying the Impact of European Food Banks" (FEBA, 2022_[119]) launched by FEBA in March 2020 and which led to the creation of an Observatory on Food Donation in Europe. FEBA aims to share a standardised and consistent methodology for data collection across its members and to encourage digital transformation.²⁶

Finally, better data are at the heart of many new processes for rescuing and storing food. Across OECD countries, COVID-19 has led to an acceleration in the development of innovative practices of not-for-profit organisations running food banks, which had to upgrade warehouse practices to manage a substantial increase in food supplies, and improve planning by segmenting food sources and distribution channels by type. Box 3.2 describes the successful experience of The Irish Food Cloud Hub to improve the redistribution of surplus food.

Box 3.2. Improving the redistribution of surplus food: The Irish Food Cloud Hub Initiative

For many years, the Dublin Food Bank, established in 1989 by the charitable organisation Crosscare, was Ireland's only food bank. Since 2013, several new food banks have emerged. Thanks to a EUR 37 000 grant from the Environmental Protection Agency in 2011, an earlier iteration of the Food Cloud Hub (FCH) initiative was able to conduct a feasibility study on harvesting food surplus and redistributing it to Irish charities.

FCH functions as an intermediary between food companies and charities and as such has no direct interaction with end-receivers of food aid. FCH works by co-ordinating with other national agencies, using existing logistics, modern information and communication technologies, and drawing on the support for charitable actions, which currently exists among the Irish population. This initiative emphasises its role in reducing the environmental impact of food waste by quantifying the amount of carbon embedded (from all stages of the food chain) in the food it redistributes (Galli, Hebinck and Carroll, 2018_[51]) (Hebinck et al., 2018_[47]).

The organisation collects and stores products in Dublin, Cork and Galway, and transports them to the charities. Most of the food moves through the main hub and head office in Dublin. Food manufacturers and retailers contact their local FCH base with details of their food surpluses, which could potentially go to waste. Most well-known food retailers in Ireland and almost 100 Irish food manufacturers are engaged in some way with this initiative, ensuring a stable source of food for charitable organisations. FCH uses IT-technology to streamline and professionalise their redistribution logistics. This allows registered recipient charities to log in to FCH's system and make requests from the food in stock according to their needs and preferences.

FCH receives support by local governments. At the supranational level, FCH won the contract to administer the European Union Fund for the European Aid to the Most Deprived (FEAD), which is worth EUR 11 million over five years. FCH helps charities by alleviating them of responsibilities and costs associated with feeding people, allowing these charities to focus more on addressing the root causes of poverty (Hebinck et al., 2018_[47]).

3.2.4. Monitoring and evaluation of food assistance programmes

Given the substantial public funding devoted to food assistance programmes and the rising number of people that rely on such programmes across OECD countries, it is essential to understand whether they are efficient in improving the food security status of beneficiaries and how they could be improved. Monitoring and evaluation of food assistance programmes can focus on their impacts by looking at the quantity and the nutritional quality of food provided to beneficiaries, the cost of implementing the programmes, and the recipients preferences and willingness to use the programmes. This information helps policy makers to effectively tailor food assistance programmes to meet the needs of people in situations of vulnerability.

²⁶ Digital transformation of food banks might not be straightforward given their limited resources.

A key challenge is to collect evidence on the nutritional impact of food assistance programmes (World Bank, 2014_[125]) (Hebinck et al., 2018_[47]) (Lentz and Barrett, 2013_[24]). In the United States, USDA monitors and evaluates US government-led food assistance programmes. In particular, USDA collects a wide range of interrelated data²⁷ on food security, food purchases, and the food environment that enables thorough research and analysis on participation in and effectiveness of these programmes by its Economic Research Service (ERS) and by academic researchers (Giner and Brooks, 2019_[21]) (Baragwanath, 2021_[88]). ERS and ERS-funded research spans a wide array of topics, including determinants of programme participation, impact of programme changes. ERS research is used to inform Federal decision-making on nutrition assistance policy. ERS maintains the Research Reports & Articles database²⁸ to ensure that research results are available to the public. This database contains over 1 100 peer-reviewed reports and articles on food and nutrition assistance conducted by ERS researchers or funded through ERS. Box 3.3 presents important insights from the evaluations of food vouchers programmes in the United States, the United Kingdom and Korea.

Box 3.3. Main learnings from evaluations conducted on food vouchers programmes in the United States, the United Kingdom, and Korea

In the United States, households eligible to food vouchers are more likely to be insecure than noneligible households. Whereas 11% of American households experienced food insecurity in 2018, 47.5% of households receiving SNAP and 36.9% of those receiving WIC were food insecure (Miller and Thomas, 2020[126]). Food vouchers programmes do improve the food security situation of their recipients. SNAP recipients are roughly 20% less likely to be food insecure than eligible non-recipients. In addition, food vouchers appear as more efficient in increasing households' share of income spent on food than do cash transfers (Ratcliffe and Mckernan, 2010[127]). Food voucher programmes also improve the nutritional quality of diets of recipients. A growing body of research points to many additional benefits to SNAP participation, including improvements to health, nutrition, and academic outcomes, improved health care use, lower health care costs, and long-term self-sufficiency (Miller and Thomas, 2020[126]). Finally, targeted food voucher programmes seem to lead to greater nutritional impacts and improved healthfulness of diets, especially for children.

In the United Kingdom, the availability of the Healthy Start Scheme has been shown to increase the quantity and variety of purchased fruits and vegetables (Scottish Government, 2016[128]) (DEFRA, 2021[16]).

Korea plans to evaluate the effect of its Food Voucher Assistance Programme (FVAP) annually in terms of eligible household satisfaction and improvement of their nutritional situations so as to adjust when necessary. The programme's digitalisation will facilitate this monitoring.

In addition, food bank networks (FEBA, 2022_[119]) (GFN, 2020_[105]) seek to assess their impacts on issues related to their beneficiaries such as food insecurity, self-sufficiency, diet quality, and social support over time. Some academic research highlights that food banks are not meant to be a long-term solution to fight food insecurity (Tarasuk, Fafard St-Germain and Loopstra, 2020_[129]) (Loopstra, 2018_[130]). They can contribute to promote other institutional food support systems by, for example, helping to enrol beneficiaries in other types of food assistance programmes, including SNAP in the United States (Sanderson et al., 2020_[131]).

²⁷ The Food and Nutrition Service (FNS, <u>https://www.usda.gov/topics/food-and-nutrition</u>) releases programme information regularly in the form of national and subnational data, including participation counts, benefit amounts and programme costs. In addition, the FoodData Central platform provides expanded nutrient profile data and links to related agricultural and experimental research.

²⁸ See <u>https://data.ers.usda.gov/FANRP-research-reports-articles-database.aspx</u>.

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Finally, the monitoring of food assistance programmes might entail the set-up of harmonised guidelines for programme stakeholders. Guidelines relate to how programmes must operate and to indicators that need to be reported. This is what the Research Consortium on school meals aims to put together at the global level. In Finland, the government has already established a set of harmonised principles to monitor its school meal programmes and that are to be applied at the national and local levels (National Nutrition Council of Finland, 2017_[116]). This set of principles is organised around three pillars and stakeholders need to report a pre-defined set of indicators associated with these pillars.

- Pillar 1 Monitoring and evaluation of nutritional quality of school meals: This is a continuous
 process used by the catering service provider to ensure that the food served complies with the
 recommendations. It covers all phases of school catering: menu planning and food procurement
 planning, recipe creation, and food preparation and serving.
- *Pillar 2 Monitoring and evaluation of participation and inclusion in school meals:* Monitoring the attendance of pupils at school meals (daily/weekly/annual monitoring) is a key indicator of operation. "Everybody eats" can be set as the common goal with pupils and homes.
- *Pillar 3 Further forms of monitoring and evaluation:* The health and safety of school environments and welfare promotion among learning communities are to be inspected in comprehensive schools every three years.

