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Food Access in Cuba: Current Situation and Challenges

Introduction

As a country, Cuba places great importance on food security. Indeed, all the documents approved by the 7th Congress of the Communist Party of Cuba and subsequently endorsed by the National Assembly of People's Power explicitly state that. The *Conceptualización del modelo económico y social cubano de desarrollo socialista* recognises Cuban citizens' fundamental right to food (see PCC, 2017: 5, 12). Among the guiding principles of the *Plan nacional de desarrollo hasta el 2030* is the need to achieve greater self-sufficiency from domestic food production, increase the productivity and sustainability of agri-food chains in order to strengthen food security and make food production a strategic sector for the country and the necessary guarantee for exercising the right to food (see PCC, 2017: 15, 18, 21). Meanwhile, the *Lineamientos para el período 2016–2021* address issues related to all dimensions of food security (see PCC, 2017: 28–31).

In general terms, Cuba's average daily food consumption indicators are satisfactory when compared to nutritional recommendations. However, these results do not reflect the complexity of the issue, because access to food is a constant concern for many Cuban families.

This chapter aims to determine whether a food access problem really exists in the country, what its main manifestations and consequences are, and what can be done to alleviate tensions in this regard. It is structured into five sections: this introduction is the first; the second addresses the fundamental concepts related to food and nutrition security (FNS); the third, the current food availability and distribution channels in Cuba; the fourth, the issue of access, which is the central component of this work; and finally the fifth contains some ideas on how to improve access to food based on the current situation.

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Conceptual aspects of FNS

The concept of food security within a country means that "all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (World Food Summit 1996, cited by FAO, 2019).

It contains four fundamental dimensions: availability, access, consumption and utilisation, and the stability over time of the previous three (see FAO, 2019).

Availability refers to food production, imports, storage and the food aid the country receives. To estimate it, post-harvest losses and exports must be deducted.

Access may be physical or economic. The lack of *physical access* refers to food being unavailable in sufficient quantities where its consumption is needed. Issues such as the isolation of certain communities and the lack of road, transport, storage and distribution infrastructure can be obstacles to adequate physical access on a permanent or temporary basis. *Economic access* is linked to people having the income to feed themselves with regularity, quality and dignity given the levels of food prices.

Consumption concerns whether household food supplies satisfy nutritional needs and cultural and diversity preferences. It also considers factors such as safety, dignity, the hygienic condition of homes and equitable distribution within the household.

Safety takes in the risks associated with food that may impact people's health, both those that are natural and those caused by contamination, pathogens or that may increase the risk of chronic diseases such as cancer, cardiovascular diseases and diabetes, among others.

Utilisation refers to biological use and is linked to the nutritional status that results from the individual use of foods (ingestion, absorption and utilisation) and health status.

All FNS components are equally important and none is sufficient to guarantee it alone; rather, a combination of all of them is needed to secure FNS objectives.

Food availability and distribution

To assess food availability in Cuba, data is taken from the National Statistics Office (ONE) publication *Consumo de alimentos*, which is available up until 2008 (ONE, 2009). It evaluates the contribution of apparent food consumption in terms of macro and micronutrients per person per day, and contrasts it with the nutritional recommendations for the Cuban population.

Apparent consumption is a calculation based on food distribution (see ONE, 2007). It provides an approximate picture of what the public consumes in terms of food distributed through retail, social consumption, public food, self-consumption, currency stores and agricultural markets. This estimate takes into account losses in the distribution chain from inedible portions and cooking and household waste.

Retail includes food distributed via direct sales to the population by producers and/or distributors to satisfy rationed consumption (quotas), diets, camping grounds and other allocations that enter the retail network of non-rationed goods. The allocations linked to rationed consumption are universal in scope, with every Cuban citizen receiving this allowance; however, there is differentiation according to age group. For example, children 0–6 years old receive the equivalent of one litre of milk every day. Medical diets that vary in accordance with the particular requirements of a condition are issued via prescription. Other retail sales are made according to demand.

Social consumption consists of the allocation of food to education, public health, sport and other sectors. These other allocations include cyclical consumption (e.g. sugar harvests) and that designated to training, sailing and cabotage crew, special fishing fleets, and defence agencies (MININT and MINFAR), among others.

