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RESOGEST



Regional Food Security Reserve

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With the technical support of :



**A Platform for Supporting Rural Development
Stakeholders in Western and Central Africa (The
Rural Hub)**



ECOWAS entrusted the Rural Hub with the task of coordinating the design of the Regional Food Security Reserve. ECOWAS has set up a Task Force designed to manage the process made up of major regional stakeholders involved in setting up ECOWAS/CAADP, national stakeholders with experience in the field as well as relevant international organizations.

The Rural Hub and ECOWAS have called upon external expertise to carry out the feasibility study as part of the overall strategy for food security reserves led collectively by three regional institutions: ECOWAS, WAEMU (Members of the West African Economic and Monetary Union) and CILSS.

The team of experts, made up of Roger Blein (Issala), Raphael Beaujeu and Henri Leturque (IRAM), Salifou Konaté (Lanaya Consult), benefited from the experience of James Olusegun OKE (NFRA-Nigeria).

The process and feasibility study focused on the skills and contributions of several experts from CILSS, SWAC/OECD, ECOWAS and WAEMU, offices and companies in charge of managing national stocks, namely OPAM (Mali), SONAGESS (Burkina Faso), OPVN (Niger), ONASA (Benin), CSA (Senegal), ANSAT (Togo), NAFCO (Ghana), farming organizations and their regional networks, as well as NGOs. It has benefited significantly from the work carried out by the WFP for the G20 as part of the PREPARE initiative.

The first draft of the feasibility study was submitted to the Task Force on food security reserves for critical analysis. The present version constitutes the proposal of the ECOWAS Commission to the decision-making bodies of ECOWAS.

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Executive Summary

1. The feasibility study constitutes the proposal by the ECOWAS Commission to the Ministerial Committee specializing in Agriculture, Environment and Water Resources, concerning the establishment of the Regional Food Security Reserve.
2. This proposal is based on the work of the food reserve Task Force established by the Accra Ministerial Committee (February 2011) to accelerate the implementation of the ECOWAP/CAADP (RAIP). The mandate of this task force is to play a technical and consultancy role and it is comprised of resource persons with competence in the field, taken from the circle of agricultural professionals, national food stock management organizations, regional and international institutions, etc.
3. The present proposal accepts the guidance of the West African region in terms of food stocks within the strategic framework of security storage. This framework sets out objectives for food security stocks, aimed at emergency food aid operations in the event of shocks leading to a cyclical food crisis (emergency strategic or humanitarian reserve). This mission, focused on rapid responses to emergencies, is distinguished from another goal frequently assigned to food stocks, namely market intervention to control food prices. This latter is the subject of another Task Force, results from which should be ready in November 2012, to enable the ECOWAS Commission to make proposals to the Ministerial Committee.
4. The study was carried out taking into account and evaluating the different initiatives developed in recent years (RESOGEST/CILSS, WAEMU, ECOWAS, G20), following the 2005/06 food crisis in Niger, the 2008 crisis caused by soaring prices worldwide, the 2010 pastoral crisis and the current crisis hitting many countries in the region and affecting over 18 million vulnerable persons. The proposal concerns the establishment of a Regional Food Security Reserve capable of uniting the underlying expectations of these various initiatives and to provide a framework for their convergence.
5. The study refers to the analysis of crises over the period 2000-2012 in order to propose a mechanism that responds to the specific challenges of the region, both in terms of the nature of the risks faced, and the magnitude of the crises to which it is susceptible.
6. The feasibility study details the context and the foundations, the challenges and the positioning of the reserve, its global and specific aims, and its practical conditions. The latter concern the design of the global reserve and its physical and financial components, the composition and location of the physical component, supply and maintenance of stocks, and the terms of their release. Finally, the study proposes two scenarios for institutional transfer, evaluates the costs and explores the funding mechanism and the monitoring and evaluation. With regard to institutional transfer and the funding mechanism, several scenarios were investigated. The ECOWAS Commission submits several options to the Ministerial Committee for its consideration.
7. In terms of technical details (size, location, composition, etc.) the Task Force and the ECOWAS Commission examined a number of assumptions and scenarios proposed by the expert team. These proposals were amended in order to assist in decision-making by the Ministerial Committee. The present proposal details the options chosen by the ECOWAS Commission, but also presents the different scenarios put forward and the reasons for making these choices.

8. The ECOWAS Commission recommends the region establish a Regional Food Security Reserve in order to have a third line of defense in the event of a food crisis, to complement the local and national food security stocks, which may also be deployed or bolstered as appropriate.
9. The Commission proposes assigning three specific objectives to the Regional Reserve: (i) complement the efforts of Member States to provide rapid and diversified food and nutritional assistance; (ii) express regional solidarity with regard to affected member states and populations, through the use of transparent, fair and predictable mechanisms; (iii) contribute to food sovereignty and political, economic and trade integration in West Africa.
10. The size of the reserve is based on a historical analysis of the food needs of ECOWAS populations affected by a political crisis, "natural" shock (floods, drought, etc.), or "price" shock (such as the 2008 crisis) over the last twelve years, where an emergency response was necessary. The estimate is calibrated to the largest shock, such that the reserve is able to cope with most situations, and also takes into account population growth.
11. The simulations carried out to reflect five different scenarios presented an opportunity to discuss the desirable level and distribution of support for annual requirements in times of crisis by region and country (including national and local stocks). The different scenarios were obtained by varying the following three parameters: (i) the period of coverage of annual needs by the region; (ii) the percentage of needs covered by the region and that provided by individual countries; (iii) the degree of differentiation between States with a low or high exposure to shocks in the contribution by regional solidarity to covering population needs.
12. The characteristics and implications of the five scenarios considered are available to policymakers. Following a reflection on the strengths and weaknesses of each scenario, the ECOWAS Commission recommends a phased approach to allow the creation of a total reserve of 411,000 tons once fully implemented (year 8) with two components: a physical stock of 140,000 tons (one third) and a financial stock representing the equivalent of 271,000 tons (two thirds).
13. This option enables the simultaneous satisfaction of three constraints: (i) a large enough reserve to meet the needs of populations in times of crisis; (ii) a reasonable level of contribution to national stocks for crisis resolution; (iii) full exploitation of resource pooling and solidarity at a regional level. Moreover, some flexibility is expected in the one-third / two-thirds division between the physical and financial components of the reserve, which may be adjusted according to requirements.
14. To achieve this optimal reserve level, the ECOWAS Commission recommends a first, four-year phase with a total reserve of 176,000 tons, before taking the volume up to 294,000 tons from the fifth year, maintaining the same proportions between the physical stock and the financial stock. Given the difficulty of anticipating events, planning over an eight-years period remains an indicative exercise. The growth rate, volumes, and share assigned to each component will need to be adjusted following the first evaluations of implementation of the recommendations.
15. The composition of the physical component of the reserve was worked out on the basis of the major food systems in the region, which correspond to the major production areas, together with the suitability of the produce for storage. The ECOWAS Commission recommends starting with a fairly limited range of foodstuffs for which (i) storage practicalities and costs are carefully controlled; and (ii) norms and standards are shared by different countries, to avoid disputes about the quality of produce in both operations to supply the reserve and the distribution of foodstuffs in a crisis. Initially, a broader diversification of foodstuffs can be initiated at the level of national stocks, to later be extended to the regional level.

16. The foodstuffs recommended at the first stage are cereals (millet, sorghum, maize, rice) and tubers (gari). The possibility of including cowpea was retained but must be confirmed by the Committee on the basis of financial decisions, due to its higher costs and risk of perishing.
17. The proportions of each cereal and the place of gari will vary according to storage site. The introduction of nutritional products (enriched flour) is recommended from the first stage.
18. In order to comply with ECOWAP's approach to food sovereignty, supply of the reserve depends primarily on regional production, so as to constitute a predictable opportunities for producers (purchase contracts with Producers' Organizations [POs]). Other modalities such as bidding and purchasing options will be implemented.
19. Four storage sites were selected based on (i) the existence of storage capacity (storage and human and institutional capacity for reserve management by national infrastructures); (ii) their proximity to expected places of need; and (iii) their proximity to major production areas: Northern Nigeria / Niger (Eastern subregion); south Mali, Burkina Faso, northern Ghana (Central subregion) Senegal (Atlantic West subregion); Guinea / Liberia / Sierra Leone (Gulf Atlantic subregion). Two sites have access to the ports of Tema and Dakar. The quantities stored on different sites are correlated with expected needs. The Eastern and Central subregions represent 96% of the physical Regional Reserve, taking into consideration the magnitude of the needs of landlocked Sahelian countries.
20. Mobilization of the reserve is triggered by a decision of the Management Committee. The assessment and decision are informed by vulnerability analyzes provided by the Cadre Harmonisé Bonifié (CHB), beginning at threshold 3 – critical food insecurity. This framework represents the agreed methodology for analysis and vulnerability monitoring adopted by the region. As such, upgrading of information systems and the widespread application of CHB is required as soon as possible (see implementation of ECOAGRIS).
21. The triggering procedure follows two distinct modalities, depending on whether or not the country has an early warning system (EWS) to supply an analysis of food insecurity based on the CHB methodology.
22. The reserve operates primarily as gratuitous transfers of food or financial resources, decided by the Management Committee. These interventions express regional solidarity and the region's contribution to response plans or emergency plans developed by member countries in response to a food crisis. As such, the widespread implementation of national emergency plans that are appropriately harmonized at a regional level, and that motivate the design of plans for responding to food crises, is an important step towards a general improvement in the quality of crisis response strategies, and towards real equity in the regional response.
23. The level of intervention is differentiated according to regional status and the geographical position of countries (coastal LDCs, landlocked LDCs, non-coastal LDCs, non-island LDCs). These interventions are supplemented by loans between countries, within the RESOGEST framework. If available, the Regional Reserve may lend to Member States or certain stakeholders (international humanitarian organizations, NGOs, POs). It is also this form of "loan or transfer for consideration" that will be favored if the Emergency Response Fund is insufficiently well-funded to be able to support regional solidarity with regard to Member States.
24. The Task Force drew up four institutional scenarios for consideration. They differ in the level of involvement of regional institutions, according to the degree of integration into the ECOWAP mechanism and the nature of the partnership forged with the international community:
 - a. Full integration into the ECOWAP institutional structure;

- b. Establishment of an independent structure under joint supervision by ECOWAS and WAEMU;
- c. Establishment of a structure dedicated to the management of the reserve but inserted into ECOWAP;
- d. Establishment of a joint management structure between the regional and the international community.

25. Based on the feasibility study that outlines the consultation, orientation, decision and financing bodies for each of the scenarios, the Task Force explored the strengths and limitations of each.

26. At the suggestion of the Task Force, the ECOWAS Commission has identified two options that appear to fulfill the conditions for rapid implementation, efficiency and sustainability of the reserve:

- a. clear leadership of ECOWAS with a mechanism that involves other institutions and regional actors to a large extent;
- b. strong integration of the reserve into the general guidelines of ECOWAP and the ECOWAS humanitarian policy, together with strategies for prevention and management of food crises;
- c. consistency and simplification of the chain, from orientation of the mechanism up to control of involvement, so as to ensure the responsiveness of the Regional Reserve to food crisis situations and the effectiveness of its interventions;
- d. reduction in time and costs by leveraging existing mechanisms or institutions;
- e. a major role played by the national bodies that are members of RESOGEST in the implementation of the mechanism.

27. The two options put forward for the Ministerial Committee's consideration are the following:

- a. Institutional framework 1: Mechanism inserted into the institutional structure of ECOWAP/CAADP
- b. Institutional framework 3: Establishment of a structure dedicated to the management of the reserve but inserted into ECOWAP.

28. In both cases, the practical implementation (supply, storage, product control, maintenance, etc.) is guaranteed by the national members of RESOGEST. This latter will be invited to play an increasing role in the implementation mechanism for the regional storage strategy.

29. Finally, the study proceeds to evaluate costs. These vary according to several assumptions, including the degree of regional solidarity. These costs distinguish:

- a. *The constitution and the technical management of the physical and financial reserves;*
 - i. initial allocations of physical and financial capital and complementary allocations;
 - ii. costs for maintenance and daily management of the physical reserve: storage, phytosanitary care, losses, technical rotation, etc.;
 - iii. costs of stock maintenance, technical and administrative management and governance; and finally
 - iv. administrative costs (including M & E and audits) and expenses related to governance.
- b. *Costs associated with interventions made by the reserve* under the auspices of regional solidarity and on the financing for a yet-to-be-created Fund, the Emergency Response Fund.

30. The costs of setting up, maintaining and governing the Regional Reserve totaled \$263 million over eight years, an average of \$33 million/year. These costs vary widely from year to year due to the phased increase of the physical and financial capital.

31. The following table details the proposed funding structure for these categories of costs that relate to the existence and maintenance of the instrument, but does not include the cost of interventions.

Thousand \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total Years 1 to 8
Coasts set-up, maintenance and governance of the total reserve	94 807,00	6 168,00	4 429,00	6 168,00	65 930,00	8 713,00	5 742,00	71 299,00	263 257,00
State contributions (grains)	15 000,00				12 000,00			15 000,00	42 000,00
ECOWAS/WAEMU Contributions	20 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	125 000,00
Technical and Financial Partners (TFPs) contributions	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	96 000,00
Annual balance (resources-usage)	- 47 807,00	20 832,00	22 571,00	20 832,00	- 26 930,00	18 287,00	21 258,00	- 29 299,00	- 257,00
Contributions to funding :									
a. % Région + countries	74%	56%	56%	56%	69%	56%	56%	71%	63%
b. % TFPs	26%	44%	44%	44%	31%	44%	44%	29%	37%

32. Costs associated with interventions by the reserve are much higher. The feasibility study analyzed two scenarios: annual mobilization of 75% or 100% of financial and physical reserves. For the eight-year period, intervention costs of the Regional Reserve rose to between \$747 million (assuming 75%) and \$996 million (assuming 100%).

33. The following table summarizes the cost and financing structure proposed to ensure regional solidarity vis-à-vis countries' emergency plans.

Years	1	2	3	4	5	6	7	8	8-years total
Cost of intervention by the total reserve (75% mobilized each year) (thousands of dollars)	66 515,00	66 515,00	66 515,00	66 515,00	109 658,00	109 658,00	109 658,00	152 004,00	747 038,00
Contribution by "Zero Hunger" (0,5%)	-	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	2 730 000,00
Total regional resources (thousands of dollars)	-	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	2 730 000,00
Contribution by G20 partners and et other partners (limited to one-third of regional resources in years 2 to 8) (thousands of \$)	66 515,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	976 515,00
Total resources thousands of \$)	66 515,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	3 706 515,00
Allocation to national food reserve strategies (national and local stocks) (thousands of dollars)	-	453 485,00	453 485,00	453 485,00	410 342,00	410 342,00	410 342,00	367 996,00	2 959 477,00
Percentage of resources allocated:									
a. to the Régiona Reserve (%)	100%	13%	13%	13%	21%	21%	21%	29%	20%
b. to the national food reserve strategy (%)	0%	87%	87%	87%	79%	79%	79%	71%	80%

34. The financing scheme recommended by the ECOWAS Commission relies on a combination of national, regional and international resources. In order to create a predictable, secure and supportive financial mechanism, the scheme proposes to establish new funding mechanisms, including the creation of a contribution levied on all imports (to be called "Zero Hunger in West Africa") at 0.5% of the value of imports. It would be collected in the same way as the community levy. This contribution would therefore be charged to West African consumers.

35. Depending on the available resources and level of commitment of regional and international decision makers, the reserve will modulate its interventions between the two forms of support: loans or transfers for consideration, on the one hand, and free transfers (regional solidarity), on the other.

36. The financing scheme suggested not only covers all the costs of the regional component of the food security reserve, but to significantly co-finance the concomitant strategy of strengthening national security stocks and local stocks, together with supporting measures. On average 80% of regional resources, mainly resulting from the "Zero Hunger" contribution, would be utilized to finance or co-

finance stocks and national food security stocks, as well as supporting measures for the entire west African Regional Reserve strategy.

37. The ECOWAS Commission believes that the establishment of the Regional Reserve should entail an further boost to four areas:

- a. development of information systems that are reliable, credible, independent and focused on the different food security parameters;
- b. promotion of contingency plans, designed as pre-prepared frameworks, to organize an appropriate response to different crises that the country or region may be forced to confront;
- c. promotion of other lines of defense that the Regional Reserve supports: local stocks, national food security stocks;
- d. development of the RESOGEST cooperation framework in order to boost collaboration between public bodies responsible for managing stocks and allow their networks to play a full role in the implementation of the Regional Reserve.

38. These four dimensions are a prerequisite for the success of the Regional Reserve. The reserve represents an opportunity to support countries in strategic areas with regard to food-related challenges. It is therefore essential that countries and stakeholders mobilize efforts in this direction with support at the regional level.

1 Background and Rationale of the Regional Food Security Reserve

The feasibility study is part of the implementation of the ECOWAP/CAADP framework. It defines objective 3 of its Regional Agricultural Investment Program (RAIP) which aims to “reduce food insecurity and structural vulnerability of the population with social safety nets” so that it can be measured quantitatively, via outcome 33: “regional instruments to support nations’ capacity to prevent/manage food crises and reduce the vulnerability of poor, rural and urban populations, have been implemented”. This outcome is detailed under activity 332 “Strengthen national stocks and create a regional security reserve”. This involves the following three activities:

- Developing national capacities in public food security stocks;
- Enhancing cooperation between countries in terms of food security stocks;
- Progressively implementing regional food security strategies.

The Ministerial Council of February 2011 (Accra–Ghana), brought together at the initiative of ECOWAS, decided to set up a task force designed to focus on the food security reserve in order to define the general principles of the RAIP. The Council comprises the following members:

- Officials from national bodies in charge of managing food security stocks, members of RESOGEST: OPAM/CSA Mali, SONAGESS Burkina Faso, OPVN Niger, ONASA Benin, NFR Nigeria, CSA Senegal and NAFCO Ghana;
- Officials from networks of local stocks: GSA/FNGN Burkina Faso; MOORIBEN Niger;
- Representatives of regional networks of producer organizations made up of farmers, herders, livestock farmers and fishermen: ROPPA, RBM, APSS, REPAO;
- NGO officials in charge of local stocks: OXFAM, Green Africa International, CRS;
- Officials from regional institutions and bodies: ECOWAS, WAEMU, CILSS, ReSAKSS, The Rural Hub;
- Representatives from international organizations: WFP, FAO, SWAC, NPCA/NEPAD;
- External experts supporting the initiative.

In October 2011, ECOWAS gathered together an enlarged task force in Dakar. After discussions, it adopted a roadmap. The first step on the roadmap was the development of a strategic framework for the establishment of the food security reserve.

The Task Force met up again in March 2012 in Ouagadougou to examine, amend and adopt the proposal for the strategic framework. This framework served as a reference to conduct the feasibility study on the design of the Regional Reserve. The task force met up again on July 19 to 22 to examine the details of the proposals, make amendments and decide on the options that it would submit to the ECOWAS Commission.

1.1 The Relevant Stakeholders: Institutions, Professional and Social Stakeholders, NGOs

The key stakeholders involved in the Regional Food Security Reserve are linked to the Task Force through ECOWAS. Particular attention is paid to the partnership between the regional institutions (ECOWAS, WAEMU, CILSS, RESOGEST), to the dialogue with the relevant national organizations, to the dialogue and involvement of socio-occupational parties and NGOs, as well as international partners, whether they are international organizations of the United Nations (WFP, FAO in particular) or bilateral or multi-lateral cooperation agencies.

Managing food security stocks is complex. It requires a very high degree of consensus between the stakeholders. It also requires strong connections between local, national and regional initiatives.

Dialogue also plays a pivotal role in the overall effectiveness of the reserve strategy. Coordinating the various approaches at local, national, regional and international levels is also fundamental in determining the viability and sustainability of the storage mechanisms. All stakeholders at national, regional and international levels must share a common vision in order to achieve a public system that is designed to deal with humanitarian crises. By virtue of their multiple interfaces with agriculture, commerce and food security, gaining consensus amongst the stakeholders and reaching a common goal are fundamental to the effectiveness and durability of the system.

1.2 Regional and International Initiatives on Security Reserves

The Regional Food Security Reserve details the guidelines defined in the Regional Food Security Reserve strategy. This strategy is one of the major components of the regional strategy for preventing and managing food crises. The food reserve is at the interface between the regional agricultural policy (ECOWAP/CAADP) and ECOWAS humanitarian policies. It is part of the partnership framework that has been running for several years between ECOWAS, WAEMU and CILSS, and one of their initial detailed findings focuses on the RESOGEST constitution – the network of public bodies responsible for managing national food security stocks in the Sahel and West Africa – called on to play a major role in the implementation of the Regional Reserve.

The design of the Regional Reserve is based on integrating the approaches that have been developed at various geographical levels and by various groups of stakeholders :

- a. The first line of defense with local stocks, generally organized at community or village level, at district level or at producers' organization level;
- b. The second level of defense, comprising national food security stocks and/or strategic reserves, placed under the responsibility of the States, or part of systems that are co-managed by the States and a pool of financial partners;
- c. The third line of defense, including the Regional Reserve, and its various proposed components (see below);
- d. The fourth line of defense, with the mechanisms of international solidarity and aid (United Nations humanitarian agencies, development partners, international NGOs).

These four levels rely on different kinds of organizations, all of which aim to complement the storage strategies deployed by households (family or farmer stocks), or to make up for deficiencies in these during periods of agricultural or food crisis.

The design of the Regional Reserve is dependent upon the experience gained by the States and the various stakeholders operating at different levels, including international stakeholders. It ties in with the objectives of the Charter for Food Crisis Prevention and Management, adopted on 17 November 2011 in Conakry, by ECOWAS Member States, Mauritania and Chad.

Following the example of the Regional Food Security Reserve strategy, the design of the regional storage strategy benefits from several cooperation processes:

- Political dialogue surrounding the framework of the Sahel and West Africa Club (SWAC) which held its 2010 forum in Accra on 'Regional Solidarity to Address Food Crises'. This forum allowed West African stakeholders to share their experience with food reserves with their counterparts from other regions in Africa, Asia and Latin America.
- Preliminary and ongoing exchanges relating to the setting up of RESOGEST, organized by CILSS under the auspices of ECOWAS and WAEMU. These discussions led to the adoption of a cooperation framework, whose commitments form part of the terms of the Regional Reserve (Cf. Box 1);

- Political dialogue between ECOWAS and the region's States, social and professional stakeholders and technical and financial partners, as part of the Regional Partnership Pact to implement ECOWAP/CAADP;
- In terms of WAEMU, within the framework of the High Level Committee put in place in 2012 to garner a response to the food crises in the Sahelian countries that are members of the WAEMU. This initiative was then taken over by the joint organization by WAEMU and ECOWAS of an extraordinary meeting of the Ministers (Lomé, June 2012);
- Dialogue developed in 2011 between NEPAD and the G20, within the framework of the French presidential initiative to boost the implementation of regional food reserves, in response to the price volatility of global markets. After consultation with the ECOWAS Commission and based on the state of progress of the ECOWAP/CAADP process, the NEPAD/AU suggested to the G20 that the West Africa region remain under the leadership of ECOWAS, in order to begin a pilot project in support of the ongoing dynamic;
- This ECOWAS leadership has enabled it to engage the following in discussion:
 - At a regional level: WAEMU, CILSS, The Rural Hub, ROPPA, the Billital Maroobé network (the voice of African Pastoralists), offices and companies responsible for managing national food security stocks, with the active involvement of NEPAD/AU and several international NGOs (notably Afrique Verte International and OXFAM) ;
 - At an international level: G20 members and United Nations agencies, in particular WFP, FAO, the World Bank, and various institutions such as SWAC, IFPRI and ReSAKSS;
- It led to WFP drawing up the pilot project "PREPARE". The present proposal takes a number of elements from this project and integrates them into a shared, federative approach and mechanism, to tie in with the expectations of the regional decision-makers and members of the G20.

Box1: RESOGEST Stakeholder Involvement

Cooperation Framework Objectives

The framework formalizes the enrolment of national bodies responsible for managing food security stocks into a regional solidarity mechanism that enhances the region's ability to manage food crises and to actively play a part in designing and implementing the Regional Food Security Reserve storage across all ECOWAS, WAEMU and CILSS countries.

Implementation of the Regional Solidarity Mechanism

The regional solidarity mechanism is based on:

- Each country accumulating a reserve of at least 5% of its national food security stock, that can be mobilized as a loan or transfer for free or for consideration, to respond to the needs of other member countries confronted by a food crisis outweighing the capacity of their own stocks. The terms for mobilizing and restoring stocks, as well as for taking financial control of the stock and logistical issues will be prepared and detailed in the framework of the overall Regional Food Security Reserve strategy;
- Capacity building for technical and financial management by national bodies, capitalizing on best practices and the sharing of skills developed within national companies at a regional level;
- Developing an "information and support for decision-making" component for food reserves, taking advantage of existing national and regional food security information and early warning systems;
- Respecting the principles of free movement of people and goods in force within the regional economic Communities, and facilitating regional trade in the event of a food crisis;
- Promoting regional trade and in particular exploiting opportunities provided by the existence of surpluses in the strategy for mobilizing and restoring national stocks;

For countries lacking a national food security stock, their contribution to regional solidarity may be financial (contributions as loans or free transfers) to help restore stocks on concessional terms.

Promoting the Cooperation Framework in the Design and Implementation of Regional Food Security Reserves

RESOGEST and its members will be called upon to develop and implement the Regional Food Security Reserve strategy led by ECOWAS.

With this in mind, national bodies will be one of the major pillars of the system, at the interface between local stocks and the Regional Reserve.

The contribution capacity of shared national stocks will be put to good use and will make up one of the components of the Regional Reserve.

Extract from the cooperation framework adopted in Ouagadougou on 2 March 2012 by the Ministers of public bodies responsible for managing national food security stocks.

1.3 Guidelines of the Strategic Policy Framework on Food Security Storage

On the basis of the strategic policy framework on food stocks, a set of guidelines have oriented the design of the Regional Reserve:

- Align the mechanism with ECOWAP/CAADP guidelines as well as with ECOWAS humanitarian policies;
- Position and structure the Regional Reserve within a system that includes the four above-mentioned additional lines of defense;
- Reduce the risks and increase the flexibility of intervention by combining a physical and a financial reserve;
- Implement a sustainable, viable and transparent mechanism;
- Base this mechanism on regional responsibility (sovereignty) and international partners;
- Manage the connections between the food security storage policy and the storage policy for regulating food markets.

These guidelines are presented in each stage of the proposal.

2 The Context

2.1 The Main Characteristics of Food Security and Food Crises in West Africa

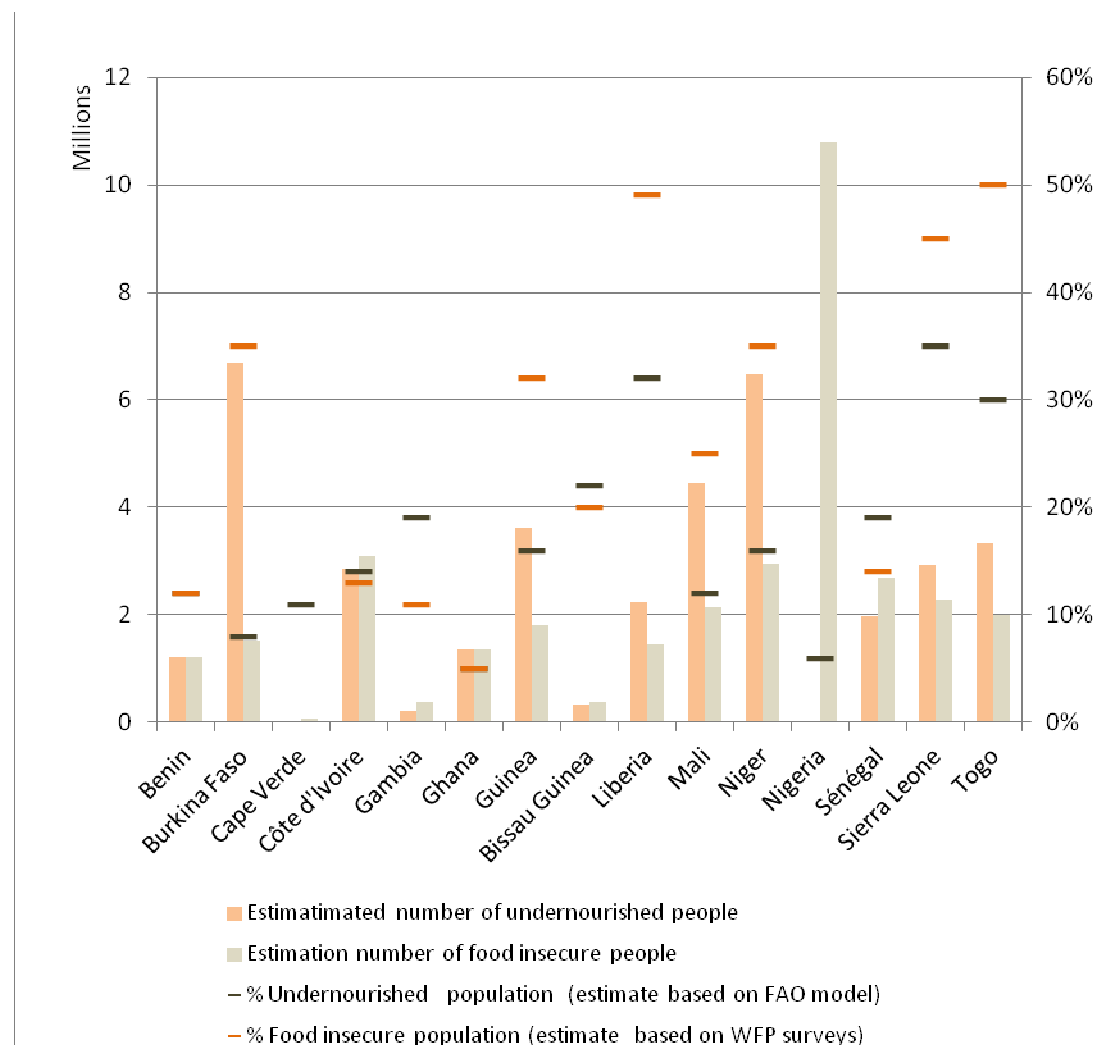
The ECOWAS region has experienced a sharp rise in agricultural production over the last 20 years, especially in comparison with the rest of the continent.¹ The production increase for principal crops follows the rise in demand as a result of global demographic growth. Food insecurity thus remains a major problem. Figure 1 illustrates the extent and heterogeneity of food insecurity in the region. FAO statistics show that over 34 million people are undernourished in the region. According to these findings, the countries worst affected by malnutrition are also the poorest countries and in particular those where the State apparatus is most fragile, or recovering from a crisis (Togo, Guinea, Liberia, Sierra Leone). For almost all of the countries in this region, these estimates based on a FAO model are complemented by the proportion of undernourished people drawn up by WFP and is based on consumption surveys. These surveys show that the landlocked Sahelian countries (Mali, Burkina Faso, Niger) in the region are also those that are also affected by high levels of malnutrition, while the FAO model, heavily influenced by the availability of local food, under-estimates the levels of

¹Wiggins S, Leturque H., 2010, Helping Africa to feed itself? *Europe World's*.

foodinsecurity. Two cases of very high chronic food insecurity stand out in the ECOWAS zone: coastal LDCs that have experienced considerable political instability over the last few years, and landlocked Sahelian countries.

The main structural factor behind food insecurity is the very high levels of poverty in the region. For countries with over 20% of undernourished people, at the time of the last survey, more than half of the population lived below the national threshold (with the exception of Mali: 47% in 2006, and Burkina Faso: 47% in 2009).² Thus, despite increased food availability in the region,³ access to sufficient quantities of varied foodstuffs remains difficult for many poor households.

Figure 1 : Malnutrition and Food Insecurity in West Africa



Source: FAOSTAT, surveys CFSVA (WFP) – Various different years

Outside of these very high levels of food insecurity, and political crises that have greatly affected Sierra Leone and Liberia for a decade and which partly explain their current situation, the region had not been hit by any major systematic food crises since the mid-1980s and up until the mid-2000s. Since then, the dynamic has significantly deteriorated and the region has experienced a series of crises. To cite but a few of the most memorable: food and nutritional crisis in Niger in 2004/2005, the global food price crisis in 2007/2008, mainly affecting the region's urban populations, the pastoral

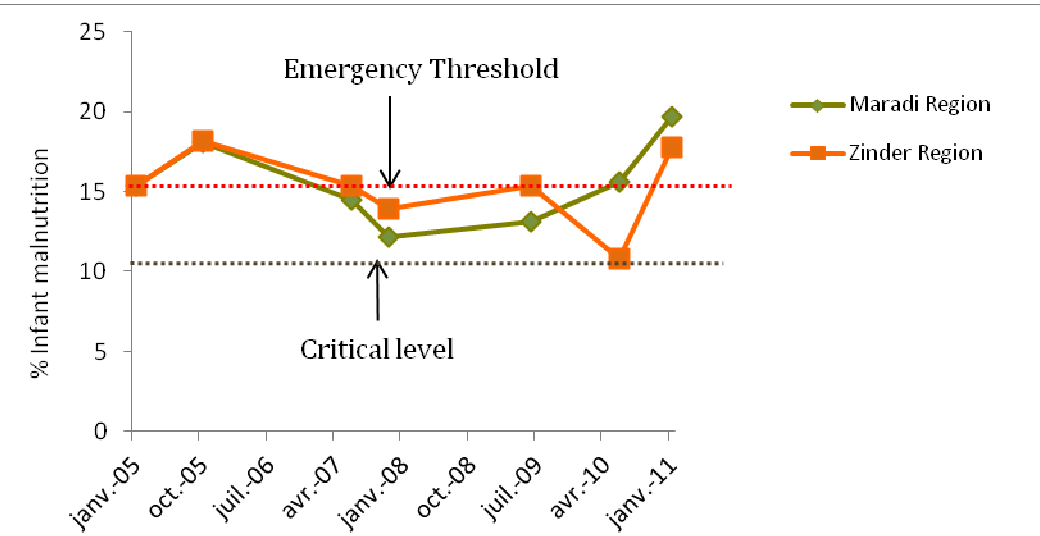
² World Development Indicators, The World Bank

crisis in 2009/2010, the food crisis affecting the entire Sahelbelt in 2011/2012. This series of events highlights three phenomena: (i) deterioration in the living conditions of a growing proportion of households, within the context of significant demographic growth and increased pressure on already sparse resources, (ii) low resilience of these households and their struggle to recover their livelihoods at the end of a crisis, and finally (iii) the complexity of the crises and the overlapping between the structural and cyclical factors. In the most extreme cases, these phenomena cause extremely high levels of infant malnutrition. Box1 illustrates this in Niger. Niger is unfortunately not an isolated case. In several of the ECOWAS regions, the rates of infant malnutrition reach and often exceed the emergency thresholds defined by international bodies (WHO/UNICEF).

Graph 1: Infant Malnutrition in Niger

In the regions of Maradi and Zinder in Niger, the rates of extreme infant malnutrition (measured as a percentage of “thin” children, whose height/weight ratio is well below the norm), have remained extremely high over the last 6 years, and on several occasions have reached emergency thresholds. When the vulnerability of populations reaches such levels, the smallest external shock can cause situations of distress and acute food crisis. These zones combine the challenges that States and regional institutions struggle to deal with: a need for on-going and predictable protection for the most vulnerable populations, and the need to put mechanisms in place to manage food crises that are autonomous, responsive, effective and provide significant cover. The Regional Reserve will focus on this second challenge, whilst attempting to create synergies with programs that focus on the former.