3.3. Addressing evidence gap related to food insecurity across OECD countries: A roadmap

This section provides a roadmap (Figure 3.2) to address evidence gaps related to food insecurity and food assistance programmes across OECD countries.

The first step is to develop routine measurement processes concerning food insecurity prevalence. These should be standardised across countries to allow for comparability. Two main scales are available: the FAO FIES and the USDA Household Food Security Survey Module. As highlighted by the US experience during the COVID-19 crisis, developing a measurement process that can be implemented frequently and rapidly in periods of crisis can help to better target policies that address food insecurity. The recent surge in food prices and potential consequences in terms of food insecurity prevalence call for the implementation of food insecurity surveys on a regular basis across the OECD area, and more widely across the world.

The second step is to identify policy responses to food insecurity and close evidence gaps on these instruments. These gaps are related to the actual participation of eligible households, to public spending and, more generally, to the organisation of these programmes. Comparable information is missing across countries. As shown in this report, harmonised evidence on these aspects can be collected and digital technologies facilitate such evidence gathering.

The third step is to monitor and evaluate the effectiveness of food assistance programmes. Evidence could focus on whether food assistance programmes actually improve the food security status of beneficiaries (and ultimately reduce the number of beneficiaries). It is also interesting to look at the impact of the programmes on well-being and health. Harmonised guidelines on the monitoring and evaluation of food assistance programmes could be developed based on the experiences of some OECD countries. Given the important role of food banks in the provision of food assistance, public authorities should accompany and facilitate the monitoring and evaluation efforts of food bank networks.

The final step is to adjust policy responses to food insecurity. Some countries may focus on alleviating poverty via cash transfers as part of universal social protection schemes. Other countries have developed a mixture of food assistance programmes as these programmes have different objectives and targets. For example, school meal programmes are long-term commitment towards children and students. Food vouchers aim to make food accessible and available to population groups in situations of vulnerability while food banks are supposed to respond to emergency food needs. Organisational and budgetary aspects as well as effectiveness need to be taken into account in this adjustment process.

Step 1:	To what extent does food inconvity exist?			
Measurement of food	To what extent does food insecurity exist?			
insecurity	Which population groups are particularly vulnerable?			
-	Measurement methodology? Frequence of measurement?			
	=> Developing a routine monitoring of food insecurity			
Step 2:	Participation of eligible households			
Developing evidence on - policy responses - food	Budget			
assistance programmes -	Organisation			
	=> Collecting comparable data on food assistance programmes			
Step 3: Monitoring and	How does food assistance impact food insecurity?			
evaluating policy impacts and effectiveness	How effective is the policy instrument in achieving policy goals?			
	What data is needed to measure impacts and policy effectivness?			
	=> Evaluating data on impact and effectiveness of food asisstance			
Step 4: Adjusting policy	What goal needs to be addressed though the food assistance policy instrument?			
responses in place and how they are managed	Which policy instruments are most relevant and fit for purpose?			
non noy are managed _	Which adjustments are needed?			
	=> Assessing the food assistance options and select/adjust relevant instruments			
-				

Figure 3.2. Closing evidence across gaps on food insecurity OECD countries: A roadmap

4. Main lessons

Conflicts, climate variability and economic slowdowns are global drivers of food insecurity. The COVID-19 crisis and the war Russia is presently waging on Ukraine highlight the fragility of food systems with respect to the food security and nutrition challenge. In periods of crisis, governments have a role to play in easing impacts on households.

Ensuring that agri-food trade keeps flowing is essential, as trade is an integral component of wellfunctioning food systems and an essential enabler of their transformation towards better food security. In that respect, transparency mechanisms such as the Agricultural Market Information Systems (AMIS)²⁹ are key to avoid counterproductive policy responses. Efforts are also needed to limit the use of export restrictions particularly on food staples given the risk of global market disruptions from the cascading imposition of export restrictions.

Tackling food insecurity either directly or indirectly is another important task for governments in a period of rising inflation pressures across the world. Yet, despite the availability of validated measurements approaches, most OECD countries do not collect food security data, preventing the development and implementation of evidence-based food assistance programmes.

Addressing evidence gaps on the prevalence of food insecurity and food assistance programmes in OECD countries is thus key in a period characterised by high food prices for population groups in situations of vulnerability. This final section highlights major take-home messages for policy makers.

²⁹ The Agricultural Market Information System (AMIS) is an inter-agency platform to enhance food market transparency and policy response for food security. More information is available at <u>http://www.amis-outlook.org/</u>.

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4.1. Developing better evidence on food insecurity allows to better target food assistance programmes

Population groups in situations of vulnerability face food insecurity across the world, including in OECD countries where according to FAO estimates at least 7.5% of the population suffered from moderate food insecurity over the 2018-2020 period. The current high-level of food prices could push more people into poverty and hunger.

Food assistance programmes aim to address this problem; this influences decision-making and public financing of such programmes. Three main types of food assistance programmes are covered in this report: the provision of school meals to children in situations of vulnerability; food vouchers; and provision of food products by food banks. Food assistance programmes involve a variety of food systems and civil society stakeholders. All programmes reviewed in this report have been developed to meet the needs of people in situations of vulnerability criteria that often depend on people's incomes or level of poverty.

The availability of routine food security measurements across OECD countries could help to identify the population groups that would most benefit from food assistance programmes and the development of programmes that would best take into account the specific needs of these population groups. This report also highlights how food assistance programmes were modified to become more agile and to better respond to the COVID-19 crisis. The agility of governments in periods of crisis would be improved by acquiring better evidence on food insecurity. The United States developed an innovative monitoring of food insecurity at the household level during the COVID-19 crisis to inform policymaking in almost real-time (described in Section 3.1) and other countries could replicate this surveying approach.

4.2. Developing better evidence on food insecurity requires coordinated action by countries

Countries and international organisations must work together to overcome evidence gaps on food insecurity measurements. This is necessary so that data become more consistent and comparable. This report calls for OECD countries to scale up their efforts and collect basic, comparable, and regular food security data to better identify population groups in situations of vulnerability. The OECD (2022_[132]) recommends that governments ease the impacts of price rises on consumers as the poorest countries and households spend the highest share of their incomes on energy and food. The OECD calls for targeted, temporary, and means-tested support to help the people in situations of vulnerability and refugees and for ensuring that agricultural trade continues to flow.

Some initiatives are being developed to facilitate the comparison of food insecurity prevalence estimates. For example, the FAO is collaborating with the Economic Research Service of the USDA to allow meaningful comparisons of the severity of the food insecurity experience across countries and cultures. The result of this collaboration will be a global measure of food insecurity severity based on people's experiences that will allow comparisons across cultures in a methodologically consistent and transparent way (Ballard et al., 2014_[98]).

At the international level, recognising that progress must be achieved worldwide in order to eliminate food insecurity and nutrition evidence gaps as well as to promote informed decision-making to address the causes of hunger and malnutrition, the Committee on World Food Security (CFS) endorsed at its 46th Plenary Session in October 2019 the Multi-Year Programme of Work 2020-2023. This Programme includes a major workstream on data collection and analytical tools; a report on which is to be issued by the CFS HLPE (FAO & CFS, 2021). In addition, to better able support the most affected and vulnerable at a time of multiple and increasing needs, G7 countries agreed in December 2021 to principles supporting a vision of improved global food security monitoring and analysis. This vision states the need for improved networking of relevant institutions and innovators, strong data and analytical standards, politically neutral and evidence-based analysis, and clear messaging to support decision-makers and to increase impact (G7, 2021_[133]).