Public food is what is delivered to the restaurant and catering sector for subsequent sale to the public through its establishments and for the preparation of meals and buffets for special trains and similar services, as well as the allocations that ensure the functioning of workers' canteens. Sales through the restaurant and catering sector are made according to demand, while workers benefit from guaranteed supply through the workers' canteens.

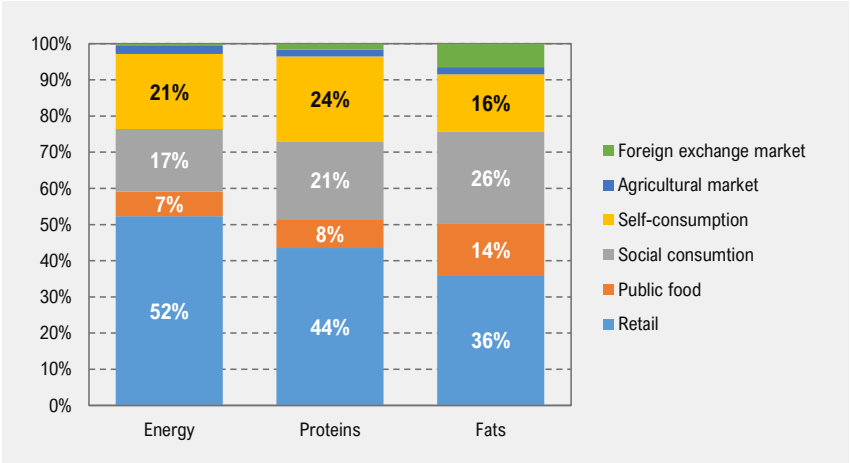
Self-consumption refers to food that is intended for the consumption of sectors that generate agricultural production, such as private peasants, state-owned agricultural companies, non-specialised agricultural production organisations, agricultural production cooperatives (CPAs, in the Spanish initials) and basic units of cooperative production (UBPCs).

Food is also sold in establishments previously called "foreign-currency shops"[1] that are operated by several different chains (e.g. TRD, Tiendas Panamericanas and Caracol).

1 The prices of the products in these stores were originally denominated in US dollars. They are currently given in Cuban convertible pesos (CUC). For a few years these establishments have also sold in Cuban pesos (CUP), for which the CADECA currency exchange rate is used. It should be noted that this chapter was written in early 2020, and that since July 20th 2020, direct food sales to the public in dollars have resumed.

In 2008, food was distributed via these channels in the proportions shown in Figure 1.

Figure 1. Nutritional contribution of apparent food consumption by distribution source, 2008.



Source: compiled by authors based on ONE data (2009): *Consumo de alimentos 2008,* September 2009 edition, Havana.

The retail trade mainly serves regulated or rationed consumption, and it is this channel that makes the largest contribution to apparent food consumption. In 2008 it contributed most significantly in terms of energy, while in terms of fat barely exceeded a third of the total.

The second most important channel was self-consumption, with social consumption the third. These distribution channels are available only to the applicable people in each case. Their scope is not universal, but in 2008 they had a greater impact than the pathways determined by demand.

There is no information on food distribution by channel for the last ten years. However, based on the measures implemented in the context of updating the Cuban economic and social model, in some of the channels the following behaviour may be expected:

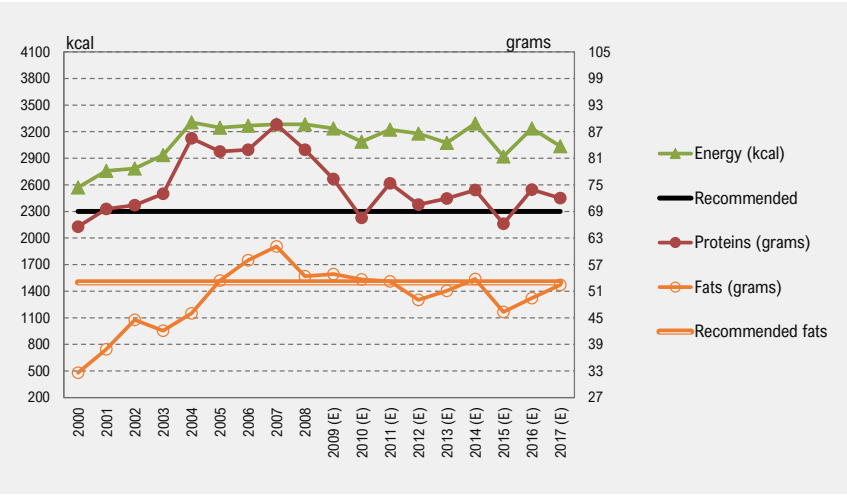
- Retail: regulated food sales are maintained; however, retail sales are rising of certain basic foods by the state at differentiated prices. Prices in this last sector are high compared to wages, but an effort is made to control the growth