Figure 2: Prevalence of Acute Malnutrition in Infants in Two Regions of Niger.



Sources : Varied, drawn up by the National Institute of Statistics in Niger.

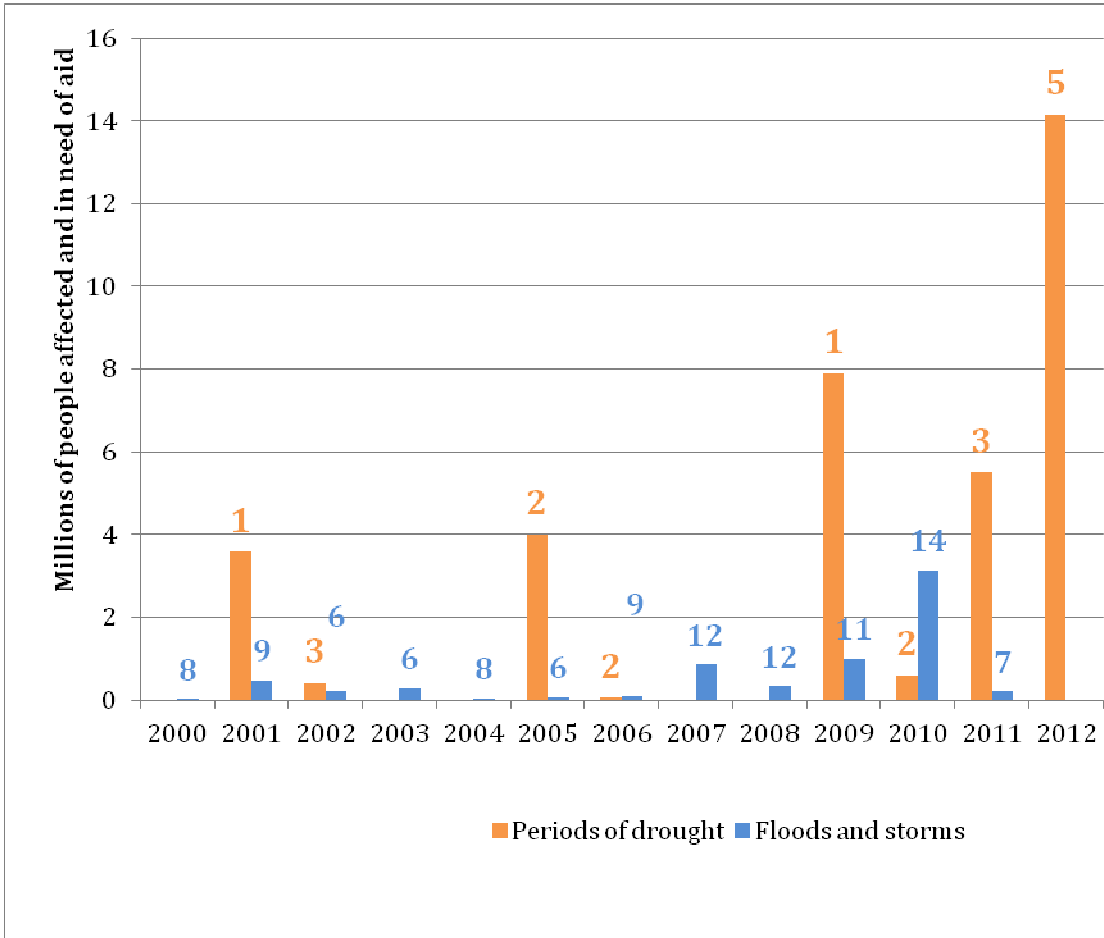
2.2 What causes Food Crises?

2.2.1 Agro-Climatic Shocks

The region often experiences climatic events (rainfall deficit, floods) or ecological events (e.g. locust attacks). Figure 3 lists the victims of climatic events in the region over the last 10 years. The floods mainly affect the coastal countries (the Sahelian countries may also be affected, as was the case in 2009 and 2010 in Burkina Faso).The region was affected by several major floods every year (between 6 and 14 countries in the zone have been affected by the floods since 2000), and generally with

devastating consequences for the populations affected, but the number of flood-related victims is often *relatively* small. The crises triggered by periods of drought are more widespread and generally affect a greater number of people. In 2012, around 18 million people have required emergency aid, according to the OCHA. The periods of drought do not necessarily lead to an increase in production shocks, as they firstly hit the “marginal” production zones on a regional level. On the other hand, given family production is a determining factor in food security for the households concerned, these falls in production make poor households more reliant on the markets. The extreme vulnerability of a growing number of households, and market dysfunction in the region can turn a period of moderate drought into a major food crisis from this point on.

Figure 3: Population Affected by Crises (Non-political)in the Region Since 2000



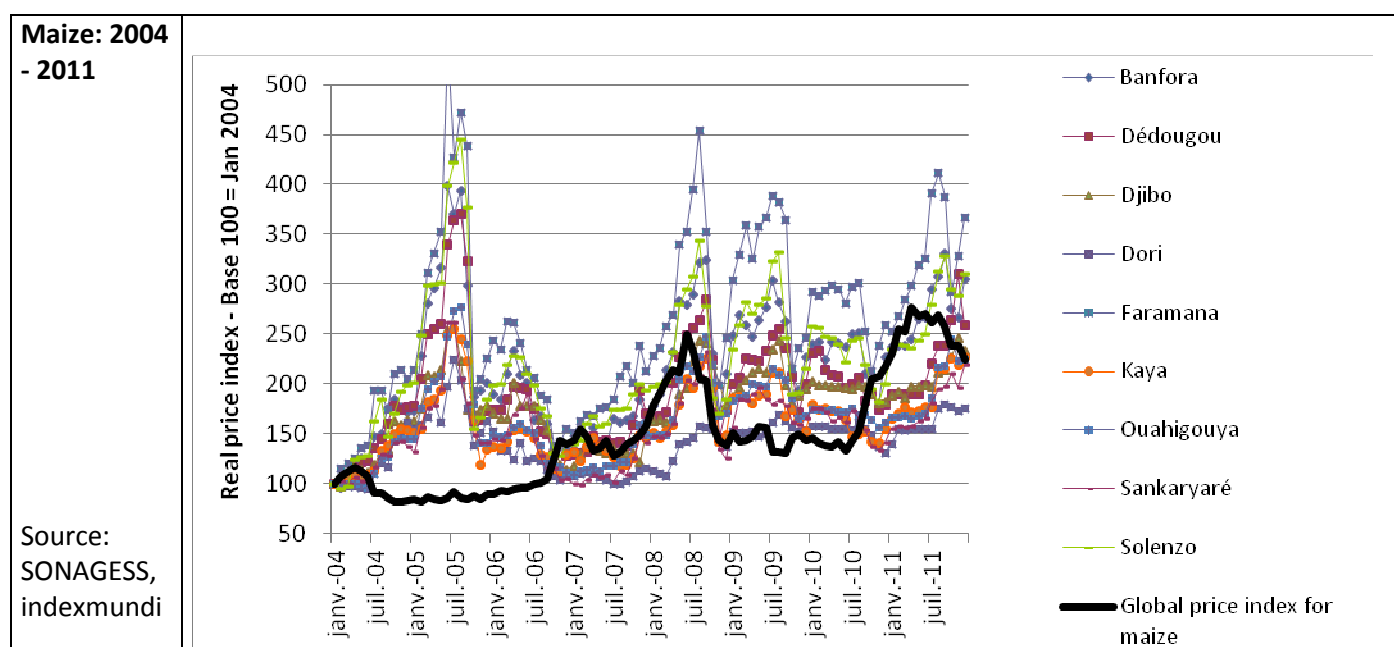
Sources: EM-DAT and OCHA

2.2.2 Food Price Shocks and Market Risks

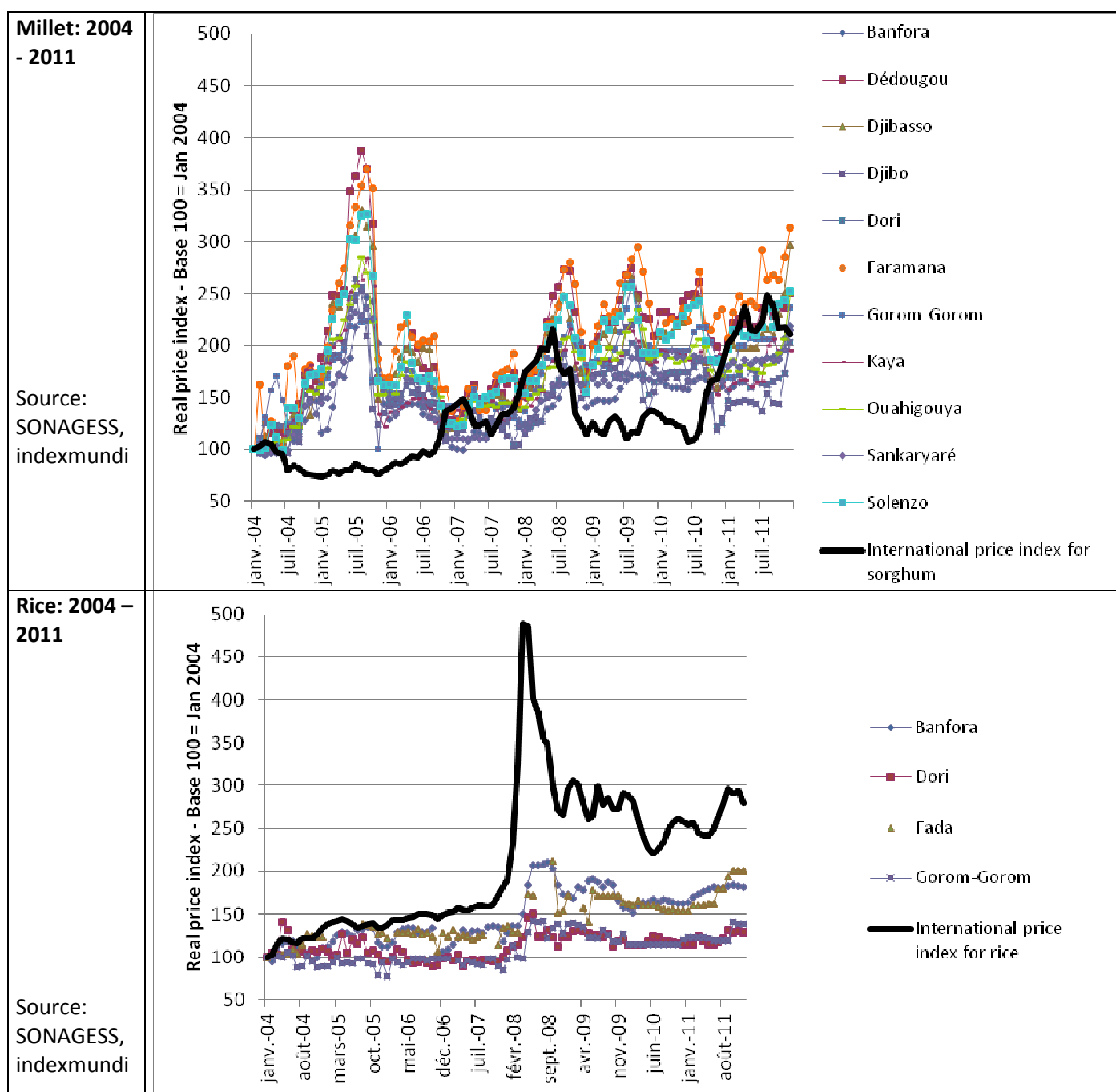
The region was particularly hard-hit by the sharp rise in international prices, especially the urban population, which is generally more dependent on the market and consume a larger proportion of imported products (rice in particular). Since 2007/2008, international prices have been experiencing a period of volatility unprecedented since the petrol crises of the 1970s. Unlike the crises caused by an agro-climatic shock, the price risk of international markets is systematic and affects all of the countries in the region. The coastal countries are nevertheless more affected than the Sahelian countries due to the significance of imports for covering their needs, but also because of a sharper and faster transmission of rises in international prices to their markets, which are in direct contact with global markets.

However, if the volatility of international prices is a phenomenon that has recently become more acute,⁴ the volatility of prices in national and regional markets is structural, especially in the Sahelian countries. In fact, the seasonality of prices on food markets is influenced by the fact there is a single harvest, the long distances between production areas and certain areas of consumption, low volumes stored by operators, the volatility of fuel prices (transportation costs), weak organization among producers, a lack of market information, and even obstacles to trade between regions. The same market dysfunction factors can lead to significant year-on-year price variations in local and regional markets, despite only small variations in production at a regional level. The graphs below give the examples of the maize, millet and rice markets in Burkina Faso. The price series for various markets in the country show that the volatility of local product pricing (for maize, millet, etc.) is greater than the volatility of cereal prices on international markets. These markets are heavily influenced by seasonality. The rice market is more closely linked to the price series for international markets. The cost of rice is also significantly less seasonal than the cost of local cereal grains, but still remains higher. These graphs clearly show the importance of natural and endogenous factors for price volatility, especially for countries in the Sahel belt.

Figure 4: Price Volatility on Domestic Markets: the Example of Burkina Faso.



⁴ Over the years international markets have experienced longer periods of volatility.



The consequences of food price volatility for household food security are even greater when these are increasingly dependent on markets for their consumption, including in rural areas, where there are numerous “net buyers” of food products.

2.2.3 Conflicts and Socio-Political Crises

The wars in Liberia and Sierra Leone led to serious food crises. These countries are gradually recovering from these conflicts, but the levels of structural food insecurity remain very high. While Côte d’Ivoire is emerging from several years of instability, the Sahelbelt is threatened by insecurity. The current crisis in Mali has dramatic consequences in terms of displaced people, economic blockades (leading to fuel and food shortages in key markets), disruption in local economic activities (livestock raising, agriculture, commerce...) and dysfunctional public services (primary health care, education, etc.). All of these elements are of course exacerbated by violence and insecurity suffered

by the population. All of these factors play a part in the food crisis that accompanies the political crisis affecting Northern Mali. The area appears to be destabilized in the long term and the consequences for food insecurity across the entire Sahel belt could be severe and enduring. Aside from the crises at regional level, the Sahelian countries (including Northern Nigeria where there is very high chronic vulnerability amongst the people) are subject to local conflicts. These conflicts are often fuelled by growing pressure on natural resources and conflicts over access and use that traditional rules and customs can no longer control. Conflict among livestock farmers and between farmers and herders weaken the food situation. Insecurity caused by various sources of conflict may have considerable consequences on food security for households: economic slow-down leads to a drop in revenues, displaced people, pillaging or forced migration of herds, a slow-down in trading and very often local increases in food prices, etc.

These three risk factors (climatic, market, socio-political) operate independently but they also reinforce each other. Climatic shocks leading to fluctuations in agricultural production may have a local impact on markets and encourage the emergence of local and regional conflicts. Tensions between herders and farmers in the Sahel belt begin when natural resources become deteriorated, whilst conflicts or political tensions tend to disrupt market functions and prevent necessary investments in their development.

2.2.4 Vulnerability to Food Crises

The various shocks listed above are part of a wider context that is influenced by high structural vulnerability of populations. The latter is linked to the following factors:

1. The erosion of people's livelihoods: the absence of social safety net systems forces the most vulnerable populations to deal with the hazards to which they are exposed using their own means, which are often limited. When a vulnerable household is forced to decapitalize, it needs time to rebuild or change the way it works. A series of crises over the last few years in the Sahel has prevented the process of recapitalization, and has destroyed many livelihoods. The pastoral communities are most affected by this process.
2. Market failures: Populations increasingly depend on markets for their food supplies (due to urbanization, but also rural communities). However, food markets in the region suffer from failures at all levels. At regional level: commercial barriers to the flow of goods between regions, road harassment, commercial infrastructures, quality standards, etc. At national level: absence of commercial infrastructures (stock exchanges), situations of oligopoly for certain products. At local level: producers have low bargaining power, lack of storage infrastructures, poor quality transport infrastructures.
3. Weak institutions: States in the region do not always have the necessary resources to set up systems to protect and manage food crises. With regards to food stocks, the Sahelian countries all rank below the set objectives, and the 2012 campaign is proving to be particularly difficult, with stock levels at their lowest, while prices are reaching high levels.
4. Geography: The landlocked Sahelian countries are vulnerable to national and regional production shocks, while the coastal countries are more exposed to price shocks on international markets.
5. Demographics: The region is experiencing a period of significant demographic growth: 13 countries have experienced annual growth of more than 2% over the last 5 years, and 5 of these rank amongst the 20 countries in the world with the highest demographic growth levels.⁵ This

⁵ Source: UNDESA

trend increases pressure on the region's natural resources; some of which are already over-exploited. There is a higher ratio of inactive people to active people (over 80 for 13 countries out of 15),⁶ which plays a part in the vulnerability of households. Urbanization is accelerating, changing the dominant food insecurity analysis pattern. Issues linked to accessibility become determining factors: level of revenue and household resources, and the role of the markets, especially at regional and international levels.

These structural vulnerability factors reduce the ability of households, in particular poor households, to withstand shocks. If the responses to cyclical crises must develop in the sense of encouraging resilience of the people affected, then it is only ambitious structural policies that will be able to reduce chronic food insecurity as well as cyclical crises over the medium and long term. By dealing with the structural factors of food security, the implementation of social safety nets and the management of cyclical food crises, ECOWAP is evaluating this intervention program. However, the effectiveness of this approach will be determined by how effectively it is implemented. On this note, regional institutions, governments and their international partners must step up the full implementation of the National Agriculture Investment Program (PNIA) and the RAIP, so as to avoid entering a vicious circle of being the only crisis management tool, which could lead to all resources being used up in managing emergencies, to the detriment of development work.

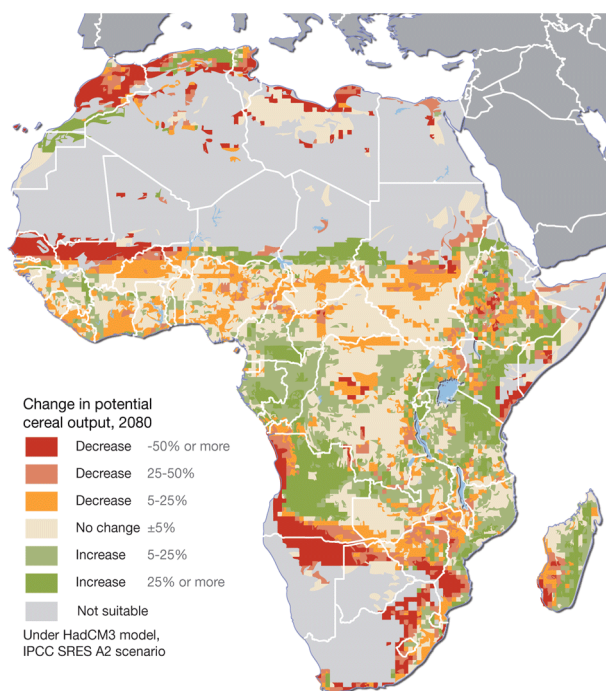
2.2.5 Aggravating Factor: Climate Change

Whilst the region is already vulnerable to climatic hazards, the rapidly changing climate may be exacerbating climate related risks. The IPCC's predictions leave little doubt: climate change could lead to a rise in temperatures in the region, but more importantly to a rise in the frequency and scale of exceptional climate phenomena. Such changes would have multiple consequences:

1. Firstly, agricultural productivity in the region, like in many other areas in sub-Saharan Africa, would be negatively impacted by climate change, which would only increase the pressures on food security for these populations. Figure 5 shows that the Sahelian countries, with shorter average growth periods for crops as a result of these changes, would be most affected by this type of impact.
2. Secondly, the communities living in the coastal countries would be more severely and frequently affected by exceptional climatic events (floods, cyclones, etc.) The serious flooding which affected Ghana in 2010 offer an idea of the potential impacts.
3. Finally, changes in coastal environments (mangrove swamps for example), could lead to the deterioration in economic resources on which certain populations depend (for example, fishing areas).

⁶ Ibid.

Figure 5: Predicted Climate Change Impacts on Agricultural Productivity



2.3 The Importance of Stocks in Food Security Management

The importance of stocks in food security policies remains a controversial topic. Stocks generally have two distinct roles:

- stocks for market intervention, which have two roles:
 - Regulating supply over the year to reduce short-term price instability;
 - Regulating supply over several years to manage a succession of surplus and deficit years;
- Security reserves designed to provide physical reserves that can be called on in the event of shocks that affect supply or for emergency intervention purposes within the most vulnerable communities.

Intervention stocks aim to combat one of the main causes of food insecurity, by reducing price fluctuations that underpin the difficulties experienced by households in accessing food supplies. Food security storage, the aim of the Regional Food Security Reserve, aims to provide food aid to vulnerable households regardless of the type of shock they have suffered. In the case of price shocks, food security storage addresses the impacts of price fluctuations, when they were impossible to predict or control.

The reason for the current food storage situation in West African countries is the result of a number of legacies:

- Structural adjustment policies and liberalization of agricultural markets have deprived the countries of market intervention stocks;
- The departments historically in charge of this function were restructured at the beginning of the 1980s and were assigned the role of managing the food security stocks;

- Many countries have local stocks (cereal banks, food security granaries, etc.) that are based on very ancient practices relating to precautionary reserves that date back to colonial times. This is particularly the case in the high-risk regions of the Sahel.

Investments in security stocks are concentrated in the Sahelian countries due to the food crises caused by the major droughts in the 70s and 80s. Since then, the three landlocked Sahelian countries have set up food storage mechanisms (around 30,000 tons in each country) based on a co-financing arrangement between the State and the development partners, and co-management programs.

Since the start of 2000, these mechanisms have been in crisis due to the disagreement between the international community and the governments on how these security stocks are to be used. Put simply, the Technical and Financial Partners (TFPs) back a policy of no market intervention, reserving the security stocks for emergency operations for communities unable to access food supplies. The governments, meanwhile, want to give security stocks a role to play in price regulation, in order to avoid sharp rises in prices and reduce the cost of food for the entire population. At the same time, they oppose co-management mechanisms, and overly strict terms and criteria for mobilization, as they do not allow these stocks to be used in emergency situations which are difficult to predict, such as flooding.

This difference in opinion has been accompanied by a type of stalemate in food security stock management mechanisms and by State initiatives to implement sovereign, parallel stocks over which they have more control: hence the strategic food reserve in Niger, the intervention reserves in Burkina Faso, and the government intervention reserves in Mali.

Since the food crisis in 2008, the majority of the other countries intend to set up food security stocks. In most of these cases (Ghana, Benin, Togo, Nigeria), these stocks combine market regulation and food security objectives. In practice, the amounts mobilized by these reserves are too small to make any long-term impact on the market or influence pricing trends.

The debate is more open today, particularly due to a broader discussion about public intervention in agricultural and food security policies. The issues are also centered around recent market developments and their real ability to self-regulate, and as a result on how to introduce regulatory measures for prices that are simultaneously set to protect the revenue and investment of producers and protect the buying power of consumers. This debate is critical in West Africa where the accessibility crises caused by significant price rises are becoming a concern. This is even more noticeable as international markets, noted for their low and relatively stable prices, have long played a significant role in adjusting West African markets. They have helped to improve access to food over the short term, even though they can have the effect of depressing local agricultural production. Since 2007, the risk has rather been that international instability is adding pressure to already highly unstable local and regional markets.

2.4 A Regional Reserve to Deal with Four Types of Shock

In view of the nature of the food crises that have affected the region over the last twelve years and the vulnerability factors, the proposed strategy is to calibrate the scale of the reserve (volume, composition, geographical location) with the aim that it represent a defense barrier for the following five scenarios:

1. Production shocks that are more or less closely linked to failures in national and regional markets, that may trigger significant food crises. The landlocked Sahelian countries are particularly vulnerable to this, for a number of reasons;

2. Localized catastrophes (e.g. flooding), causing people to suffer from temporary but intense periods of dependency;
3. Significant rises in prices on local and regional markets, or lack of market supplies regardless of the causes (localized or generalized deficit in production, political tensions, behavior of operators, etc.);
4. Price shocks on international markets, affecting all the countries in the area to a greater or lesser degree depending on the connection between national and international markets, and affecting urban areas above all, but also rural households that are net buyers of food products. The impact of this type of shock is more diffuse and harder to measure by food insecurity monitoring systems;
5. Shocks caused by socio-political crises and conflicts, causing internal or cross-border displacement of populations, a decline in economic activity, revenue or supply shortages, breakdown in communications, sharp price rises, insecurity, etc.

However, when determining the scale of the food reserve, the latter risk factor is not explicitly taken into account. There are two reasons for this:

- It is difficult to predict the extent of such a crisis,
- This type of crisis is often long-term and the challenge then becomes setting up medium-term aid rather than reactive or rapid-intervention strategies.

3 Challenges, Positioning and Specific Nature of the Regional Reserve

3.1 Challenges of a Regional Food Security Reserve

The evaluation has highlighted several challenges :

- **Communities subject to different types of hazards:**
 1. Agro-ecological shocks leading to noticeable production deficits;
 2. Localized climatic events but with disastrous consequences for the communities that are directly affected (floods);
 3. Local and regional market malfunctioning, and price shocks linked to other destabilization factors (conflicts, production, etc.);
 4. Price shocks on the international markets;
 5. Socio-political crises and civil insecurity.
- **The risk of a food crises is all the greater when communities are vulnerable to the following factors:**
 1. High structural levels of food insecurity;
 2. Failing food markets;
 3. Weak institutions;
 4. Certain landlocked countries and production areas;
 5. Pressure on natural resources, exacerbated by rapid population growth.

Food stocks, whether local or national, private or public can play a fundamental role in regulating supply. Having physical, readily available, stocks is indispensable to the responsiveness of emergency food operations in the event of a large-scale crisis. Yet the region finds itself in a **structurally weak**

situation in terms of local and national food storage programs, but also **highly dependent on international aid** for the implementation of responses to food emergencies that have hit the region over the last few years. It is not only that international organizations that are playing an increasingly more important role in crisis management, but the food supplies distributed during emergency operations are increasingly bought on international markets. Figure 6 illustrates the trend that the WFP have recently been stocking up on supplies from international markets in order to provide emergency operations, but also its development programs in the region. This is despite agreed efforts to encourage local buying and promote purchase agreements with producers (P4P).

Figure 6: Evolution of the Proportion of WFP Emergency Operations in the ECOWAS Region that are Supplied Internationally

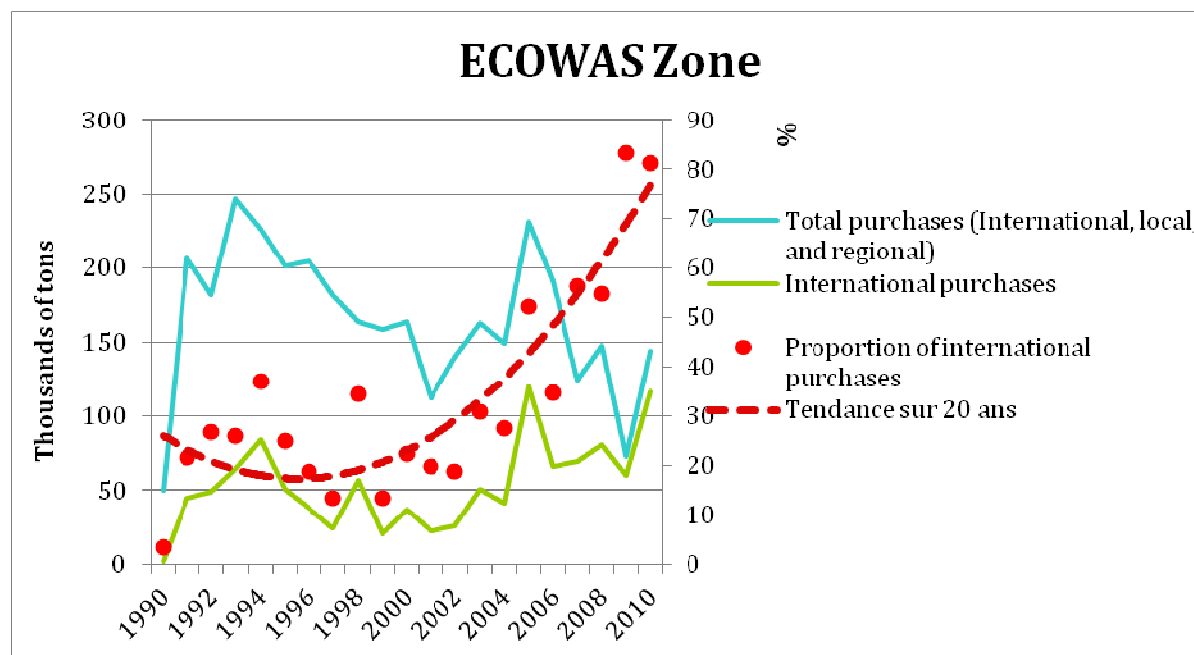
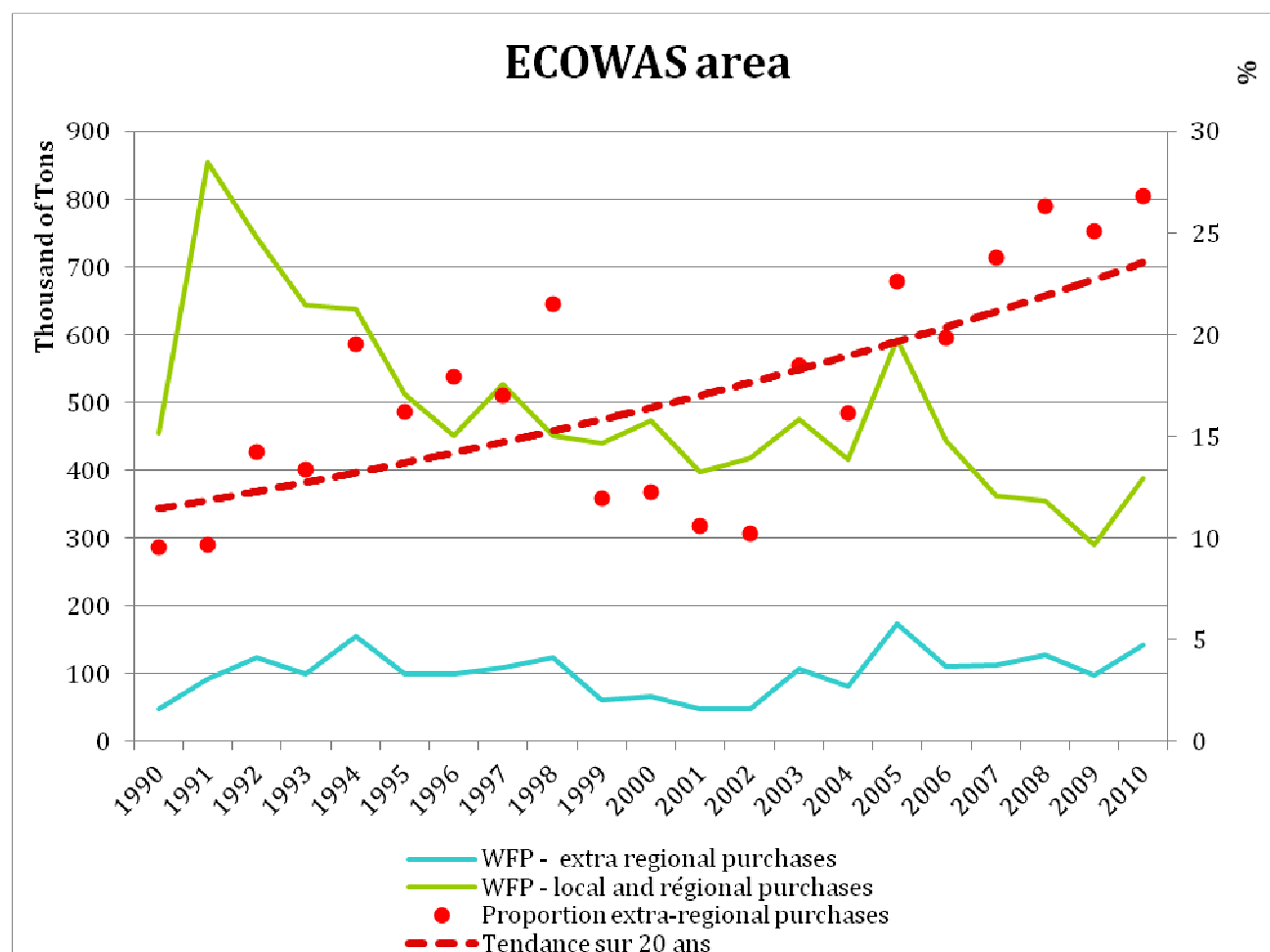


Figure 7: Evolution of the Proportion of WFP-operated Programs in the Region that are Supplied Internationally (not including emergency programs)



3.2 Positioning

In response to the challenges identified by the evaluation summarized above, the food reserve will be positioned according to the following three objectives:

- 1. A food crisis management tool:** The main aim of the Regional Reserve is to *secure supply for food aid operations in the event of food crises*. It will be designed to only be deployed as an alternative to local and national defense barriers, and to implement programs which supply food aid to distressed communities, as opposed to programs designed to regulate the markets. As such, the Regional Reserve is designed to be *deployed for all types of food crises* in the region, particularly the 5 types mentioned above, when national capacities are unable to cope. The Regional Reserve must be able to intervene as quickly as possible and therefore reduce the uncertainty linked to the deployment of international resources.
- 2. A coherent and fair regional solidarity instrument.** Several components underpin this key objective: sizing, geographical location, but also the mobilization regulations of the reserve take into account the relative vulnerability of the various countries in the region (level of chronic food insecurity, history of food crises, landlocked countries/access to international markets, financial capacities/level of development, etc.). The reserve aims to improve the autonomy of the region vis-à-vis international aid in the event of food crises and reduce the cost of managing these crises. This objective is crucial within a global context with an

increase in emergencies, to which international solidarity mechanisms (UN, NGOs) struggle to respond.