4.3. Developing better evidence can lead to improved efficiency of food assistance programmes

Evidence gaps on food assistance programmes are numerous. They are related to the actual participation of eligible households, to the nutritional outcomes of programmes, to public spending, and to the organisation of the programmes and their effectiveness. Comparable information is missing across countries. On budgetary aspects, it is impossible to monitor public spending at the international level as these are split across different responsible ministries. Food assistance programmes presented in this report, however, highlight how strongly such programmes rely on public support, which calls for a better effort at budget monitoring.

This report presents how digital innovation could enable stronger efficiency of food assistance programmes in terms of reaching beneficiaries and enabling better nutritional intake, as well as to smooth the operations of stakeholders involved in food redistribution towards food banks.

Digital innovation also facilitates the monitoring and reporting of key indicators related to these programmes. Transparency and evaluation across these indicators are essential to measure the effectiveness of food assistance programmes. One challenge is to identify the appropriate sets of indicators and to develop harmonised guidelines. Another challenge is to collect data on a regular basis so that researchers and policy makers can analyse the information, identify the programmes' strengths and weaknesses, and to adjust them where necessary. Yet another challenge relates to food bank operations. Given the important role of food banks in the provision of emergency food assistance, public authorities should accompany and facilitate the monitoring and evaluation efforts of food bank networks.

References

Afshin, A. et al. (2019), "Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017", <i>The Lancet</i> , Vol. 393/10184, pp. 1958-1972, https://doi.org/10.1016/S0140-6736(19)30041-8/ATTACHMENT/89650CE3-EC1A-450B-AD88-3B2DB16AD72D/MMC1.PDF .	[22]
Agriculture Canada (2021), , <u>https://www.agr.gc.ca/eng/agricultural-programs-and-services/emergency-food-security-fund/?id=1585855025072</u> .	[136]
Ballard, T. et al. (2014), "Better measurement of food insecurity in the context of enhancing nutrition 1 The "Voices of the Hungry" project", <u>https://doi.org/10.4455/eu.2014.007</u> .	[98]
Banques alimentaires (2020), , https://www.banquealimentaire.org/nos-sources-dapprovisionnement.	[82]
Baragwanath, T. (2021), "Digital opportunities for demand-side policies to improve consumer health and the sustainability of food systems", <i>OECD Food, Agriculture and Fisheries Papers</i> 148, <u>https://www.oecd-ilibrary.org/agriculture-and-food/digital-opportunities-for-demand-side-policies-to-improve-consumer-health-and-the-sustainability-of-food-systems_bec87135-en.</u>	[63]
Baragwanath, T. (2021), "Digital opportunities for demand-side policies to improve consumer health and the sustainability of food systems", <i>OECD Food, Agriculture and Fisheries Papers</i> , No. 148, OECD Publishing, Paris, <u>https://doi.org/10.1787/bec87135-en</u> .	[88]
Baragwanath, T. (2021), Digital opportunities for demand-side policies to improve consumer health and the sustainability of food systems OECD Publishing, Paris, OECD Publishing.	[89]
Bazerghi, C., F. McKay and M. Dunn (2016), "The Role of Food Banks in Addressing Food Insecurity: A Systematic Review", <i>Journal of community health</i> , Vol. 41/4, pp. 732-740, <u>https://doi.org/10.1007/S10900-015-0147-5</u> .	[52]
Bazerghi, C., F. McKay and M. Dunn (2016), "The Role of Food Banks in Addressing Food Insecurity: A Systematic Review", <i>Journal of Community Health</i> , Vol. 41/4, pp. 732-740, <u>https://doi.org/10.1007/s10900-015-0147-5</u> .	[65]
Belgium, G. (2020), , https://www.wallonie.be/fr/covid19/aide-alimentaire.	[134]
Béné, C. et al. (2021), "Global assessment of the impacts of COVID-19 on food security", Global Food Security, Vol. 31, p. 100575, <u>https://doi.org/10.1016/J.GFS.2021.100575</u> .	[2]
Bowden, M. (2020), "Child Family Community Australia Discovering what works for families Understanding food insecurity in Australia".	[20]
Burns, T. and F. Gottschalk (eds.) (2020), Education in the Digital Age: Healthy and Happy Children, Educational Research and Innovation, OECD Publishing, Paris, <u>https://dx.doi.org/10.1787/1209166a-en</u> .	[56]
Caswell, J. and A. Yaktine (2013), "Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy", Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy, pp. 1-222, https://doi.org/10.17226/13485 .	[48]
CFS (2021), "Closing data gaps and promoting evidence-informed decision-making for food security and nutrition Objectives", <u>http://www.fao.org/cfs</u> (accessed on 6 April 2022).	[94]

34 |

CFS (2021), "Closing data gaps and promoting evidence-informed decision-making for food security and nutrition Objectives", <u>http://www.fao.org/cfs</u> (accessed on 12 April 2022).	[147]
CFS (2020), "Impacts of Covid-19 on food security and nutrition", https://doi.org/10.4060/cb1000en.	[4]
Chilean Ministry of Social and Family Development (2021), PLAN DE SEGURIDAD ALIMENTARIA.	[104]
Chilton, M., M. Knowles and S. Bloom (2016), "The Intergenerational Circumstances of Household Food Insecurity and Adversity", <i>Journal of Hunger & Conversion Structure Intergeneration</i> , Vol. 12/2, pp. 269-297, <u>https://doi.org/10.1080/19320248.2016.1146195</u> .	[26]
Cohen, G. and M. Shinwell (2020), "How far are OECD countries from achieving SDG targets for women and girls? : Applying a gender lens to measuring distance to SDG targets", OECD Statistics Working Papers, No. 2020/02, OECD Publishing, Paris, <u>https://doi.org/10.1787/17a25070-en</u> .	[14]
Cohen, J. et al. (2021), "Strategies to Improve School Meal Consumption: A Systematic Review", <i>Nutrients</i> , Vol. 13, p. 3520, https://doi.org/10.3390/nu13103520 .	[108]
Coleman-Jensen, A. et al. (2021), "Household Food Security in the United States in 2020", http://www.ers.usda.gov (accessed on 8 June 2022).	[30]
Connors, C. et al. (2020), A Bright Harbour Collective Report for the Food Standards Agency.	[43]
CRS (2021), "The Emergency Food Assistance Program (TEFAP): Background and Funding", https://crsreports.congress.gov (accessed on 6 April 2022).	[66]
CRS (2020), The Emergency Food Assistance Program (TEFAP): Background and Funding, https://fas.org/sgp/crs/misc/R45408.pdf.	[71]
DEFRA (2021), United Kingdom Food Security Report 2021 - GOV.UK, https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021 (accessed on 8 April 2022).	[16]
EC (2022), <i>Food assistance</i> , <u>https://ec.europa.eu/echo/what/humanitarian-aid/food-assistance_en</u> (accessed on 8 April 2022).	[10]
European Commission (2022), Mandate of the sub-group established under the EU Platform on Food Losses and Food Waste to support EU activities to facilitate food donation, <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381</u> (accessed on 9 June 2022).	[78]
European Commission (2020), FEAD 2014-2020 Key facts and Figures.	[142]
European Commission (2019), FEAD mid-term evaluation, <u>https://ec.europa.eu/social/main.jsp?langId=en&catId=1089&furtherNews=yes&newsId=9331</u> (accessed on 28 July 2022).	[149]
FAO (2022), Hunger FAO Food and Agriculture Organization of the United Nations, <u>https://www.fao.org/hunger/en/</u> (accessed on 12 April 2022).	[7]
FAO (2021), Access to food in 2020. Results of twenty national surveys using the Food Insecurity Experience Scale (FIES), https://doi.org/10.4060/CB5623EN .	[95]
FAO (2021), The State of Food Security and Nutrition in the World 2021, https://doi.org/10.4060/CB4474EN.	[5]
FAO (2020), "WHY USE THE FIES TO MEASURE FOOD INSECURITY?", https://www.sciencedirect.com/science/article/pii/S0263224117307005 (accessed on 6 April 2022).	[96]