that would emerge if only agricultural markets and foreign currency sales functioned.

- Social consumption: likely to have fallen due to closures of countryside high schools with scholarship students.
- Public food: has probably decreased as a result of the closure of many of the workers' canteens.
- Self-consumption: should have increased since the policy of transferring idle land for beneficial use.
- Agricultural markets: using estimates based on the sales indices, these showed a tendency to grow until 2016; in the last two years they have decreased and a shortage is observed.
- Foreign exchange market: no information is available, but in recent years the import adjustment related to rising short-term debts with suppliers has also led to a contraction of supply.

In the absence of official figures on apparent food consumption after that date, availability has been estimated based on information relating to domestic production and imports. The losses corresponding to distribution, inedible portions and cooking have been deducted, according to the indices used in national planning. Exports are also discounted (including those allocated to tourism). The results are shown in Figure 2.

Figure 2. Apparent food consumption of the Cuban population.

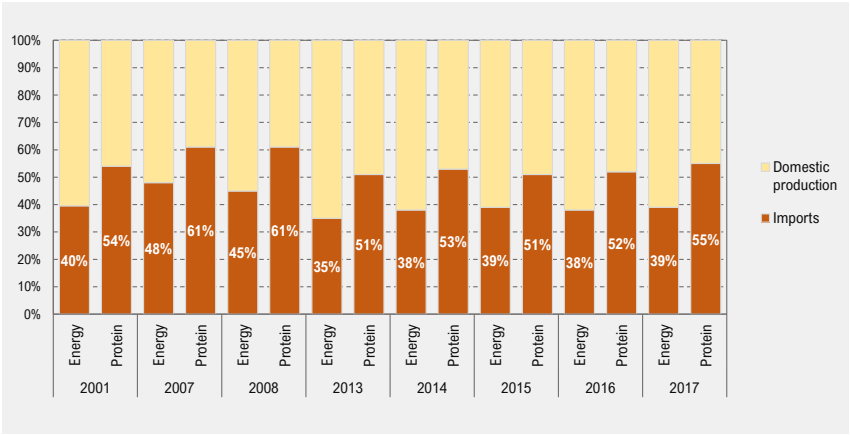


Source: compiled by authors using ONE data (various years, "Food Consumption" and *Anuarios Estadísticos de Cuba*) and ONEI (various years, *Anuarios Estadísticos de Cuba*) and INHA-Minsap (2008).

Based on the estimates for the most recent period, a decline in protein and fat availability is observed as of 2008, affecting one of the components of food security. For these macronutrients, what is available has been oscillating around the required level.

On the other hand, this availability is to a large extent supported by food imports (see Figure 3).

Figure 3. Contribution of domestic production and imports to apparent food consumption in Cuba.

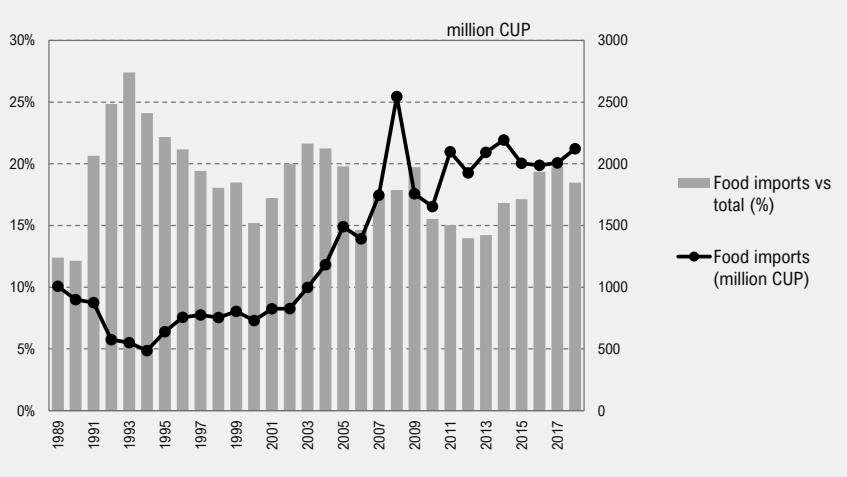


Source: compiled by authors.