3. Exploring synergies. Despite its aim to improve food emergency response capacity, it is envisaged that the Regional Reserve is to be used as a lever to support the development of other priorities for agricultural development and reduce structural vulnerability in the region:

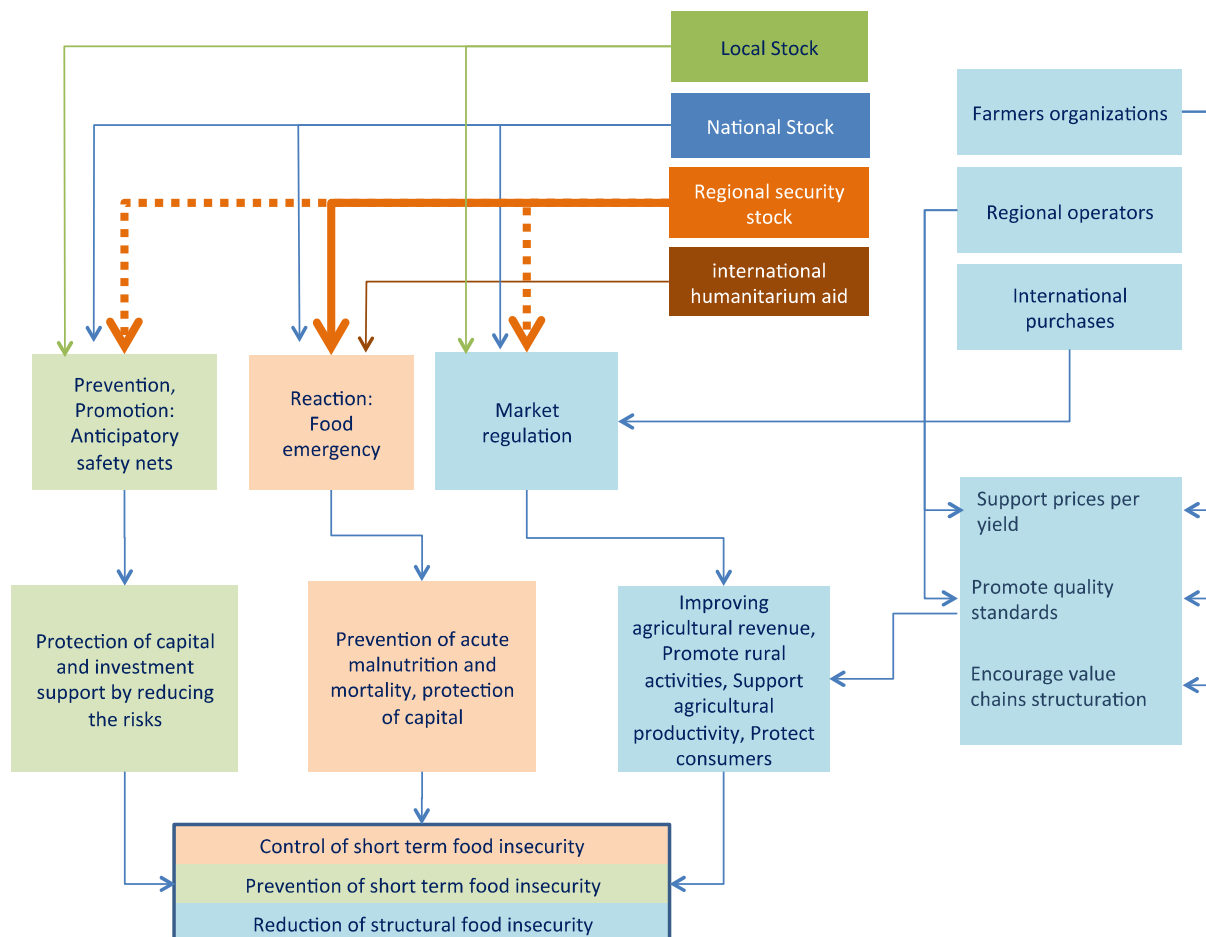
- Exploring **synergies within the priorities for agricultural development and regional integration policies.** The regional food reserve is part of a regional development policy of reserves, aiming to increase agricultural productivity and improve how markets and cross-border trading are run, through:
 - Procurement practices that play a part in supporting how the sectors are organized: procurement strategies for farming organizations will be encouraged. If it is difficult to buy everything from these organizations, regional suppliers will always be given priority.
 - Buying and selling procedures that minimize the impact on the markets. Purchases will be carried out preferably when prices are low in the main production areas, whilst destocking operations will be carried out preferably when prices are high. In the event of strong pressures on regional markets, it is not out of the question to resort to international markets (outside of West Africa, then the rest of the world) to supply the reserve.
- Exploring **synergies within policies and tools that aim to protect the livelihoods of the most vulnerable households**, such as social safety net programs :
 - Anticipated social assistance programs are effective tools for protecting the livelihoods of the most vulnerable households, who are often forced to decapitalize to deal with food shocks. These programs can also improve investment and in turn productivity in two ways: (1) covering part of the risk through these assistance programs encourages the adoption of strategies that are not as heavily focused on risk management and are often more productive, (2) these assistance programs can work alongside home maintenance or community infrastructure construction programs.
 - Some of these tools are mostly based around in-kind transfers (e.g.: school canteens), while for household trading programs, the Ethiopian experience⁷ suggests that vulnerable households would prefer at least part of the assistance to be in the form of food supplies. Thus, these programs could be regularly supplied by the regional food reserve, within the context of technical stock rotation.

Figure 8 represents the positioning of the Regional Reserve. This diagram illustrates the centrality of the objective of providing emergency food assistance operations, but also highlights the synergies with the other regional agricultural development policy objectives. The Regional Food Security Reserve therefore does not aim to regulate the market. However as an operator on the market (buying, reselling or making donations), it has an influence on it. The management practices of the reserve will therefore play a part in regulating prices and supply, or on the contrary, increase market volatility. In addition, once ECOWAS has identified its market regulation tools, in particular storage

⁷ World Bank, 2011, a. Designing and implementing a rural safety net in a low income setting: Lessons Learned from Ethiopia's Productive Safety Net Program 2005–2009.

and warrant schemes, it would make sense to identify the connections and synergies between both types of stock: food security on the one hand and market regulation on the other.

Figure 8: The Role of the Regional Reserve and Synergies with Other Priorities within the Regional Agricultural Policy.



Source : Adapted by Shahidur Rashid, 2011⁸

While both the synergies and the development priorities of the sectors will be presented under the section on provisions, section 6.3 explains the usage patterns envisaged for the stored resources.

3.3 Connection and Collaboration with the First Lines of Defense (National and Local Stocks)

Identifying the needs of the reserves on a regional level is not possible without evaluating the need for reserves across all levels. This evaluation highlights a significant gap which exists between the current situation and the eventual optimum level identified. Section 9 proposes a financing strategy that includes co-financing local and national stock enhancement in order to promote the various lines of defense in a balanced fashion and encourage harmony and coherency within the approaches.

3.4 Crisis and Risk Factors Taken into Account

⁸Shahidur Rashid, 2011; Grain Reserves, Social Safety Nets, and Productivity Linkages: Conceptual Issues and Some Empirics from Africa. Prepared for the seminar, Increasing Agricultural Productivity and Enhancing Food Security in Africa, 1-3 November, Addis Ababa, Ethiopia

Mobilization of the Regional Reserve is not triggered by specific or selective risk factors. It takes place in respect of the objectives assigned to it: intervention to complement national efforts, when these are deemed to be incapable of effectively responding to a major crisis, regardless of its origin. As such, there are criteria and triggers linked to the extent of the crisis that are taken into account (2.4) and not based on the types of shocks.

3.4.1 The Availability of Food Supplies for Emergency Operations

The Regional Reserve has two distinct functions :

- a. Allocate food supplies as a reimbursable loan to eligible parties. Only state governments can call on support from the reserve, but when such support is granted, stakeholders can be allocated quotas which they are then authorized to use.
- b. Allocate non-reimbursable food supplies or financial resources, in the name of regional solidarity. In this case, regional funds for emergency intervention replace national funding in financing this allocation (regional solidarity).

The Regional Reserve will be equipped with a physical and a financial reserve. The ratio is :

- **2/3 of resources allocated to setting up a financial reserve, and**
- **1/3 of resources allocated to a physical reserve.**

These two tools have different strengths and weaknesses, but above all, the purpose and manner of their use are complementary (cf. Table 1). Thus, this choice ensures a system that is responsive, flexible and effective.

Table 1: Complementarity of Physical and Financial Reserves

PHYSICAL RESERVE	
<u>Strengths and opportunities</u> <ul style="list-style-type: none"> • Immediate availability • Less sensitive to market risks • Possibility of absorbing management costs with benefits of storage • Contributes to market stability when the physical stock is significant and well managed 	<u>Weaknesses and limitations</u> <ul style="list-style-type: none"> • Tailoring the stocks to alimentary and technical requirements of different types of food aid interventions • Managing the physical reserve (losses, monitoring sanitary quality, associated costs, etc.) • Destabilizing effect on markets if poorly managed • Risk of impact on private investment in reserves if incentives are not offered
<u>Key Uses</u> <ul style="list-style-type: none"> • Sales at fair prices • Targeted distribution • Sites with high labor intensity • Programs dealing with severe malnutrition and associated protection rations 	
FINANCIAL RESERVE	
<u>Strengths and opportunities</u> <ul style="list-style-type: none"> • Greater flexibility in use • Better suited to food accessibility crises 	<u>Weaknesses and limitations</u> <ul style="list-style-type: none"> • Harder to fund • Less effective in the event of price shocks

<ul style="list-style-type: none"> • Simplified management • More freedom of choice for the recipients • Less interference in the market 	(regardless of the cause).
Key Uses <ul style="list-style-type: none"> • Purchasing food supplies for emergency operations if the physical reserve is insufficient • Financing associated costs linked to the mobilization of food supplies: transportation and distribution costs, etc. • Purchasing specific products with less seasonally-variable prices (oil, sugar, etc.) • Food vouchers (food supplies, agricultural inputs, livestock, essential production methods, etc.) • Cash transfers • Financing operations for sharing/lending stocks between countries (RESOGEST) 	

3.4.2 Ease of Access to Livestock Feed

Farming communities have been hit hard by the crises that affected the Sahelbelt over the last few years. The impact of the crises on farmers is double: the deterioration in the terms of trade between livestock and grain has drastically reduced their access to food, whilst mortality (or forced sale) of their livestock compromises the sustainability of their activities and makes them more vulnerable to future hazards.

The measures put in place as part of food crisis management tools are not suited to the lifestyles and modes of work of the farming communities, especially with regards to the prevention of mortality or forced sale of their livestock. In recognizing this deficit, ECOWAS would like to use the Regional Reserve to support the improvement of food crisis management tools that are tailored to the needs of the farming communities.

Several intervention strategies have been tested on a small scale: safeguarding rangelands, distributing livestock feed, construction of drinking places, de-stocking followed by re-stocking, and preservation of breeding grounds. The majority of the options based on distributing livestock feed or market substitutes present significant problems of scale. Without a well-established technical solution, the proposed option within the framework of the Regional Reserve is to devote part of the financial reserve to this purpose. A study⁹ led by the Bilital Maroobé network is currently being carried out and should provide pathways for technical guidelines that can be supported by the Regional Reserve. These elements will be prepared by the Task Force and the ECOWAS Commission and will complete the technical side of the implementation of the Regional Food Security Reserve, under the responsibility of policy and decision-making bodies set up for the institutional framework.

3.5 Collaboration with the Food Safety Net Programs

The Sahelbelt countries, but also some coastal LDCs (Liberia, Sierra Leone, Togo, etc.) have been experiencing extremely high levels of chronic food insecurity. In the other countries in the region, chronic food insecurity is still affecting a significant proportion of the population. Food-insecure households often feel more vulnerable and excluded. These people are also often less able to benefit from the opportunities offered by periods of economic growth. Ghana is one of the countries to have experienced the most noticeable success in terms of economic development and poverty reduction

⁹ *Bilan et stratégie d'amélioration des mécanismes de ciblage en zones pastorales et propositions d'amélioration de l'accès aux aliments du bétail pour les pasteurs sahéliens confrontés aux sécheresses.*

in the region for around twenty years. There, poverty and food insecurity are concentrated in the Northern regions of the country, reaching levels similar to those of the landlocked countries.¹⁰

Safety net programs which offer predictable transfers, in cash or in kind (food supplies, agricultural inputs) protect the most vulnerable households against decapitalization in the event of shocks. They can also be used to facilitate access to certain basic services (health care, education) for vulnerable communities, but also help to finance local infrastructures, or even cover part of the risks to which vulnerable communities are susceptible, thus promoting savings and private investment.

The regional food security policy aims to support the implementation of national social safety net programs (Cf. SO3 of the RAIP focused on access to food for vulnerable communities). It also aims to support capitalization and promote the sharing of practices and experiences at a regional level. The ECOWADF “food security” strategy aims to finance innovative initiatives relating to social safety net programs.

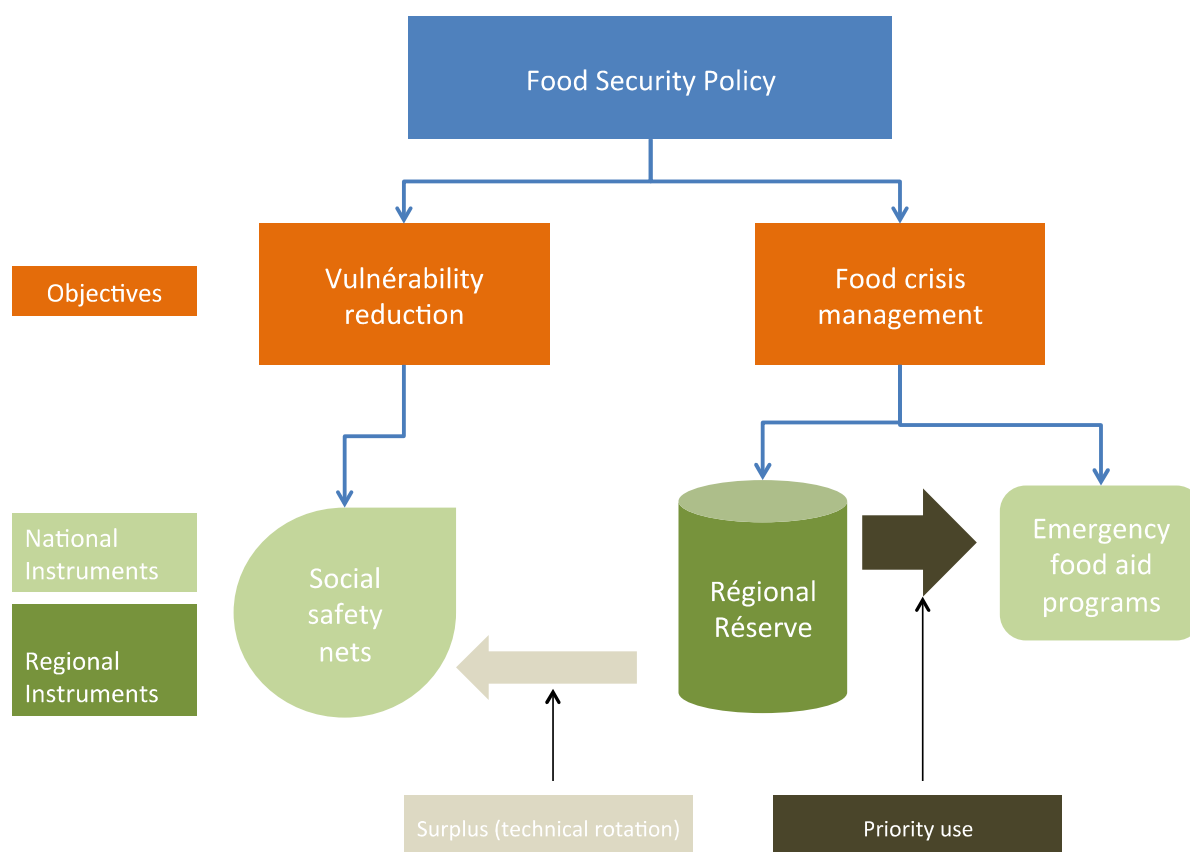
One of the biggest challenges of the social safety net programs is to ensure that they are **predictable and sustainable**. In fact, uncertainty about access to these programs will only create additional risk for the eligible vulnerable communities. The availability of guaranteed financing over the long term for these programs is therefore key to ensuring suitable and effective programs.

According to the specific objectives pursued and the populations targeted, all or part of the transfer of resources carried out within the framework of these social net programs may be in the form of foodstuffs. The Regional Reserve’s primary objective is not to implement social safety nets, which tackle structural vulnerability rather than cyclical crises. On the other hand, technical rotation of the physical part of the Regional Reserve by thirds will ensure a source of quality foodstuffs, with flows that are relatively predictable, making it possible to partially supply the safety net program. The challenge for the reserve – and for the social safety nets – is to ensure a guaranteed flow of reserve supplies (which will require guaranteed outlets for the flow of technical rotation), to social safety nets (which will require a guaranteed source of supply, to safeguard against the most significant market fluctuations). Partnership agreements between the Regional Reserve and safety net mechanisms will be the subject of **long term partnership agreements**.

Figure 9 illustrates the relationship between the Regional Reserve, emergency food aid programs and safety net instruments that have been set up by counties in the region or their partners.

¹⁰ Coulombe, H., and Q. Wodon. 2007. Poverty, livelihoods, and access to basic services in Ghana: An overview. Background paper for Ghana Country Economic Memorandum. Washington, DC: World Bank.

Figure 9: Links with Safety Net Instruments



4 The Overall and Specific Objectives Assigned to the Regional Reserve

4.1 Overall Objective

The food safety reserve strategy's *overall objective* is “to effectively respond to food crises alongside State governments and stakeholders whilst contributing to the implementation of ECOWAP/CAADP with a regional food security and sovereignty perspective”.

4.2 Specific Objectives

The three pillars of the food security strategy are efficacy, equity and coherence, together with achieving synergies. Within this context, the *specific objectives (SO) of the reserve* are as follows:

SO1.: The Regional Food Security Reserve complements the work carried out by the Member States and provides quick and diversified food and nutritional aid, based on the specific needs of the various communities hit by cyclical shocks, through regional safety tools that combine food and financial resources;

SO2. : The Regional Food Security Reserve expresses regional solidarity with regard to Member States and populations affected by cyclical food crises, though transparent, equitable and predictable mechanisms. It enhances local, national and regional capacities in crisis management and allows international solidarity to streamline its support by working together with local, national and regional stakeholders as part of an approach based on subsidiarity.

SO3. : **The Regional Food Security Reserve contributes to food sovereignty and to the region's political, economic and commercial integration**, by developing synergies with programs that target growth in agricultural production, market facilitation and regulation, promotion of social safety net, and risk prevention and management.

5 The Principles Underpinning the Design and Running of the Regional Food Security Reserve

The principles adopted for the regional food strategy refer to:

- a. Principles agreed to by the ECOWAS Member States for the implementation of the ECOWAP/CAADP agricultural policy, notably the principles of subsidiarity, complementarity, responsibility and *accountability*;
- b. Principles contained within the Charter for Food Crisis Prevention and Management, notably the principles relating to the application of the right to food, to respect for human dignity, to regional solidarity, to applying emergency management to agricultural development strategies;
- c. Principles of the ECOWAS Humanitarian Policy adopted in March 2012, and particularly those relating to the fundamental humanitarian principles: humanity, impartiality, neutrality, independence, as well as the consistent principle of “not causing any prejudice” in humanitarian action;
- d. Principles that underpin reform of UN humanitarian action, in particular the principles of humanism, neutrality, impartiality and operational independence;
- e. Principles and commitments contained within the Paris Declaration and subsequent Accra Agenda for Action on aid effectiveness, notably the principles relating to alignment with local policies, coordination, harmonization and coherency of external help.

6 Regional Food Security Reserve: Implementation Methods

6.1 Instruments Mobilized

The Regional Reserve mobilizes two components:

- physical component (physical stock) consisting of staple food products and products meeting the needs of emergency programs;
- financial component (financial stock) to deploy a range of responses.

Moreover, the Regional Reserve facilitates the mobilization of national reserves as part of countries' commitments within the framework of RESOGEST cooperation. Due to the current weakness of national reserves and difficulties in replenishing them through national budgets, recourse to these stocks may be achieved in three ways:

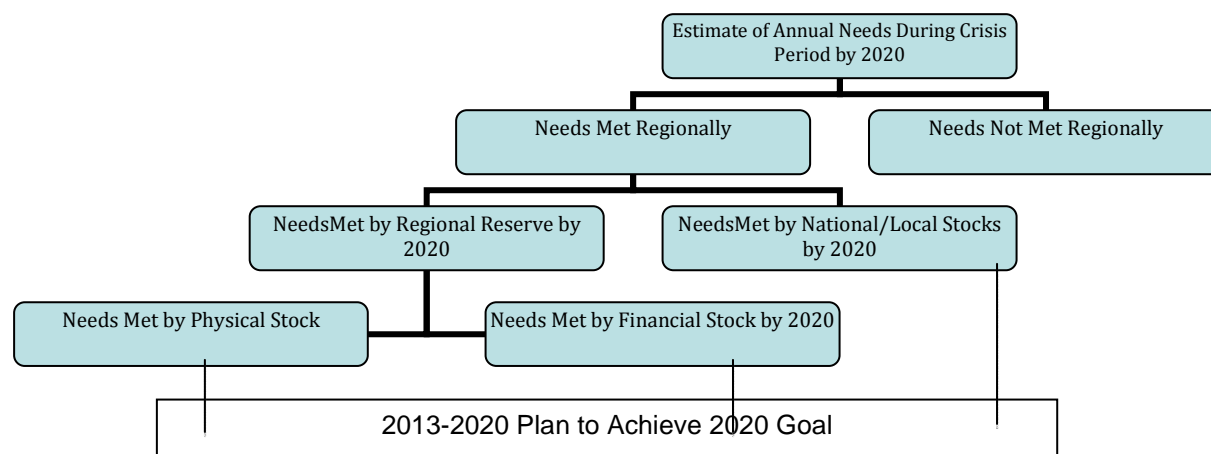
- financing through regional emergency response funds;
- inter-country lending, with regional funds possibly covering part of the risk (method not examined in the study);
- inter-country donation, as part of solidarity between countries.

6.2 Size of the Reserve

6.2.1 Methodology

This section is to show the proposed methodology for determining the size of the Regional Reserve. This provides the Task Force with several options to analyze and a basis on which to reach its decision.

The methodology is based on four stages, broadly outlined below:



6.2.2 Estimate of Annual Requirements

The size of the reserve is determined on the basis of a retrospective analysis of the food needs of the populations affected by a crisis over the past twelve years, and for whom an emergency response has been necessary. The determination therefore works on the hypothesis that the reserve is mainly mobilized in response to cyclical shocks, which will only be slightly mitigated in the short and medium terms through investments in agricultural development and in other structural policies. Also, efforts to strengthen populations' resistance and ability to deal with shocks can only bring about a significant reduction in aid requirements in the medium and long terms.

In order to make up for the limitations of existing data, two different methods have been developed initially to provide an estimate, on the one hand, of the needs generated by a problem of "availability" of foodstuffs and, on the other, the needs generated by a problem of "accessibility" to markets.¹¹ As a second step, only the shock that created the most needs in each country over the past twelve years has been used as part of this projection of future needs and as the basis for determining the size of the Regional Reserve.

Furthermore, the reserve size is determined on the basis of the projected population for 2020,¹² such that it is still able to respond to population needs in the medium term. This diminishes the risk of the Regional Reserve, along with numerous national stocks in the region, from becoming rapidly depleted through demographic growth. This approach is also included in the aim of progressively implementing the Regional Reserve (see below).

¹¹ Note that establishing this distinction is not always straightforward since crises nowadays combine several factors that have a simultaneous impact on physical and/or economic availability and accessibility.

¹² "World population prospect, the 2011 Revision," United Nations, Department of Economic and Social Affairs.

- **Estimating Needs Generated by a Problem of “Availability”**

The range of needs generated by “natural” shocks (drought, floods, cyclones, etc.), “technological” shocks (industrial accidents, transport accidents, etc.) or “political” shocks (conflicts leading to population displacement) have acted as a proxy to estimate needs in case of food crises linked to problems of availability of foodstuffs. This work could have been carried out using the “EM-DAT” database of emergency situations developed by the CRED (Centre for Research on the Epidemiology of Disasters). In particular, this database contains information on the number of people affected by all kinds of catastrophes, apart from crisis situations created by an international price shock which are not included in this database since they are estimated by another method (see below). The main advantage of this database is that it provides an estimate of the people affected *and* who need emergency assistance. Another method could have involved considering populations that are vulnerable or face food insecurity as the basis for estimating their needs,¹³ but this approach does not provide information on the section of the population which actually needs emergency assistance during a crisis. This latter method is the most important since it contemplates the implementation of sustainable safety nets.

- **Estimating Needs Generated by an “Accessibility” Problem**

Since the “EM-DAT” database does not provide an estimate of how many people are affected by a price shock that limits or prevents households from getting supplies from the market, another method has been used to estimate the needs generated by this type of shock. The 2008 and 2012 crises were taken as reference points for an “accessibility” crisis. In the 2008 crisis, the drop in per capita consumption (in percentage terms) for the ECOWAS group of countries, in relation to the average per capita consumption during the 2000-2009 period,¹⁴ has been used as a proxy to estimate needs.¹⁵ It was possible to make these estimates using the FAO STAT database. For the 2012 crisis, needs have been estimated on the basis of the April 2012 information bulletin drawn up by the Dakar Inter-Agency Standing Committee (IASC) and circulated by the Office for the Coordination of Humanitarian Affairs (OCHA).

- **Annual Needs Used to Determine Size of Regional Reserve**

After estimating each country’s annual needs generated by different crises (natural, technological, price-related), only the shock that created the most significant needs in each country has been used to determine the size of the reserve. If we consider that most countries in the region will be subject to greater shocks than those experienced in the past (for many of them, the 2012 crisis is the most drastic shock of the last twelve years), then the reserve size determined in this way will make it possible, while not to overcome the worst possible situation which they could come up against, to handle most situations that could arise and to reduce the need to request foreign aid. Given the increasing number of political crises and the expected intensification of price shocks and climate change shocks, the international community is in fact going to be called upon ever more frequently. At the same time, the financial resources of traditional donor countries are limited due to the economic and financial crisis, and emerging economies’ contributions continue to be unpredictable. In the future, the West African region will have to reduce its reliance on international aid, limiting it to the most serious situations where internal solidarity mechanisms are insufficient.

¹³ The size of some stocks are calculated this way (cf. IFPRI’s work on Ethiopia’s stock).

¹⁴ Import data unavailable after 2009

¹⁵ This method has been used by the WFP to set up the PREPARE/G20 pilot project

Based on the same principle, the estimated regional need is calculated by summing up national needs. This implies that the reserve must be able to respond to a crisis affecting a majority or the whole group of countries. The table below provides information on the population sector affected by the most significant crisis in each country, and the needs this would create for the 2020 projected population (Table 2).

Table 2: Summary of Principal Shocks Recorded by Each Country between 2000 and 2012

	Year	Population Affected (%)	Number of People Affected (000s)
Benin	2008	4%	334
Burkina Faso	2012	18%	2,850
Cape Verde	2002	7%	30
Côte d'Ivoire	2008	4%	759
Gambia	2012	36%	600
Ghana	2008	4%	930
Guinea	2008	4%	382
Guinea-Bissau	2002	8%	100
Liberia	2009	13%	500
Mali	2012	23%	3,500
Niger	2012	53%	6,400
Nigeria	2008	4%	6,000
Senegal	2012	7%	800
Sierra Leone	2008	4%	224
Togo	2008	4%	231

Table 3: Annual Needs by 2020, on the Basis of the Principal Shock Recorded between 2000 and 2012

	Population in 2020 (000s)	Population Affected following Most Serious Crisis (%)	Annual Estimated Needs by 2020 (Tons)*
Benin	11,523	4%	82,966
Burkina Faso	22,150	18%	717,660
Cape Verde	544	7%	6,482
Côte d'Ivoire	24,503	4%	176,422
Gambia	2 242	36%	145,282
Ghana	30,325	4%	218,340
Guinea	12,765	4%	91,908
Guinea-Bissau	1,863	8%	25,989
Liberia	5,166	13%	120,884
Mali	20,537	23%	850,232
Niger	22,071	53%	2,118,286
Nigeria	203,869	4%	1,467,857
Senegal	15,998	7%	201,575
Sierra Leone	7,178	4%	51,682
Togo	7,343	4%	52,870
ECOWAS	388,077		6,328,433

(*) Estimate based on the WFP norm: 15kg per person per month

6.2.3 Parameters Defining the Proportion of Annual Needs Met by Regional Reserve

Based on the projected annual needs during a crisis period for the 2020 population, three questions were formulated to reach a final determination of the Regional Reserve's size:

- What proportion of annual needs is met by the combination of regional and national resources, and what proportion is met by supplies from the international market?

- b. What is the distribution between annual needs met by the region (Regional Reserve) and by the Member States (national and local stocks)? And finally,
- c. What are the correct proportions between the Regional Reserve's physical and financial components?

Answers to these questions are given below.

- **The Proportions of Annual Needs Met Respectively at a Regional/National Level and at an International Level**

To ensure the role of international solidarity is complementary to the response of the states and the region, the size of the Regional Reserve depends first of all on the hypotheses of the proportion of annual needs which will be met regionally or nationally, and that met through international aid.

In the light of the advantages offered by a national and regional intervention in terms of the speed of response, which contrasts sharply with the delays in mobilizing international aid (financial resources and aid in kind), the size of the Regional Reserve and national stocks must be calculated in order to meet the priority needs of the vulnerable populations as soon as possible, i.e. within the first few months following the shock. By the same token, it is equally natural for the regional resources that can be more rapidly mobilized to be directed toward landlocked countries, which face longer delays in taking delivery of international aid given their distance from port infrastructures,¹⁶ and which therefore benefit least from alternative supply methods to meet their immediate needs.

Two hypotheses have been studied on the basis of these considerations:

- a hypothesis of a "moderate" period of coverage of needs by a combination of national and regional levels of 1.5 and 3 months, respectively, for coastal countries and landlocked countries;
- a hypothesis of a "long" period of coverage, of 2 and 4 months,¹⁷ for coastal countries and landlocked countries.¹⁸

Table 4: Annual Needs Met through Supplies from the Region

I				"Moderate" Duration	"Long" Duration
Coastal Countries (month)				1.5	2
Landlocked Countries (month)				3	4
Annual	Needs	Met	by	20%	26%
Country/Region					

- **Proportion of Needs Met at National and Regional Levels**

By applying the principles of subsidiarity and complementarity on which the legitimacy of regional intervention is based, calculating the size of the Regional Reserve requires that the positioning of

¹⁶ Except for Cape Verde which has port infrastructures but whose costs of transport are higher on account of being an island chain.

¹⁷ The WFP considers an average delay of three months for international aid to reach its destination. The SADC's Regional Reserve, currently being prepared, also considers a three-month delay. Meanwhile the reserve implemented for Ethiopia, seen as a "success story," contemplates four months for meeting needs.

¹⁸ Coastal countries: Senegal, Gambia, Guinea Bissau, Guinea, Ghana, Togo, Liberia, Sierra Leone, Côte d'Ivoire, Benin, Nigeria. Landlocked countries: Burkina Faso, Niger, Mali, Cape Verde.

national and local stocks be considered in the coverage of needs by regions and countries. In fact, the Regional Reserve only comes into the picture as a complementary measure for local and national stocks, and only once it is found that a regional intervention and coordination is more effective than a response at a purely national level.

For this reason, and after analyzing the various scenarios, the Regional Reserve is not called upon to meet more than 33% of the total needs jointly supported by the region and the Member States. The remaining 67% is directly backed up by national stocks. This also implies that the deployment of the Regional Reserve should not substitute efforts required to consolidate intervention capacities at the national and local levels. This explains why the proposal includes a section on “strengthening national storage capacities.”

Besides the predominant role given to national stocks in responding to food crises in regards to the principles of solidarity and complementarity, the application of the principle of solidarity—the third founding principle of regional intervention—calls for the Regional Reserve to provide more support to those countries most exposed to risks of shocks that affect consumption, and particularly those states which lack the sufficient financial or physical resources to reduce the risks or mitigate the impact of these shocks.

The proportion of needs met at a regional level (the others being met at the local and national levels) can be distinguished according to two criteria:

- depending on whether the country is coastal or landlocked, and
- depending on the country’s level of development, as defined by their status as an LDC (Least Developed Country) or a non-LDC.¹⁹

A “moderate” level of regional coverage hypothesis and a “high” level of coverage were tested and applied to this country typology.²⁰ For illustrative purposes, the alternative hypothesis of “non-differentiation” has also been included. The table below summarizes these hypotheses.

Table 5: Regional Differentiated Coverage according to Type of Country

Country Group		“Moderate” and Differentiated Level of Regional Coverage	“High” and Differentiated Level of Regional Coverage	“High” Level of Non-Differentiated Regional Coverage
Landlocked LDCs		20%	40%	20%
Coastal LDCs		10%	20%	20%
Landlocked	Non-LDCs	10%	20%	20%
Coastal Non-LDCs		5%	10%	20%

• Physical and Financial Components of the Regional Reserve

The Regional Reserve represents a fast and flexible intervention capability. Therefore, it combines (i) resources in kind (staple foodstuffs), to mitigate disruptions in supplies or market risks

¹⁹ Landlocked LDCs: Niger, Mali, Burkina Faso. Coastal LDCs: Senegal, Gambia, Guinea Bissau, Guinea, Togo, Liberia, Sierra Leone, Benin. Landlocked Non-LDCs: Cape Verde. Coastal Non-LDCs: Ghana, Côte d’Ivoire, Nigeria

²⁰ Insofar as there is variation in global annual needs handled regionally, (see Figure 2), these two options are not made at a fixed global volume (see Figure 8).

(exorbitant prices/affordability), and (ii) financial resources to mobilize these stocked foodstuffs, and to deploy a range of mechanisms to respond to crises according to their type (coupons, cash transfers, etc.). In order to reduce the inherent constraints and costs of the physical storage of food (Table 1) the Regional Reserve gives priority to obtaining financial resources.

Moreover, experience in this area show that nowadays financial stock can be converted into foodstuffs *almost* immediately. To meet the most pressing needs, a third of the Regional Reserve remains in the form of a physical stock, with the other two thirds consisting of financial stock. However, experience also shows that an inflexible portioning of these two types of stocks is not necessarily suited to everyday use of the reserve. In countries that already possess financial and physical stocks, it is not uncommon to find that the financial stock is actually used to resupply the physical stock since countries lack other resources with which to pay for such resupplies. Therefore, in order to maximize control over the reserve, some flexibility in the one-third/two-third distribution is foreseen, which can be adjusted on a needs basis by the Management Committee (see section on institutional structures).

