European Commission

Supporting efficient food reserves

Critical points to consider in their design and management

This Brief aims to guide EU delegations to make decisions around the provision of technical and/or financial support to national food reserve programmes.[1] The first step is considering whether food reserves are relevant to improve food and nutrition security, given the specificities of the given country. This aspect is dealt with in the Information Note "Using food reserves to improve food and nutrition security?".[2] The second step is checking whether all the building blocks necessary for the efficient use and governance of the reserve are or will be in place. This is the objective of the present Brief.

The Brief builds on a compilation of the lessons of past experiences on food reserves.[3] It is organised as follows.

Possible pitfalls are listed for each of the five main activities that should be performed by a food reserve agency, namely:

1. Storage activity
2. Procurement
3. Releases
4. Coordinating with other policies
5. Monitoring and evaluation

For each pitfall, critical points to be checked are listed, as well as the relevant questions that must be answered to determine whether the required building blocks are or will be in place.

International Cooperation and Development

Possible pitfalls	Critical points	Questions to identify whether the required building blocks are/will be in place
1. Storage activity		
(a) Quality deterioration and losses	Depending on the climate in the proposed storage location and the commodities stored, the quality of the stored products may deteriorate and even result in losses. **The critical points relate to i) infrastructure, ii) treatments and iii) rotations. A competent staff is required.**	• What is in place/planned to prevent quality deterioration and losses? • Does existing/planned infrastructure (buildings, bags, pallets, silos, etc.) meeting technical standards for stocks? Is storage capacity sufficient? • Is the staff competent in the physical management of stocks? • Which treatments are necessary? • Are necessary phytosanitary products available? • What rules are in place/planned to guarantee that stocks are rotated with the right frequency?
(b) Thefts and diversions	**The critical points relate to i) the monitoring and ii) the protection of warehouses and silos.**	• What mechanism(s) are in place/planned to fix and update procurement prices? • Do these mechanism(s) guarantee that the food reserve procurement prices will follow the mid-term trend of international (or regional) prices? • Do these mechanism(s) include consulting representatives of all the categories of market players (producers, traders, processors and consumers)?
2. Procurement		
(a) Procurement price fixed at too high a level	Too high a procurement price (compared to the mid-term trend of international/regional prices) may result in high prices on the domestic market, thereby penalising poor consumers (including deficit farmers) without really benefitting small farmers (because they have low surpluses to sell). In addition, it may generate grain overproduction and discourage the diversification of food production. **The critical point is linking the procurement price to the mid-term trend of international (or regional) prices.** This does not preclude applying higher procurement prices to specific categories of suppliers (e.g. small farmers, organic farmers, producer organisations, cereal banks) when justified by specific policy objectives (see 2-e)	• What mechanism(s) are in place/planned to fix and update procurement prices? • Do these mechanism(s) guarantee that the food reserve procurement prices will follow the mid-term trend of international (or regional) prices? • Do these mechanism(s) include consulting representatives of all the categories of market players (producers, traders, processors and consumers)?
(b) Too little or too much procured	If the quantity stored is not sufficient, the food reserve may be unable to fulfil its objectives. Conversely, storing an excessive quantity is costly and may require untimely sales that can depress prices either on the domestic or the international market. **The critical points relate to i) the stock target** (which depends on the objective of the food reserve: to mitigate food price increases or to provide in-kind transfers to vulnerable households), **ii) financial and logistical means, iii) the procurement price** (see 2-a) and iv) **the existence of a ceiling on the quantity to be procured.**	• What is the food reserve stock target? • How was this target estimated? • Is the target adequate to allow the reserve to fulfil its objectives? • Is there a mechanism in place/planned to guarantee that the procurement price will be set at a relevant level (see 2-a)? • Are the food reserve financial and logistical means adequate to allow reaching the stock target? • Is there a mechanism in place/planned to bound the quantity procured when the stock target is reached?