Import dependency is higher for proteins, but imports also supply over a third of dietary energy. An estimate of the import contribution in terms of fats has not been made, but it is undoubtedly high given the shortage of domestic production sources.

External purchases of food average around $2 billion per year and represent between 15% and 20% of total goods imports (see Figure 4).

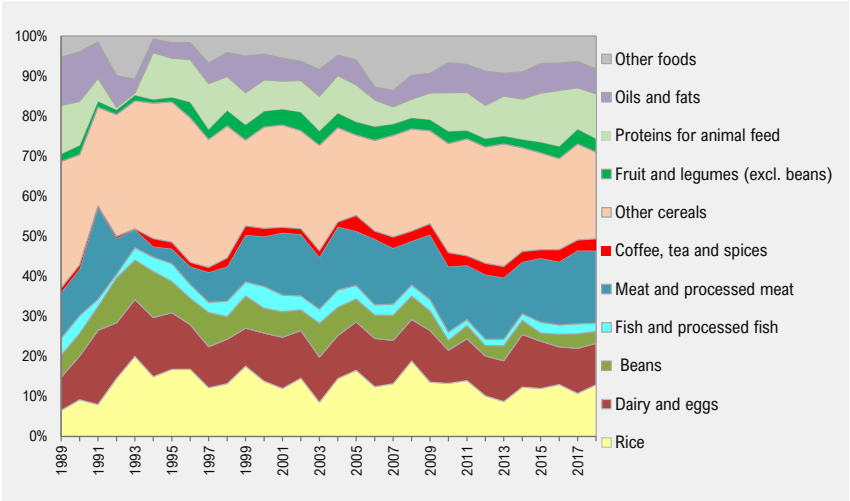
Figure 4. Food imports as a share of total goods imports (1989–2018).



Source: compiled by authors using ONE data (several years).

Among the items the country currently imports are rice, beans, edible oils, meat, fish, wheat and other cereals, milk, fruit, vegetables and protein for animal feed (see Figure 5). Several of these items are acquired in order to fulfil regulated consumption and social consumption quotas. Some research (García, 2009; García, Barrios and Echevarría, 2010) shows that almost half could be replaced with domestic production. While there has been a marked emphasis on achieving this goal since 2008, not enough progress has been made over this decade. Rather than substituting imports for domestic production, a process of administrative import contraction has occurred due to the low availability of financial resources in the country.

Figure 5. Structure of food imports.

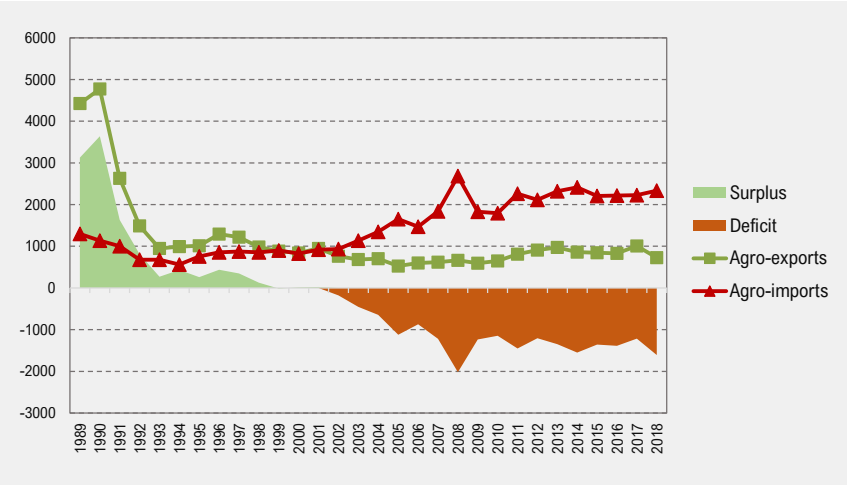


Source: compiled by authors using ONE data (several years).