6.2.4 Size of Reserve, According to Five Scenarios and the Option Chosen by the Task Force

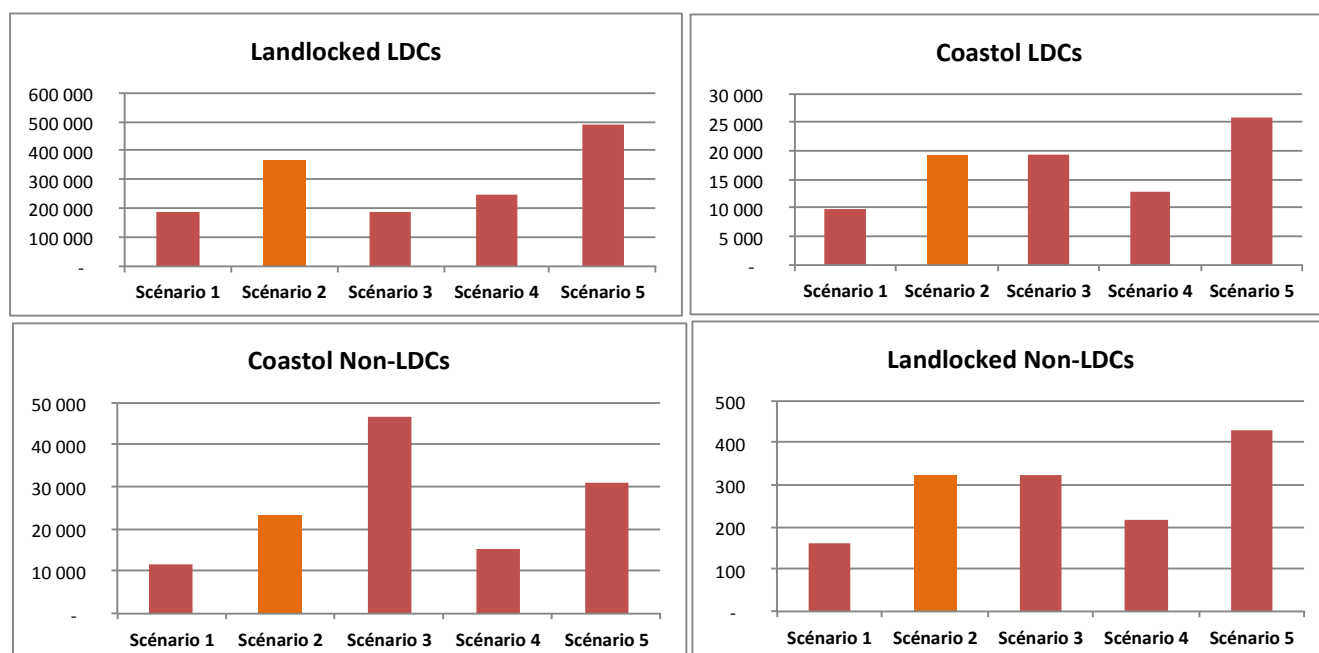
By varying the parameters described below, the Task Force has simulated and drawn up five scenarios:

Table 6: Five Scenarios to Calculate Size of Reserve

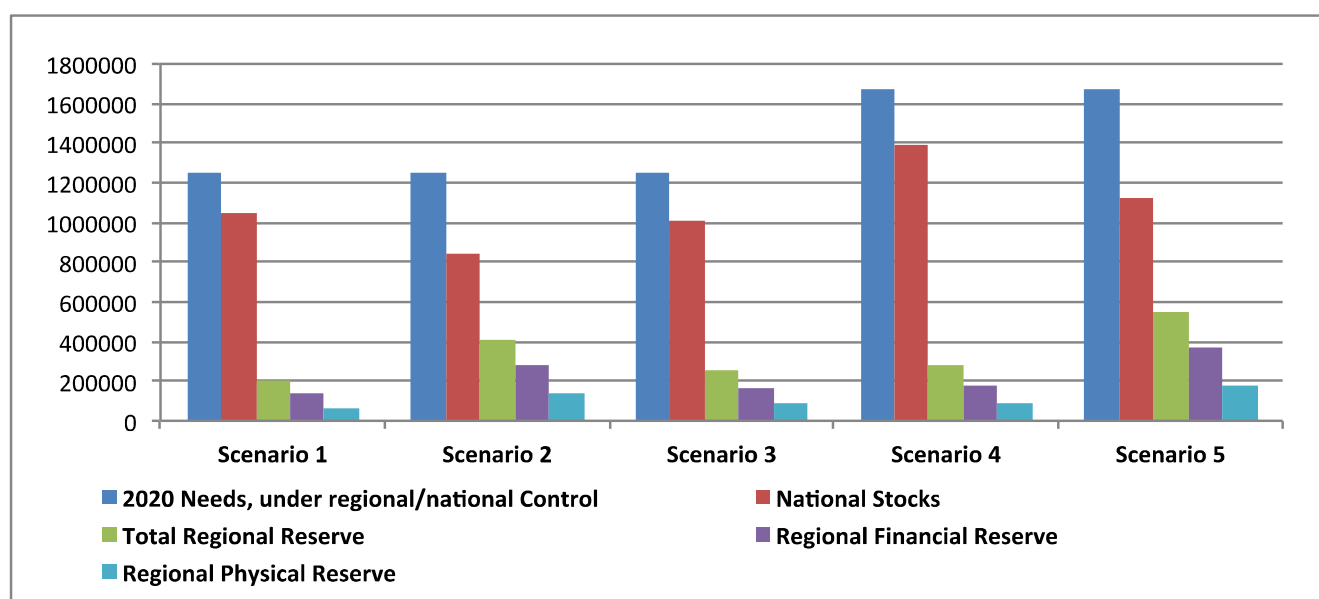
Scenarios	Duration of Annual Needs Addressed by Countries or by the Region	Proportion of Needs Met by Region	Differentiation by Country
Scenario 1	Moderate	Moderate	Yes
Scenario 2	Moderate	High	Yes
Scenario 3	Moderate	High	No
Scenario 4	High	Moderate	Yes
Scenario 5	High	High	Yes

The results of the simulations reveal the importance of each scenario shown above. The size of the Regional Reserve varies between 200,000 and 550,000 tons depending on whether they are placed in the “high” scenario (Scenario 5) or “low” scenario (Scenario 1). The strengths and weaknesses of each scenario were analyzed by considering the size of the reserve thus obtained, but also by the feasibility of the scenario and how well it meets the specific objectives included in the ECOWAS security strategy for stocks. The feasibility is assessed based on the level of requests for national stocks in the overall regional stock strategy. This is based on the idea that the bolstering of national stock capacities to be put into operation in the coming years can only be effective if there is a progressive increase in the size of national food stocks. In terms of meeting specific needs, the different scenarios have been analyzed specifically in regard to their ability to make regional solidarity fully functional among the countries that are most and least affected by food crises.

Graph1: Allocation of Regional Reserve, by Type of Country (Tons)



Graph2: Size of the Reserve and Hypothesis of National Stocks (Tons)



After analyzing the bases and results of the various scenarios with the support of the Task Force, the ECOWAS Commission proposes that decision-making bodies give priority to Scenario 2. This scenario predicts a Regional Reserve for the equivalent of 411,000 tons by 2020, portioned as follows:

- physical stock: 140,000 tons
- financial stock: equivalent to 271,000 tons

This appears to be the scenario most able to respond to these two criteria of feasibility and regional solidarity. It is based on the hypothesis:

- of a “moderate” 1.5 to 3-month period to meet annual needs, according to the country;

- combined with a “high” and differentiated level of coverage by the Regional Reserve, with between 20% and 40% of needs to be met through the addition of national and regional stocks.

This scenario also makes it possible to maximize the size of the Regional Reserve, while minimizing the contribution of national stocks to the project and ensuring an allocation of the reserve that benefits landlocked LDCs and, to a lesser extent, coastal LDCs.

Therefore, if the size of the reserve is calculated using a “high” hypothesis taking into account the highest risk based on past experience, by not choosing the highest scenario it is ultimately possible to achieve an “intermediate” reserve size which is justified by three arguments:

- Cost control and resources available for mobilization;
- The significance of the Regional Reserve, while allowing for a progressive learning curve;
- The importance of investments to be made to deploy national and local stocks by several countries currently lacking stocks and in need of time to build them up, which would eventually complement the Regional Reserve.

6.2.5 Eight-Year Reserve Plan

A key to the success of the food stock strategy involves planning the introduction of the Regional Reserve over an eight-year period. The choice of a progressive increase in the strength of the Regional Reserve is underpinned by four main factors:

- **The need for Member States, regional stakeholders and technical and financial partners (TFPs) to adopt the regional instrument.** On the whole, and in common with other instruments of ECOWAP’s agricultural policy, countries’ adoption of a regional instrument will only be successful insofar as the principle of subsidiarity, or the added value of a regional contribution to food crisis management, is fully incorporated within each member country. The instrument must therefore undergo tests. This principle applies equally to the TFPs, whose increased commitment must depend on the instrument’s proven functioning and effectiveness.
- **Consolidation of regional early warning system mechanisms.** The effective operation of the mechanism used by the Task Force is largely based on how well the Regional Reserve’s “trigger” mechanism works, and this is closely linked to the Cadre Harmonisé Bonifié (CHB) for vulnerability analysis (see section 6.6) which not every country in the region has yet had time to adopt and implement.
- **Implementation of the reserve’s governance bodies.** The putting in operation of the reserve depends on the proper functioning of its governance bodies (see section 8). As in every new institutional body, a bedding-down period is to be expected before the system is really able to manage a reserve in excess of 410,000 tons.
- **The growing size of national stocks.** The proper operation of the Regional Reserve is ultimately limited by the development of national stocks, which operate by intervening as the first line of defense (local stocks) and as the second line of defense (national food security stocks). A disparity exists between countries in this regard. Depending on their situation, countries will require several years to harmonize their approaches, tools and storage systems.

For illustrative purposes, the eight-year Regional Reserve plan for Scenario 2 is shown below (the results for the other scenarios are given in Annex 16.1). At Year 1, a Regional Reserve of 176,380 tons is set up, one third physical stock and two thirds financial stock. In parallel, from the launch, Member States contribute to the regional effort by bringing the aggregate amount of their national stocks to

360,464 tons. This represents a doubling²¹ in the stock currently held by the countries. Four years are then required to get the instrument running smoothly (volume, composition, triggers, governance) based on the “moderate” quantities, and to implement complementary measures relating to regional and national institutions in order to strengthen their technical storage capacity.

In Year 5, the Regional Reserve will be in a position to increase its total stock by 67% (equivalent to 117,000 additional tons), while the Member States continue to contribute toward the regional effort by increasing their national stock by the same proportion. The final phase of growth of the Regional Reserve comes only three years after the last resizing of the reserve insofar as the institutional structure is fully operational by that time. After this final phase, the Regional Reserve will grow by 40% to reach an amount of 411,554 tons (again, equivalent to 117,000 additional tons) while national stocks increase by the same proportion to give a total of 841,083 tons.

The eight-year plan remains a provisional and necessarily indicative exercise. The ECOWAS Commission recommends the decision-making bodies assess the instrument after three years of actual operation before a possible reevaluation of needs based on the results of this evaluation and on the evolution of the food risks facing the region. Adjustments may then be made and incorporated within the framework of the institutional structure.

Table 7: 2013-2020 Plan for the Size of the Regional Reserve (Tons)

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Regional Reserve	0	176,380	176,380	176,380	176,380	293,967	293,967	293,967	411,554
-Physical Reserve	0	60,000	60,000	60,000	60,000	100,000	100,000	100,000	140,000
-Financial Reserve	0	116,380	116,380	116,380	116,380	193,967	193,967	193,967	271,554
National Stocks	227,000*	360,464	360,464	360,464	360,464	600,774	600,774	600,774	841,083

(*) This does not refer to physical stock capacities but the current stock level, calculated on the basis of information available and currently being updated. Data extracted from the *Etude sur la mise en place d'un dispositif régional de renforcement et de coordination des stocks nationaux de sécurité alimentaire dans l'espace WAEMU: actual size of the security stock in the seven countries* (WAEMU excl. Côte d'Ivoire): 77,000 tons, to which Nigeria's stock is added: 150,000 tons.

6.3 Physical Reserve: Composition and Location

6.3.1 Guiding Principles

The proposal is based on a Regional Reserve for food security with a composition that is one third physical, two thirds financial. The physical stock must meet the specific needs of the various communities affected by food crises, especially agricultural and livestock farmers and herders, urban populations, and populations suffering from malnutrition. On this basis, the strategic orientation framework of the detailed feasibility study assigns two objectives to the reserve: (i) provide food and nutritional aid to human beings; and (ii) preserve livelihoods or means of production, and contribute to resilience. To meet these needs, the strategic framework has decided on a range of products: (a) cereals and legumes suitable for local diets (b) nutritional products adapted to the needs of young children; (c) livestock feed or other agro-industrial byproducts.

Moreover, the implementation of the Regional Food Security Reserve must contribute to achieving RAIP objectives, particularly “The promotion of strategic food sovereignty products” which must lead West Africa to meet the majority of its need for staple food products by promoting the cultivation of rice, maize and manioc.

In this way, the approach adopted for the composition and breakdown of products in the reserve has seven parameters:

²¹ Although it remains difficult to estimate accurately local and national stock levels in the various countries.

- i. suitability to local diets and the contribution of each cereal to daily calorie consumption,
- ii. availability of staple food products in connection with regional production areas, and the share of each cereal in cereal crop production,
- iii. consideration of relatively homogenous production and consumption subregions,
- iv. location of expected intervention requirements,
- v. location and availability of physical storage capacities and stock management capacities in countries in the region,
- vi. the progressive character of the establishment of the Regional Reserve,
- vii. suitability, standardization and cost of storing and conserving products.

The Regional Reserve will progressively grow to **140,000 tons by Year 8** and will comprise a wide variety of products that can respond effectively to food crises and basic needs of the region's populations. It is therefore conceived as a collection of physical reserves for food security located in various subregions identified and managed technically by the national organizations and offices in charge of managing national stocks and RESOGEST members. This technical management operation will be underpinned by service provision contracts entered into between the Regional Reserve and national institutions.

In the short-term, meanwhile, the volume of the physical reserve is set at **60,000 tons** in the launch year; this implies a range of products limited in the first phase to foodstuffs controlled—in terms of their types and storage costs—by national institutions in charge of the various stocks (National Security Stocks, SI, etc.) and which have the necessary expertise as well as a proven track record in storage. This progressive option aims to ensure that supply, management and intervention mechanisms related to the physical Regional Reserve are fully mastered before being increased in stages. Plainly, this means that the reserve's range of products will grow as its volume increases, and that conditions will be met to make this happen (product standardization, storage control, etc.). However, taking into account the importance attached in recent years to nutritional programs as part of emergency response situations, a pilot program for the storage and preservation of enriched cereals for infants will be implemented during the first stage of setting up the physical reserve.

6.3.2 Identifying Subregions of Production and Consumption

Dietary systems are dominated by many staple food product groups: tuber and root crops (manioc, yam, taro, even sweet potatoes and potatoes), and cereals (maize, rice, millet and sorghum and even fonio), plantains and legumes—mainly cowpeas. These staple foods determine two main types of diet:

- (i) diets based on tuber crops generally found in the southern areas of coastal countries,
- (ii) diets based on cereal crops in Sahelian countries and in the central and northern parts of coastal countries.

However, no strict separation exists between these two types of diets for various reasons: the north-south population flows and above all the increasing urbanization that generates new consumption patterns and promotes diversification of the products consumed, particularly foodstuffs based on imported wheat. Furthermore, rice is consumed across the region and even in rural areas that do not produce it. Now, in coastal countries where diets predominantly consist of tuber crops, and in Sahelian countries where cereal crops are the staple food, one can observe an interpenetration of diets with the development of the consumption of maize, rice, cowpea, and, to a lesser extent, yam and manioc, as well as sorghum and millet.

Table 8: Main Basic Food Products in ECOWAS Countries

Country	Main Food Products
Benin	maize, sorghum, fonio, millet, rice, manioc, yam, sweet potato
Burkina Faso	sorghum, millet, maize, cowpea, rice
Cape Verde	sweet potato, potato, manioc, maize
Côte d'Ivoire	yam, manioc, plantain, rice, maize
Gambia	millet, rice, maize, sorghum
Ghana	manioc, yam, plantain, maize, taro, rice, sorghum
Guinea	rice, manioc, maize, plantain, fonio
Guinea-Bissau	rice, manioc, plantain, millet, sorghum
Liberia	manioc, rice, yam, taro
Mali	rice, maize, millet, sorghum
Niger	millet, cowpea, sorghum
Nigeria	manioc, yam, maize, sorghum, millet, rice, plantain, taro, cowpea
Senegal	millet, rice, maize, manioc, sorghum
Sierra Leone	rice, manioc, plantain, maize
Togo	manioc, yam, maize, sorghum, rice, millet

Source: FAO

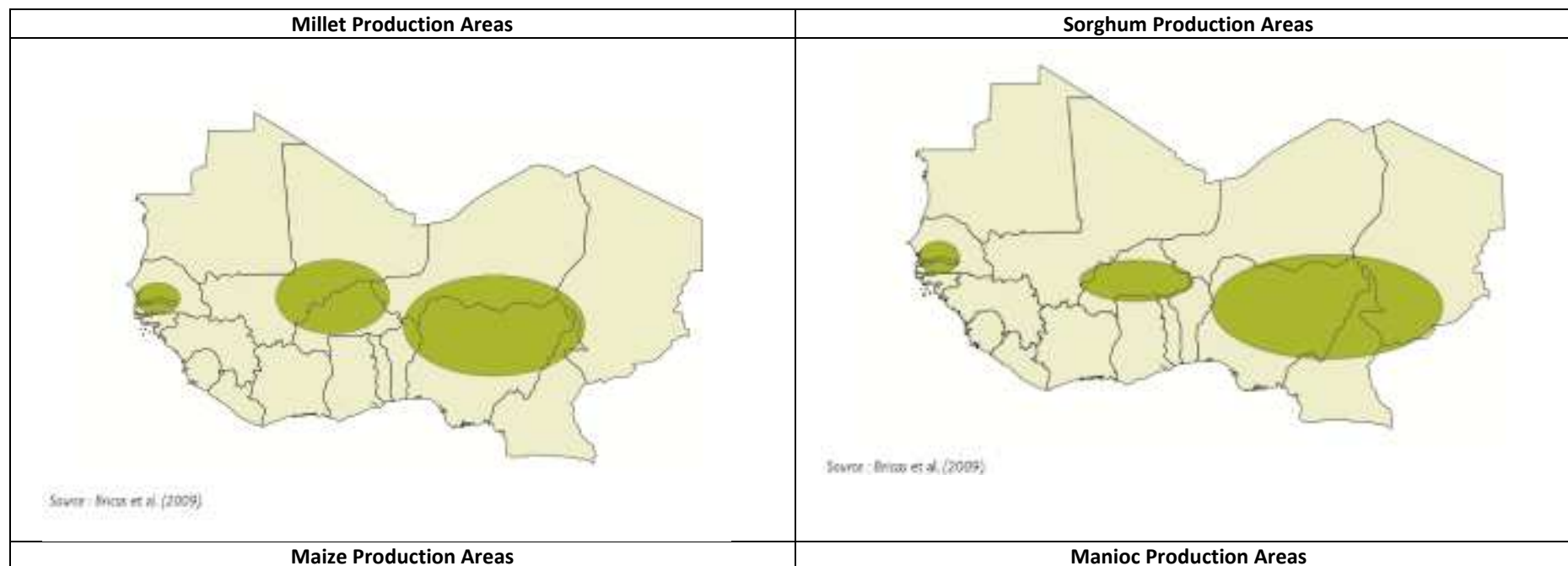
Through the study of areas of food production and consumption in West and Central Africa,²² it has been possible to identify the main areas for cereals, tuber and root crops in the region. Similarly, we can observe:

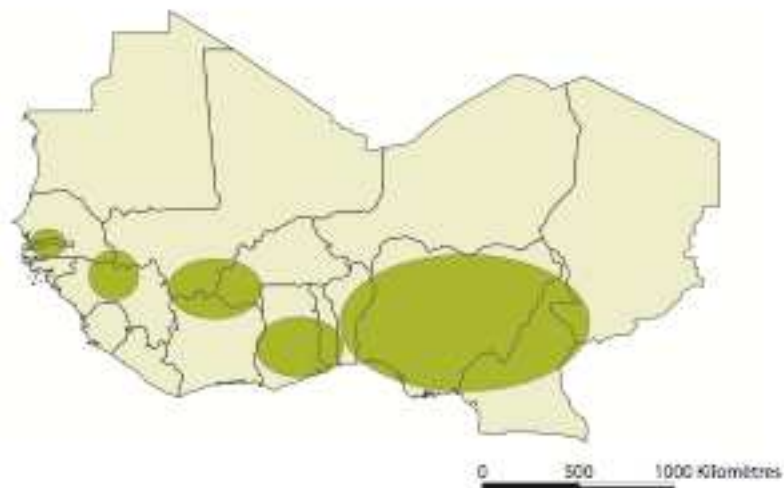
- three large millet production areas: (i) North-west Nigeria to South Niger, (ii) Senegambia, (iii) Burkina Faso and North-east Mali;
- three other large sorghum production areas very near to millet production areas: (i) North-east Nigeria to South Niger, (ii) Burkina Faso, (iii) Senegambia;
- four large maize production areas: (i) Nigeria and Benin, (ii) Ghana and Togo, (iii) Côte d'Ivoire, Burkina Faso and Mali, (iv) Guinea and Senegal;
- two large manioc production areas: (i) Nigeria, Benin, Togo, Ghana, Côte d'Ivoire (East), (ii) Côte d'Ivoire (West), Guinea, Liberia and Sierra Leone.

In the case of yam and rice, it is difficult to identify the large production areas, even though the countries producing the largest volumes are known. Indeed, rice cultivation is practiced throughout the region, in areas under irrigation along the rivers and dams in the Sahel region, and under rain-fed conditions in almost all the savannah and coastal areas. On a smaller scale, the same is true for yam which is produced all along the Gulf of Guinea, from Liberia and the East of Guinea to Nigeria.

²²BRICAS et al, 2009

Map 1: Main Production Areas for the Principal Food Products Stored (Except Rice)





Source : Brice et al. (2009)



Source : Brice et al. (2009)

By cross-referencing diets, staple food products and the region's main production areas, we can group countries in the region within relatively homogenous subregions:

- Eastern Subregion: Nigeria, Niger and Benin
- Central Subregion: Burkina Faso, Mali, Côte d'Ivoire, Ghana and Togo
- West Atlantic Subregion: Senegal, Gambia, Guinea-Bissau and Cape Verde
- Atlantic Gulf Subregion: Guinea, Liberia, and Sierra Leone

6.3.3 Location of Physical Stocks

A historical analysis of food crises and famines in West Africa reveals a great vulnerability of Sahelian countries compared to coastal countries, even though during the past two decades, socio-political crises, wars and price rises for staple food products on the international markets have weakened several others and created a need for sustained food aid not necessarily connected to the shocks linked to climate-related hazards.

As a result, the expected location of warehouses takes into account coverage of those countries in the Sahel and the Gulf of Guinea which are ECOWAS members, while at the same time prioritizing fast access to aid for vulnerable Sahel populations, due to the increasing frequency of major crises in this part of the region. However, the location of the physical reserve in the four subregions is also determined by other criteria:

- the supply cost relative to the main production areas for foodstuffs comprising local diets;
- the availability of storage facilities as well as the existence of competent institutions with proven experience in managing a food security reserve.

The following countries and bodies look after stocks for subregions:

- **Nigeria (NFRA)** and **Niger (OPVN)** for the Eastern Subregion,
- **Burkina Faso (SONAGESS)**, **Mali (OPAM)**, and **Ghana (NAFCO)** for the Central Subregion,
- **Senegal (CSA)** for the West Atlantic Subregion.

For the time being, no public body with experience in setting up and managing agricultural foodstuffs in the three countries on the Atlantic Gulf has been identified to look after the Regional Reserve in that subregion. In the first instance, this stock could be located in Senegal or assigned to one of the three countries (Sierra Leone, Liberia, Guinea), to a food aid organization with proven experience in setting up and managing stocks, subject to the availability of appropriate storage facilities.

The examination of maps of storage facilities established in the RESOGEST/WAEMU study, complemented by information on Nigeria and Ghana as well as the results and conclusion of the ongoing CWAC/ECOWAS study, has enabled refinement of this analysis in order to decide, in conjunction with the relevant national agencies and companies, the places responsible for looking after the physical reserve stocks in the various countries.

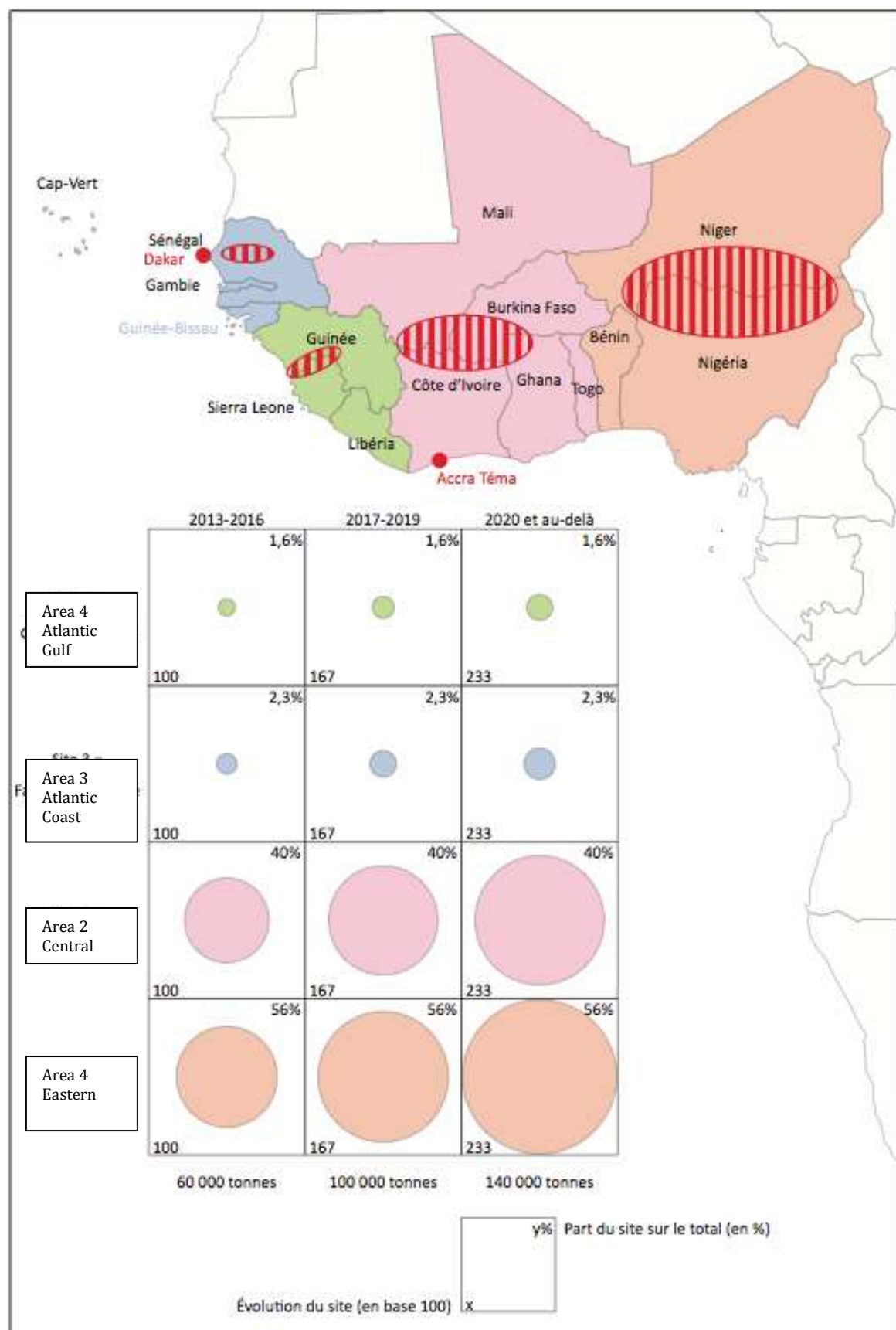
Following planning for needs, Table 9 and Map 2 show the evolution of the stocks in the physical Regional Reserve in the various subregions. Initially (Years 1 to 4), the stock volumes will be particularly small in the West Atlantic and Atlantic Gulf Subregions (approximately 1,000 tons each), such that it is recommended to gather these stocks in the West Atlantic Subregion and plan to locate stock in the Atlantic Gulf from 2017.

Table 9: Evolution of Physical Reserve Stocks According to the Planning for Needs with the Selected Scenario (Tons)

Subregion	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Eastern	33,860	33,860	33,860	33,860	56,433	56,433	56,433	79,006
Central	23,770	23,770	23,770	23,770	39,617	39,617	39,617	55,464
West Atlantic	1,406	1,406	1,406	1,406	2,344	2,344	2,344	3,281
Atlantic Gulf	964	964	964	964	1,607	1,607	1,607	2,249
Total	60,000	60,000	60,000	60,000	100,000	100,000	100,000	140,000

Source: Compiled by authors

Map 2: Principal Storage Sites for the Physical Regional Reserve and Portion Assigned to Each of the Four Sites



6.3.4 Composition of Physical Reserve and Breakdown by Subregion

Taking into account different experiences in West Africa and in other regions of the world, the physical reserve will be comprised of foodstuffs present in the various subregions and representing the strategic products in the diets of the local populations.

However, other parameters are considered in the composition of the reserve. Firstly, these staple food products are not all equally suited to conservation, placing a limit on storage. While high-quality cereals (maize, rice, sorghum and wheat) can be stored for a medium length of time with the proper phytosanitary treatment in suitable warehouses, manioc or yam must be processed before considering longer term storage.

Meanwhile, the cost of storage and availability are further criteria taken into consideration when choosing products for the physical reserve. These criteria penalize cowpeas due to their higher preparation costs compared to other locally-found dry cereals and which require significant amount of pest control.

In parallel, the experience of Sahelian countries with food security reserves and food aid shows that national reserves have essentially been composed of dry cereals (maize, millet and sorghum). However, other products such as rice, soya and gari have since been considered in the strategic reserves of Nigeria and Ghana. Rice has also been introduced in the annual market intervention reserves used by Benin, Burkina Faso and Mali.

Ultimately, issues relating to the standardization of products at a regional scale are crucial. Unlike national stocks, regional stocks must be replenished to the same value or with the same quality of previously-determined products, particularly since the reserve works on a loan basis for ECOWAS member countries. The lack of clearly defined norms and standards creates difficulties, both in terms of defining the technical details of products when it comes to drawing up calls for tender or purchase agreements, and with regard to replenishing stocks. The lack of maximum precautions in this area would open up the possibility both of difficulties in storing the products and of objections from potential suppliers, from countries or managers of the Regional Reserve when checking products upon delivery at the warehouse, or even when the reserve is mobilized for aid operations.

Together, these considerations suggest recommending caution and taking a progressive approach. As regards standardization, programs are underway at a regional level and should make it possible to extend the range of products met by the physical Regional Reserve, without putting the mechanism at risk. It seems easier to diversify the products held in the national reserves, due to specific national circumstances (diets, availability, technical storage abilities), and to focus the Regional Reserve on a limited range of products.

The same applies to seeds, which form an integral part of post-emergency programs and the reinforcement of populations' resilience. If the principle of including seeds as part of the reserves is recognized, the great diversity of the countries' needs and the specific skills required (certification, control, etc.) mean prioritizing the financial reserve for support operations involving seeds, rather than physical reserves.

A progressive increase in the range of products held in the physical reserve is also advocated. This should take three stages:

- Stage 1: in this first stage, the reserve will initially hold maize, sorghum, millet, rice and gari. In addition, a pilot program of (enriched) cereals for infants will be implemented. The Management

Committee will commission a specific study to resolve the possibility of introducing cowpeas during this initial stage;

- Stage 2: expansion will focus on including processed products (dried yam chips, flours and/or semolina from cereals and manioc);
- Stage 3: increasing the range of products in the food reserve, particularly meat, fish, etc.

Taking into consideration the weight of cereal production in Nigeria, the Eastern Subregion largely dominates the production volumes of the main crops in the region—as shown in the table below. But since the reserve is spread across the various subregions, the composition of the stocks by subregion is decided on the basis of the relative weight of each product in the total production of the corresponding subregion. On the whole, the greater this weight, the higher the probability of the availability of a commercial tender during a normal season.

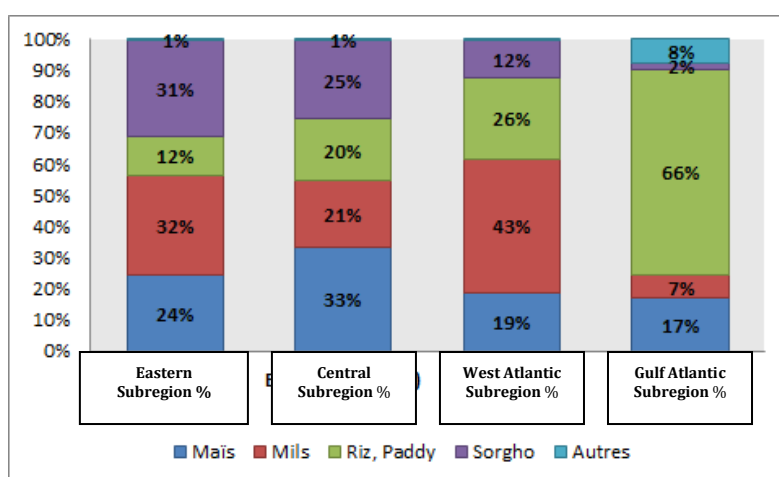
Table 10: 2000-2010 Distribution of Production of Main Cereals (%)

Subregion	Maize	Millet	Paddy Rice	Sorghum
Eastern	59%	73%	42%	73%
Central	33%	19%	28%	24%
West Atlantic	3%	6%	5%	2%
Atlantic Gulf	5%	2%	25%	0%
Total	100%	100%	100%	100%

Source: FAO data.

In the Eastern Subregion, maize, millet and sorghum are the main cereal products, while in the Central Subregion, paddy rice and millet come after maize and sorghum. In the West Atlantic Subregion, millet is the main product and, to a lesser extent, paddy rice and maize. On the coastal Gulf Atlantic, paddy rice is predominant, and a very small amount of maize is also produced.

Figure 10: 2000-2010 Proportions of Principal Crops in Total Cereal Production, by Subregion (%)



Source: FAO and compiled by authors.

Finally, the ECOWAS Commission maintains the following composition for the first stage, by subregion:

- Cereals, in varying proportions, in every subregion. The possible introduction of cowpea in the Eastern and Central Subregions, during this first stage, will lead to a reduction in the volumes of cereals, at constant budget;
- Gari is suggested for inclusion in Eastern and Central stocks due to the importance of manioc production and consumption in Nigeria, Benin, Ghana and the Côte d'Ivoire.
- The pilot storage program for enriched cereals will be run in the Eastern and Central Subregions.

Table 11: Physical Reserve Products, by Subregion

Subregion	Products
Easter: Nigeria, Niger and Benin	millet, maize, sorghum, gari, enriched cereals
Central: Burkina Faso, Mali, Côte d'Ivoire, Ghana and Togo	maize, millet, sorghum, rice, gari, enriched cereals
West Atlantic: Senegal, Gambia, Guinea-Bissau and Cape Verde	millet, rice, maize
Gulf Atlantic: Guinea, Liberia, and Sierra Leone	rice, maize

Source: Compiled by authors.

Calculating fixed proportions of stocks in the reserve is not recommended. Although it might be relevant during the initial set-up phase, it would cause difficulties in restocking connected to the physical availability and price of supplies. For example, in Burkina Faso, it has been impossible to respect the 40-30-30 proportions (for maize, sorghum and millet respectively) established when the National Security Stock was created, given the difficulties of technical rotation and agricultural shortfalls. For other countries, the breakdown of stock into different products derives from supply methods: in Nigeria, there are no defined proportions between maize, rice, sorghum, soya and gari which constitute the federal stock products, due to the option of public tender offers and the adjustment of quantities according to market prices at the time of purchase. In this context, the estimated supply balance for the year, particularly for local cereals at the level of each production area supplying information on marketable surpluses, as well as price analyses, form a decision-making instrument as a guide for local purchases.

Nevertheless, the Commission advocates indicative proportions of products to be held in storage by each subregion, taking into account the significance of each cereal selected in total cereal production as well as the daily amount of calories provided by the cereal per person, as shown in the table below.