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36 |

FAO (2019), Nutrition guidelines and standards for school meals, https://www.fao.org/publications/card/fr/c/CA2773EN/ (accessed on 8 April 2022).	[53]
FEBA (2022), Quantifying the impact of European Food Banks – European Food Banks Federation – FEBA, https://www.eurofoodbank.org/support-and-strengthen-the-network/quantifying-the-impact-of-european-food- banks/ (accessed on 8 April 2022).	[119]
FEBA (2021), Annual Report 2020., <u>https://lp.eurofoodbank.org/wp-</u> <u>content/uploads/2021/06/FEBA_2020_AR_print_FINAL.pdf</u> (accessed on 8 April 2022).	[68]
FEBA (2021), "European Food Banks Federation report COVID-19: a unique opportunity for a real change".	[67]
FEBA (2020), European Food Banks: a wave of solidarity to face Covid-19, https://lp.eurofoodbank.org/wp-content/uploads/2020/12/FEBA_Social_Forum_Report_2020_1712_final.pdf .	[144]
FEBA (2020), FEBA EU Monitoring - November-December 2020, <u>https://lp.eurofoodbank.org/wp-</u> content/uploads/2020/12/FEBA_EU_Monitoring_NovDec2020.pdf.	[73]
FEBA (2019), Impactful data for social good, <u>https://lp.eurofoodbank.org/wp-</u> <u>content/uploads/2020/01/FEBA_Impactful_data_for_social_good_REPORT_FINAL.pdf</u> (accessed on 8 April 2022).	[120]
Feeding America (2021), <i>Doing more to end hunger: 2021 Annual Report</i> , <u>https://www.feedingamerica.org/sites/default/files/2022-01/FA_2021AnnReport_FULL_012522.pdf</u> (accessed on 26 April 2022).	[70]
Feeding America (2020), The food bank response to Covid, bu numbers, <u>https://www.feedingamerica.org/hunger-blog/food-bank-response-covid-numbers</u> (accessed on 5 January 2021).	[146]
Feeding America (2019), Feeding America Annual Report 2019, https://www.feedingamerica.org/sites/default/files/2020-06/FA_2019_AnnReport_d8.pdf.	[83]
Fiocco et al. (2020), <i>Making a difference with data: What it can mean for food banks</i> <i>McKinsey</i> , <u>https://www.mckinsey.com/featured-insights/food-security/making-a-difference-with-data</u> (accessed on 8 April 2022).	[124]
FLW Platform (2019), Recommendations for Action in Food Waste Prevention Developed by the EU Platform on Food Losses and Food Waste, <u>https://eplca.jrc.ec.europa.eu/FoodSystem.html</u> (accessed on 6 April 2022).	[77]
FNIGC (2022), Home - The First Nations Information Governance Centre, <u>https://fnigc.ca/</u> (accessed on 25 July 2022).	[103]
Food Banks Canada (2020), A Snapshot of Food Banks in Canada and the COVID-19 crisis, https://www.foodbankscanada.ca/FoodBanks/MediaLibrary/COVID-Report_2020/A-Snapshot-of-Food-Banks-in- Canada-and-the-COVID-19-Crisis_EN.pdf.	[137]
Food Banks Canada (2016), Fresh Food Tax Credit: An Agricultural Tax Credit for Fresh Food Donations, https://fbcblobstorage.blob.core.windows.net/wordpress/2022/02/Fresh-Food-Tax-Credit_Food-Banks- Canada_Aug2016.pdf.	[75]
Food Foundation (2020), COVID-19: What impacts are unemployment and the Coronavirus scheme having on food insecurity in the UK, <u>https://foodfoundation.org.uk/wp-</u> content/uploads/2020/09/BriefReport_Unemployment_v5.pdf.	[42]
FRAC (2022), Benefits of School Lunch - Food Research & Action Center, <u>https://frac.org/programs/national-school-lunch-program/benefits-school-lunch</u> (accessed on 8 April 2022).	[54]

G7 (2021), G7 Principles Supporting A Vision of Improved Global Food Security1 Monitoring and Analysis, <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1039534/g7-principles-supporting-vision-improved-global-food-security-monitoring-and-analysis.pdf</u> (accessed on 22 February 2022).	[133]
Galli, F., A. Hebinck and B. Carroll (2018), "Addressing food poverty in systems: governance of food assistance in three European countries", <i>Food Security 2018 10:6</i> , Vol. 10/6, pp. 1353-1370, <u>https://doi.org/10.1007/S12571-018-0850-Z</u> .	[51]
GFN (2020), 2020 Annual Report - The Global FoodBanking Network, <u>https://www.foodbanking.org/2020annualreport/</u> (accessed on 8 April 2022).	[105]
GFN (2020), Strengthening Food Donation Operations During COVID-19: Key issues and Best Practices for Governments Around the Globe, <u>https://www.foodbanking.org/wp-content/uploads/2020/06/Global-Food-</u> Donation-Policy-Atlas-COVID19-Issue-Brief.pdf.	[91]
GFN (2019), 2019 Annual Report - The Global FoodBanking Network, <u>https://www.foodbanking.org/2019annualreport/</u> (accessed on 8 April 2022).	[118]
GFN (2019), "Food Banks as a Green Solution to Hunger".	[76]
GFN (2018), THE STATE OF GLOBAL FOOD BANKING 2018 Nourishing the World.	[117]
Giner, C. and J. Brooks (2019), "Policies for encouraging healthier food choices", OECD Food, Agriculture and Fisheries Papers, Vol. 137/137, pp. 1-33, <u>https://www.oecd-ilibrary.org/agriculture-and-food/policies-for-</u> encouraging-healthier-food-choices_11a42b51-en.	[21]
Gouvernement français (2021), , <u>https://solidarites-sante.gouv.fr/IMG/pdf/201103cpo.veranc.beaune</u> _financements_europeens_a_l_aide_alimentaire-2.pdf.	[138]
Grocery Dive (2021), SNAP online availability is about to explode. But grocers say they still face too many hurdles. Grocery Dive, <u>https://www.grocerydive.com/news/snap-online-availability-is-about-to-explode-but-grocers-say-they-still-fa/594664/</u> (accessed on 27 July 2022).	[64]
Hebinck, A. et al. (2018), "Capturing change in European food assistance practices: a transformative social innovation perspective", <i>Local Environment</i> , Vol. 23/4, pp. 398-413, <u>https://doi.org/10.1080/13549839.2017.1423046</u> .	[47]
Illøkken, K. et al. (2021), "Free school meals as an opportunity to target social equality, healthy eating, and school functioning: experiences from students and teachers in Norway", <i>Food & Nutrition Research</i> , Vol. 65, p. 65, <u>https://doi.org/10.29219/FNR.V65.7702</u> .	[55]
Jones, A. et al. (2013), "What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics", <i>Advances in Nutrition</i> , Vol. 4/5, pp. 481-505, <u>https://doi.org/10.3945/AN.113.004119</u> .	[101]
JUNAEB (2020), SATISFACCIÓN USUARIA DEL PROGRAMA DE ALIMENTACIÓN ESCOLAR EN EL CONTEXTO DE COVID-19 INFORME FINAL DE RESULTADOS, <u>https://www.junaeb.cl/wp-</u> <u>content/uploads/2018/12/Evaluaci%C3%B3n-de-canastas-de-alimentos-entregadas-por-Junaeb-en-el-contexto- de-COVID-19.pdf</u> (accessed on 9 June 2022).	[114]
JUNAEB (2017), "ESTUDIO EVALUACIÓN DE LA SATISFACCIÓN DE LOS USUARIOS DEL PROGRAMA DE ALIMENTACIÓN ESCOLAR".	[113]
Kirkpatrick, S. and V. Tarasuk (2008), "Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents", <i>The Journal of nutrition</i> , Vol. 138/3, pp. 604-612, <u>https://doi.org/10.1093/JN/138.3.604</u> .	[23]