This tension in external finances is closely linked to the country's poor export performance. In recent years, goods exports have shrunk systematically, with a cumulative fall of 60% between 2011 and 2018. To this is added the loss of income from medical services due to the agreements ending with Brazil and Bolivia, and the economic difficulties in Venezuela, a key destination. This puts acquisition in foreign markets at risk, both of food and inputs for agricultural production.

Specifically, a permanent deficit in the agricultural trade balance has existed since 2001 due to the loss of the sugar agribusiness, which was for many years the engine of the Cuban economy (see Figure 6). As a whole, the value of agro-product exports comprises less than a quarter of that generated in 1989.

Figure 6. Agricultural trade balance.



Source: compiled by authors using ONE data (several years).

Food access

In terms of physical access, not enough food is always supplied to the markets to guarantee people's nutritional demands and needs are fully met. Several factors affect this: the seasonality of domestic production (around 70% of harvests are in the winter months); the lack of adequate infrastructure for the storage, conservation and processing of these products in order to maintain systematic supply throughout the year; and other aspects already mentioned in the previous section, such as, for example, cuts to food imports.

Rationed consumption is able to guarantee a level of both physical and economic access to food via highly subsidised prices. The quantities it provides meet the nutritional recommendations for those under seven years old. However, they do not guarantee the necessary dietary diversity. In particular, they do not provide foods that are rich in dietary fibre, or fresh fruit and vegetables. For those aged seven or older, they provide around 55% of the recommended energy, 50% of the recommended protein, and a third of the fat. The population group aged from 14 to 60 years old receives the smallest proportions (only 43% of the recom-

mended energy, 34% of the recommended protein and 26% of the fat).[2] In these cases the problem of low diversity remains.

To meet nutritional needs use must be made of the various forms of free market, where high food prices prevail. Some of these markets show an upward trend in prices over recent years (see García and Anaya, 2017).

Certain groups face access disadvantages due to income. Among them are the beneficiaries of social assistance, retirees and workers in the budgeted state sector without an additional income source other than what they receive via pensions and salaries. This problem may be more prevalent among female heads of household and single mothers who depend solely on their salaries or social assistance and who do not have a family support network.

In Cuba, systematic surveys are made of households' economic situation, but this information is not in the public domain. Hence, the authors of this work have addressed the issue in several studies (see Anaya and García, 2007; 2014; 2018a; and 2018b). The estimate is based on constructing a budget of basic expenses for a household of three for one month.[3]

As the sociodemographic composition of a three-person household may vary, several possible structures were considered: two adults of working age and one elderly person (with pension and without); one adult of working age, a minor and an elderly person (with pension and without); two adults of working age and one minor. Each family structure produces its own level of household income and generates different food expenses due to the varied access to subsidised sources and their distinct levels of household income. Other expenses may differ due to the presence of an elderly person in the home who requires particular expenditure on medicines or certain foods, but without gathering specific information these details cannot be known.

Of the basic expenses per household, those that grant access to essential living conditions have been considered: food, clothing and footwear, hygiene and cleaning products, medicines, transport, electricity, water and gas. These expenses do not include education or health services, as the state provides those universally and free of charge; nor do they include rent, as most people live in their own homes.

Table 1 shows the contrast between estimated per capita food expenditure and average and minimum wages and pensions corresponding to 2017 and

2 The nutritional recommendations for the Cuban population by the Institute of Nutrition and Food Hygiene in October 2008 have been used for the calculations (see INHA-Minsap, 2008).

3 This is the approximate average household size in Cuba, according to the 2012 Population and Housing Census (see ONEI, 2014: 69).