Table 12: Share of Each Cereal in Daily Calorie Intake (Kcal) from Cereals Per Person (2000-2007 Average Per Country), by Subregion (Weighted Average of Countries in the Subregion)

Designation	Eastern	Central	West Atlantic	Gulf Atlantic
Maize	188	374	148	59
Millet	322	278	221	10
Rice	220	397	675	838
Sorghum	318	296	82	8
Total	1,172	1,441	1,330	1,084

Source: Calculated using FAO data

Table 13: Proportion of the Daily Calories Intake Per Person (2000-2007 Average Per Country), by Subregion (Weighted Average of Countries in the Subregion)

Designation	Eastern	Central	West Atlantic	Gulf Atlantic
Maize	16%	26%	11%	5%
Millet	28%	19%	17%	1%
Rice	19%	28%	51%	77%
Sorghum	27%	21%	6%	1%
Total	90%	93%	85%	84%

Source: Calculated using FAO data

Cross-referencing information makes it possible to indicate the following minimum thresholds for the various products at the level of sub-regional stocks, for launching the reserve.

Table 14: Minimum Proportion of Different Products in the Reserve of Each Subregion

Designation	Eastern	Central	West Atlantic	Gulf Atlantic
Maize	15%	30%	10%	25%
Millet-sorghum	50%	30%	40%	
Rice		10%	20%	50%
Gari	10%	10%		
Enriched cereals	5%	5%		

As such, use of the information unit is recommended as the basis on which to calculate, for each of the four areas, the indicative proportions for different acquisitions by making use of the information from the forecast supply balance for the year, and the evolution in the price of food products.

6.4 Supplying the Physical Reserve

Under normal circumstances, ECOWAS countries take precedence in supplying the physical reserve, particularly from the main production areas in the various supplier countries with surpluses. However, in the case of an agricultural deficit and/or major crisis, some products in the reserve—such as rice or maize—may be acquired from outside the ECOWAS zone, with priority given to supplies from non-ECOWAS African states, or as a last resort, they may be obtained on the international market.

6.4.1 Regional Supply Methods

By prioritizing stock supplies using local products, considered as a means to drive the growth of regional foodstuffs, the physical reserve will help achieve at least two of ECOWAP's specific objectives:

- guaranteeing food security for the population [...] as part of an approach that guarantees food sovereignty in the region; and
- reducing dependence on imports by giving priority to food production and processing.

As an institutional market (with predictable sales), the extra demand generated by the initial set-up and regular replenishment requirements of the physical reserve will form a market for Producers' Organizations (POs), and thus an opportunity for these to develop and/or strengthen their ability to market regulated products. Furthermore, although this may not be the main objective, the reserve will contribute—on a very modest scale given the volumes involved—to regulation of the market because the lack of sales outlets combined with the difficulties of stockpiling surplus products increases the price gaps between the post-harvest phase and the lean season. In sum, the reserve

will form part of a progressive construction of a more fluid regional market, thus increasing its contribution toward food security.

In regards to supply methods or the acquisition of products to add to the reserves, the experiences of the various bodies and institutions responsible for stocks and humanitarian aid agencies such as the WFP make it possible to envisage, as the volume of the reserve grows, several different modes of supply in the short, medium and long terms. These practical methods will be crucial for the reserve to play this role of leveraging growth in production without increasing price volatility, when carrying out opportune supply or stock rotation operations.

When launching the reserve, given the relatively low volume in storage, the acquisition of products will combine direct purchases, public tender offers, calls for bids, and forward contracts.

As modern market management instruments develop (approved warehouses with receipt systems, agricultural product exchanges, etc.), the supply will come to include other types of product acquisition, particularly purchase options. In the short term, the choice of supply zones is linked to the location of the production areas and the availability of surpluses. The differentials in the cost of transport due to the location of production areas in relation to storage sites may be treated as the cost of regional solidarity and integration, in order to avoid penalizing certain areas of surplus production. This option is backed up by the fact that the location of the storage sites prioritizes proximity to areas most at risk of food crises.

The initial reserve, planned for early 2013, is intended to respond to a large-scale food crisis. Therefore, assessment is recommended of the respective shares of locally and internationally sourced produce. The need to re-build the local and national stocks, after the 2012/2013 campaign, will have a strong impact on the market, varying according to the results of this campaign.

It is recommended countries make an initial contribution in kind of 30,000 tons toward setting up the reserve, with the distribution made on a pro-rata basis according to their contribution to cereal or tuber supplies. Countries hit by the 2012 crisis will be exempt. The second half of this initial contribution will be mobilized on the regional market in relation to the main production areas, or sourced from non-ECOWAS African countries, and on the international market if needed. These final decisions can only be made by the regional Reserve Management Committee based on the results of the agricultural year.

Considering the size of the reserve (60,000 tons initially, 140,000 by 2020), its supply is largely within the scope of the regional production capacity and market, particularly in production areas with surpluses. However, the collection period is crucial if inflationary effects are to be avoided: under these conditions, the reserve will purchase from the main production areas with surpluses during the post-harvest period in order to help meet the ECOWAP objectives. To this end, a traceability system for suppliers will be implemented in a similar fashion to the WFP's experience with P4P; as such the list of supplier-producers is drawn up according to several features including their identity, location, organizational structure and amounts supplied.

However, difficulties in local collections (deficits or other factors) can justify collections in other production areas, and even the entry of products from elsewhere (mainly rice and maize imports). The regional information unit will evaluate the situation in the main production areas on the basis of the estimated supply balance for the year drawn up by the various national agricultural production monitoring bodies, particularly the estimated marketable surpluses which will enable them to set the indicative sizes for the purchases of local products.

- **Direct Purchases**

With the aim of sustaining food production and processing, direct purchases for specific volumes will be organized for producers through their POs, at harvest time as well as for the gari production units, through their organizations or representatives. To this end, agreements will be negotiated between these organizations and the purchasing bodies. The contracts will be finalized during the harvest period (for cereals, manioc, etc.). The price may be indexed to the current market wholesale price for high-quality produce. This tool is only envisaged for the acquisition of small amounts of produce.

In addition to the inclusion of small producers in the market, this supply method constitutes a form of apprenticeship to strengthen the capacities of these organizations in the control of group marketing. These organizations can then respond to public tenders, make bids, or even negotiate forward contracts.

- **Public Bids**

Public bids are a supply procedure to include the POs and private operators in the setting up of the physical reserve. In effect, by establishing a regularly updated list of agreed suppliers²³ (POs, traders and processors), the bodies in charge of making product purchases on behalf of the Regional Reserve will indicate needs by specifying product types, characteristics, qualities, specification of lots, purchase methods, time and place of collection (particularly production areas with surpluses or clusters of processing units), delivery locations with an indication of the guaranteed minimum price at the start of the year (using the calculation method based on the price series of the national MIS),²⁴ as well as the payment terms for suppliers.

Each accredited supplier that so wishes shall submit proposed quantities in order to negotiate a delivery contract that will be finalized at the time of harvest based on the market price given by information systems. Since price levels indicate abundance or scarcity, managing bodies will reduce the planned acquisitions of products that are scarce. Furthermore, according to the level of need, they will be able to determine quotas by category of accredited suppliers (POs, traders). Suppliers will be paid variable fees depending on their category. If possible, depending on the level of professionalism of the POs and the increase in their capacities, a progressive increase in their quota for these local purchases is envisaged. However, the public bid or sale system has shown major limitations with regard to good governance in certain countries in the region, hence the preference for other product purchasing tools when building up or replenishing national stocks.

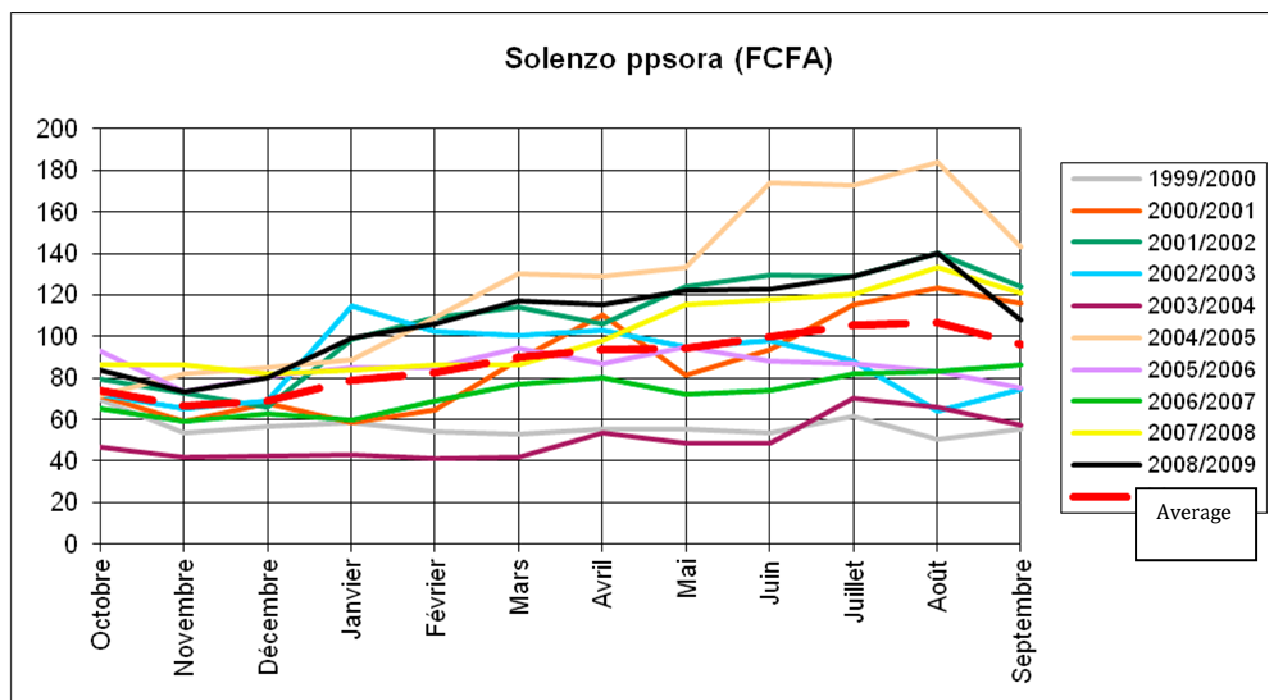
Chart 3 (below) shows the post-harvest price variations in the sorghum market in the Boucle du Mouhoun (Burkina Faso) over the course of the year, by year, and particularly according to production levels.

Chart 4 (below) shows the variety of price developments during the year (index data – index 100 = price in October). Essentially, the price development trend is linked to the results of the preceding year, and, at the end of the year, to the predictions for future harvests.

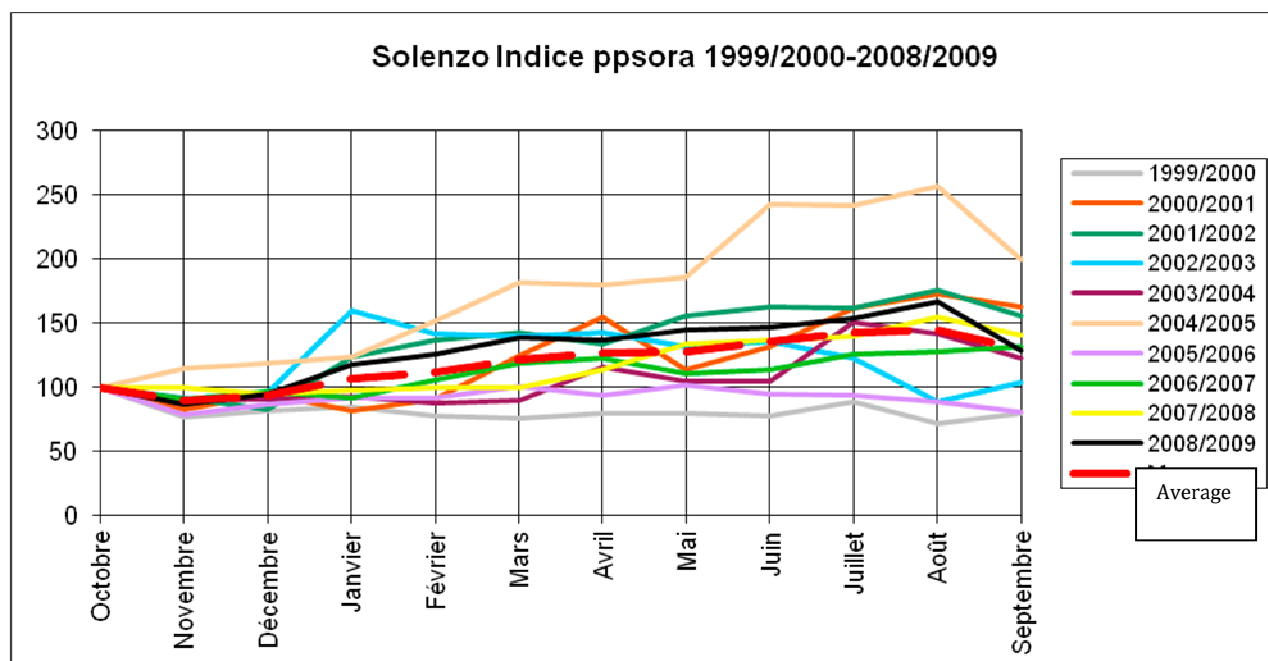
²³ In response to specific criteria of capacity and professionalism defined by the body in charge of managing the reserve in relation to the stock management companies and offices in the member countries

²⁴ In countries with functional MIS. Eventually in the whole group of countries, since the MIS represent one component of Food Security Information System (FSIS), supported by the regional ECOAGRIS program.

Graph3: Price Variability Over the Agricultural Year, by Year



Graph4: Price Development Index, by Crop Year



- **Forward Contracts**

Forward contracts are one of the methods used for purchasing products. However, they can have inflationary effects when surplus production is weak if the purchase options for the products are validated. As a result, they are preferably used to purchase enriched or infant cereals as well as gari. From this perspective, bodies responsible for making purchases negotiate contracts with producers of infant cereals expecting the delivery of specified amounts of enriched cereals of a specific quality, at a specific price or according to a predefined formula for calculating the price. This will also happen with the organizations or representatives of the clusters of gari processing units.

- **Calls for Tender**

On the whole, calls for tenders (open or restricted) will be the preferred method of purchasing food products for the reserve, given the large amounts involved. Similarly to the purchasing procedures of certain stock management companies and offices in the region, calls for tenders will be addressed to private operators and POs with distinct quotas and lots according to the category of the supplier.²⁵ These will also be subject to different supply conditions. In situations when the call for tenders is based on the size of the volume to be purchased, a traceability system must guarantee the regional (West African) origin of the products delivered. At all times the call for tender files shall include terms of service detailing the conditions for participation for each category of supplier involved in the market.

On the other hand, calls for tender—when there are production deficits and/or crises in replenishing the physical reserve, and supplies from non-ECOWAS African or other countries are needed—will be opened exclusively to private suppliers.

- **Institutional Supply Instrument**

The Regional Reserve may delegate control over supplies to RESOGEST member bodies: offices, companies, and other stock management bodies in member countries, based on a memorandum of understanding and a procedures manual for each different method of purchasing food products for the physical reserve. Furthermore, it shall put in place a supervision and auditing structure that will closely monitor procedures for the delegated contractors in the various subregions.

As well as drawing up the procedure manual, the body in charge of the Regional Reserve shall follow, together with the competent national technical services, the definition of the agreement conditions and the updating of the list of suppliers in the framework of the calls for tender.

6.4.2 Conditions and Methods for Supplies from Non-ECOWAS Countries

Priority is given to local sources when making purchases to set up or replenish the physical Regional Reserve, in other words, from the regional production areas with surpluses or through imports in the following cases: (i) a shortfall in supply from the production area in question and in other areas, (ii) when the costs for supplies from other areas are off-budget (purchase, logistical and other costs), (iii) a major crisis involving a substantial increase in the physical reserve and/or a conversion of all or part of the financial reserve. If sourcing supplies from within the ECOWAS area is not possible, the Regional Reserve gives priority to purchases from other African countries, and from the international market as a last resort.

6.5 Technical Methods for Setting Up and Maintaining Stocks

6.5.1 Quality Control

The Management Committee for the Regional Reserve will set the quality standards for the various reserve products and will negotiate the service provision contracts with the national member bodies of RESOGEST (stock management offices and companies) or food aid organizations with proven expertise and experience in the quality control of agricultural foodstuffs.

²⁵ In Burkina Faso, for example, SONAGESS defines 40-ton batches for POs and 100 tons for private operators.

6.5.2 Maintenance

To maintain stocks in the subregions, agreements for storing, maintaining and monitoring stocks will be negotiated by the body in charge of the Regional Reserve with the national offices and companies or food aid organizations that specialize in handling national stocks and that have available capacity.

These agreements shall include: (i) the parties' responsibilities, (ii) the type, length and cost of the service provision, (iii) implementation procedures, (iv) the fiscal regime and law applicable to the agreement, (v) financial flows, (vi) insurance for the stocks, (vii) dispute resolution mechanisms, (viii) choice of parties' domiciles, (ix) appointment of authorized representatives, (x) conditions for entry into force, amendments, expiry or termination of agreements.

6.5.3 Technical Stock Rotation

The products must not be stored for longer than three years to minimize wastage and to ensure quality; a technical rotation by thirds is planned from the second year of the reserve's creation so that the first stock is completely renewed by the start of the fourth year, in the event the Regional Reserve has not been mobilized for aid operations. However, taking into account the low level of the physical reserve and the lack of stocks in several countries, the question of technical stock rotation is not likely to be raised initially. It will only become an issue if the amount of the Regional Reserve that is mobilized is less than a cumulative total of 60,000 tons during the first three years.

The following three methods have been identified to ensure technical rotation (in order of importance):

- Method 1: The reserve stocks mobilized in response to food crisis management programs may offer an opportunity to ensure all or part of the rotation by thirds.
- Method 2: Multi-year contracts with national social security safety net mechanisms (see section 3.5).
- Method 3: Finally, when destocking as a result of Methods 1 and 2 is not enough to ensure full rotation, sales must be made on the regional market.

Since the ultimate goal of the reserve is to ensure the availability of foodstuffs to help respond to food emergencies, the rotation strategy must permit the **maximization** of the amounts taken out of the stocks through **method 1**, and to **minimalize** the amounts taken out of the stocks according to **method 3**. Method 2 is envisaged as a means of making variable adjustments, but the need for multi-year contracts with safety net programs make it equally restrictive. Since the technical rotation flow is naturally affected by the amounts of the reserve mobilized due to the activation of an emergency food aid program, a proportion lower than one-third of the reserve may be guaranteed as transfers to safety net mechanisms implemented in the region.

The mix of products kept in the reserve shall be adapted to meet the needs linked to method 1. Also, if certain products stored for this purpose are not used through the safety net programs linked to the reserve, it will become necessary to call on the markets to sell off these products as part of the replenishment-by-thirds process (in cases where the outflow resulting from method 1 has not been sufficient during the corresponding period).

6.6 Criteria and Terms of Mobilization for the Regional Reserve

The criteria and terms of mobilization for the regional reserve respond to two major principles: **equity** and **effectiveness**.

To ensure **equity**: the decision to mobilize the Regional Reserve in support of a country in the region rests on **objective and recognized criteria, informed by reliable and publicly-available data**.

To ensure the **effectiveness** of the process of mobilizing the reserve, the procedure must be simple and expedient.

6.6.1 The Triggers: Priority Given to the *Cadre Harmonisé Bonifié*

The reserve may be mobilized to deal with all kinds of major food crises, regardless of the kind of shock that has caused it. The trigger is therefore connected to a deteriorating food situation in reference to a baseline.

Therefore, the analysis tool of choice for understanding the food situation is the Cadre Harmonisé Bonifié (CHB) for vulnerability analysis, for two principal reasons:

- it is a tool that was designed by the regional and international technical organizations, and enjoys consensus in the region;
- it is a framework for analyzing the food situation based on a systematic approach to food security and the mechanisms and strategies by which households are meeting their food needs.

Most countries in the region are working to strengthen and harmonize their early warning systems based on the CHB. The CHB is based on the analysis of 12 groups of synthetic food security and nutrition indicators and their trends. The synthesis of these indicators makes it possible to establish the level of food insecurity on a given geographical scale (more or less finely-graded according to the scale at which the data-collecting systems work). Levels of food insecurity defined by the CHB are classified into the five phases listed and summarized in Figure 12.

The CHB has been implemented in most Sahelian countries. Taking into account ongoing efforts to deploy full information systems in the remaining countries, the CHB should eventually form a common and shared analysis framework for all ECOWAS countries. The Regional Reserve, insofar as it is a joint instrument, should provide an incentive towards the rapid widespread use of the CHB and as a result the implementation of reliable, complete and independent information systems in each country.

Figure 11: Food Insecurity Phases Set Out by the Cadre Harmonisé Bonifié (CHB)

	Food insecurity phase	General description
1	Generally food secure	Generally adequate and stable access to food supplies
2	Moderate food insecurity	Limited access to adequate food supplies and accumulation of risks of worsening food situation
3	Critical food insecurity	Acute lack of access to adequate food supplies and rapid exhaustion of livelihood assets, risking precipitation of phase 4 or 5
4	Extreme food insecurity	Chronic lack of access to food supplies accompanied by increased mortality, very high levels of malnutrition and loss of livelihood assets
5	Famine	Total lack of access to food supplies, serious social upheaval, massive population displacement and exhaustion of livelihood assets

Source: CILSS

6.6.2 Triggering Procedure

This section details the criteria and conditions for mobilizing the Regional Food Security Reserve. Two different procedures are planned, depending on whether the country has a framework for analyzing information based on the CHB, or does not yet have one:

- the simplified procedure, when countries have a vulnerability analysis and map based on the CHB;
- the normal procedure, when they do not have one, or when the food insecurity diagnosis does not achieve consensus among stakeholders.

In all cases, the mobilization of the Regional Reserve is a contribution to the response plan established by national authorities and prepared by the bodies in charge of food security in consultation with regional and international institutions, stakeholders and NGOs. The existence of this response plan is essential for the review of requests made to the Regional Reserve.

Box 2: Functioning of Triggering Procedures

Simplified Procedure: For Countries with a Standardized CHB Analysis

- Requests are presented by the applicant country to the director of the reserve on the basis of a standardized form, and accompanied by the Early Warning System (EWS) findings, CHB assessment of the food situation and the national response plan.
- Processing of the application by the reserve director, who must notify the management committee. The committee has 48 hours to object to the decision before it comes into effect. Objections may only be admitted if they are motivated by impediments to the criteria defined below.
- Only requests from Member States and formulated on the basis of EWS, supported by the CHB can be dealt with in this way. Decisions will be justified by a report prepared by the information analysis unit, and will rely heavily on this basis. With the support of the unit, the director of the agency will have 72 hours to prepare this report and submit a decision to the management committee.
- Where a State has been notified of authorization to use a certain volume of the reserve, all institutions authorized by that State and engaged in the implementation of food assistance operations in the country may request the use of a portion of the foodstuffs sought. Such application by these institutions must have received approval from the requesting State. This rule is valid regardless of the decision procedure.

Normal Procedure: For Countries Lacking a Standardized CHB Analysis

- Requests are presented by the applicant country to the director of the reserve, together with all available information to justify it (food situation, national response plan). The director, following advice from the “stock information” analysis unit, may request further justification before the request is presented to the Management Committee.
- A request can only be processed if the applicant State has officially declared a State of Emergency or Natural Disaster.
- A summary of the application, prepared by the stock information unit, is delivered by the director to the Management Committee to be decided by consensus within the committee.
- This procedure is based on a longer information-gathering period.

Requirements for using the simplified request procedure: States in the ECOWAS zone may make requests to the Regional Reserve on the basis of an analysis provided by their EWS, based on the CHB, and when some areas of the country are subjected to levels of food insecurity classified as "critical" by the CHB (from phase 3).

Non-applicable cases

1. Any application not justified by an analysis of the food situation based on the CBH must follow the normal procedure.
2. Certain types of crises generally receive poor evaluation by the EWS. This is, for example, the case of food crises caused by sudden natural disasters, which by definition are difficult to anticipate by early warning systems. In this case, even if there is a discrepancy between the vulnerability map provided by the CHB and the real situation, the simplified procedure operates if the country has officially declared a State of Natural Disaster. This is also the case for crises whose origin is mainly political: these tend to impair information-collecting capabilities in the affected areas. Save for the cases where the EWS would be effective in the area, requests motivated by this type of crises will be examined by a normal procedure.

6.6.3 Request Thresholds Differentiated by Country, According to the Level of Development and Access to Markets

Mobilization of the Regional Reserve according to the simplified procedure is subject to compliance with quantity limits. It is noted that these limits will be based on the estimated volumes of food aid required in view of the available analyses, but also the capacity of member countries to cope without resorting to regional solidarity. Three categories of countries are distinguished:

- landlocked LDCs with limited resources and where access to international markets is difficult and costly;
- coastal LDCs, where access to international markets is easier;
- coastal non-LDCs.

There is one special case: Cape Verde, which as an island also has limited market access. Though it is not an LDC, it is proposed to treat Cape Verde in the same category as coastal LDCs.

All requests for volumes above these mobilization thresholds will be assessed according to normal procedure. In the case of a systemic crisis hitting the region and generating requests for volumes beyond the capabilities of the reserve, Member State requests will be reduced in the same proportion for all countries that have requested assistance from the reserve.

In all cases, the Management Committee is sovereign to decide and adjudicate benefits of the regional reserve.

Country category	Threshold for submission of a request following a simplified or fast-track procedure.
Landlocked LDC	40% of estimated needs
Coastal LDC, landlocked non-LDC	20% of estimated needs
Coastal non-LDC	10% of estimated needs

7 Prerequisites and Complementary Measures

The overall feasibility is based on the principles of subsidiarity, complementarity and solidarity. The Regional Reserve is part of a comprehensive approach seeking to significantly strengthen the collective capacity of Member States, institutions and regional stakeholders to prevent and manage food crises, while making this process consistent with development prospects.

Contrary to some views put forward in international discussions, the Regional Reserve cannot replace local reserves and national stocks. Rather, the effectiveness and efficiency of the Regional Reserve are dependent on the parallel construction and enhancement of stocks on these two sub-regional levels.

Also, the establishment of the Regional Reserve should bring about an additional boost in four areas:

- development of reliable, credible, independent information systems focused on the different food security parameters;
- promotion of contingency plans, designed as pre-prepared frameworks, to organize an appropriate response to different crises that the country or region may be forced to confront;
- the promotion of other lines of defense that the Regional Reserve supports: local stocks, national food security stocks;
- development of the RESOGEST cooperation framework in order to boost collaboration between public bodies responsible for managing stocks and allow their networks to play a full role in the implementation of the Regional Reserve.

These four dimensions are a prerequisite for the success of the Regional Reserve. The reserve represents an opportunity to support countries in strategic areas with regard to food-related challenges. It is therefore essential that countries and stakeholders mobilize efforts in this direction with support at the regional level.

The funding mechanism proposed to the ECOWAS statutory bodies allows simultaneous financing of the regional reserve in the strict sense and to deploy support on a national scale and at the RESOGEST level.

7.1 The Development of Food Security Information Systems

The decision to trigger the mobilization of the Regional Reserve on the basis of the summary information provided by the CHB forms part of the prospect of strengthening institutions and the food security management capacity in the region. It is the result of considerable efforts made over nearly 10 years to provide national, regional and international stakeholders with a single framework of vulnerability analysis. This work was initially focused on food issues and the specific characteristics of the Sahelian countries, and as such the food security information systems benefit from 30 years of joint investment made by national governments and donor organizations.

In recent years, ECOWAS has entrusted CILSS with a technical support mission to West African countries that are not members of CILSS, in order to deploy an information system that covers the entire region, and to exploit the gains achieved in the Sahel by this regional technical institution.

ECOAGRIS, the information pillar of ECOWAP (second specific objective of the RAIP), plans to support the spread of information systems to all ECOWAS member countries, the regional link-up of these systems and databases, as well as the establishment of a regional unit for analysis and decision support. Seven countries have already benefited from support for upgrading their systems. The eight other countries should receive similar support from 2012.

In addition to generating data (monitoring the parameters of the agro-pastoral year, production, markets, household economy, levels of different types of stocks, etc.), the CHB demands an ability to cross-reference information. Units have been established in several countries, and training efforts are underway. Here too, the generalization of the system across all countries is a major challenge in order to ensure the reserve's triggering mechanism is based on a single, expedient and reliable system as soon as possible.

7.2 Systematization of Coordinated National Contingency Plans

The ECOWAP/CAADP Regional Investment Program anticipates systematization of national contingency plans to plan implementation of responses to various crises that may arise. The design of the contingency plan refers to a baseline and determines, based on a historical review of crises, the various emergency scenarios that the country might find itself confronting. For each of these scenarios, the contingency plan specifies the alert thresholds, the populations concerned, assessment of their aid requirements, etc. On this basis, it outlines the proposed response: modes of food assistance according to the scenario, triggering principles, tools used, logistics and responsibilities.

The contingency plan enables a reasoned and planned response on the basis of the magnitude of the crisis the country faces. As such, it allows the responsibilities of different stakeholders at local and national level to be defined, according to the specific nature of crises and the ability to cope with them at different levels of intervention.

Systematization of this approach is necessary for two main reasons:

- it makes it possible to anticipate responses and to have them ready, facilitating a more expedient response to emergencies: consensus among those involved in emergency assistance on appropriate interventions according to different crisis scenarios; preparation of intervention tools (stocks, logistical means, etc.)
- it allows countries to identify situations that require recourse to regional and international solidarity. Thus, at the regional level, development of sufficiently harmonized, concerted contingency plans will progressively ensure equitable intervention at this level. The thresholds at which countries have recourse to regional aid should be gradually harmonized, although these thresholds must take into account level of development, national capabilities, etc. and thus be differentiated (see also the approach adopted in the design of the Regional Reserve, in terms of the differentiation of regional support).

This is in line with the regional storage strategy as a whole, which emphasizes the importance of deploying storage mechanisms at both local level (local stocks) and national level. In particular, the establishment of the contingency plan will make it possible to define the national storage strategy and will mobilize the various stakeholders (state government, POs, NGOs, UN, TFPs) in the implementation of this strategy.

7.3 The Design of the Regional Contingency Plan

The general implementation of national contingency plans must be accompanied by a regional contingency plan that will set out:

- the national crises scenarios that require recourse to regional support;
- the intervention procedures at regional level;
- the complementarity of regional interventions in relation to the range of national responses available.

The rise of a regional capacity to respond to food crises is part of a process of a progressive rationalization of supra-national support, and of capacity-building in the region in order to deal with

its own crisis situations and limit the recourse to international aid, which is increasingly sought on the multiple fronts of international crises.

The "contingency plan" section is not budgeted. It is supported by the RAIP (third specific objective on access to food for vulnerable populations). The CILSS is mobilized to support countries in carrying out this process and to offer methodological support. The experience of countries such as Niger can be usefully exploited. The Charter for Food Crisis Prevention and Management in the Sahel and West Africa, adopted by ECOWAS member states, WAEMU and CILSS in November 2011, constitutes a significant reference framework that has already set out guidelines for the development of such plans.

7.4 Support for the Establishment and Reinforcement of National and Local Stocks

The equity principle put forward at the regional level implies that eventually all countries shall harmonize their conditions for having recourse to the regional reserve. At the moment, the situation is extremely heterogeneous. National Agricultural Investment Programs and strategies for prevention and management of food crises generally incorporate the promotion of stocks. Likewise, the RAIP anticipates support for national stocks in its third specific objective.

As part of the proposed financial mechanism, funding will be granted to countries to supplement the funding already provided through existing national and regional programs, particularly to facilitate the full implementation of the two first lines of defense: local and national stocks.

7.4.1 Support for National Food Security Stocks

This support is aimed at providing all countries with a national response capability for crisis situations by means of permanent physical and/or financial security stocks. In this context, such support can address the following aspects:

- the construction or rehabilitation of national storage infrastructure, especially in under-equipped coastal countries. The current SWAC/ECOWAS study, by expanding the diagnosis made by WAEMU and CILSS of 7 countries in the WAEMU zone, will provide a precise inventory. Funding is already being planned by the WAEMU for investments of this nature in its Member States;
- contribution to the establishment or reinforcement of the physical and/or financial stocks in national inventories;
- support for the design of efficient governance mechanisms;
- training of human resources (technical, economic and financial aspects of the creation, maintenance and management of stocks) and the mobilization of expertise, particularly in the context of RESOGEST (see below).

7.4.2 Support for Linking Up Local Stocks

Local stocks are a key element of the regional security storage strategy. Evaluation of the stock volumes needed in the coming years and the cost that these stocks represent a strong argument in favor of decentralization. This decentralization has the additional advantage of providing local communities and producer organizations with food security management mechanisms at the local level, on a scale where local stakeholders are the best placed to intervene quickly and in a targeted and effective manner.

The virtues of local stocks are widely recognized but the difficulties surrounding the harnessing and management of these tools is rarely well understood. Apart from the endogenous difficulties, the volatility of and counter-cyclical developments in prices, as well as interventions in the name of the food assistance (food aid, sales at subsidized prices) are major destabilizing factors for these local

stocks. Moreover, their dispersed nature does not facilitate contract-based cooperation between these local institutions and national – let alone regional – institutions for management of food security stocks. This logic of contracting is the basis of a progressive clarification of responsibilities At different levels of intervention, and a subsidiarity-based approach. These aspects are at the heart of the regional strategy for security storage.

On the recommendations of the Task Force, the ECOWAS Commission has accepted the need for extensive work on the terms and conditions of local stock reinforcement, and in particular on price risk management, the opportunities offered by linking up reserves, the terms of contracting, and finally, on the specific responsibility of the regional level to address these issues. It initiated this discussion with POs that manage networks of local stocks (Mooriben and the Naam Federation/Food Security Granaries in particular), and Member States that carry out a review of their national cereal banks strategy. A member of the Task Force, Oxfam, has undertaken research the results of which may feed into the analysis and proposals over the coming months.

Support for local stocks may concern the following aspects:

- the implementation of co-financing procedures for investments in the construction or rehabilitation of storage infrastructure at the grassroots, farmers' organization or local community levels;
- the construction of warehouses on an inter-community scale;
- contribution to the establishment of the physical and financial reserves at the level of local stocks;
- capacity building for stock management by POs and local communities;
- supporting and encouraging the linking up of local, dispersed stocks, to encourage contracting by national bodies in charge of stock management;
- support for these forms of contracting;
- the sharing of "price risk".

7.5 Support for the Implementation of the RESOGEST Cooperation Framework

The national bodies in charge of food security stock management are invited to play a significant role in the implementation of the Regional Food Security Reserve. The ECOWAS, WAEMU and CILSS Member States, represented by the represented by Ministers ensuring the supervision of national structures have adopted a framework for cooperation on two dimensions:

- a. the establishment of a mechanism for regional solidarity bearing on the following areas (see Box 1):
 - i. the establishment by of each country, within the national food security stock, of a reserve of at least 5% capable of being mobilized as a loan or transfer free of charge or for consideration, to meet the needs of other countries;
 - ii. capacity building for technical and financial management by national bodies and the sharing of skills at a regional level;
 - iii. development of a "information and support for decision-making" component for food reserves;
 - iv. respecting the principles of free movement and facilitating trade in the event of a food crisis;
 - v. promoting regional trade and exploiting opportunities provided by the existence of surpluses in operations to restore national stocks
- b. enhancement of the cooperation framework in the design and implementation of the regional food security reserve.