38	
----	--

Lambie-Mumford Hannah and Silvasti Tiina (2021), "The Rise of Food Charity in Europe, Bristol: Policy Press, £75.00, pp. 272, hbk.", <i>Journal of Social Policy</i> , Vol. 50/2, pp. 446-447, <u>https://doi.org/10.1017/S0047279421000064</u> .	[69]
Lentz, E. and C. Barrett (2013), "The economics and nutritional impacts of food assistance policies and programs", <i>Food Policy</i> , Vol. 42, pp. 151-163, <u>https://doi.org/10.1016/J.FOODPOL.2013.06.011</u> .	[24]
Loopstra, R. (2018), "Interventions to address household food insecurity in high-income countries", <i>The Proceedings of the Nutrition Society</i> , Vol. 77/3, pp. 270-281, <u>https://doi.org/10.1017/S002966511800006X</u> .	[130]
Loopstra, R. and V. Tarasuk (2015), "Food Bank Usage Is a Poor Indicator of Food Insecurity: Insights from Canada", Social Policy & Society, Vol. 14, pp. 443-455, <u>https://doi.org/10.1017/S1474746415000184</u> .	[33]
Men, F. and V. Tarasuk (2021), "Food Insecurity amid the COVID-19 Pandemic: Food Charity, Government Assistance, and Employment", https://doi.org/10.3138/cpp.2021-001, Vol. COVID-19, https://doi.org/10.3138/CPP.2021-001.	[34]
Miller, D. and M. Thomas (2020), "Policies to reduce food insecurity: An ethical imperative", <i>Physiology & Behavior</i> , Vol. 222, p. 112943, <u>https://doi.org/10.1016/J.PHYSBEH.2020.112943</u> .	[126]
Ministère de l'Agriculture (2021), , <u>https://agriculture.gouv.fr/donner-acces-tous-une-alimentation-saine-durable-et-locale</u> .	[139]
Ministère des Pensions et de l'Intégration Sociale (2021), , <u>https://www.mi-is.be/fr/presse-multimedia/7-millions-deuros-pour-soutenir-laide-alimentaire</u> .	[135]
Moran, A. et al. (2020), "Associations between Governmental Policies to Improve the Nutritional Quality of Supermarket Purchases and Individual, Retailer, and Community Health Outcomes: An Integrative Review", <i>International Journal of Environmental Research and Public Health 2020, Vol. 17, Page 7493</i> , Vol. 17/20, p. 7493, https://doi.org/10.3390/IJERPH17207493 .	[17]
MOW (2020), , https://www.mealsonwheelsamerica.org/take-action/covid-19-response.	[31]
MOWA (2020), Annual Report 19/20 - Meals on Wheels Australia, <u>https://mealsonwheels.org.au/wp-content/uploads/2020/12/MoWA-Annual-Report-2020.pdf</u> .	[32]
National Nutrition Council of Finland (2017), <i>Eating and learning together - recommendations for school meals</i> , <u>https://www.julkari.fi/handle/10024/134867</u> (accessed on 11 April 2022).	[116]
New York State (2022), Food Donation and Food Scraps Recycling Law - NYS Dept. of Environmental Conservation, https://www.dec.ny.gov/chemical/114499.html (accessed on 9 June 2022).	[80]
New Zealand Ministry of Health (2022), <i>Adults</i> - <i>Self-rated health</i> , <u>https://minhealthnz.shinyapps.io/nz-health-survey-2020-21-annual-data-explorer/_w_e0d8b815/#!/explore-topics</u> (accessed on 9 June 2022).	[86]
NZ Ministry of Education (2022), Ka Ora, Ka Ako - healthy school lunches programme, <u>https://www.education.govt.nz/our-work/overall-strategies-and-policies/wellbeing-in-education/free-and-healthy-school-lunches/</u> .	[106]
Observatorio Social (2021), Inseguridad alimentaria.	[107]
OECD (2022), Agricultural policy monitoring and evaluation - OECD, https://www.oecd.org/agriculture/topics/agricultural-policy-monitoring-and-evaluation/ (accessed on 8 April 2022).	[121]
OECD (2022), Food Security - OCDE, https://www.oecd.org/fr/gov/pcsd/pcsd/pcsd-framework-fs.htm (accessed on 12 April 2022).	[8]

OECD (2022), OECD Economic Outlook, Interim Report March 2022: Economic and Social Impacts and Policy Implications of the War in Ukraine, OECD Publishing, Paris, <u>https://doi.org/10.1787/4181d61b-en</u> .	[132]
OECD (2022), OECD Economic Outlook, Volume 2022 Issue 1: Preliminary version, OECD Publishing, Paris, https://doi.org/10.1787/62d0ca31-en.	[45]
OECD (2022), Official development assistance (ODA) - Food aid - OECD Data, <u>https://data.oecd.org/oda/food-aid.htm</u> (accessed on 8 April 2022).	[123]
OECD (2022), Social Expenditure Database (SOCX) - OECD, <u>https://www.oecd.org/social/expenditure.htm</u> (accessed on 8 April 2022).	[122]
OECD (2022), The Short and Winding Road to 2030: Measuring Distance to the SDG Targets, OECD Publishing, Paris, https://doi.org/10.1787/af4b630d-en .	[13]
OECD (2021), Agricultural Policy Monitoring and Evaluation 2021: Addressing the Challenges Facing Food Systems, OECD Publishing, Paris, <u>https://doi.org/10.1787/2d810e01-en</u> .	[35]
OECD (2021), "COVID-19 and Food Systems: Short- and Long-Term Impacts", OECD Food, Agriculture and Fisheries Papers 166.	[37]
OECD (2021), COVID-19 and Well-being : Life in the Pandemic OECD iLibrary, https://www.oecd-ilibrary.org/social- issues-migration-health/covid-19-and-well-being_1e1ecb53-en (accessed on 6 April 2022).	[28]
OECD (2021), Looking beyond COVID-19 : Strengthening family support services across the OECD OECD Social, Employment and Migration Working Papers OECD iLibrary, <u>https://www.oecd-ilibrary.org/social-issues-migration-health/looking-beyond-covid-19_86738ab2-en</u> (accessed on 23 February 2022).	[57]
OECD (2021), Making Better Policies for Food Systems, OECD Publishing, Paris, https://dx.doi.org/10.1787/ddfba4de-en.	[1]
OECD (2021), Overcoming evidence gaps on food systems OECD Food, Agriculture and Fisheries Papers OECD iLibrary, <u>https://www.oecd-ilibrary.org/agriculture-and-food/overcoming-evidence-gaps-on-food-</u> systems_44ba7574-en (accessed on 12 April 2022).	[6]
OECD (2020), Accelerating Climate Action: Refocusing Policies through a Well-being Lens Part II.	[74]
OECD (2020), Combatting Covid-19's effects on children, OECD Publishing.	[39]
OECD (2020), COVID-19: Protecting people and societies, OECD Publishing.	[38]
OECD (2020), Food supply chains and COVID-19: Impacts and policy lessons, http://www.oecd.org/coronavirus/policy-responses/food-supply-chains-and-covid-19-impacts-and-policy-lessons- 71b57aea/.	[36]
OECD (2020), The impact of COVID-19 on student equity and inclusion: supporting vulnerable students during school closures and school re-openings, OECD Publishing.	[40]
OECD (2020), What is the impact of the Covid-19 pandemic on immigrants and their children, OECD Publishing.	[41]
OECD (2019), <i>Linking Indigenous Communities with Regional Development</i> , OECD Rural Policy Reviews, OECD Publishing, Paris, https://doi.org/10.1787/3203c082-en .	[84]