2018.[4] The comparison with the total basic consumption expenses referred to above is also included. Following the same methodology as previous studies, we work with two variants of food consumption:

- A "basic variant", in which the range of food and expenses beyond that provided by rationing and the other subsidised food distribution channels are supplemented through purchases in agricultural markets. These purchases are limited to products that form part of the traditional Cuban diet, such as rice, beans, root vegetables and pork.
- An "improved variant" in which supplementation includes products beyond what is considered the traditional diet, adding others that bring greater quality and variety to the diet. One example is the incorporation of the daily consumption of 400 grams of fruit and vegetables (according WHO recommendations, 2015 and 2017),[5] as well as a glass of milk, poultry meat and vegetable oil.
- Supplementation means incorporating the quantities of food needed to reach the necessary apparent food consumption (about 3,200 kcal per day per capita in terms of energy) estimated by the authors for 2016 and to achieve consumption equivalent to the nutritional recommendation for the Cuban population (2300 kcal per day per capita also in terms of energy, according to the INHA, 2008).

Table 1 includes a range for minimum and maximum expenses (both on food and in total), as these vary according to the different family compositions considered.

The first thing that stands out from the information in Table 1 is that in 2017 neither salaries nor minimum pensions were sufficient to meet the food expenses of the basic variant and an average calorie consumption of about 3,200 kcal per day. Accessing the improved variant would mean incurring additional expenses per person of between 70 and 100 CUP per month on top of the basic variant. Even the recent rise in the minimum pension would not permit this.

Even based on a more modest level of consumption that fits the nutritional recommendations for the Cuban population, those on minimum wages and

4 By salaries we refer to the monthly direct remuneration accrued on average by a worker in state employment and *entidades mixtas* (public-private ownership); and the pensions and benefits everyone receives based on their age and years of service as an employee for the rest of their life.

5 "… a minimum of 400g of fruit and vegetables per day (excluding potatoes and other starchy tubers) for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity, as well as for the prevention and alleviation of several micronutrient deficiencies, especially in less developed countries". https://www.who.int/dietphysicalactivity/fruit/en/

pensions struggle to access a diet that provides the desired energy content and includes greater variety in its consumption (fruit, vegetables, dairy and vegetable fat).

The magnitude of food expenditure as a proportion of average salaries in the community, social and personal services sector in both the basic and improved variants and for an energy consumption of 3,200 kcal per day also deserves comment. At over 50%, the level is excessive, given that families also have other important basic household expenses: services of all kinds (electricity, gas and water above all) and non-food consumer goods.

The comparison contrasts spending with income of a certain magnitude per capita. If another dependent person (either a minor or a senior) must be supported with that income, the situation becomes much more restrictive.

Table 1. Consumer spending (per capita, monthly) and its comparison with salaries and pensions (average and minimum)

	Food expenses				Total expenses			
	Basic variant		Improved variant		Basic variant		Improved variant	
	Min	Max	Min	Max	Min	Max	Min	Max
As an absolute value (CUP)								
With consumption equivalent to the average in 2016	224	255	329	355	352	386	655	703
With consumption equivalent to the required level	127	158	198	242	258	289	535	590
As a percentage								
With consumption equivalent to the average in 2016								
Average salary 2017	29%	33%	43%	46%	46%	50%	85%	92%
Average salary for community, social and personal services 2017	36%	41%	53%	57%	56%	62%	105%	113%
Minimum salary 2017	99%	113%	146%	158%	157%	171%	291%	313%
Average pension 2017	78%	89%	115%	124%	123%	135%	229%	246%
Minimum pension 2017	112%	127%	164%	178%	176%	193%	328%	352%
Minimum pension 2018	92%	105%	136%	147%	146%	159%	271%	291%
With consumption equivalent to the required								
Average salary 2017	17%	21%	26%	32%	34%	38%	70%	77%
Average salary for community, social and personal services 2017	20%	25%	32%	39%	41%	46%	86%	95%
Minimum salary 2017	56%	70%	88%	108%	115%	128%	238%	249%
Average pension 2017	44%	55%	69%	85%	90%	101%	187%	207%
Minimum pension 2017	63%	79%	99%	121%	129%	144%	267%	295%
Minimum pension 2018	52%	65%	82%	100%	107%	119%	221%	244%

Source: compiled by authors based on Anaya and García (2017) and ONEI (2018).

Regarding the contrast between total basic consumption expenditure and average and minimum wages and pensions, it is notable that neither wages nor minimum pensions are sufficient to cover estimated levels of expenditure, not even for the basic variant with lower calorie consumption. Similarly, those who depend on average pensions find it difficult to cover their consumption expenses. Those with average salaries have better access, but the number of economically dependent family members will be decisive.