Technical coordination of RESOGEST was entrusted to CILSS. The framework for cooperation provides for the establishment of an information framework for stocks.

Member bodies of RESOGEST have been closely associated with the preparation of the Regional Reserve project and their experiences have helped to refine the technical choices and budgeting for the initiative.

The institutional structure selected relies on national bodies and their regional network (see below). In particular, the entire product stocking and storage component relies on the national bodies in the target countries for the location of physical stocks. The procurement strategy, whether based on contracts with producer organizations or calls for tender, can also be implemented through the mobilization of national bodies and learn from their experience in this field. Control of foodstuffs upon entry to warehouses is likewise a prerogative entrusted to national bodies.

All of these services are the subject of an agreement between the Regional Reserve and the relevant bodies.

Moreover, the initial constitution of the Regional Reserve provides for a contribution by each country (see financial mechanism, above). The national bodies concerned will be the interlocutors of the Regional Reserve for the implementation of this initial supply.

The priority for RESOGEST lies in supporting countries to establish or strengthen national food security stocks, which are a major component of the regional reserve strategy (see above). Given the existing situation, in which precise data about reserves remains difficult to establish, the present proposal does not include the contribution of 5% of national stocks to the Regional Reserve. The ECOWAS Commission considers that the priority at the national level should be given to the consolidation of the second line of defense, the national stockpiles. The planned evaluation after three years of operation will enable assessment of the possibility of implementing this commitment across all countries. Similarly, in terms of the institutional structure, RESOGEST may, once it has deployed its capabilities, play a greater role, particularly in terms of regional coordination, in the mechanism for technical management of the Regional Reserve.

In this context, regional support for RESOGEST, considered as a framework for cooperation between national bodies, is not budgeted for the project. Along the same lines of reasoning as for the previous sections, the proposed financial structure frees up resources mobilized for this project.

The support will cover the following aspects:

- support for the establishment and funding of regional technical coordination;
- mobilization of the expertise of one national body for the benefit of another;
- capitalization on good practices and contribution to the development of the Code of Conduct for security stock management, an initiative promoted by the G20 internationally;
- support for drawing up a methodology for stock assessment and periodic survey in order to obtain regularly updated information that provided a sufficiently complete overview at the national and regional levels;
- the definition of practical methods for mobilization, funding and replenishment of the 5% of the reserve allocated to solidarity operations between countries.

8 Institutional Structure

Management of a security stock is an extremely complex issue, and even more so at the regional level. The sustainability of such a project relies on clear governance, clearly identified responsibilities, rigorous technical and financial management, a capacity for rapid decision-making and action, and proven expertise.

The choice of the institutional structure is therefore crucial. Following the discussions conducted within the Task Force, based on consideration of several institutional designs, the ECOWAS Commission makes a number of recommendations to the ECOWAS statutory bodies relating to establishment of this reserve and the safeguarding of its aims and its sustainability. The Commission selected two scenarios it submits for consideration by these bodies.

In a regional context marked by the existence of numerous institutions and cooperation agencies dealing with food security and crisis prevention and management, it is useful to distinguish between:

- areas for consultation and coordination, which must be as inclusive as possible;
- areas of decision, which must be based on institutional legitimacy at the highest level;
- areas of technical management, whose mandate must be strictly operational.

8.1 General Context and Guidance

The establishment of a Regional Food Security Reserve is enshrined in the objectives of ECOWAP/CAADP, adopted in 2005. Its relevance was reaffirmed following the 2008 food crisis. The bolstering and pooling of security stocks have been the subject of decisions made by the Ministers of Finance, Agriculture and Trade of ECOWAS on May 19, 2008, within the context of the adoption of the regional offensive for food production and against hunger, as well as the creation of an emergency intervention fund within the ECOWAS Bank for Investment and Development (EBID). These guidelines have been included as part of the operationalization of ECOWAP through the Regional Agricultural Investment Program (RAIP).

Since 2007, the CILSS has initiated discussions with companies and national offices responsible for the management of security stocks, with a view to exploring the potential of pooling reserves. This process resulted in the establishment of a network, the RESOGEST, and the adoption by the ECOWAS Member States of a framework for cooperation, in early 2012.²⁶

In 2011, the G20 decided to support a pilot project for establishing a regional food reserve and chose West Africa to implement this, under the leadership of ECOWAS. For this purpose, the WFP has designed the PREPARE project, which is notable for taking into account the price risk on the international market. Elements of this feasibility study have been exploited in the course of the present study. The "international price" risk is built into the risks covered by the regional reserve.

In February 2012, the WAEMU Council of Ministers adopted a recommendation for the implementation of a regional food reserve in its economic area.

The three regional institutions (ECOWAS, WAEMU, CILSS) agreed to unite their approaches in a single regional strategy and participate to this end in the Task Force set up by ECOWAS, along with other regional stakeholders. For its part, the G20 considers its initiative in support of the regional strategy.

²⁶ RESOGEST, Cooperation Framework, March 2012.

The institutional structure is intended to guarantee this integration and the involvement of different stakeholders according to their mandate. It seeks to solve an obvious contradiction between four demands:

- the speed of decision, which is a key element for the efficiency and effectiveness of a security storage mechanism, focused on the management of emergencies;
- the involvement of stakeholders and the mobilization of technical and financial resources provided by different institutions, which requires longer consultation processes at the regional level, with Member States, and with the international community;
- the clarity of responsibility in decision making, which is the measure of the transparency and sustainability of the reserve;
- the exercise of a real regional leadership under the auspices of the highest authorities in the region.

The following section briefly describes the different institutional structures examined by ECOWAS, with the support of the Task Force, and the reasons for its recommendation of two options to be put to the decision of the competent authorities.

8.2 Guidelines Shared by All Scenarios

The scenarios examined are based on different structures of institutional organization but rest on certain shared guidelines and principles, examined in other sections of this proposal, and that meet the objectives assigned to the institutional structure:

- To express regional leadership through institutions for economic integration;
- To fully involve key stakeholders, while clarifying the responsibilities of different categories of interested parties;
- To provide technical management of the regional physical and financial reserves;
- To ensure the sustainability of the regional reserve;
- To ensure transparency of decisions and adherence to operation and destocking rules;
- To report back to stakeholder institutions (regional institutions, Member States, socio-occupational parties and NGOs, financial partners and international institutions) and ensure transparency of financial management.

These principles and guidelines are the following:

- The structure selected relies on the leadership and accountability of regional integration institutions. Scenarios have examined two guidelines: ECOWAS or both ECOWAS and WAEMU institutions. It reports to the Conference of Heads of State and Government.
- The regional mechanism for storage strategy management is designed in accordance with two key principles: (i) clearly identified responsibility (local ownership); (ii) dialogue and partnership with the various contributors, pioneers and stakeholders.
- Dialogue between the region and international partners bears on three levels:
 - At the level of general guidelines for the reserve policy;
 - At the level of data analysis in the framework of consultation mechanisms aimed at promoting a joint diagnosis (see the Charter for the prevention and management of food crises and the PREGEC/Cadre Harmonisé Bonifié mechanism);
 - At the level of resource management, without necessarily excluding the international community from regional decisions.

- The institutional structure systematically distinguishes between different bodies according to their specific roles:
 - The area for intra-regional consultation and dialogue;
 - The area for consultation with TFPs contributing to the reserve and specialist UN agencies, a major player in humanitarian action;
 - The decision making center;
 - The technical management unit;
 - The information management and decision-making support mechanism;
 - The controlling body;
 - The monitoring and evaluation body.
- The triggering of the reserve is based on the CHB (Section 6.6), but requires a differentiated approach to reflect the heterogeneity of situations among countries with respect to the performance of food security information mechanisms (see different procedures for assessment/triggering – Box 2: Functioning of Triggering Procedures). The stock information unit provides information to the Management Committee enabling management of this progressive alignment of countries with regard to the CHB.
- All countries need to invest, with the support of the regional framework, in the progressive establishment of information systems with the capability to provide the CHB with data on a comparable basis across countries;
- The decision-making body is based on an information analysis unit attached to ECOAGRIS (decision support). It runs an information network mechanism relating to national stocks (local and national stocks) and to the evolution of the situation and food risks, cross-referencing, analyzing and exploiting information from different existing national and regional mechanisms, including the PREGEC, and eventually the stock information system deployed by RESOGEST. It furnishes the Management Committee and the Technical Agency with information that allow them to:
 - Anticipate requests made to the Reserve and to prepare possible interventions;
 - Prepare decisions on making use of physical and financial resources on the basis of Emergency Response Funds.
- The decision-making body (Management Committee) decides on the contribution of the Emergency Response Funds to interventions in countries. This fund is the instrument of regional solidarity. It is mobilized to finance physical and/or financial destocking, when the region is involved in the financing of responses to crises in regional countries. It is not involved in operations where the reserve makes loans repayable by countries or other eligible stakeholders. The Committee's composition and the status of its President are the guarantors of the independence of operation of the Reserve with regard to all types of interference that seeks to divert the Reserve from its operating criteria.
- The configuration of the Management Committee takes into account:
 - The partnership system between the different levels of governance, with the Member States and socio-occupational parties;
 - The partnership system with the G20 and United Nations agencies;
- The operational unit or agency provides sole technical management of the reserve. It has no decision-making function. It implements the decisions of the Management Committee. Practical operations are usually delegated to operators specialized in supply (contracts,

tenders, quality control), storage and maintenance (technical rotation, transportation, etc.) RESOGEST Member State bodies with competence in setting up, maintaining and managing stocks are considered privileged operators for the mechanism. They form the "technical arm" of the Agency and relations with the latter are codified in contracts for services paid.

8.3 Missions of the Various Bodies

The following table describes the different functions for complementary nature of the organs in place to ensure the proper functioning of the regional reserve. The main elements of the institutional base are shown in Diagram 1.

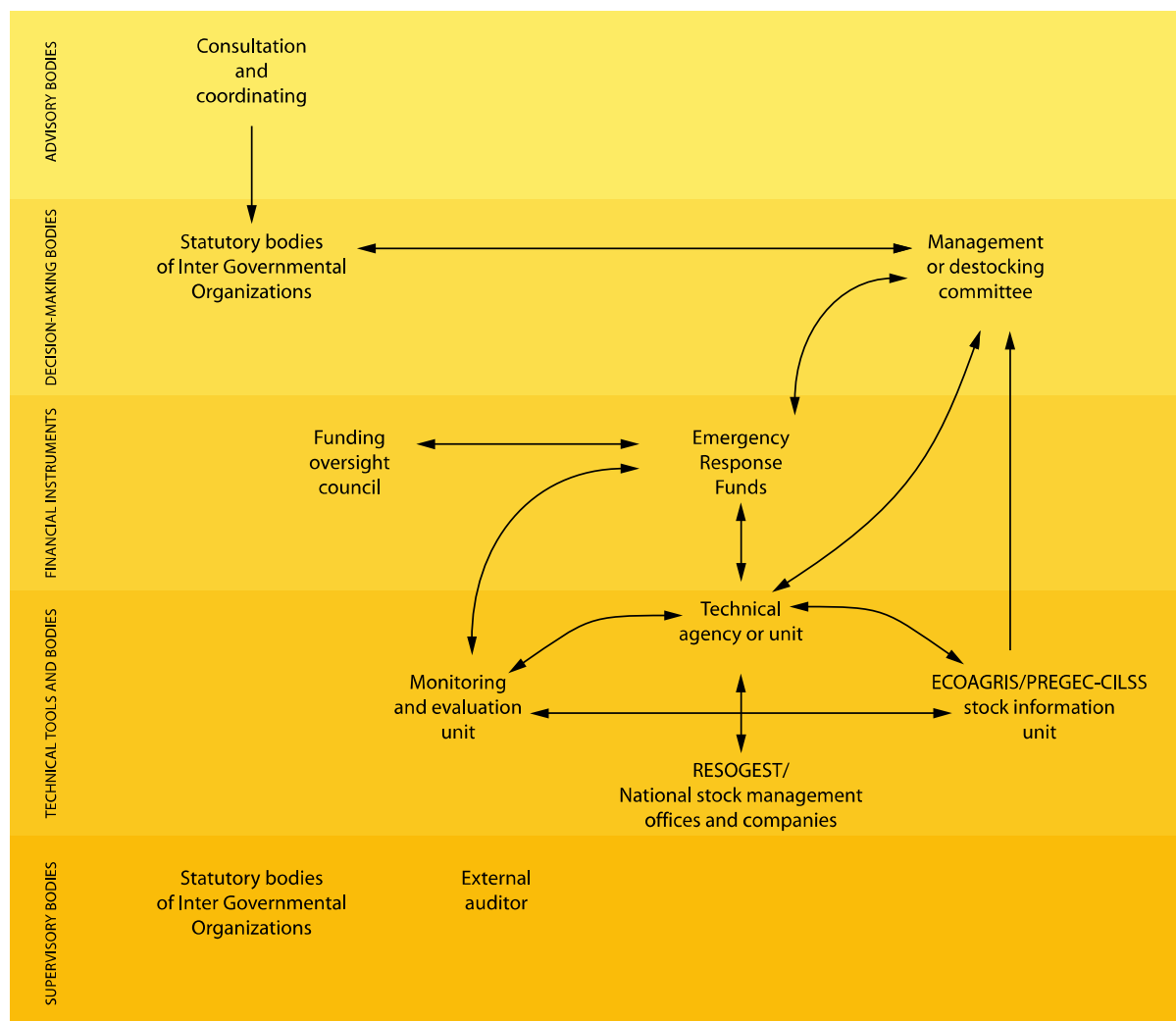
Attention is especially drawn to two key and distinct functions:

- The Management Committee, which **makes decisions** on the use of regional solidarity resources. Its head is the guarantor of the fairness of the mechanism and the proper management of the Emergency Response Fund's resources;
- The head of technical management of the reserve is the **guarantor of the sustainability of the reserve. The basic rule to which he or she must constantly refer is: no resource can leave the reserve without a guarantee of return.**

Table 15: Functions Considered in the Design of the Institutional Structure

Functions		Nature of the Body	Stakeholders/Institutions Concerned
1	Definition of general guidelines for the storage policy and links with national policies	Advisory	Regional integration and cooperation institutions, Member States, RESOGEST, POs, NGOs, International Organizations, TFPs,
2	Decision on storage policy guidelines and tools	Decision making. Statutory bodies of regional institutions	Member States or Member States/international community
3	Arbitration between humanitarian action and management of food reserves	Inter-departmental decision-making body for arbitration within the regional integration institutions	Departments responsible for humanitarian action, trade and agriculture; Presidency of the Commission(s)
4	Decision on funding and activation of regional solidarity mechanism	Decision making. Management committee + Emergency Response Fund oversight committee	See scenarios below
5	Technical management of the reserve	Technical agency or unit	Regional integration and cooperation institutions
6	Information management and decision-making support	Regional information system and decision-making support unit Technical committee	ECOAGRIS, RESOGEST, national EWS, PREGEC, FEWSNET, WFP, FAO
7	Control of decisions and adherence to operating rules and procedures	Independent control body	Competent ECOWAS bodies and external audit firm
8	Monitoring and evaluation	Specific or integrated monitoring and evaluation mechanism	All stakeholders

Diagram1: General Framework of Institutional Structure



8.4 Four Scenarios Assessed

Different scenarios were examined with the aim of determining the structure that best responds to the various demands; transparency, security and sustainability of the reserve, equity and effectiveness, involvement of stakeholders, accountability, etc. The scenarios differ in the responsibility of the various regional institutions and in the ways of involving the international community.

From this perspective, four institutional scenarios were analyzed:

- **Scenario 1: Full integration into the ECOWAP/ CAADP institutional structure**
- **Scenario 2: Establishment of an independent and specific structure**
- **Scenario 3: Establishment of a dedicated mechanism but inserted into the ECOWAP/CAADP structure**
- **Scenario 4: Establishment of a joint management mechanism for the regional reserve**

8.4.1 Scenario 1: Full integration into the ECOWAP/ CAADP institutional structure

This scenario considers that the Regional Food Security Reserve is an integral part of ECOWAP/CAADP and takes over from the implementation of the Regional Agricultural Investment Program. It therefore exploits the institutional structure and financial mechanism that accompany the adoption of ECOWAP and are currently being implemented.

It is justified by the fact that the 15 states concerned are members of ECOWAS and have a common agricultural and food policy, as well as a regional policy on humanitarian action. It aims maximize use of existing institutions and not create new institutions – generally an expensive undertaking – in a context marked by weak human and institutional capacities.

It is based on global agreements on cooperation between ECOWAS and WAEMU. ECOWAS takes responsibility but strongly associated WAEMU in decision-making.

In this scenario, the various functions listed in Table 15 are handled by the following bodies:

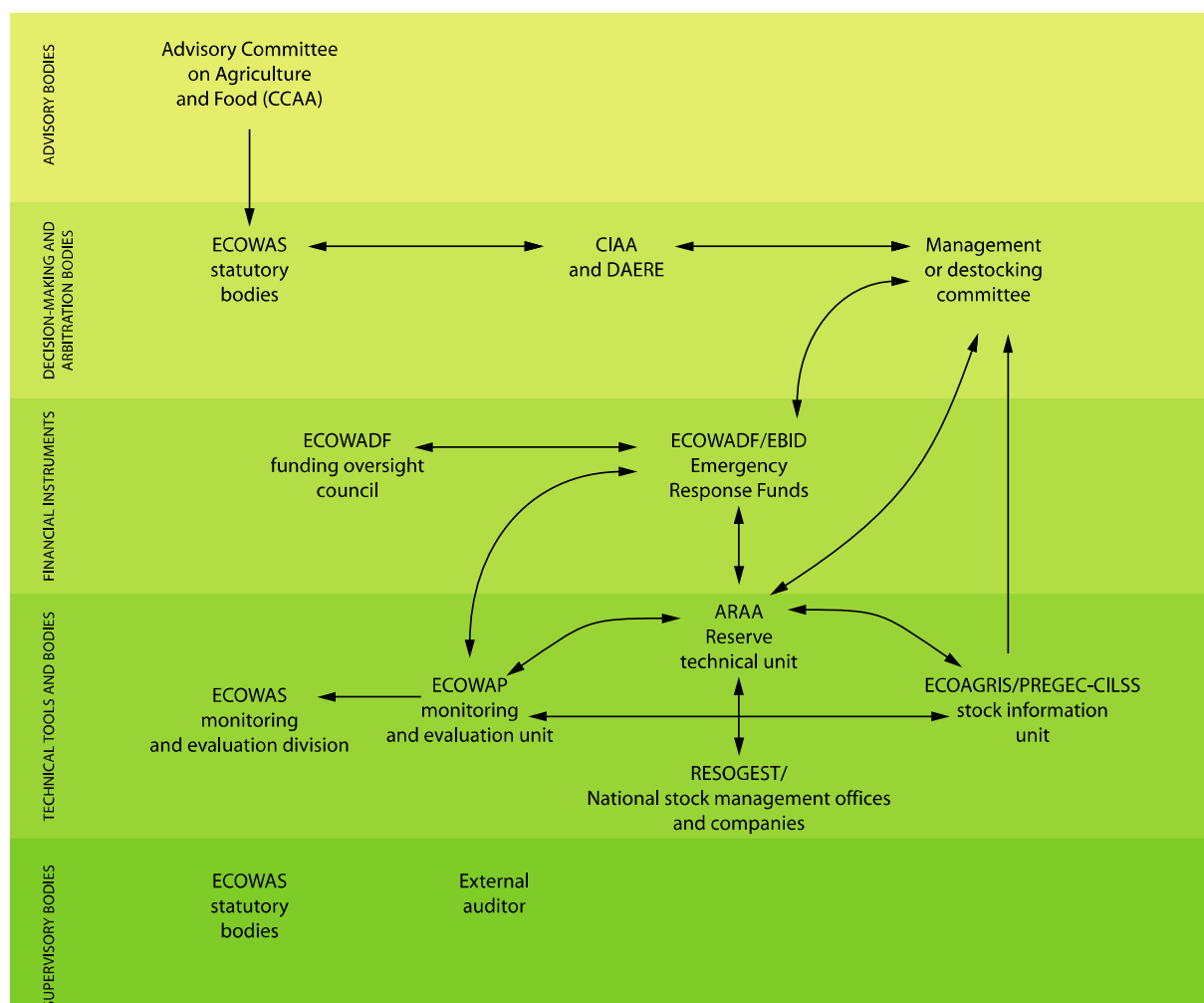
- **Advisory body** with different stakeholders: Advisory Committee on Agriculture and Food (CCAA). This body incorporates ECOWAP various stakeholders and permits the discussion and proposal of general guidelines for the security stock policy;
- **Coordination and arbitration body** internal to ECOWAS among different policy sectors involved: Inter-departmental Committee for Agriculture and Food (CIAA), involving DAERE/Humanitarian Department/Trade Department;
- **Body for coordination and consultation with TFPs and international institutions:** different existing spaces may be mobilized at different levels:
 - o the Food Crisis Prevention Network (RPCA) and the PREGEC process led by the CILSS bring together the regional and international stakeholders, notably the UN agencies and NGOS;
 - o the dialogue mechanism between TFPs and ECOWAS based on the regional Partnership Agreement for implementing ECOWAP/CAADP;
- **Financing body:** based on the Regional Fund for Agriculture and Food (ECOWADF) and housed in the EBID (under the rubric "Emergency Response Fund", part of "food security"). It has a Supervisory Board;
- **Decision-making body:** establishment of a Management Committee composed of:
 - o A representative of the President of the ECOWAS Commission;
 - o A representative of the President of the WAEMU Commission;
 - o A representative of CILSS;
 - o A representative of RESOGEST (representing offices and companies in member countries);
 - o A representative of POs;²⁷
 - o A representative of NGOs;²⁸
 - o The meeting is chaired by an independent and competent regional figure appointed by the President of the ECOWAS Commission on the proposal of the Commissioner

²⁷ Jointly designated by ROPPA, RBM and APES

²⁸ Jointly designated by the two platforms POSCAO and FOSCAO

- of Agriculture, Environment and Water Resources. He or she would have the rank of Commissioner and report to the President of the ECOWAS Commission;
 - A representative of the UN participates in a non-voting capacity.
- **Operational Technical Unit:** Regional Agency for Agriculture and Food (ARAA) currently being set up, housed in Lomé within the EBID.
- **Information and decision-making support unit:** establishment of a stock information unit within ECOAGRIS;
- **Monitoring and evaluation unit:** integrated into the ECOWAP mechanism and into the overall mechanism of the ECOWAS Commission;
- Links with ECOWAS statutory bodies are ensured through the ECOWAP institutional structure.

Diagram2: Diagram of the Institutional Structure Relating to Scenario 1, "Integration into ECOWAP"



8.4.2 Scenario 2: Establishment of an Independent and Specific Structure

This scenario is underpinned by the complexity of the institutional landscape in the region. It is essentially justified by the objective of creating a mechanism that enables the exercise of **joint responsibility between the two institutions for regional integration, ECOWAS and WAEMU**. It requires that both institutions jointly undertake the formation of bodies and in the financing of the structure and the reserve. It makes the Regional Reserve a challenge and a joint and specific project for the two institutions, for which complete should adopt a common institution under joint supervision (Diagram 3).

In this scenario, the various functions would be assumed by the following bodies:

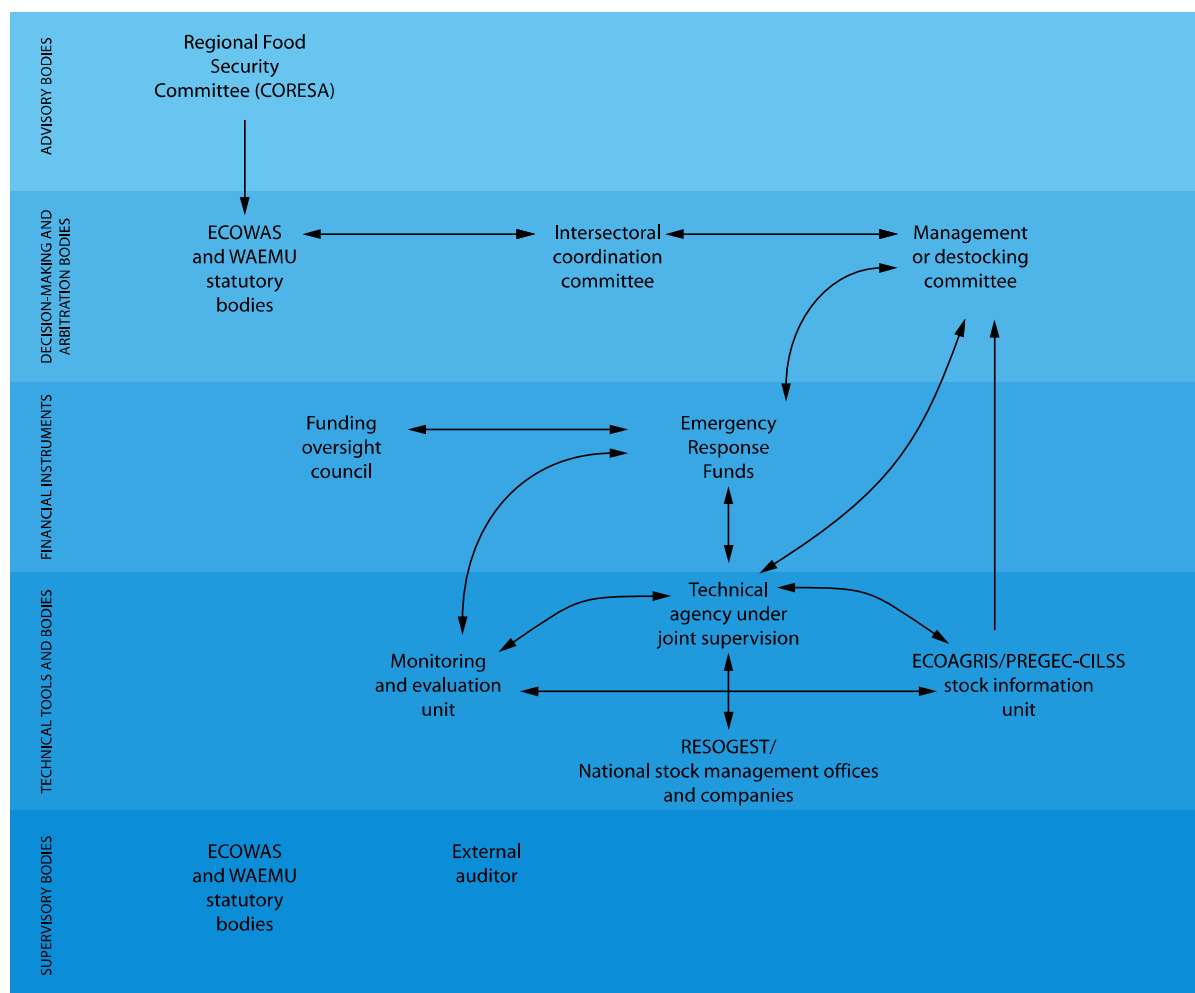
- **Advisory body** with different stakeholders: the Regional Committee for Food Security (CORESA) which is already a body involving ECOWAS, WAEMU and CILSS, is called upon to play the role of coordination and steering body;
- **Coordination and arbitration body** among different policy sectors: complex because there is currently no space for dialogue or coordination at the level of sectoral policies between the two institutions, and therefore nor is there a mechanism for intersectoral coordination. It requires the establishment of a committee bringing together the Commissioners in charge of agriculture, food, trade and humanitarian action of the two Commissions;
- **Body for coordination and consultation with TFPs and international institutions:**
 - o the Food Crisis Prevention Network (RPCA) and the PREGEC process led by the CILSS bring together the regional and international stakeholders, notably the UN agencies and NGOS;
 - o the need to set up a space for specific dialogue on the reserve funding, combining the two regional institutions, TFPs involved in funding the reserve and international organizations.
- **Financing body:** Creation of a Emergency Response Fund, held in a bank to be agreed upon (BOAD, BIDC, other?), and supplied by funds from the two regional institutions: ECOWADF/ECOWAS and FRDA/WAEMU. It will be equipped with a Supervisory Board;
- **Decision-making body:** establishment of a Management Committee composed of:
 - o A representative of the President of the ECOWAS Commission;
 - o A representative of the President of the WAEMU Commission;
 - o A representative of CILSS;
 - o A representative of RESOGEST (representing offices and companies in member countries);
 - o A representative of POs;²⁹
 - o A representative of NGOs;³⁰
 - o The body is chaired by an independent and competent regional figure jointly appointed by the Presidents of the ECOWAS and WAEMU Commissions on the joint proposal of the Commissioners for agriculture of the two institutions. He or she would have the rank of Commissioner and report to the Presidents of the two Commissions;
 - o A representative of the UN participates in a non-voting capacity.

²⁹ Jointly designated by ROPPA, RBM and APES

³⁰ Jointly designated by the two platforms POSCAO and FOSCAO

- **Operational Technical Unit:** Creation of a specific agency by the two regional institutions, ECOWAS and WAEMU, with CILSS as a partner institution. It would be wholly dedicated to the technical management of the Regional Reserve. Responsibility for the structure lies with a bi- or tri-partite body (ECOWAS, WAEMU, with or without CILSS) ;
- **Information and decision-making support unit:** establishment of a stock information unit within the “Food Reserve” Agency and linked to the various regional and national information mechanisms;
- **Monitoring and evaluation unit:** to be created within the new Agency;
- Links with statutory bodies of ECOWAS and WAEMU: via traditional channels for both institutions.

Diagram 3: Diagram of the Institutional Structure Relating to Scenario 1, “Independent Structure”



8.4.3 Scenario 3: Establishment of a Dedicated Mechanism but Inserted into the ECOWAP/CAADP Structure

This scenario is a variant of scenario 1. It incorporates the main bodies provided for in this scenario. It combines the exploitation of existing institutions and bodies while offering greater safeguards to the involvement of other institutions than ECOWAS in the structure. It is based on the ECOWAS structure, including the statutory bodies have the ultimate responsibility of the device, but links the WAEMU and CILSS into advisory and management agencies.

In this scenario, the various functions would be assumed by the following bodies:

- **Advisory body** with different stakeholders: two bodies are required:
 - o Advisory Committee on Agriculture and Food (CCAA)
 - o Regional Food Security Committee (CORESA), which would meet in advance and feed the work of the CCAA;
- **Coordination and arbitration body** internal to ECOWAS among different policy sectors involved: Inter-departmental Committee for Agriculture and Food (CIAA), involving DAERE/Humanitarian Department/Trade Department. In this scenario an annual meeting on the theme "Food Reserves" is organized at the initiative of ECOWAS with input from CILSS and WAEMU;
- **Body for coordination and consultation with TFPs and international institutions:** different existing spaces may be mobilized at different levels:
 - o the Food Crisis Prevention Network (RPCA) and the PREGEC process led by the CILSS bring together the regional and international stakeholders, notably the UN agencies and NGOs;
 - o the dialogue mechanism between TFPs and ECOWAS based on the regional Partnership Agreement for implementing ECOWAP/CAADP;
- **Financing body:** based on the Regional Fund for Agriculture and Food (ECOWADF) and housed in the EBID (under the rubric "Emergency Response Fund", part of "food security"). It has a dedicated Supervisory Board that links WAEMU and CILSS;
- **Decision-making body:** establishment of a Management Committee composed of:
 - o A representative of the President of the ECOWAS Commission;
 - o A representative of the President of the WAEMU Commission;
 - o A representative of CILSS;
 - o A representative of RESOGEST (representing offices and companies in member countries);
 - o A representative of POs;³¹;
 - o A representative of NGOs;³²
 - o The body is chaired by an independent and competent regional figure jointly appointed by the Presidents of the ECOWAS and WAEMU Commissions on the joint proposal of the Commissioners for agriculture of the two institutions. He or she would have the rank of Commissioner and report to the Presidents of the two Commissions;
 - o A representative of the UN participates in a non-voting capacity

³¹ Jointly designated by ROPPA, RBM at APSS

³² Jointly designated by the two platforms POSCAO and FOSCAO

- **Operational Technical Unit:** An independent unit is created within the Regional Agency for Agriculture and Food (ARAA) currently being set up, housed in Lomé within the EBID. It is headed by a Director specially assigned to the Reserve;
- **Information and decision-making support unit:** establishment of a stock information unit within ECOAGRIS;
- **Monitoring and evaluation unit:** integrated into the ECOWAP mechanism and into the overall mechanism of the ECOWAS Commission;
- The link with the statutory bodies of ECOWAS is established via the institutional mechanism of ECOWAP. Other institutions (WAEMU and CILSS) are accountable to their own statutory bodies.

8.4.4 Scenario 4 :Establishment of a Joint Management Mechanism for the Regional Reserve

This scenario is based on co-management mechanisms in place in some Member States to manage national security stocks (Mali, Burkina Faso, Niger). It derogates from the principles of the Paris Declaration on aid effectiveness, but is based on the idea that reserves formed from regional and international resources represent a common good. The two communities – regional and international – are jointly responsible for their management and sustainability.

This scenario differs from those above only in the composition of the decision-making bodies. Other bodies may be taken from those suggested in scenarios 1, 2 and 3.

- **Decision-making body:** establishment of a Management Committee, or Management Committee composed of the contributors to the regional reserve on a parity base:
 - **Regional college:**
 - A representative of the President of the ECOWAS Commission;
 - A representative of the President of the WAEMU Commission;
 - A representative of CILSS;
 - A representative of RESOGEST (representing offices and companies in member countries);
 - A representative of POs;³³
 - A representative of NGOs.³⁴
 - **College of partners:**
 - A representative of each funding partner
 - A representative of PAM
 - A representative of the FAO
 - A representative of UNICEF
 - A representative of OCHA
 - The body is **chaired** by an independent and competent regional figure named by the President of the ECOWAS Commission (or ECOWAS and WAEMU), after receiving **advice of non objection** from the college of partners.

To be operational and efficient, this scenario requires:

- a strong consensus among the regional community and the international community on the direction and mode of management of the reserve;
- a process of coordination and a strong consensus among donors and UN Agencies.

³³ Jointly designated by ROPPA, RBM at APSS

³⁴ Jointly designated by the two platforms POSCAO and FOSCAO

Table16 summarizes the main characteristics of the four scenarios. Table17 presents a first analysis of the strengths and limitations of the different alternatives relied on by the ECOWAS Commission to select the options it is submitting to the arbitration of the competent authorities.