Oostindjer, M. et al. (2017), "Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children's diet and food consumption? A cross-national comparative perspective", <i>Critical reviews in food science and nutrition</i> , Vol. 57/18, pp. 3942-3958, <u>https://doi.org/10.1080/10408398.2016.1197180</u> .	[109]
Parker, B. and M. Koeppel (2020), "Beyond Health & Nutrition: Re-framing school food programs through integrated food pedagogies", <i>Canadian Food Studies / La Revue canadienne des études sur l'alimentation</i> , Vol. 7/2, pp. 48- 71, <u>https://doi.org/10.15353/CFS-RCEA.V7I2.371</u> .	[61]
Paul Harvey, Karen Proudlock and Susanne Jaspars (2010), Food aid and food assistance in emergency and transitional contexts, <u>https://cdn.odi.org/media/documents/6036.pdf</u> (accessed on 8 April 2022).	[100]
Placzek, O. (2021), "Socio-economic and demographic aspects of food security and nutrition", OECD Food, Agriculture and Fisheries Papers, Vol. 150/150, p. 43, <u>http://dx.doi.org/10.1787/49d7059f-en</u> .	[15]
Placzek, O. (2021), Socio-economic and demographic aspects of food security and nutrition, OECD Publishing.	[44]
Pollard, C. et al. (2021), "Using the Food Stress Index for Emergency Food Assistance: An Australian Case Series Analysis during the COVID-19 Pandemic and Natural Disasters", <i>International Journal of Environmental Research</i> <i>and Public Health 2021, Vol. 18, Page 6960</i> , Vol. 18/13, p. 6960, <u>https://doi.org/10.3390/IJERPH18136960</u> .	[102]
Ralston, K. et al. (2008), "National School Lunch Program: Background, Trends, and Issues", <u>http://www.ers.usda.gov</u> (accessed on 7 April 2022).	[111]
Ralston, K. et al. (2017), "Children's Food Security and USDA Child Nutrition Programs", <u>http://www.ers.usda.gov/</u> (accessed on 7 April 2022).	[59]
Ratcliffe, C. and S. Mckernan (2010), "How Much Does Snap Reduce Food Insecurity?".	[127]
Rizvi, A. et al. (2021), "Correction to: The impact of novel and traditional food bank approaches on food insecurity: a longitudinal study in Ottawa, Canada (BMC Public Health, (2021), 21, 1, (771), 10.1186/s12889-021-10841-6)", <i>BMC Public Health</i> , Vol. 21/1, pp. 1-1, <u>https://pubmed.ncbi.nlm.nih.gov/33882881/</u> .	[25]
Saint Ville, A. et al. (2019), "Food security and the Food Insecurity Experience Scale (FIES): ensuring progress by 2030", <i>Food Security</i> , Vol. 11/3, pp. 483-491, <u>https://doi.org/10.1007/S12571-019-00936-9/TABLES/3</u> .	[97]
Sanderson, J. et al. (2020), "An Outcome Evaluation of Food Pantries Implementing the More than Food Framework", <i>Journal of Hunger and Environmental Nutrition</i> , Vol. 15/4, pp. 443-455, <u>https://doi.org/10.1080/19320248.2020.1748782</u> .	[131]
SCI Econometrics (2013), "EVALUACIÓN DE IMPACTO DE LOS PROGRAMAS DE ALIMENTACIÓN DE LA JUNAEB, DEL MINISTERIO DE EDUCACIÓN", <u>http://www.scl-econometrics.cl-info@scl-econometrics.cl</u> (accessed on 9 June 2022).	[112]
Scottish Government (2016), <i>4. Evaluation Of The Healthy Start Scheme - Evaluation of the Healthy Start Scheme:</i> <i>An Evidence Review - gov.scot</i> , <u>https://www.gov.scot/publications/evaluation-healthy-start-scheme-evidence-review/pages/6/</u> (accessed on 11 April 2022).	[128]
Shankar, P., R. Chung and D. Frank (2017), "Association of Food Insecurity with Children's Behavioral, Emotional, and Academic Outcomes: A Systematic Review", <i>Journal of Developmental & Computer Review Pediatrics</i> , Vol. 38/2, pp. 135-150, <u>https://doi.org/10.1097/dbp.000000000000383</u> .	[27]
State of California (2022), California's Short-Lived Climate Pollutant Reduction Strategy - CalRecycle Home Page, https://calrecycle.ca.gov/organics/slcp/ (accessed on 9 June 2022).	[79]
Stats NZ (2019), New Zealand's population reflects growing diversity Stats NZ, <u>https://www.stats.govt.nz/news/new-</u> zealands-population-reflects-growing-diversity (accessed on 26 April 2022).	[85]

	41
Swinnen, J. and J. McDermott (2020), "COVID-19 and global food security", https://doi.org/10.2499/P15738COLL2.133762.	[3]
Tarasuk, V., A. Fafard St-Germain and R. Loopstra (2020), "The Relationship Between Food Banks and Food Insecurity: Insights from Canada", Voluntas, Vol. 31/5, pp. 841-852, <u>https://doi.org/10.1007/S11266-019-00092-W</u> .	[129]
Tilles-Tirkkonen, T. et al. (2021), "The school meals of the future Stronger cooperation and equal access to snacks".	[115]
Trussel trust (2020), Food banks have been busier than ever, <u>https://www.trusselltrust.org/2020/11/13/the-long-read-1/</u> (accessed on 5 January 2021).	[145]
U.S. Census Bureau (2022), <i>Household Pulse Survey</i> , <u>https://www.census.gov/data/experimental-data-products/household-pulse-survey.html</u> (accessed on 12 April 2022).	[29]
UN (2022), OHCHR Special Rapporteur on the right to food, <u>https://www.ohchr.org/en/special-procedures/sr-food</u> (accessed on 4 April 2022).	[143]
UN (2020), "Transforming our World: The 2030 Agenda for Sustainable Development United Nations".	[9]
UN (2020), "TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT UNITED NATIONS UNITED NATIONS TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT".	[12]
UN (2015), "The Right to Adequate Food", Human Rights Fact Sheets, Vol. 34.	[50]
UNEP (2021), UNEP Food Waste Index Report 2021 UNEP - UN Environment Programme, https://www.unep.org/resources/report/unep-food-waste-index-report-2021 (accessed on 6 April 2022).	[81]
United Nations (1948), Universal Declaration of Human Rights, https://www.un.org/en/udhrbook/pdf/udhr_booklet_en_web.pdf (accessed on 4 April 2022).	[49]
UNStats (2021), The Sustainable Development Goals report 2021, <u>https://unstats.un.org/sdgs/report/2021/The-Sustainable-Development-Goals-Report-2021.pdf</u> (accessed on 26 April 2022).	[93]
USDA (2022), USDA ERS - National School Lunch Program, <u>https://www.ers.usda.gov/topics/food-nutrition-</u> assistance/child-nutrition-programs/national-school-lunch-program/ (accessed on 7 April 2022).	[58]
USDA (2021), , https://www.usda.gov/media/blog/2020/07/16/usda-ensures-food-funding-during-pandemic.	[140]
USDA (2021), USDA Ensures Food, Funding during Pandemic USDA, https://www.usda.gov/media/blog/2020/07/16/usda-ensures-food-funding-during-pandemic (accessed on 8 April 2022).	[18]
USDA (2021), USDA ERS - Measurement - Food security in the United States, <u>https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/#insufficiency</u> (accessed on 8 June 2022).	[148]
USDA (2021), USDA ERS - Survey Tools, <u>https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/survey-tools/#household</u> (accessed on 8 April 2022).	[99]
USDA (2021), USDA to Invest \$1 Billion to Purchase Healthy Food for Food Insecure Americans and Build Food Bank Capacity USDA, <u>https://www.usda.gov/media/press-releases/2021/06/04/usda-invest-1-billion-purchase-healthy-food-food-insecure-americans</u> (accessed on 9 June 2022).	[92]