Possible pitfalls	Critical points	Questions to identify whether the required building blocks are/will be in place
(c) Late procurement	Early purchasing during the post-harvest period (when the price usually collapses) allows reducing the procurement cost and helps smooth the seasonality of prices. **Timely procurement requires i) sufficient working capital and ii) adequate rules and procedures.**	• What is/will be the procedure for procurement? • Does this procedure allow early purchases (during the post-harvest period)? • If not, what can be done to render it more flexible, without impeding the necessary transparency and equity in selecting the suppliers (see 2-d)? • Is the working capital of the food reserve agency sufficient to allow early purchases?
(d) Lack of transparency and equity in selecting suppliers	Because of corruption or cronyism, there may be unfair competition in selecting suppliers. To avoid this problem, **the critical point is the procurement procedure: it should guarantee transparency and fair competition between potential suppliers (calls for tenders, auctions, etc.).**	• What is/will be the procedure for procurement? • Are the official standards/laws for awarding public contracts applied? • Does this procedure guarantee that all potential suppliers are informed about the food reserve purchases? • Does this procedure guarantee that the offers of all potential suppliers are compared and selected in a fair way (calls for tenders, auctions)?
(e) Failure to use procurement modalities to promote specific production or marketing models	Food reserve procurement can help promote specific production or marketing models that fit with social or environmental objectives (e.g. small family farmers, organic production, collective marketing through producer organisations) or contribute to increased market transparency (e.g. warehouse receipt systems or commodity exchanges). **This may be done through i) quotas for specific categories of suppliers and/or ii) specific conditions regarding the delivery and/or the payment, and possibly iii) a higher procurement price** (see 2-a).	• Does the procurement procedure involve quotas for specific categories of suppliers? • Who defines these categories and how? • Do these categories of suppliers benefit from a higher price and/or more favourable conditions regarding delivery and/or payment? • If so, are these advantages justified by social or environmental objectives (e.g. empower small farmers, reduce pollution, increase market transparency)? • Does the procedure guarantee a fair competition within the categories (see 2-d)?
3. Releases		
(a) Ad hoc releases	Ad hoc releases from food reserves generate unpredictability for market players, possibly crowding out private trade and storage. **To guarantee predictable interventions: i) food reserve releases should be rules-based, ii) the triggering rules should be public knowledge, and iii) information on the indicators used to trigger interventions should be public.**	• What procedure is in place/planned to trigger food reserve releases? • More specifically, what are the rules in place/planned to trigger food reserve releases? • Are these rules publicly known? • Is information on the indicators used to trigger interventions disseminated to market players?
(b) Late interventions	Late interventions may considerably reduce the effect of food reserve releases on food and nutrition security. **Critical points to allow timely releases relate to: i) the existence of early warning systems, ii) procedures to manage the crisis (contingency planning), and iii) proximity of the physical stocks to be sold or distributed.**	• Is early warning information available to allow anticipating the emergence of food crises? • Are procedures in place that specify the role of food reserves (and the way they should be used) when a food crisis occurs? • Can the physical stocks be easily accessed and quickly moved to areas where they are needed?