Table16: Summary of Institutional Scenarios

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Full integration into the ECOWAP/CAADP institutional structure	Establishment of an Independent and Specific Structure	Establishment of a Dedicated Mechanism but Inserted into the ECOWAP/CAADP Structure	Establishment of a Joint Management Mechanism for the Regional Reserve
<i>Principal characteristics</i>	<i>Totally integrated into the ECOWAP structure – No creation of new institutions</i>	<i>JointECOWAS-WAEMUstructure – Co-trusteeship of the entire structure</i>	<i>Combines integration into the ECOWAP structure with consideration of specific institutional features</i>	<i>Based on a joint commitment by regional institutions and the G20 and relies on co-decision and co-responsibility for resources</i>
1. Definition of general guidelines for the storage policy and links with national policies	Advisory Committee for Agriculture and Food (CCAA) supported by the stockTask Force	CORESA (Regional Food Security Committee)	Advisory Committee for Agriculture and Food expanded to specialized international organizations	CORESA (Regional Food Security Committee)
2. Decision on storage policy guidelines and tools	ECOWAS statutory bodies	ECOWAS and WAEMU statutory bodies	ECOWAS statutory bodies	Extended co-management committee (ECOWAS, WAEMU, PO networks, NGOs, UN)
3. Arbitration between humanitarian action and management of food reserves	Inter-Departmental Committee for Agriculture and Food (CIAA)	Intersectoral and inter-institutional arbitration committee	Annual CIAA, expanded to includeWAEMUand CILSS	Same as scenario 1 or 2 or 3
41. Funding	“Emergency Response Fund” section within ECOWADF	Creation of a Emergency Response Fund, held in a bank to be agreed upon (BOAD, BIDC, commercial bank?), with a Supervisory Board	Same asscenario 1 except the Supervisory Board incorporates WAEMU and CILSS	Same asscenario 2
42. Decision on funding and activation of regional solidarity mechanism	Management committee under responsibility of ECOWAS	Management committee under joint responsibility of ECOWAS and WAEMU	Management committee under joint responsibility of ECOWAS and WAEMU	Restricted co-management committee (ECOWAS, WAEMU, TFP/G20 involved in funding)
5. Technical management of the reserve	Technical unit within the ARAA	Independent agency	Independent unit linked to ARAA Own director.	Independent agency
6. Information management and decision-making support	Information and decision-making support unit at the interface between technical unit/ARAA and ECOAGRIS (and other information mechanisms)	Information and decision-making support unit within the agency	Information and decision-making support unit at the interface between technical unit/ARAA and ECOAGRIS (and other information mechanisms)	Information and decision-making support unit within the agency
7. Auditing of decisions and adherence to operating rules and procedures	ECOWAS internal procedures + external audit	ECOWAS and WAEMU internal procedures + external audit	ECOWAS internal procedures + external audit	ECOWAS and WAEMU internal procedures + external audit
8. Monitoring and evaluation	Monitoring and evaluation unit ECOWAP and monitoring and evaluation division of the ECOWAS Commission	Monitoring and evaluation unit within the Agency	ECOWAP monitoring and evaluation unit and monitoring and evaluation division of the Commission or function delegated to WAEMU	Monitoring and evaluation unit within the Agency

Table 17: Summary of Strengths and Limitations of Different Institutional Scenarios

Institutional Scenarios	Strengths	Limitations
Scenario 1. ECOWAP structure	<ul style="list-style-type: none"> - Leadership and responsibility clearly attributed to ECOWAS - Fastest structure to implement (end 2012?) - Structure with multiple stakeholders (States, POs, technical cooperation institutions, NGOs) - Common frame of reference for regional and international stakeholders/principles of coordination and regional leadership recorded in the ECOWAP Regional Partnership Pact, complemented by reference to the PGCA charter - Institutional simplification and coherence - Lower implementation costs - Sustainability ensured by integration into ECOWAS bodies and institutions - Alignment with ECOWAP guidelines, humanitarian and trade policy - Expediency of decisions 	<ul style="list-style-type: none"> - International institutions active in food and nutritional assistance not involved in the ECOWAP structure - Introduces a hierarchy in the involvement of other regional institutions (WAEMU and CILSS) - Reduces the visibility of other institutions apart from ECOWAS - Links to be established with the ECOAGRIS information structure still under construction
Scenario 2. Independent structure	<ul style="list-style-type: none"> - Leadership and responsibility shared and balanced between the two institutions, ECOWAS and WAEMU - Permits display of an effective field of cooperation shared between the two institutions - Structure with multiple stakeholders (States, POs, technical cooperation institutions, NGOs) - A dedicated agency focused on a single mission, guarantee of effectiveness and responsiveness - Mobilization facilitated by funders seeking balance between the two institutions 	<ul style="list-style-type: none"> - Multiplication of structures leads to dissipation of effort - Sustainability more difficult to guarantee due to costs arising from the creation and governance of a new institution; strong dependence on the institutional relationship between ECOWAS and WAEMU - More complex coordination with other regional dimensions of food security policies and PGCA (safety nets, stockpiling and regulation); risk of institution self-justifying its mission - CORESA not operational, multiplication of structures with related composition - Speed of decision and independence of Management Committee may be affected by relations between the two institutions

Scenario 3. Dedicated mechanism inserted within ECOWAP	<ul style="list-style-type: none"> - Leadership and responsibility attributed to ECOWAS and WAEMU - Allows greater involvement and empowerment of WAEMU and CILSS, without creating new institutions - Fastest structure to implement (end 2012?) - Structure with multiple stakeholders (States, POs, technical cooperation institutions, NGOs) - Makes use of existing institutions but takes into account specific needs connected to management of the reserve 	<ul style="list-style-type: none"> - Reduces the visibility of other institutions apart from ECOWAS - Risk of paralysis, dependence on the institutional relationship between ECOWAS and WAEMU - Risk of confusion: the political responsibility for the ARAA generally falls to ECOWAS while the responsibility for the technical unit dedicated to the Reserve is a shared responsibility between ECOWAS/WAEMU
Scenario 4. Co-management structure	<ul style="list-style-type: none"> - Secures external financial and technical partners - Involves international partners and reduces the risk of parallel initiatives - A dedicated agency focused on a single mission, guarantees effectiveness and responsiveness 	<ul style="list-style-type: none"> - Contravenes the principles of accountability and regional leadership - Some TFPs not entitled to co-manage resources (e.g. CE) - Slow implementation/adherence of institutional partners - Risks of deadlock inherent in the co-decision mechanism or of differences of opinion on management of the reserve

8.5 The Recommended Options

After having analyzed and discussed at length the advantages and limitations of the different institutional designs proposed, the ECOWAS Commission, based on Task Force discussions, chose to put forward to the decision-making bodies two options of the four proposed.

This choice was based on the following arguments:

- The leadership effectively employed by the ECOWAS over the regional food reserve, and in dialogue with the G20, with the participation of other Inter-governmental Organizations (IGOs) and stakeholders;
- Co-management by different regional institutions, or by the region and international partners involves significant risks of slowdowns or deadlocks in the establishment and operation of the Regional Reserve;
- The best combination between (i) a clear allocation of responsibilities and (ii) a very inclusive process enabling the involvement of different institutions and stakeholders;
- A positioning of regional institutions that favors a leadership role for ECOWAS in the framework of ECOWAP/CAADP but with a strong involvement of other institutions, stakeholders and regional mechanisms, such as RESOGEST;
- The coherence and simplification of the chain leading from the guidelines of the mechanism up to control over engagements, in order to ensure the responsiveness of the regional reserve to food crisis situations as well as the effectiveness of its interventions;
- The integration of the reserve into the ECOWAP guidelines and links with other policy issues (promotion of production and regional trade, connections with safety nets);
- The reluctance to create new institutions that are costly in time and in human and financial resources.

Consequently, the two options available to policymakers are the following:

- **Institutional Structure 1: Mechanism inserted into the ECOWAP/CAADP institutional structure**
- **Institutional Structure 3: Establishment of a mechanism dedicated to management of the reserve but inserted into the ECOWAP/CAADP structure.**

The following table shows the similarities and differences between these two scenarios, in the knowledge that the second is a variant of the first.

Table18: Similarities and Differences Between the Two Alternatives Proposed by the Task Force

	Scenario 1	Scenario 3
Heading	Mechanism inserted into the ECOWAP institutional structure	Dedicated mechanism but inserted into the ECOWAP structure.
Advisory body	CCAA	CCAA with input from CORESA
Decision-making body	Statutory bodies of ECOWAS – Commission ECOWAS – Reserve management committee	
Arbitration body	CIAA	CIAA + Annual Reserve Meeting ECOWAS-WAEMU-CILSS
Dialogue and consultations Region – TFPs/IOs	RPCA, PREGEC and ECOWAP Regional Pact	
Financial Instruments	ECOWADF – Emergency Response Fund ECOWADF/EBID Supervisory Board	ECOWADF – Emergency Response Fund Dedicated Supervisory Board with WAEMU and CILSS
Technical bodies and tools	ARAA (“Reserve” technical unit)	Independent Unit with Director, inserted in the ARAA
Information decision-making support	Stocks information unit/ECOAGRIS	
Implementation	Contracting with National Bodies RESOGEST	
Monitoring and evaluation	ECOWAP mechanism inserted within the monitoring and evaluation mechanism of the ECOWAS Commission	
Supervisory bodies	ECOWAS bodies and external audits	

9 Funding

This section presents a cost evaluation and proposes a funding mechanism to secure resources to implement the Regional Reserve on a sustainable basis.

9.1 General Approach

The rationale of the financial structure is based on the **following basic scheme**, which is implicit in the previous sections:

- a. **The body in charge of the technical management** of the reserve has at its disposal a **capital** composed of:
 - i. a physical reserve
 - ii. a financial reserve
- b. **The Emergency Response Fund** commands an annual or multi-year budget allowing it to:
 - i. Establish the initial endowment in physical and financial capital of the Regional Reserve in the first year, as well as subsequent increases in size;
 - ii. Cover the costs of maintenance and rotation of the physical stock, contractualized with the regional bodies members of RESOGEST;
 - iii. Cover the administrative costs arising from the technical management of the reserve (running costs of the technical agency/unit), as well as the governance costs (information unit, advisory committees, management committee);

- iv. Cover the costs arising from regional interventions undertaken for reasons of solidarity: the mobilization and replenishment of the two components, physical and financial, of the reserve.
- v. Cover the costs of monitoring and evaluation and external audits.

The reserve, technical management of which is entrusted to a unit within the Regional Agency for Agriculture and Food (ARAA) is considered an instrument that should find a constant balance between supply and use. Its capital remains unchanged. It grows in size in planned phases over eight years.

The budget is based on the "size of the reserve" (6.2.4) scenario adopted by the ECOWAS Commission. However, financial assessments of other scenarios examined were carried out and are presented in Appendix 16.1.

Costs related to preparatory and complementary measures (information systems, reinforcement of national and local stocks, contingency plans, RESOGEST) are difficult to budget for at this stage and it is difficult to assess their additional funding needs over that currently existing, for the following reasons:

- The inventory of stocks and storage strategies of Member States are not yet available;
- Funding of information systems and stocks in countries in the region are primarily national prerogatives. However, support is included in the budgets of ECOWAP (ECOAGRIS), in the budgets of the WAEMU's common agricultural policy (including CRMS) and CILSS program budgets. Significant work to consolidate needs, resources mobilized and yet to be mobilized remains to be done. This should be carried out with the different countries and IGOs concerned;
- Some elements such as management of "price risk" at the level of local stocks are still under development and cannot be budgeted;
- The RESOGEST working program, currently under development by the CILSS and national bodies, is not yet complete.

The first months of operation of the reserve will be utilized to refine these aspects. However, the PNIA and the PRIA already include activities that enable them to be dealt with, at least in part. Moreover, the proposed funding mechanism allows release of significant resources for preparatory actions and complementary measures that fall within the scope of national and sub-national prerogatives.

9.2 Evaluation of the Different Headings of Costs for the Establishment, Maintenance and Governance of the Physical and Financial Reserves

This section presents the assumptions used to estimate the costs related to the implementation of the Regional Food Security Reserve. Based on these assumptions, a consolidated annual budget covering the forthcoming eight years is set out. In total, four types of costs are anticipated in the implementation of the Regional Reserve:

- Costs relating to the initial set up of the physical component of the Regional Reserve and the increase in volumes stored;
- Costs relating to the maintenance and daily management of the physical reserve: stocking, phytosanitary attention, losses, technical rotation, etc.;
- Costs relating to the initial set up of financial component of the Regional Reserve and the increase in amounts stored;

- Administrative costs (including monitoring and evaluation and audits) and charges connected to the governance of the physical and financial reserve.

As has been indicated above, the proper functioning of the Regional Reserve and its sustainability are closely dependent on the existence and vigor of the other two lines of defense, local and national stocks. However, the financial analysis does not take into account these components, for the reasons mentioned above. In relation to two elements directly impacting the operation of the Regional Reserve – the food situation information mechanism (CHB) and the creation of contingency plans, funding is proposed as follows:

- In terms of information, the budget of the Regional Reserve provides funding for a regional analyst dedicated to decision-making support relating to stock management. He or she will work at the interface between, on the one hand, ECOAGRIS and the various existing national and regional information mechanisms, and, on the other, the Technical Unit and the Management Committee of the Reserve;
- The widespread creation of contingency plans and the establishment of nutrition baselines in countries that do not have them, are provided for and included in the budget of the PRIA.

Reference unit prices were taken from detailed data passed on for this purpose by the companies and national agencies in charge of stocks, notably OPAM (Mali) and SONAGESS (Burkina Faso). Additional elements were drawn from various studies, including the PREPARE pilot project and the experience of the NFRA (National Food Reserve Agency) in Nigeria.

9.2.1 Costs Relating to Setting Up the Physical Regional Reserve

- **Costs of setting up the physical stock:** From the total volume retained in scenario 2 (section 6.2.5) and the composition of the reserve (section 6.3.4), the cost of setting up the physical reserve was estimated on the basis of average "wholesale" or "consolidated" market prices for the last four crop years, from 2007/2008 to 2010/2011. Assuming that purchase of the stock will be made during the post-harvest period to help support prices for producers and to avoid inflationary effects (see 6.4.1), the reference price for the calculations is the average market price between November and January over the four crop years considered in major production areas. For millet, sorghum and maize, the purchase price is calculated from the average of prices in Burkina Faso, Mali, and the cross-border markets of Malanville (Benin) and Illela (Nigeria), provided by market information systems (OMA Mali, MIS/SONAGESS Burkina Faso, SIMA Niger).³⁵ It is also on the basis of prices in these twocross-border markets that the average price of Gari has been calculated. By contrast, in the case of rice, the international market price (A1 Super) served as the reference value for calculations, assuming that in the first instance, the local market will not be capable of supplying the Regional Reserve. A premium of 20% (various taxes, customs clearance and delivery to storage sites) has been applied to this international price in order to obtain the warehouse price. Finally with regard to enriched flour, the last product in the reserve, the reference price has been estimated from data provided by the processing units engaged in this activity.
- **Provision for price risk.** In a context of high price variability, it is prudent to include a provision to limit possible market interference as a result of the operation of the Regional Reserve. This is especially important considering that phases of pressure on prices often express or explain a food crisis situation. As such, the Regional Reserve must constantly be stocked, whatever the price on the regional and international markets. It is therefore

³⁵For markets in Niger and the cross-border markets located in Nigeria and Benin.

opportune to assess the impact of intra- and inter-annual price variability on the cost of stocking and restocking the physical reserve. Two hypotheses were tested:

- A purchase during the months of April/May/June, due to a delay in supply management leading to restocking outside the post-harvest period for various reasons (waiting for lower prices, market tensions, available funds, etc., but also emergencies that may require immediate replenishment of the stock regardless of the period). In this case, the reference price is the overall average of average monthly prices for April, May and June for selected markets over the last four crop years.
- A purchase in the desired period (November/December/January) but occurring during a year marked by high post-harvest prices, compared to the average of recent years. In this case, the average price used is the average of the highest monthly prices over the past four crop years for the period November/December/January.

The following table summarizes the incidence of this variability in inter and intra-annual price.

Table19: Effects of Intra- and Inter-annual Price Variations on the Cost of the Reserve

		Cost of stocking the reserve year 1	Variation (%)	Total cost of the reserve year 1	Variation (%)
Intra-annual variability	Initial hypothesis: post-harvest purchase/"normal" year	27 452		93 465	
	Purchase outside of post harvest period/ normal year	30 261	+10%	102 053	+9%
Inter-annual variability	Post-harvest purchase/high price year	29 437	+7%	99 534	+6%

- **Costs of transporting the product to the warehouses:** *Transportation costs* are calculated on the basis of cost per ton of 12 cents per kilometer (SONAGESS data), and from an average distance of about 400 km between the supply area and one of the stores to house some of the physical reserve. Moreover, the estimated margin of 7% taken by the merchant for the delivery of the product in the storage area is defined based on data for the axis Malanville / Benin - Niamey / Niger contained in the monthly note of market analysis "Albichir" (Niger MIS/WFP/FEWS NET).

9.2.2 Costs Relating to the Maintenance and the Day-to-Day Management of the Physical Stock

- **Costs of warehouse rental:** The estimate is based on data provided by the national security stock management company in Burkina Faso, SONAGESS, and on the agreements signed between this agency and other public and private institutions (international organizations, state institutions, private traders) for similar services. The data give a figure of 12 dollars per ton.
- **Acquisition cost of stocks:** The estimate is based on information provided by the National Agricultural Products Office of Mali (OPAM) on operating costs (purchase, transport, external services, staffing costs) for 2011. The data give a figure of 29 dollars per ton.

- **Costs of stock management by the national operator:**The estimate is based on interviews with the SONAGESS and on the agreements signed between this structure and other public and private institutions (international organizations, state institutions, private traders) for similar services. These costs correspond to the services provided by the company and amounted to 2% of the value of the stock.
- **Annual losses:**The estimate is based on interviews with reserve operators. Annual losses are due to the deterioration of the stock by pests, attacks by parasites, and natural weight loss in products as they dry out. They are estimated at about 2%, assuming excellent storage conditions and quality grain that is checked upon receipt.
- **Costs of stock rotation:**This assumes a rotation of 1/3 of the physical reserve every two years. The cost of stock rotation includes the cost of depreciation in value of the stock due to aging of the product. This depreciation is estimated at 10% of the market price. In addition, an allowance of 9% (see Table 20) is provided in order to anticipate any price changes at the moment of restocking, such as intra- or inter-annual variations, in the event that the purchase cannot be made during the post-harvest period. This estimate for stock rotation costs should be considered in terms of orders of magnitude. On the one hand, it is unlikely that the reserve should have to undertake technical rotation insofar as, at least in the short term, the volume of stock remains very moderate in relation to needs, together with the weakness of national stocks. On the other hand, it is conceivable that the de-stocking process may be carried out by supplying social safety net programs or selling to food aid organizations (national RESOGEST bodies, WFP, NGOs). Finally, it may prove preferable to sell during the lean period and replenish after the harvest, in order to avoid depreciation of the value of the product and benefit from rising market prices. The Technical Unit and the Management Committee, based on market analysis and the food situation should adjust the real-time strategy.

9.2.3 Costs of Setting Up the Financial Reserve

The estimate of costs relating to the financial reserve has been established by considering two types of costs. First, the cost of "conversion" of financial resources into physical resources, which corresponds to the establishment of a sufficient quantity of funds to source up to 272,000 tons of foodstuffs on the market. Secondly, the cost relating to intra- and inter-annual price variations which the reserve must absorb in order to maintain a constant level of purchasing power in terms of volume of product. It is therefore something of a provision for price risk, the amount of which is fixed at 15% (1.06×1.09) (see Table 20). Finally, these costs may be reduced by the interest earned on the investment of the ECOWAS financial reserve in an interest-earning current account. Taking as reference rates from the Central Bank of West African States (BCEAO), the interest rate on investments is estimated at 3%.

9.2.4 Administrative and Governance Costs

Costs were evaluated on the basis of scenarios proposed by the Task Force and adopted by the ECOWAS Commission. They are based on an integrated implementation of the reserve by the Regional Agency for Agriculture and Food (ARAA). The unit costs are based on data provided by the ECOWAS Commission. They include a rubric for "investments" with an amortization period of five years, a rubric for "payroll" including a small technical team insofar as the implementation of operations is contractualized with national bodies competent in stock management, a rubric for "activity costs" which include expenses related to staff activities, meeting costs of the bodies in charge of the control and management of the reserve, the operating costs of the technical unit, and

finally costs associated with the implementation of an external institutional strengthening program by the technical unit, together with the monitoring and evaluation and external audit.

9.2.5 Planning Costs Over Eight Years

Although the principle of an assessment of the Regional Reserve at the end of three years has been retained, enabling adjustment to the size of the physical and financial reserves where necessary, an estimate of costs has been worked out over eight years on the basis of the preferred design scenario (see 6.2.5), and on the basis of several assumptions and unit costs presented in the previous section.

On the basis of a total regional reserve equivalent to 412,000 tons in year eight, the total project cost is estimated at \$263 million over the entire period. This does not take into account the cost of regional solidarity interventions made by the reserve (see below). Within this total, 92% relates to costs connected with the establishment and maintenance of the regional reserve, and 8% to administrative and governance costs. The costs of the initial setting up and enlargement of the physical and financial reserves are \$243.4 million, while the recurring operating costs of the reserve stand at \$19.9 million.

Simulations of costs for the other scenarios examined are presented in Appendix 16.1

Table 20: Reserve Budget Over Eight Years

	Unit	Market Price	Transport costs	Acquisition Cost	Trader Margin	Unit Price In warehouse	Proportion of reserve (%)	2013	2014	2015	2016	2017	2018	2019	2020	Total
Size of the reserve (thousands of tons) - Scenario 2																
Regional reserve								176	176	176	176	294	294	294	412	
Financial reserve								116	116	116	116	194	194	194	272	
Physical reserve								60	60	60	60	100	100	100	140	
Costs of the Physical reserve (thousands of dollars)																
Stocking costs								27 452				18 301			18 301	64 054
Millet	tons	288	50	338	24	361	25%	5 419				3 613			3 613	12 645
Sorghum	tons	260	50	310	22	332	24%	4 780				3 187			3 187	11 154
Maize	tons	278	50	328	23	351	26%	5 473				3 648			3 648	12 770
Rice	tons	632	50	682	48	730	7%	3 065				2 043			2 043	7 151
Gari	tons	366	50	416	29	445	14%	3 739				2 493			2 493	8 724
Enriched flour	tons	1500	50	1550	109	1659	5%	4 976				3 317			3 317	11 610
Cost of warehouse rental	tons					12		733	733	733	733	1 221	1 221	1 221	1 709	8 303
Cost of maintenance of stock (security, fumigation, etc.)	tons					29		1 735	1 735	1 735	1 735	2 892	2 892	2 892	4 048	19 664
Cost of management by the national operator						2%		549	549	549	549	915	915	915	1 281	6 222
Annual losses						2%		549	549	549	549	915	915	915	1 281	6 222
Costs of stock rotation																
Cost of stock depreciation	tons					10%			915		915		1 525		2 135	5 490
Costs of replenishment of stocks (intra annual price variation)	tons					9%			824		824		1 373		1 922	4 941
Total (I)								31 017	5 304	3 566	5 304	24 244	8 841	5 943	30 678	114 897
Costs of financial reserve (thousands of dollars)																
Costs of conversion into physical stock								53 247				35 498			35 498	124 243
Provision for price risk						15%		7 987				5 325			5 325	18 636
interests						3%			1 597	1 597	1 597	1 597	2 662	2 662	2 662	14 377
Total (II)								61 234	1 597	1 597	1 597	39 225	2 662	2 662	38 160	128 503
Costs of reserve governance and external institutional strengthening																
Investments								90	0	0	0	0	70	0	0	160
Payroll								1282	1282	1282	1282	1282	1282	1282	1282	10 256
Operation								144	144	144	144	144	144	144	144	1 150
activities								661	661	661	661	661	661	661	661	5 292
- of which external institutional strengthening								160	160	160	160	160	160	160	160	1 280
Control, certification and audit								104	104	104	104	104	104	104	104	835
Unforeseen expenses 5%								114	110	110	110	110	113	110	110	885
Total (III)								2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857
Grand Total (I+II+III) - Thousands of dollars								94 807	6 168	4 429	6 168	65 930	8 713	5 742	71 299	263 257

9.3 Evaluation of Costs Arising from Regional Solidarity to Fund Interventions

The preceding sections have detailed the costs that the region should assume in order to have a security reserve at its disposal, capable of rapid mobilization in case of a major food crisis.

Depending on the resources that the region will be able to mobilize, several options are available to it in terms of how to use the reserve:

- In the first, minimal, alternative the reserve meets the aim of securing rapid supply to countries in response to an emergency and implementing aid programs to affected populations: food and financial resources are loaned to countries that subsequently reimburse the reserve. These reimbursements enable constant replenishment of the initial physical and financial capital of the reserve
- In a second, more ambitious alternative, the Regional Reserve is mobilized by the region which funds interventions (in regional solidarity towards the countries hit by a crisis). It thus satisfies a dual mission: securing rapid supply and co-financing national response plans to food crises.

These two alternatives have very different implications. In the first, the cost of the reserve is limited to the costs estimated in the previous sections (creation, maintenance, governance). In the second, it is a question of replenishing the reserve each year by the amount of capital that has been mobilized for interventions in support of countries.

Table 21 estimates the costs attributable to funding the mobilization of the reserve under the auspices of regional solidarity. These estimates are based on two hypotheses of the level of mobilization of the physical and financial reserve each year in relation to regional funding:

- Hypothesis 1: mobilization of 75% of the reserve;
- Hypothesis 2: full mobilization of 100% of the reserve.

In the spirit of the project, given that the reserve has been designed to the "minimum" model, especially in the early years, it is likely that the requests for support expressed across the region consume the entire reserve, which must therefore be reconstituted to ensure a continuous balance between "use" and "resources", guaranteeing its sustainability and the responsibility of the Agency in charge of its management.

Table 21 gives the costs of intervention according to the two hypotheses.

In hypothesis 2, which requires the replenishment of the entire physical and financial reserve each year, the cost of interventions rises to:

- 88.7 million dollars per year between the first and fourth years;
- 146.2 million dollars per year between the fifth and seventh years;
- 202.7 million dollars per year from the eighth year.

Depending on the resources available to the Fund (see 9.5), the respective proportions between the physical and financial reserves may be adjusted by decision of the Management Committee. In fact, several other alternatives are possible between option 1 and 2 discussed at the beginning of this section, including sales of Regional Reserve stocks to countries at moderate prices, representing a partial subsidy made by the Regional Reserve.

Resources not used for regional solidarity may, by decision of the Management Committee, be made available for loan or transfer for consideration to Member States, international humanitarian organizations and NGOs, under secure conditions for repayment.

9.4 Consolidation of Costs Attributable to the Emergency Response Fund

Table 22 presents a general consolidation of all the costs of the Regional Reserve, maintaining the various possibilities mentioned in the previous paragraph on the level of regional solidarity contribution.

Considering, as above, full mobilization of the Regional Reserve using regional funding, including (i) establishment, initial stocking and phased expansion in capacity, (ii) technical management and governance of the reserve (iii) the costs of regional solidarity interventions, the annual costs rise to:

- 183 million dollars in the first year;
- 93-96 million dollars per year in the second and third years;
- 212 million dollars in the fourth year;
- 151-154 million dollars in the sixth and seventh years;
- 273 million dollars in the eighth year, considered the first year of full development.

In summary, depending on the alternative chosen, the cost of the Regional Reserve over eight years will total:

- **option 1: no regional interventions financed by regional solidarity: 263 million dollars, or an average annual investment of 33 million dollars;**
- **option 2: full funding of reserve interventions by the region (100% mobilization): 1,259 million dollars, or an average of 157 million dollars per year.**

For the entire eight-year period, the distribution of costs is set out in

Graph5. This shows that the choice of a reserve structure inserted into the ARAA and relying on paid service providers from the national member bodies of RESOGEST leads to very low operating costs.

With reliance on existing and amortized infrastructure, logistics focused on the resources available in each country, and a greatly reduced regional technical management structure, the reserve will be in a position to contribute to food aid operations with very low unit costs, well below the cost of international humanitarian interventions. By pooling resources at the regional level, the Reserve increases its rate of utilization compared to national reserves, given that the likelihood of it having to intervene each year increases with geographic coverage, as a result of the diversity and variability of shocks.

Graph5: Distribution of Costs Attributable to the Emergency Response Fund Over Eight Years

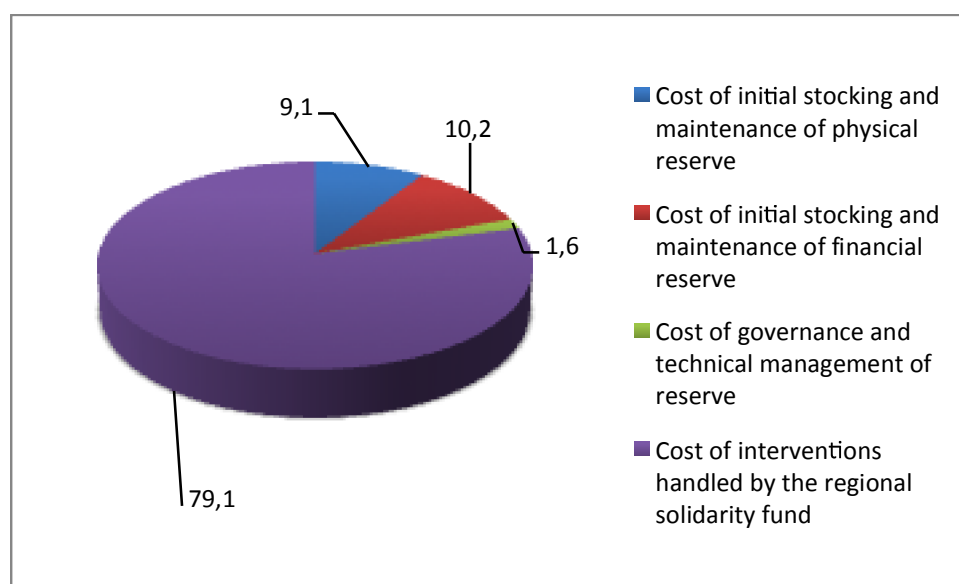


Table21: Estimated Expenditure of the Emergency Response Fund Excluding Creation and Maintenance of the Reserve

	Years 1 to 4		Years 5 to 7		Year 8 and beyond	
Total Reserve	176 000 T eq.		294 000 T eq.		412 000 T eq.	
Physical Reserve	60 000 tons		100 000 tons		140 000 tons	
Financial Reserve	116 000 T eq.		194 000 T eq.		272 000 T eq.	
Cost of initial stocking physical reserve (1000\$)	27 452		45 753		64 054	
Cost of financial reserve (1000\$)	61 234		100 459		138 619	
Rate of annual mobilization of the reserve for regional solidarity (funded by emergency response funds) (%)	75	100	75	100	75	100
Cost restocking physical reserve/year (1000 \$)	20 589	27 452	34 314	45 753	48 040	64 054
Cost restocking financial reserve/year (1000 \$)	45 926	61 234	75 344	100 459	103 964	138 619
Total cost of regional solidarity interventions / year (1000 \$)	66 515	88 686	109 658	146 212	152 004	202 673

Table22 Consolidated Budget for the Emergency Response Fund

Thousands of dollars	Rate used by the emergency response fund	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total Years 1 to 8
1A. Cost of initial stocking and maintenance of the physical reserve		31 017	5 304	3 566	5 304	24 244	8 841	5 943	30 678	114 897
1B. Cost of initial financial reserve		61 234	-1 597	-1 597	-1 597	39 225	-2 662	-2 662	38 160	128 503
1C. Cost of governance and technical management of the reserve		2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857
Total 1 (A+B+C) : costs of establishment, maintenance and governance of the entire reserve		94 807	6 168	4 429	6 168	65 930	8 713	5 742	71 299	263 257
2. Costs of regional solidarity interventions handled by the fund	75%	66 515	66 515	66 515	66 515	109 658	109 658	109 658	152 004	747 038
	100%	88 686	88 686	88 686	88 686	146 212	146 212	146 212	202 673	996 053
Total annual requirements for restocking emergency response fund (1+2)	75%	161 322	72 683	70 945	72 683	175 588	118 372	115 400	223 303	1 010 296
	100%	183 493	94 854	93 116	94 854	212 142	154 926	151 954	273 972	1 259 311

9.5 Sources of Funding and Balance of Contributions

9.6 General Principles

Funding of the Regional Food Security Reserve will combine several resources:

- a. Contributions by State governments;
- b. Contributions by regional institutions (ECOWAS and WAEMU);
- c. Contributions by technical and financial partners (especially G20 members);

The possibility of a contribution by rice importers (0.4 %) discussed by the Task Force had not, in the end, been retained.

In view of the prospects in the short and medium term for food security in West Africa, the Regional Reserve can only be considered as a long-lasting instrument. Its sustainability depends on the rigor of its technical management and a financial mechanism that is predictable, secure and correlated with the aims of policy makers, in terms of the volume of resources. Although long-term investments in agriculture and social protection will help to gradually reduce chronic food insecurity, shocks of various kinds will likely continue to cause large-scale cyclical crises. Intended as an instrument for responding to these shocks, a lifetime of at least 10-15 years should perforce be considered for the Regional Reserve.

As such, the reserve should:

- Be based on multi-year financial commitments.
- Mobilize regional resources above all, since its purpose is to increase the power of regional solidarity mechanisms to improve the speed and quality of response to food crises, and limit the use of international aid, especially for moderate crises;
- Combine national, regional and international resources;
- Mobilize new resources such that emergency management does not come at the expense of resources allocated to structural development policies, which alone are what can bring about a reduction in crises and their consequences for the people and economies of West Africa in the medium to long term.

Three options were discussed, according to the institutional framework chosen and the respective levels of engagement of the two regional integration institutions:

Option 1: Priority mobilization of ECOWAP resources to finance the Regional Food Security Reserve. This option is not preferred since the resources allocated by the ECOWAS to ECOWAP for the next five years totaled \$150 million. Priority funding of the Regional Reserve using these resources would lead to a drastic reduction in all other investments in the PRIA. However, due to delays in the commitment of resources already available, the ECOWADF can usefully be mobilized for an initial allocation of funds focused on the establishment of technical management bodies and the first supply operations. An sum of \$20 million could be allocated for this purpose.

Option 2: Joint mobilization of ECOWADF/ECOWAS and FRDA/WAEMU resources. This option follows a similar line of reasoning to the above. It would represent a solid joint commitment by both institutions.

Option 3: Establishment of a dedicated financial mechanism, with new and renewable resources, based on a combination of sources, including innovative financing.

It is above all this latter option that is proposed to the decision-making bodies, in light of the costs of the reserve. Effectively, option 1 is hampered by the limited resources available from ECOWADF

funds and the "competition" over these resources for the implementation of various PRIA programs. Option 2 reinforces the funding for the reserve by combining the efforts of the two institutions, ECOWAS and WAEMU, but falls short of requirements and above all risks affecting the funds allocated to agricultural policies.

The funding mechanism set out in option 3 responds to the need for a secure funding structure that enables:

- the availability of a reserve in the event of a major crisis that the intervention at the regional level;
- the availability of intervention capabilities, that is, a financial facility or Emergency Response Fund to finance the mobilization or reconstitution of the physical reserve, and to fund other forms of response: additional food purchases, purchasing and provision of livestock feed, food aid programs that operate in other ways than food distribution (e.g. coupons), enabled by the mobilization of the financial reserve.
- the availability of regularly renewable resources, therefore allowing replenishment of the Emergency Response Fund on a predictable and secure basis.

9.6.1 Funding of the Establishment, Maintenance and Governance of the Reserve

To recap, the cost amounts to \$263 million over eight years, with high costs in the years of establishment or increase in volume of the conventional physical and financial stocks, and low costs outside these periods (see Table 22, row "total 1").