USDA (2020), , <u>https://www.usda.gov/media/press-releases/2021/01/04/usda-announces-continuation-farmers-families-food-box-program-fifth#:~:text=(Washington%2C%20D.C.%2C%20January%204,to%20Families%20Food%20Box%20Program.</u>	[72]
USDA (2020), , <u>https://www.ams.usda.gov/selling-food-to-usda/farmers-to-families-food-</u> <u>box#:~:text=The%20program%20will%20supply%20boxes,profits%20serving%20Americans%20in%20need</u> .	[141]
USDA (2020), USDA ERS - Free School Lunch, Breakfast Participation Rose Between 2009 and 2019, https://www.ers.usda.gov/amber-waves/2020/october/free-school-lunch-breakfast-participation-rose-between- 2009-and-2019/ (accessed on 7 April 2022).	[110]
USDA (2019), School Nutrition and Meal Cost Study Final Report Volume 4: Student Participation, Satisfaction, Plate Waste, and Dietary Intakes, https://www.mathematica.org/publications/school-nutrition-and-meal-cost-study-final-report-volume-4-student-participation-satisfaction-plate (accessed on 8 April 2022).	[60]
USDA (2002), How Do Food Assistance Programs Improve the Well-Being of Low-Income Families?, https://naldc.nal.usda.gov/download/36548/PDF (accessed on 8 April 2022).	[19]
WFP (2022), <i>Ukraine emergency</i> <i>World Food Programme</i> , <u>https://www.wfp.org/emergencies/ukraine-emergency</u> (accessed on 12 April 2022).	[46]
WFP (2020), 2020 - Global Report on Food Crises World Food Programme, <u>https://www.wfp.org/publications/2020-global-report-food-crises</u> (accessed on 6 April 2022).	[11]
WFP (2020), State of School Feeding Worldwide 2020, https://docs.wfp.org/api/documents/WFP-0000123923/download/?_ga=2.137749104.1984401941.1650805073-243379841.1650805073 (accessed on 25 April 2022).	[87]
World Bank (2017), Food Assistance Remains a Critical Safety Net for the Poor and Vulnerable, <u>https://www.worldbank.org/en/news/press-release/2017/09/28/food-assistance-remains-a-critical-safety-net-for-the-poor-and-vulnerable</u> (accessed on 8 April 2022).	[62]
World Bank (2014), Food assistance as a safety net Programs, choices and evidence Social Safety Nets Core Course 2014.	[125]
Ziliak, J. (2020), "Food Hardship during the COVID-19 Pandemic and Great Recession", Applied Economic Perspectives and Policy, pp. 1-21, <u>https://onlinelibrary.wiley.com/doi/epdf/10.1002/aepp.13099</u> .	[90]

Annex A. Measuring distance to SDG targets of food insecurity

Cohen and Shinwell (2020_[14]) standardised methodology rests on three elements: (1) selecting indicators and data; (2) setting end-values for the indicators; and (3) normalising the values to a common unit.

First, data on the performance of OECD countries for indicator 2.1.2 was retrieved from the United Nations SDG Global Database. To assess the performance of OECD countries on indicators measuring progress towards less food insecurity, indicator 2.1.2, progress was measured using the following sub-indicators: Prevalence of moderate/ severe food insecurity in adult population (%) and Prevalence of severe food insecurity in adult population (%). For each OECD country, values for the last available year were used.

Second, the end value of 3% was set for each indicator. For indicator 2.1.2, countries need to minimize reported indicator values to reach targets.

Third, in order to compare performance across different targets, indicator values are normalised using a modified version of the z-score (i.e. distance is expressed as the number of standard deviations – computed across all OECD countries in the most recent year with available data – a country is from reaching the target level).³⁰

Annex Table A.1 provides the reference standard deviation used to calculate distances from target. The "standardised difference" refers to the difference between the country's current position and the target end value. The higher the distance, the further the country needs to travel to achieve its target. A zero distance means the country has achieved the 2030 target. Negative scores mean the country already exceeds the target; for the purpose of the study, these negative values are reported as 0 (i.e. a country is given no premium for going beyond the target). For countries which have achieved a value of 3% or below, there is no distance from the target (i.e. the distance is equal to 0).

Table A.1. Reference Standard Deviation

Indicator	Indicator label	Reference Standard Deviation
2.1.2	Prevalence of severe food insecurity in the adult population (%)	0,938117
2.1.2	Prevalence of moderate or severe food insecurity in the adult population (%)	4,485351

Note: The reference standard deviation is calculated using a fixed year, closest to 2015 (when SDGs targets were determined), and for total population.

³⁰ In a standard z-score normalisation, the distance is expressed as the number of standard deviations away from the mean score of the variable in the current period, rather than from the target level to be achieved in the future.

Annex B. Questionnaire on Food Insecurity and Food Assistance sent to OECD country experts and stakeholders

1. What are key challenges for the food assistance initiatives?

- Organisational challenges? Financial support? Ethical challenges?
- Food donations? Requested needs/ nutritionally balanced diets?
- Handling food surplus management and logistics, and the redistribution of that surplus food

2. What are the most vulnerable groups with respect to food insecurity? Who are the beneficiaries of food assistance?

3. What is needed to collect more detailed information?

• Regarding extent (number of beneficiaries, socioeconomic information, ...) but also barriers and challenges, about effectiveness and impact

4. What is needed from governments?

• For example technological innovations, a system to collect data and information

5. What is your top 3 wish list? What are priority needs? Which improvements are needed?

6. What are different interests that come together at food banks/ when providing food vouchers/ when providing meals?

7. What are different barriers that come together at food banks/ when providing food vouchers/ when providing meals?

8. How do you measure the effectiveness of food banks/ food vouchers/ providing meals? Can you track the success and impact?

9. What has the COVID-19 pandemic changed? What weak spots has it highlighted?

Instruments and programmes covered in the report	Aim	Report's Sections	Programmes	Country	Description	How it works? Why is it included?
Provision of prepared food - School meal programmes	Reducing food insecurity; Educating on healthy food; Improving long	Sections 2.3.2 and 3.2.1	National School Lunch Program (NSLP)	United States	Providing low-cost or free lunches to students, depending on their family's household income	This programme operates in public and non-profit charter schools ; Proven impact on food insecurity prevalence and on nutritional outcomes
	term nutrition and educational outcomes	Section 3.1.4	Ka Ora, Ka Ako	New Zealand	Providing access to a nutritious lunch every day	Students of all ages that fall within the highest 25% of socio-economic disadvantage nationally
		Sections 2.3.2 and 3.2.1	School Meal Programme	Chile	Providing healthy, nutritious, tasty and free meals to vulnerable students so that they can meet their school days' requirements.	Meals served at school are breakfast and lunch. The Programme benefits 1,786,000 students (50% of enrolled students) with a yearly budget of USD 833 million.
		Section 2.3.2	School Meal Programme	France	Rules on the nutritional quality of meals and at least 50 % sustainable and quality products, including 20 % organic; social pricing with meals < 1 € for the most vulnerable families; free breakfast in some schools	Every student has access to school meals (75% of students eat at school at least once a week); Social pricing in 75% of the cities > 10 000 inhabitants, and incentives by the State for smaller cities; breakfast at schools for the most vulnerable families
		Sections 3.2.1 and 3.2.4	School meals of the future	Finland	School catering and supervised school meals have long educational traditions	Monitoring and evaluation are part of the Finnish school meals programme
Provision of food vouchers - Food vouchers	Regular food provision, improvement of dietary intake	Sections 2.3.2 and 3.2.4	Food Voucher Assistance Programme (FVAP)	Korea	Based on SNAP, it is a nutritional supplement programme that allows beneficiaries to purchase fresh foods such as vegetables, fruits, milk and eggs; beneficiaries are low-income households with income less than 50% of median income.	The assistance method is at electronic voucher (EBT card) usable for online and offline food shopping; Monitoring and evaluation requirements have been taken into account in the pilo phases of the programme. The pilot programme had a budget of USD 3 million for 2020.
		Section 2.3.2	Organic Food Assistance Programme (OFAP) for the Pregnant Women		Nutritional supplement programme for pregnant women, women with a less than one-year old child	