Possible pitfalls	Critical points	Questions to identify whether the required building blocks are/will be in place
(c) Wrong balance / selection between using food reserve releases to mitigate sharp price increases and/or provide free distributions to food insecure households	Food reserve stocks can either be sold on domestic markets (in order to make up for shortages or mitigate sharp price increases) or channelled to food insecure households in the form of free distributions. The right choice between these two options (which can be combined) depends on the context and policy objectives. **Critical factors to be taken into account are: i) the proportion of food insecure households within the total population (when low, targeting the distributions is often better), ii) the cost-effectiveness of targeting in the given country (when low, providing non-targeted distributions is often better), and iii) the quantity required to act on prices (for non-tradable goods and in landlocked countries, this quantity is likely to be high and providing targeted distributions is therefore often better).**	• Has the expected impact of selling the food reserve stocks to mitigate sharp price increases been assessed against the expected impact of providing free distributions to food insecure households [noting that with the same budget, it is possible to make many more sales than free distributions]? • Does this analysis consider factors such as: i) the proportion of food insecure households within the total population; ii) the cost-effectiveness of targeting in the given country; iii) the quantity required to act on prices?
3.1 Sales		
(a) Inadequate trigger (ceiling price fixed at too low a level)	When food reserves are used to mitigate sharp price increases, sales are often triggered when the domestic price reaches a predefined level. The aim is to prevent the price from increasing beyond this ceiling price. Too low a ceiling price is likely to crowd out private trade and storage, and also to discourage production (with adverse effects on food security in the medium run). In addition, defending a low ceiling price is likely to be impossible (reserve exhausted) or extremely expensive. **The critical point is: the ceiling price should follow the mid-term trend of international prices (or regional prices for non-tradable food products). In other words, the price should be subsidised only when sharp price increases occur.**	• What mechanism is in place/planned to fix and update ceiling prices? • Does this mechanism guarantee that ceiling prices will follow the mid-term trend of international (or regional) prices? • Does this mechanism include consulting representatives of all the categories of market players (producers, traders, processors and consumers)? • How consistent is it with production and marketing development policies?
3.2. Free distributions		
(a) Inadequate trigger	When free distributions are implemented to manage crises (emergency aid, as opposed to regular distributions aiming to fight chronic food insecurity), triggers are important. If the triggers are inadequate, emergency aid may not be distributed when needed, or conversely may be distributed when not necessary, thereby disturbing markets. **The critical points are to have: i) relevant triggers (given the dynamics of food crises in the given country); and ii) the required information so that the triggers can be activated on time.**	• What is the procedure to trigger the use of the food reserve for emergency aid? • What are the criteria? • Are these criteria consistent with existing knowledge on the dynamics of food crises in the given country? • Is the necessary information available on time?

Possible pitfalls	Critical points	Questions to identify whether the required building blocks are/will be in place
(b) Inadequate targeting	This problem is not specific to food reserve but to all targeted transfers (cash, food, vouchers, in-kind). The targeting may be imperfect for technical or political economy reasons. This may result in i) food insecure households not covered, and/or ii) non-food insecure households covered. The main targeting methods, which are usually combined, are: i) geographical targeting (identifying the areas affected by the crisis), ii) (proxy-) means testing (based on household surveys/data), iii) categorical targeting (e.g. reaching children under 5), iv) community-based targeting (in which community agents identify recipients), and v) self-targeting (e.g. providing less preferred food items, or requiring a labour contribution to public works). It may be possible to use existing databases (e.g. unified social registry) for targeting. **The critical points are: i) clear criteria and procedures to target recipients, and ii) sufficient means allocated to targeting (without over-allocating). If targeting is too complicated, non-targeted interventions may be preferable** (see 3.1).	*If the food reserve is used both to help address chronic food insecurity (through regular food transfers) and acute food crises (through emergency transfers), the following questions should be asked for both uses (and the answers are likely to be different):* • What is the targeting procedure to select recipients of food transfers? • What are the criteria? • What are the technical challenges and how are they overcome? • What are the political economy challenges and how are they overcome? • What is the cost of targeting? • Are the financial and technical means devoted to targeting sufficient (without being excessive, striking the right balance between costs and benefits)?
(c) Inadequate products distributed	The products sold or distributed should fit with local preferences and needs (religious, cultural, etc). **During *shortages,* the distribution should provide not only calories but also the main nutrients necessary for a healthy life**, in a practical form (considering recipients' access to energy for cooking, drinking water, etc.). However, **most of the time, the problem stems from households' *economic access to food.* In this case, it is often possible to restore their purchasing power by distributing grains because grain usually accounts for a high share of poor households' expenditures.**	• What is the basket of distributed food products? • Do these products fit with the preferences and needs of the potential recipients? • Do shortages occur in the country for products important for food and nutrition security? • If so, are these important products identified and included in the basket of distributed products? • Which grains are included in the basket of distributed food products? • Are these grains those that account for a high share of poor households' expenditures?
4. Coordinating with other policies		
(a) Lack of consistency between food reserve interventions and the country trade policy	The support provided to consumers through food reserve releases may vanish if the quantity supplied on the domestic market flows outside. Symmetrically, the support provided to producers may vanish if the quantity absorbed on the domestic market thanks to food reserve procurement is compensated by an increase in imports. **To be effective, food reserve interventions should take into account the country trade policy and its implications on the price levels that render imports or exports profitable (import and export parity prices).**	• Does the existing/planned institutional framework allow coordinating food reserve interventions and trade policies? • Are trade data (imports, exports, import and export parity prices) used in defining the triggers of food reserve interventions?