The following approach is proposed for the financing of various cost rubrics:

- Purchase of foodstuffs: contribution by Member States and ECOWAS and WAEMU Commissions budgets
 - 50% contribution by States, or 30,000 tons for the initial supply operation, in proportion to each country's contribution to regional production. Countries suffering food crisis in 2011/12 would be exempt from the first contribution.
 - 50% from a call for tender on the international market, except in the event that the 2012-2013 crop year proves to be exceptional,³⁶ jointly financed by regional institutions/TFPs.
- Governance and technical management: ECOWADF funds or joint funding by ECOWADF/FRDA.
- Funding of regional solidarity interventions: co-financing between regional institutions and TFPs. The rate of mobilization of the reserve will be decided by the Management Committee on the basis of (i) need; (ii) resources mobilized at the level of regional and international institutions or funds.

³⁶ The section on the composition of the reserve and source of supplies has retained a focus on locally produced cereals, without excluding international supplies. This optimum composition is subject to various decision criteria, notably with regard to the market situation and the level of risk of pressure on regional market prices induced by the purchasing operations. The creation of the Regional Reserve takes place within a specific context, in which the region is experiencing a severe food crisis. The response to the crisis mobilizes all stocks in the Sahelian zone, even though these stocks are already at a low level. This context weighs on the conditions of implementation of the reserve, due to the high requirement for replenishment of national stocks following the 2012-2013 crop year. It is likely that post-harvest prices will remain at a high level. Massive purchases for the purpose of stocking or restocking would risk increasing tension, and would be particularly costly.

Increases in the conventional volumes of physical stock would similarly depend on a contribution by Member States in years 5 and 8.

Table23: Funding Structure for the Establishment, Maintenance and Governance of the Regional Reserve

Thousand \$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total Years 1 to 8
Coasts set-up, maintenance and governance of the total reserve	94 807,00	6 168,00	4 429,00	6 168,00	65 930,00	8 713,00	5 742,00	71 299,00	263 257,00
State contributions (grains)	15 000,00				12 000,00			15 000,00	42 000,00
ECOWAS/WAEMU Contributions	20 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	15 000,00	125 000,00
Technical and Financial Partners (TFPs) contributions	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	12 000,00	96 000,00
Annual balance (resources-usage)	- 47 807,00	20 832,00	22 571,00	20 832,00	- 26 930,00	18 287,00	21 258,00	- 29 299,00	- 257,00
Contributions to funding :									
a. % Région + countries	74%	56%	56%	56%	69%	56%	56%	71%	63%
b. % TFPs	26%	44%	44%	44%	31%	44%	44%	29%	37%

The funding structure is based on a contribution in the order of two-thirds by the Region (State governments + regional institutions) and a third by TFPs. This ratio ensures the sovereignty of the region over the reserve. The main difficulty lies in the management of cash flows. The table presents a homogenous financial structure over the entire period, when the financial needs are focused on years 1, 5 and 8, at the moment of building up capital. An arrangement between the banks of the ECOWAS and WAEMU the one hand, the Commissions on the other, and TFPs should help to deal with this problem.

9.6.2 Funding of Regional Reserve Interventions

Table24 recalls the costs associated with the interventions of the Regional Reserve. These costs are related to the hypothesis of a mobilization of up to 75% of the reserve on average each year.

Table24: Overview of Reserve Interventions Costs for Years 1 to 8 (millions of dollars)

Years 1 to 4	Years 5 to 7	Year 8	Total over 8 years
66.5	109.6	152	747

The financial structure proposed to ensure the financing of regional solidarity interventions by the reserve is based on the following:

- **Regional resources:**
 - "Zero Hunger" solidarity contribution levied on imports of "all products taken together" in the region. Such a contribution paid by consumers of imported products represent 78 million per 0.1 increment (0.1% of the value of imports). Table25 simulates the expected outcome of such a contribution. A contribution set at a level of 0.2% would largely cover all costs incurred by the early years of the Regional Reserve. However, the creation of such a levy requires a strong commitment from Member States and civil society partners. Also, such a contribution would represent a novel source of funding for the overall regional stockpiling strategy: the local and national security stocks and the Regional Reserve (see below). The DAERE chose to propose a contribution called "Zero Hunger" with a 0.5% levy on the value of imports. Following a suggestion by the Task Force, the possibility of excluding food imports should be considered.

- **International resources.**

- The G20 is committed to supporting the Regional Reserve in West Africa. Therefore, financial resources may be mobilized for this purpose, as well as technical support (technical assistance from the WFP or other TFPs within the Technical Unit).
- Several financial partners have already been approached by ECOWAS in the context of following up the commitments made at the G20 Cannes Summit and indicated willing to contribute to the funding of the reserve. Their contribution is predicated on the principle of shared responsibility within the international community in triggering certain crises, such as soaring prices on world grain markets, where G20 members account for over 80% of international trade.

Table25 : Simulation of Resources Resulting from a Solidarity Levy on Imports from Outside the Region

Rate (%)	0,1	0,2	0,3	0,4	0,5
Value of ECOWAS Imports (2010) - 1000 \$	78 000 000,00	78 000 000,00	78 000 000,00	78 000 000,00	78 000 000,00
Yield of the Solidarity Levy - 1000 \$	78 000 000,00	156 000 000,00	234 000 000,00	312 000 000,00	390 000 000,00

Based on ECOWAS Commission foreign trade data

The ECOWAS Commission considers:

- That the Regional Reserve could be financed only with difficulty on the basis of the usual resources: the contribution to the regular budget of the respective Commissions of the regional institutions and contributions by TFPs;
- That recourse to new financial mechanisms is essential, both regionally and internationally;
- That the yield from these new mechanisms and methods of operation will make it possible to:
 - secure the resources and ensure the sustainability of the reserve and a progressive increase in its ability to contribute to solving food crises;
 - contribute to funding or co-funding the entire stockpiling policy, and not only at the regional level. This perspective is important for Member States and non-governmental stakeholders. It is also a guarantee of a concomitant and consistent investment in the three complementary levels of defense.

Table 26 shows the proposed funding structure for financing interventions by the Regional Reserve. This financing structure caps the contribution by international partners at one-third of the resources mobilized at regional level (Member States, IGOs, "Zero Hunger" contributions), except for the first year when the latter will not yet be in place. Depending on the disposition of international partners, it will be possible to adjust the terms of intervention of the Reserve in the first year by varying the ratio between "loans or transfers for consideration" and "gifts". In the absence of external funding, the reserve would intervene only under the terms of "loan or transfer for consideration".

This financial structure can generate large amounts of resources to co-finance national strategies for storage (national stocks and local stocks). It allows to emerge to give coherence to the approach that simultaneously aims to consolidate the various lines of defense and establish a regional project that combines elements local, national and regional, giving a new impetus to concrete integration and regional solidarity.

Table 26: Financing Structure for Regional Reserve Interventions and Contributions from Regional Resources to the Funding of National Stocks

Years	1	2	3	4	5	6	7	8	8-years total
Cost of intervention by the total reserve (75% mobilized each year) (thousands of dollars)	66 515,00	66 515,00	66 515,00	66 515,00	109 658,00	109 658,00	109 658,00	152 004,00	747 038,00
Contribution by "Zero Hunger" (0,5%)	-	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	2 730 000,00
Total regional resources (thousands of dollars)	-	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	390 000,00	2 730 000,00
Contribution by G20 partners and et other partners (limited to one-third of regional resources in years 2 to 8) (thousands of \$)	66 515,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	130 000,00	976 515,00
Total resources (thousands of \$)	66 515,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	520 000,00	3 706 515,00
Allocation to national food reserve strategies (national and local stocks) (thousands of dollars)	-	453 485,00	453 485,00	453 485,00	410 342,00	410 342,00	410 342,00	367 996,00	2 959 477,00
Percentage of resources allocated:									
a. to the Régiona Reserve (%)	100%	13%	13%	13%	21%	21%	21%	29%	20%
b. to the national food reserve strategy (%)	0%	87%	87%	87%	79%	79%	79%	71%	80%

10 The Monitoring and Evaluation Mechanism

In the context of results-based management (RBM), the monitoring and evaluation mechanism of the Regional Reserve is designed to be an iterative and learning process, and a tool for supporting decision-making. As such, it is expected to play four essential functions: (i) an accountability function, according to which the Technical Management Unit reports to stakeholders on the results obtained by the different actions undertaken within the framework of the Regional Reserve; (ii) a management support function for improving the assignment of human, financial and material resources; (iii) a decision-making support function, to decide on the operation of the reserve, and its size; (iv) a learning function for mobilization and deepening of the multi-stakeholder partnership, which allows those involved in the implementation of the reserve to understand the outcomes of their actions and improve their contribution to the objectives pursued.

Described below are: (i) the scope of monitoring and evaluation and the institutional mechanism in which the tool is inserted; (ii) the monitoring plan; and (iii) the evaluation plan.

10.1 Definition of the Scope of Monitoring and Evaluation

The primary objective of the tool will be to ensure the monitoring and evaluation of actions taken over the eight years of the formation of the regional reserve in relation to:

- Targets set in terms of size, location and supply of the regional reserve. Implementation of the reserve comprises a set of political, legal, institutional, financial and budgetary instruments, which must be subjected to a system of close monitoring and evaluation;
- The objectives of the reserve in relation to regional solidarity;
- In specific objective 3 of the Regional Agricultural Investment Program (RAIP) "Reducing food insecurity and promoting sustainable access to food" and how the subject contributes to achieving this goal.

10.2 Monitoring Indicators

Monitoring indicators are indicators that provide oversight of how activities are implemented. They include indicators that inform the process of implementation in the form of material, financial and human resources invested (i.e. resources spent, products purchased) and the status of implementation (agreements signed, negotiations completed, etc.).

Output indicators combine the indicators for outcomes (for example, the number of warehouses housing a portion of the Regional Reserve; does the system work as it was intended), results (number of interventions and number of vulnerable people assisted by the reserve in times of crisis) and impact (number or percentage of food-insecure people, increase in farmers' income, etc.).

Table27: Proposed Monitoring and Evaluation Indicators

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	
Input Indicators	<ul style="list-style-type: none">Financial resources for the establishment of the stock are availableThe legal arrangements for the Reserve Management Unit are preparedUnit staff have been recruitedMaterial investments in the Unit have been undertakenReserve governance bodies are in placeThe warehouses to store the Regional Reserve are operationalService contracts with RESOGEST bodies have been negotiatedThe list of approved suppliers for stocking the reserve have been identifiedNegotiations on the contribution by TFPs are complete				<ul style="list-style-type: none">Financial resources for increasing the stock in year 5 are availableThe warehouses to store the increase to the Regional Reserve in year 5 are operationalThe suppliers for stocking the increase to the reserve in year 5 have been identified			<ul style="list-style-type: none">Financial resources for increasing the stock in year 8 are availableThe warehouses to store the increase to the Regional Reserve in year 8 are operationalThe suppliers for stocking the increase to the reserve in year 8 have been identified		
	Output Indicators									
	Results Indicators Outcome Indicators	<ul style="list-style-type: none">A regional stock of 60,000 tons is established		<ul style="list-style-type: none">Physical stock in rotation is allocated to social safety net	Physical stock in rotation is allocated to social	<ul style="list-style-type: none">Physical stock in rotation is allocated to social safety net	<ul style="list-style-type: none">A regional stock of 100,000 tons is established	<ul style="list-style-type: none">Physical stock in rotation is allocated to social	Physical stock in rotation is allocated to social safety net	<ul style="list-style-type: none">A regional stock of 140,000 tons is established
		<ul style="list-style-type: none">The Regional Reserve is actuated when the trigger mechanisms show greenThe Regional Reserve sources supplies on the local market and from producers in the region								
		<ul style="list-style-type: none">The Regional Reserve enables intervention in a complementary manner to local and national emergency response stocks: 140,380 tons is established	<ul style="list-style-type: none">The Regional Reserve enables a reduction in delays to aid provision in crisis periods and is complementary to international aid: comparative delay in delivering aid							
		<ul style="list-style-type: none">The Regional Reserve enables regional farmers to increase their sales outlets; part of the reserve is sourced from PO contractsAllocation decisions are based on the CHB, using objective criteria for food security analysis								
	<ul style="list-style-type: none">The reserve does not diminish: the Regional Reserve is replenished by solidarity funds and TFP contributions									

Impact Indicators

- The reserve contributes to providing access to food to vulnerable populations and reduces malnutrition in crisis periods
 - The forms of intervention employed by the reserve contribute to increasing household resilience
 - The reserve contributes to increasing the revenue of local producers

10.3 Evaluation Indicators

Given the level of overlap between the Regional Reserve and national and international mechanisms, the regular monitoring and evaluation system cannot give a full account of the effectiveness and efficiency of the Regional Reserve. More detailed, in-depth quantitative and qualitative assessments will be required. Already, the Task Force has proposed conducting a thorough evaluation in the third year, in order to have the elements necessary to reassess the proposed strategy: size, composition, location, trigger, etc.

10.4 Institutional Mechanism for the Monitoring and Evaluation System

The monitoring and evaluation system will be integrated into the structure to be placed within the ARAA. An expert in charge of monitoring and evaluation of the reserve will be specifically charged with this responsibility. The monitoring and evaluation system will be integrated into the mechanism put in place by ECOWAP, itself integrated into the monitoring and evaluation reform currently taking place within the ECOWAS Commission.

The expert will be responsible for preparing the precise monitoring and evaluation tool, establishing the baseline, identifying national and regional sources of information that will feed the indicators used.

The monitoring and evaluation system of the Regional Reserve will generate a total of three types of "output" data (statistics, indicators), information (elements for analysis) and knowledge (tools and methods). These outputs will be contained in different products (quarterly reports, annual reports, databases, guidelines, best practices, etc.). In order to ensure information feedback, the agent in charge of monitoring and evaluation must send a summarized and formatted version of all of this information to the "monitoring and evaluation" unit implemented by ECOWAP/CAADP, also placed within ECOWAS.

To facilitate information feedback, all reports and data tables must be compiled. In this respect, a clear protocol will be implemented in the data dissemination system, including the format, timing and frequency, taking into account the data collection infrastructure and capacities of regional and national institutions. The collection and processing (aggregation) of data will also be standardized.

The presentation of results and dissemination of information should strengthen the management capacities of governance bodies and policy makers directly involved in the implementation of the Regional Reserve, and will also feed into the review process by the various Regional Reserve stakeholders, including Member States, socio-occupational parties and NGOs, international institutions and technical and financial partners.

11 Risks and Mitigation Measures

The project entails a number of risks, although feasibility study has constantly sought to reduce their impact.

The principal risks comprise the following:

- Risk of poor design of the size of the reserve, whether over- or undersized in relation to actual needs;
- Risk of political interference in the decisions of the Management Committee. These risks increase in accordance with the heterogeneity of the quality of the information produced by the information systems with regard to the food and nutrition situation;
- Risk of unequal treatment of countries, due to inconsistent use of the Regional Reserve, taking into account disparities between countries in their national response capability, the availability of local

or national stocks, the existence or otherwise of contingency plans, different levels of involvement by the international community in supporting the country;

- Risk of failure to reimburse the reserve in the event of use of the "loan or transfer for consideration" modality, thereby endangering the replenishment of the reserve.

Preparatory and complementary measures (contingency plans, support for information tools, support for national stockpiling strategies, etc.) have been designed to prevent and mitigate these types of risks. The external audit, monitoring and evaluation and reporting mechanisms, must also ensure vigilant oversight of the operation of the reserve, providing a warning mechanism for reserve governance bodies and stakeholders.

12 The Calendar and Modalities of Implementation

The high-level meeting on food and nutrition crisis between the Member States of ECOWAS, WAEMU and CILSS held on June 4 in Lomé determined the establishment of the Regional Reserve as a priority for the end of 2012.

In this perspective, the ECOWAS Commission has stepped up its work in order to submit a detailed proposal to the Ministerial Committee specialized in Agriculture, Environment and Water Resources, which will be held from September 24 to 27, 2012.

Based on the decisions of the Ministerial Committee, the practical implementation of the initiative will be set in motion. This will include the following steps:

- installation of the Technical Management Unit for the reserve in the ARAA;
- establishment of governance bodies;
- preparation and adoption of the procedures manual;
- completion of the financial package for the first year of implementation of the reserve;
- engage in financial negotiations with the various stakeholders: ECOWAS, WAEMU, G20 Partners;
- preparation of services provision contracts with the national bodies in charge of stock management on behalf of the Regional Reserve;
- arbitration at the level of the ECOWAS statutory bodies regarding the sustainable financing mechanism for the years following the installation of the reserve.

13 Legal Aspects

Legal issues include:

- Documents relating to the establishment of the management bodies for the reserve in accordance with the institutional structure ultimately adopted by the Ministerial Committee. This mainly concerns the creation of the Management Committee for the Reserve, which will require a legal instrument.
- The preparation and signing of a tripartite agreement between ECOWAS, WAEMU, CILSS and RESOGEST clarifying the roles, responsibilities and commitments of each institution;
- Contractual agreements between the technical management body of the Regional Reserve and national companies and agencies in charge of inventory management, to which will be delegated a set of technical functions.
- Derogation measures enabling the reserve to import products from the international market duty free (customs duties, other taxes, PC, PCS).
- The contractual agreement between EBID, which will house the Emergency Response Fund (within the ECOWADF) and the body responsible for the management of the reserve.

14 Acronyms and Abbreviations

ARAA	Regional Food and Agriculture Agency (Agence Régionale pour l'Agriculture et l'Alimentation / ECOWAP-ECOWAS)
CAADP	Comprehensive Africa Agricultural Development Program
CHB	Harmonized Improved Framework for vulnerability analysis (Cadre Harmonisé Bonifié d'analyse de la vulnérabilité)
CCAA	Advisory Committee for Food and Agriculture (Comité Consultatif pour l'Agriculture et l'Alimentation / ECOWAP-ECOWAS)
CIAA	Inter-departmental Committee for Food and Agriculture (Comité InterDépartements pour l'Agriculture et l'Alimentation /ECOWAP-ECOWAS)
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel (Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel)
COSS	Guideline Framework for the ECOWAS Storage Strategy (Cadre d'Orientation sur la Stratégie de Stockage de la CEDEAO)
CRED	Centre for Research on the Epidemiology of Disasters
ECOWAP	ECOWAS Agricultural Policy
ECOWADF	Regional Fund for Food and Agriculture (Fonds Régional pour l'Agriculture et l'Alimentation / CEDEAO)
ECOWAS	Economic Community of West African States
EWS	Early Warning System
FAO	United Nations Food and Agriculture Organization
FRDA	Regional Agricultural Development Fund / PAU-WAEMU
FSIS	Food Security Information System
IGO	Inter Governmental Organization
IPC	Integrated Food Security Phase Classification
LDC	Least Developed Country
MIS	Market Information System
NGO	Non Governmental Organization
OCHA	Office for the Coordination of Humanitarian Affairs/ United Nations
OMA	Agricultural Market Observatory (Observatoire des Marchés Agricoles)
OPAM	National Agricultural Products Office of Mali (Office des Produits Agricoles du Mali)
OPVN	National Food Products Office of Niger (Office des Produits Vivriers du Niger)
PAU	Common agricultural policy - WAEMU
PRIA	Regional Agricultural Investment Program (Programme Régional d'Investissement Agricole)
RESOGEST	Network of Structures for the Management of Food Security Stocks in the Sahel and West Africa (Réseau des Structures Publiques en charge de la Gestion des Stocks nationaux de sécurité alimentaire au Sahel et Afrique de l'Ouest)
SONAGESS	State Company for Food Security Stock Management (Société Nationale de Gestion du Stock de Sécurité Alimentaire)
SWAC	Sahel and West Africa Club / OECD
TFP	Technical and Financial Partner
UN	United Nations
WAEMU	West African Economic and Monetary Union
WFP	World Food Program

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16 Appendices

16.1 Appendix 1: Detailed Presentation of Results Relating to the Different Scenarios

Scenario 1:

	Unité	Prix marché	Coûts de transport	Coût de revient	Marge commercant	Prix unitaire rendu magasins	Part dans la réserve (%)	2013	2014	2015	2016	2017	2018	2019	2020	Total
Dimensionnement de la réserve (milliers tonnes) scénario 1																
Réserve régionale								71	71	71	71	138	138	138	206	
Réserve financière								47	47	47	47	91	91	91	136	
Réserve physique								24	24	24	24	47	47	47	70	
Coût de la réserve physique (milliers \$)																
Coûts de constitution du stock								10 981				10 523			10 523	32 027
Mil	tonnes	288	50	338	24	361	25%	2 168				2 077			2 077	6 322
Sorgho	tonnes	260	50	310	22	332	24%	1 912				1 832			1 832	5 577
Maïs	tonnes	278	50	328	23	351	26%	2 189				2 098			2 098	6 385
Riz	tonnes	632	50	682	48	730	7%	1 226				1 175			1 175	3 576
Gari	tonnes	366	50	416	29	445	14%	1 496				1 433			1 433	4 362
Farine enrichie	tonnes	1500	50	1550	109	1659	5%	1 990				1 907			1 907	5 805
Coûts de location des magasins	tonnes					12		293	293	293	293	574		574	855	3 749
Coût de revient du stockage (gardiennage, fumigation, maintenance et standardisation)	tonnes					29		694	694	694	694	1 359	1 359	1 359	2 024	8 878
Frais de gestion du stock par l'opérateur national						2%		220	220	220	220	430	430	430	641	2 809
Pertes annuelles						2%		220	220	220	220	430	430	430	641	2 809
Coûts de rotation des stocks :																
Coûts de depreciation du stock	tonnes					10%			366		366		717		1 068	2 516
Coût de renouvellement du stock (variation intra annuelle des prix)	tonnes					9%			329		329		645		961	2 265
Total (I)								12 407	2 122	1 426	2 122	13 316	4 155	2 793	16 711	55 053
Coût de la réserve financière (milliers \$)																
Coûts de conversion en ressources physiques								21 504				20 375			20 445	62 323
Provison pour risque prix						15%		3 226				3 056			3 067	9 348
Intérêts sur placements						3%		-	645	-	645	-	645	-	1 256	6 350
Total (II)								24 729	-	645	-	645	-	1 256	-	22 255
Coûts de gouvernance de la réserve et renforcement institutionnel externe (milliers \$)																
Investissements								90	-	-	-	-	70	-	-	160
Masse salariale								1 282	1 282	1 282	1 282	1 282	1 282	1 282	1 282	10 256
Fonctionnement								144	144	144	144	144	144	144	144	1 150
Activités								661	661	661	661	661	661	661	661	5 292
- dont renforcement institutionnel externe								160	160	160	160	160	160	160	160	1 280
Contrôle certification et audit								104	104	104	104	104	104	104	104	835
Imprévus 5%								114	110	110	110	110	113	110	110	885
Total (III)								2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857
Total général (I+II+III)								39 692	3 938	3 242	3 938	38 563	5 433	3 998	41 428	140 232

Scenario 3:

	Unité	Prix marché	Coûts de transport	Coût de revient	Marge commercant	Prix unitaire rendu magasins	Part dans la réserve (%)	2013	2014	2015	2016	2017	2018	2019	2020	Total	
Dimentionnement de la réserve (milliers tonnes) scénario 3																	
Réserve régionale								84	84	84	84	167	167	167	251		
Réserve financière								56	56	56	56	111	111	111	167		
Réserve physique								28	28	28	28	56	56	56	84		
Coût de la réserve physique (milliers \$)																	
Coûts de constitution du stock								12 811				12 811			12 811	38 432	
Mil	tonnes	288	50	338	24	361	25%	2 529				2 529			2 529	7 587	
Sorgho	tonnes	260	50	310	22	332	24%	2 231				2 231			2 231	6 692	
Mais	tonnes	278	50	328	23	351	26%	2 554				2 554			2 554	7 662	
Riz	tonnes	632	50	682	48	730	7%	1 430				1 430			1 430	4 291	
Gari	tonnes	366	50	416	29	445	14%	1 745				1 745			1 745	5 235	
Farine enrichie	tonnes	1500	50	1550	109	1659	5%	2 322				2 322			2 322	6 966	
Coûts de location des magasins	tonnes					12		342	342	342	342	684	684	684	1 026	4 445	
Coût de revient du stockage (gardiennage, fumigation, maintenance et standardisation)	tonnes					29		810	810	810	810	1 619	1 619	1 619	2 429	10 526	
Frais de gestion du stock par l'opérateur national						2%		256	256	256	256	512	512	512	769	3 331	
Pertes annuelles						2%		256	256	256	256	512	512	512	769	3 331	
Coûts de rotation des stocks :																	
Coûts de depreciation du stock	tonnes					10%			427		427		854		1 281	2 989	
Coût de renouvellement du stock (variation intra annuelle des prix)	tonnes					9%			384		384		769		1 153	2 690	
Total (I)								14 475	2 475	1 664	2 475	16 139	4 951	3 328	20 237	65 744	
Coût de la réserve financière (milliers \$)																	
Coûts de conversion en ressources physiques								25 622				25 393			25 469	76 483	
Provison pour risque prix						15%		3 843				3 809			3 820	11 472	
Intérêts sur placements						3%		-	769	-	769	-	769	-	1 530	-	7 666
Total (II)								29 465	-	769	-	769	-	769	-	1 530	80 290
Coûts de gouvernance de la réserve et renforcement institutionnel externe (milliers \$)																	
Investissements								90	-	-	-	-	70	-	-	160	
Masse salariale								1 282	1 282	1 282	1 282	1 282	1 282	1 282	1 282	10 256	
Fonctionnement								144	144	144	144	144	144	144	144	1 150	
Activités								661	661	661	661	661	661	661	661	5 292	
- dont renforcement institutionnel externe								160	160	160	160	160	160	160	160	1 280	
Contrôle certification et audit								104	104	104	104	104	104	104	104	835	
Imprévus 5%								114	110	110	110	110	113	110	110	885	
Total (III)								2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857	
Total général (I+II+III)								46 495	4 168	3 357	4 168	47 033	5 955	4 259	50 457	165 891	

Scenario 4:

	Unité	Prix marché	Coûts de transport	Coût de revient	Marge commercant	Prix unitaire rendu magasins	Part dans la réserve (%)	2013	2014	2015	2016	2017	2018	2019	2020	Total	
Dimentionnement de la réserve (milliers tonnes) scénario 4																	
Réserve régionale								91	91	91	91	183	183	183	274		
Réserve financière								61	61	61	61	122	122	122	183		
Réserve physique								30	30	30	30	61	61	61	91		
Coût de la réserve physique (milliers \$)																	
Coûts de constitution du stock								13 726				14 183			13 726	41 635	
Mil	tonnes	288	50	338	24	361	25%	2 710				2 800			2 710	8 219	
Sorgho	tonnes	260	50	310	22	332	24%	2 390				2 470			2 390	7 250	
Mais	tonnes	278	50	328	23	351	26%	2 736				2 828			2 736	8 300	
Riz	tonnes	632	50	682	48	730	7%	1 532				1 584			1 532	4 648	
Gari	tonnes	366	50	416	29	445	14%	1 870				1 932			1 870	5 671	
Farine enrichie	tonnes	1500	50	1550	109	1659	5%	2 488				2 571			2 488	7 546	
Coûts de location des magasins	tonnes					12		366	366	366	366	745	745	745	1 111	4 811	
Coût de revient du stockage (gardiennage, fumigation, maintenance et standardisation)	tonnes					29		868	868	868	868	1 764	1 764	1 764	2 631	11 393	
Frais de gestion du stock par l'opérateur national						2%		275	275	275	275	558	558	558	833	3 605	
Pertes annuelles						2%		275	275	275	275	558	558	558	833	3 605	
Coûts de rotation des stocks :																	
Coûts de depreciation du stock	tonnes					10%			458		458		930		1 388	3 233	
Coût de renouvellement du stock (variation intra annuelle des prix)	tonnes					9%			412		412		837		1 249	2 910	
Total (I)								15 509	2 652	1 783	2 652	17 808	5 393	3 625	21 771	71 193	
Coût de la réserve financière (milliers \$)																	
Coûts de conversion en ressources physiques								27 909				28 367			27 602	83 878	
Provison pour risque prix						15%		4 186				4 255			4 140	12 582	
Intérêts sur placements						3%		-	837	-	837	-	837	-	1 688	- 8 414	
Total (II)								32 096	-	837	-	837	-	837	-	30 055	88 046
Coûts de gouvernance de la réserve et renforcement institutionnel externe (milliers \$)																	
Investissements								90	-	-	-	-	70	-	-	160	
Masse salariale								1 282	1 282	1 282	1 282	1 282	1 282	1 282	1 282	10 256	
Fonctionnement								144	144	144	144	144	144	144	144	1 150	
Activités								661	661	661	661	661	661	661	661	5 292	
- dont renforcement institutionnel externe								160	160	160	160	160	160	160	160	1 280	
Contrôle certification et audit								104	104	104	104	104	104	104	104	835	
Imprévus 5%								114	110	110	110	110	113	110	110	885	
Total (III)								2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857	
Total général (I+II+III)								50 160	4 276	3 407	4 276	52 054	6 239	4 398	54 286	179 096	

Scenario 5 :

	Unité	Prix marché	Coûts de transport	Coût de revient	Marge commercant	Prix unitaire rendu magasins	Part dans la réserve (%)	2013	2014	2015	2016	2017	2018	2019	2020	Total
Dimentionnement de la réserve (milliers tonnes) scénario 5																
Réserve régionale								183	183	183	183	366	366	366	549	
Réserve financière								122	122	122	122	244	244	244	366	
Réserve physique								61	61	61	61	122	122	122	183	
Coût de la réserve physique (milliers \$)																
Coûts de constitution du stock								27 909				27 909			27 909	83 727
Mil	tonnes	288	50	338	24	361	25%	5 510				5 510			5 510	16 529
Sorgho	tonnes	260	50	310	22	332	24%	4 860				4 860			4 860	14 580
Mais	tonnes	278	50	328	23	351	26%	5 564				5 564			5 564	16 692
Riz	tonnes	632	50	682	48	730	7%	3 116				3 116			3 116	9 348
Gari	tonnes	366	50	416	29	445	14%	3 801				3 801			3 801	11 404
Farine enrichie	tonnes	1500	50	1550	109	1659	5%	5 058				5 058			5 058	15 175
Coûts de location des magasins	tonnes					12		745	745	745	745	1 490	1 490	1 490	2 234	9 683
Coût de revient du stockage (gardiennage, fumigation, maintenance et standardisation)	tonnes					29		1 764	1 764	1 764	1 764	3 528	3 528	3 528	5 292	22 931
Frais de gestion du stock par l'opérateur national						2%		558	558	558	558	1 116	1 116	1 116	1 675	7 256
Pertes annuelles						2%		558	558	558	558	1 116	1 116	1 116	1 675	7 256
Coûts de rotation des stocks :																
Coûts de depreciation du stock	tonnes						10%		930		930		1 861		2 791	6 512
Coût de renouvellement du stock (variation intra annuelle des prix)	tonnes						9%		837		837		1 675		2 512	5 861
Total (I)								31 534	5 393	3 625	5 393	35 159	10 785	7 250	44 087	143 227
Coût de la réserve financière (milliers \$)																
Coûts de conversion en ressources physiques								55 818				55 818			55 818	167 455
Provison pour risque prix							15%	8 373				8 373			8 373	25 118
Intérêts sur placements							3%		- 1 675	- 1 675	- 1 675	- 1 675	- 3 349	- 3 349	- 3 349	- 16 745
Total (II)								64 191	- 1 675	- 1 675	- 1 675	62 517	- 3 349	- 3 349	60 842	175 828
Coûts de gouvernance de la réserve et renforcement institutionnel externe (milliers \$)																
Investissements								90	-	-	-	-	70	-	-	160
Masse salariale								1 282	1 282	1 282	1 282	1 282	1 282	1 282	1 282	10 256
Fonctionnement								144	144	144	144	144	144	144	144	1 150
Activités								661	661	661	661	661	661	661	661	5 292
- dont renforcement institutionnel externe								160	160	160	160	160	160	160	160	1 280
Contrôle certification et audit								104	104	104	104	104	104	104	104	835
Imprévus 5%								114	110	110	110	110	113	110	110	885
Total (III)								2 556	2 461	2 461	2 461	2 461	2 535	2 461	2 461	19 857
Total général (I+II+III)								98 281	6 179	4 412	6 179	100 137	9 971	6 362	107 390	338 912

16.2 Appendix 2: Detailed Presentation of the Costs of Technical Management and Governance of the Reserve

	Prix unitaire	Nombre d'unités	ANNEE 1	ANNEE 2 à 5	Année 6	Année 7 et 8	Total
A. Investissements			90 000	0	70 000	0	160 000,00
Véhicule de ville	35 000	1	35 000	0	35 000	0	35 000,00
Matériels informatiques	5 000	7	35 000	0	35 000	0	35 000,00
installation réseau informatique	2 500	1	2 500	0	0	0	2 500,00
Tables, bureaux, chaises	2 500	7	17 500	0	0	0	17 500,00
B. Masse salariale			1 282 000	1 282 000	1 282 000	1 282 000	10 256 000,00
Directeur	15 800	12	189 600	189 600	189 600	189 600	1 516 800,00
Responsable des approvisionnements	12 840	12	154 080	154 080	154 080	154 080	1 232 640,00
Responsable des opérations d'urgence	12 840	12	154 080	154 080	154 080	154 080	1 232 640,00
Resonsable Unité admin et financière	12 840	12	154 080	154 080	154 080	154 080	1 232 640,00
Indemnisation Président Comité d'octroi	6 000	12	72 000	72 000	72 000	72 000	576 000,00
Analyste SISAS	12 840	12	154 080	154 080	154 080	154 080	1 232 640,00
Responsable suivi évaluation	12 840	12	154 080	154 080	154 080	154 080	1 232 640,00
Autre personnel			250 000	250 000	250 000	250 000	2 000 000,00
C. Fonctionnement			143 800	143 800	143 800	143 800	1 150 400,00
Fonctionnement+entretien véhicules et assurances	8 000	1	8 000	8 000	8 000	8 000	64 000,00
Entretien matériels informatiques	800	7	5 600	5 600	5 600	5 600	44 800,00
Communication	2 000	12	24 000	24 000	24 000	24 000	192 000,00
Consommables informatiques	600	7	4 200	4 200	4 200	4 200	33 600,00
Location bâtiment	4 000	12	48 000	48 000	48 000	48 000	384 000,00
Electricité et eau	1 500	12	18 000	18 000	18 000	18 000	144 000,00
Entretien bureau	1 500	12	18 000	18 000	18 000	18 000	144 000,00
Frais gardiennage	500	12	6 000	6 000	6 000	6 000	48 000,00
Assurance	1 000	12	12 000	12 000	12 000	12 000	96 000,00
							-
D. Activités			661 440	661 440	661 440	661 440	5 291 520,00
Transport	1000	20	20 000	20 000	20 000	20 000	160 000,00
Per diem	262	120	31 440	31 440	31 440	31 440	251 520,00
Réunions TF et Comité d'octroi	100 000	3	300 000	300 000	300 000	300 000	2 400 000,00
Etudes	50 000	3	150 000	150 000	150 000	150 000	1 200 000,00
Appui institutionnel externe	160 000	1	160 000	160 000	160 000	160 000	1 280 000,00
							-
Sous total B+C+D			2 177 240	2 087 240	2 157 240	2 087 240	16 857 920,00
Contrôle certification et audit	5%*(B+C+D)		104 362	104 362	104 362	104 362	834 896
Imprévus 5%			114080	109580	113080	109580	884641
							-
TOTAL Gnéral			2 395 682	2 301 182	2 374 682	2 301 182	18 577 456,80