Annex C. Food assistance programmes covered in this report

Instruments and programmes covered in the report	Aim	Report's Sections	Programmes	Country	Description	How it works? Why is it included?
		Sections 2.3.2, 2.3.3, 3.2.2, 3.2.4	Supplemental Nutrition Assistance Program (SNAP)	United States	Domestic food and nutrition assistance programme for low- income households	Electronic food voucher usable for online and offline food grocery shopping at participating physical and online retailers / Farmers' markets; 45.7 million beneficiaries in 2019; Measure of the programme's impact in terms of decreasing food insecurity
		Sections 2.3.2 and 3.2.2	Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	-	Domestic food and nutrition assistance programme for low- income pregnant women or mothers of young children	Provides nutritious foods to supplement the diets of low- income women who are pregnant, postpartum and breastfeeding, as well as children up to five years who are at nutritional risk
		Sections 2.3.2	Food Scholarship for Higher Education Programme	Chile	Food assistance for low- income students	Electronic voucher (EBT card) usable for online and offline food/meal shopping and for meals served in fast- food chains and cafeterias. The aim is to provide the means for the students to have healthy and adequate nutrition to face their educational requirements.
		Sections 2.3.2 and 3.2.4	Healthy Start scheme	United Kingdom	Offers vouchers for fruit, vegetables and milk for low-income households with young children and supports access to pre- natal vitamins and infant milk formula	Eligibility is based on having a child under the age of four years or being at least ten weeks pregnant, plus receiving income support
Provision of food parcels - Food banks	Immediate food assistance (emergency tool) to people in situations of vulnerability	Sections 2.3.2 and 3.2.3	Second Harvest Heartland	United States	Second Harvest Heartland is a member of Feeding America, a nationwide network of more than 200 foodbanks in every state in the United States	Project the supply required based on various scenarios of future demand.
		Section 3.2.3	Food Cloud Hubs	Ireland	Intermediary between food companies and charities with no direct interaction with end- receivers of food aid	Works by coordinating with other national agencies, using existing logistics, utilising modern information and communication technologies, and drawing on the present support for charitable actions
		Sections 2.3.32, 2.3.3 and 3.2.3	European Food Banks Federation	FEBA	European umbrella of non-profit organisations working in collaboration with 24 Full Members and 5 Associate Members bringing together 335 Food Banks operating in 29 European countries	In 2020, 37,016 co-workers active for Food Banks of the FEBA network recovered a total of 860,000 tonnes of food, redistributed to 12.8 million most deprived people with the help of 48 126 charitable organisations.

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Instruments and programmes covered in the report	Aim	Report's Sections	Programmes	Country	Description	How it works? Why is it included?
		Section 2.3.2	Kore Hiakai Zero Hunger Collective	New Zealand	Collective of six not-for- profit organisations	All food assistance practices in a te ao Maori (Indigenous) framework because population who are food insecure is primarily Maori and Pasifika
		Section 2.3.2	Trussel Trust	United Kingdom	Nationwide network of food banks	

Source: OECD and consultations with country experts.

Annex D. Public support to food banks in selected countries during the first year of the COVID-19 pandemic (2020)

	Financial s	upport		Food donation	Operational support
	Funding	Programme	Funding	Programme	Programme
Belgium (_[134]) and (_[135])	EUR 4.2 million by Wallonia State government EUR 13 million by the Federal Ministry of Pensions and Social Integration	Food products purchase, food parcels preparation and food vouchers provision			Development of a digital platform <u>https://aidealimentaire.be</u> that centralises information on Belgian food assistance (demand side) and that enables efficiency in food banks' organisations (supply side) by the Ministry of social integration
Canada (_[136])	CAD 100 million (April 2020) + CAD 100 million (October 2020) + CAD 100 million (August, 2021) + CAD 30 million (December 2021)	Emergency Food Security Fund ³¹ managed by Agriculture and Agri-Food Canada: Support the vulnerable through charities and non-profit organizations that deliver essential services.			Different municipalities provided operational support either through the provision of food storage and collecting facilities and of staff for food delivery. (Food Banks Canada, 2020 _[137])
	CAD 50m (August 2019); CAD 10m (July 2021)	Local Food Infrastructure Fund			
	CAD 350 million (May, 2020)	Emergency Community Support Fund			
	CAD 50 million (June, 2020)	Surplus Food Rescue Program: to move surplus food commodities as efficiently as possible to local food organizations.			
		Indigenous Community Support Fund: to address immediate needs in First			

³¹ <u>https://agriculture.canada.ca/en/agricultural-programs-and-services/emergency-food-security-fund</u>

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	Financial support		Food donation		Operational support	
	Funding	Programme	Funding	Programme	Programme	
	CAD 305 million (March 2020); CAD 30 million (December 2020) CAD 25 million (April 2020); CAD 17.3 million ; CAD 163.4	Nations, Inuit, and Métis Nation communities, including food insecurity. Nutrition North Canada: ensure continued supply of				
	million (April 2021)	food in the North and strengthen food security				
Czech Republic			NA	The Ministry of Agriculture decided to donate to food banks 100t of dairy products and fruits that were supposed to be served in schools		
France ([138]) and ([139])	EUR 94million in two waves (April and July 2020) EUR 30million to be engaged in spring 2021	To support food products' purchases and operations (including protection materials' purchases) Opération "paniers fraicheurs": local fresh food products provided to vulnerable people	EUR 1 million by Région "Ile de France"	Plan régional alimentaire: Purchase of agricultural products to regional agricultural producers	Operational support at the local level by public entities to help with food assistance storage and distribution	
Italy			EUR 300 million	Recovery of unsold food products (meat, dairy, fruits and vegetables) due to restaurant closure by the Ministry of Agricultural, Food and Forestry Policies	Development of Municipal Operations Centres to secure Food banks' food supply and enable the continuation of their operations despite volunteers' shortages – Collaboration between municipalities, the civil protection, food chain stakeholders and food banks	
Japan					The Ministry of Agriculture, Forestry and Fisheries (MAFF) provided operational support to food banks to help with food collection and storage.	
United States ([140]) and ([141])			TEFAP : USD 850 million ; Up to USD 250 million to cover administrative costs USDA Farmers to Families Food Box	Additional funding for TEFAP : Congressional coronavirus relief via the Families First Coronavirus Response Act (USD 400m) and the CARES Act (USD 450m) Farmers to Families Food Box Program: Distribution of 40 million boxes of fresh American food products bought by USDA to families in need through local food pantries		

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	Financial s	Financial support		Food donation	Operational support	
	Funding	Programme	Funding	Programme	Programme	
			Program: USD 3 billion			
EU ([142]) and ([73]).	EUR 55 billion (May as part of MFF 2014-2020) and 47.5 billion (November as part of MFF 2021-27)	REACT-EU Initiative to address impact of COVID- 19: Part of the fund can be used by MS to finance FEAD activities over 2020- 2022.	Budget devoted to food assistance within the 2014-2020 multiannual financial framework (MFF) : EUR 3.8 billion (EUR 4.5 billion including co-financing by Member States)	Merging of FEAD within the European Social Fund + (ESF+)	CRII+ (April 2020) - Flexibility measures to the FEAD rules : Food assistance can be delivered indirectly through electronic and paper vouchers ; relaxation of rules on co-financing	

Source: This table has been prepared based on Placzek (2021[15]) and information from FEBA (2021[68]).

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