Moreover, the difficulties multiply if it is necessary to take on expenses above those considered basic – for example, for purchasing equipment and other household items, paying private parties for services (equipment repair, transport, caring for children, the sick or the elderly in order to be able to work, and others that the state provision does not cover), the acquisition of non-school books and entertainment.

What can be done to improve access?

In order to improve access and to achieve greater food security in general, a set of actions is proposed that are discussed below.

Change the approach to food security

- Produce and/or import safe, healthy food in sufficient quantities to satisfy needs and preferences, as set out by the FNS concept.
- Address food provision with a focus on food security. Producing large quantities of food is important, but so is what food is being produced, its level of acceptance, and how safe and nutritious it can be.
- Understand that this issue is not solely the responsibility of the Ministry of Agriculture and other organisations linked to food production.
- Design specific policies for the non-state sector, which is increasingly important in food production and distribution. Coordinate it with the state sector in order to contribute on food security.

Create a space for coordinating all the agencies and institutions that support and evaluate food security in Cuba, so that this issue is comprehensively analysed and projected.

- The bodies that issue macroeconomic policies (MEP, MFP, BCC).
- The bodies that issue production policies (Minag and Minal).
- The bodies related to the food trade (Mincin and Mincex).
- The bodies and institutions that evaluate how food is consumed and used (Minsap, INHA).
- Design a system of indicators and incentives to support the goal of greater food security in all its dimensions.

Increase the availability of food from existing reserves in:

- Primary production: increase agricultural yields, introduce new varieties with greater productive potential and better seasonal distribution, decrease post-harvest losses, strengthen the focus on demand and nutritional considerations.
- Processing and conservation: reduce losses of raw materials, introduce technologies that preserve and/or enrich the nutritional content of food.
- Distribution: review the retail sales network in order to guarantee the proximity of food outlets to the entire Cuban population; evaluate the effectiveness of food market segmentation in current conditions.
- The capitalisation of the sector: notable heterogeneity exists between agricultural producers. Some have accumulated considerable resources that allow them to take on certain functions, such as, for example, the direct importation of inputs and capital goods and the management of this market; and the channelling of their savings through an agricultural development bank.
- Support services for food value chains: financing, supply of inputs and investment goods, storage, transportation and scientific and technical services.
- The infrastructure to support the chain: among them, the road network and services such as telephony, electricity and communications stand out.
- Living conditions in rural areas: guarantee basic services, such as health, education, retail trade, recreation and transportation, which stimulate people to settle and remain in these areas and, therefore, farm.

Study the current mechanisms interconnecting the different actors so that import substitution programmes represent an effective stimulus to producers.

- Direct sales to tourism could become a means both of import substitution and of improving processes and products for related producers through the removal of administrative obstacles, such as the way transactions are made between parties. For example, some forms of production have to be sold through the state company to which they are linked, since they do not have accounts in CUC.
- As the stimulating effect of import substitution is not immediate, a mechanism must be created that allows the resources it releases to be applied to investment in the agricultural sector.

Achieve a more suitable design for food markets that allows:

- Higher percentages of domestic production to go to agricultural markets, which could have an impact on prices.
- Price formation that is more in line with the interplay of supply and demand, with an emphasis on prices set in CUC serving as a reference for prices in other market spaces.

- Physical access for the entire Cuban population. The absence of points of sale, even in urban areas, hinders access, especially to people with disabilities and the elderly in a context of accelerated demographic ageing.

Transform current protection systems and the universal nature of some subsidies

- Food distribution targeting specific groups such as the Sistema de Atención a la Familia and workers' canteens need modifying due to their very limited effectiveness. Delivering food stamps to the intended beneficiaries of these channels and/or extending the cash payment system in work centres might be considered.
- Another element that should be highlighted concerns the universality of subsidies for products distributed through rationing. Remittances, the dynamic development of a non-state sector in which personal income has outgrown the average salary by several times, and the modification of migration regulations to promote longer stays abroad are all factors that seem to recommend reassessing the efficiency of the universality of this assistance.

In short, all the elements of food security must be considered elements of national security and constitute an essential factor in the people's living conditions that must be improved immediately. On the basis of this work, it is considered that sufficient reserves exist to achieve this.

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