Possible pitfalls	Critical points	Questions to identify whether the required building blocks are/will be in place
(b) Lack of coordination with local reserves (cereal banks)	National food reserve interventions may disturb the activity of local food reserve (cereal banks): i) their procurement may impede the purchases of local reserves and ii) their distributions or sales at subsidised prices may generate losses for cereal banks (unable to sell at a price that covers their cost). **Solutions to this problem rest on: i) coordinating interventions (for instance, relying first on local food reserves); and ii) contracts between national and local food reserves so that part of purchases, sales and distributions of national food reserves can be made through cereal banks.**	• Is there any coordination between national and local food reserves? • Specifically, is there a coordination mechanism to guarantee coherence between the interventions of national and local food reserves? • Do local food reserves sometimes play the role of intermediaries to supply the national food reserve and to implement its sales or distributions? • If not, has the relevance of contracts between national and local food reserves been considered?
5. Monitoring and Evaluation		
(a) Lack of monitoring of interventions and evaluation of their impact	**The critical points are related to: i) compiling the data related to all operations: purchases, sales, distributions, timing, and characteristics; and ii) using these data (jointly with other data such as price series or data from household surveys) to assess the impact of food reserve interventions.**	• What is in place/planned to monitor all food reserve interventions (purchases, sales, distributions)? • Is the information related to food reserve interventions compiled in a database to ensure data is retained from all past interventions? • What variables are used to describe the interventions? • Are these variables sufficient to cover all the attributes of food reserve interventions that may affect their impact or their cost (timing and characteristics)? • What is in place/planned to assess the impact of food reserve interventions? • Is information on the variables targeted by food reserve interventions available (prices, poor households' food consumption, nutritional status of vulnerable people, etc.)? • If not, what is in place/planned to produce this information? • Is the staff of the food reserve agency trained to produce impact analyses? • If not, is there any partnership with a university to guarantee that impact studies will be completed regularly?
(b) Lack of cost control	Costs are often expressed in the classical categories used in accountability (wages, energy, transport, etc.). To allow efficient management of the food reserve agency, **cost accounting should be put in place in which costs are expressed for each activity (procurement, storage, distribution, etc.). This activity-based costing data should be used by the food reserve agency to keep costs at reasonable levels.**	• What is in place/planned to monitor the costs of the food reserve? • Is there an analytical accounting system to express the costs for each activity (procurement, storage, distribution etc.) so that costing information can be used more easily to improve the management of the food reserve? • Is cost management explicitly included in the governance of the food reserve?
(c) Lack of reporting	**All information about interventions, their cost and their impacts should be made public so that policy makers can consider it to improve the device.**	• Is it mandatory for the food reserve agency to produce an annual report of its activities, costs and estimated impacts?

[1] This note was commissioned by DEVCO C1 (Rural Development, Food Security, Nutrition) and developed by Franck Galtier (CIRAD, Montpellier, France) in April 2019.
[2] European Commission (2018) Using food reserves to improve food and nutrition security? Information Note. October 2018. https://europa.eu/capacity4dev/hunger-foodsecurity-nutrition/events/using-food-reserves-improve-food-and-nutrition-security.
[3] See the synthesis report, the compilation of case study summaries, and the ten full case study reports of the global study on food reserves commissioned by DEVCO C1 available at https://europa.eu/capacity4dev/hunger-foodsecurity-nutrition/discussions/how-can-food-reserves-best-enhance-food-and-nutrition-security-developing-countries.

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