Introduction

Food reserves and preventing food crises

The G20 must learn the painful lessons of the 2007-08 food price crisis, which was more devastating for many poor people than the global financial crisis. With the prospect of recurring crises a real danger, it is crucial that the G20 uses its very substantial voice to advance effective preparations such as establishing transparent and well-designed, well-resourced, and well-managed food reserves that can prevent significant disruptions to economies and livelihoods. The costs incurred would be small compared to the pricetag on providing external emergency food aid and assisting recovery from social upheaval and economic turmoil in many countries.

The G20 is uniquely positioned to both improve the global policy climate and to provide resources to help in the establishment of stable reserves. It must fulfil its fundamental roles of coordination and mobilisation of powerful governments to ensure global food security and to minimise food price volatility.

Beside the risk of suffering localised food shortages or food emergencies caused by floods, droughts, conflict, or natural disasters, many poor and low-income food-deficit countries are also highly vulnerable to global food price spikes and increasingly volatile global food prices.¹

To avert future food price crises, G20 Leaders should:

- Call for urgent studies of the potential to use strategic buffer food reserves to address market failures and price volatility at the regional, national, and local level.
- Commit to support countries and regional bodies in both politically and materially in setting up adequate food reserve systems which prioritize food security and, where feasible, controlling price volatility.
- Endorse the West Africa pilot project on regionally coordinated reserves and encourage similar efforts in other regions, especially East Africa, where vulnerability to such crises has been amply demonstrated again this year.
- Agree that WTO rules on food reserves and market interventions should be revised in light of historic shifts away from consistent surpluses.
Many poor countries were overwhelmed by an 83 percent rise in global food prices leading up to the 2007-2008 food crisis, which saw the global prices of rice, wheat and maize spike by between 127 and 170 percent over a short period of time. Meat, dairy products and palm oil also rose sharply. After 25 countries imposed cereal export bans or restrictions, causing panic and further price escalation, many low-income cereal-importing countries found they were unable to access or afford adequate food supplies from global markets.

As markets seized up and prices spiralled, domestic food inflation soared in many poor countries. There were demonstrations and civil unrest in dozens of countries, and development gains were overturned: the number of chronically malnourished people jumped from an already-grave 854 million in 2007 to a record 1.02 billion in 2009, with the poorest, landless, and female-headed families the hardest hit.

Poor people who typically spend 50 to 70 percent of their household income on food were hit badly. Across Asia, Africa and Latin America, families cut back on food, sold assets, and sacrificed healthcare and education. Women and girls increasingly ate last and least, some sold sex for food, and in other cases the elderly were abandoned.

**Long term costs**

A serious food crisis such as the one experienced in 2007-2008 can cause enormous short and long-term damage in vulnerable poor countries, especially in comparison to other economic or financial shocks or crises.

A relatively short period of hunger and malnutrition can have long-lasting or permanently debilitating impacts, especially for pregnant women and children under two. Malnourishment in the first two years of life leaves a child more vulnerable to infection and impaired cognitive development, meaning they will do less well in school, earn less as adults, and contribute less to the economy.

Many of these social, economic and livelihood costs could easily be prevented with comparatively cheap interventions ahead of time. With global food prices now still above peaks reached during the height of the crisis in 2008, and in light of the vulnerability and grave systems failure demonstrated during the last food
crisis, we believe many poor countries should urgently bolster or (re-)establish both buffer and emergency food reserves. Where possible, the emergency reserves should be instituted and coordinated on a regional basis to more securely and efficiently provide access to adequate food supplies during emergencies and food crises and to ensure the right to food for all.

Prospects for the Future

Food price indicators in 2011 have suggested that conditions for a renewed crisis exist now, but also that it can be avoided. Global food prices reached the highest level on record in February 2011, surpassing levels seen at the height of the 2007-2008 food crisis and the highest since the inception of FAO’s food-price index in 1990. The FAO’s food-price index—a basket tracking the wholesale cost of commodities such as wheat, maize, rice, oilseeds, dairy products, sugar and meats—jumped to 238 points in February 2011, passing a previous peak of 220 in July 2008.

While the FAO’s price index has fallen for three months to September, local cereal prices in East Africa are still two or four times higher than a year ago. The World Bank estimates that from June 2010 an additional 44 million people fell below the $1.25 poverty line as a result of higher prices and warn that up to an additional 34 million could be threatened by higher prices.

Food reserves help ensure the right to food

States have a legal obligation to respect, protect and fulfil the right to food for all. This obligation includes ensuring access to adequate, nutritious and culturally-appropriate food for the most vulnerable, such as the poorest, women, children, the elderly, remote, marginalized, indigenous groups, and disabled at all times. This means that both buffer reserves, which can help reduce price volatility, and emergency reserves for peak crisis situations, are vital.

Nonetheless, concerns about high running costs, market distortions, corruption, rent seeking, political interference and inefficiency mean that a large number of national food reserves were scaled back, privatised, or dismantled over the last 20 years. Instead, poor countries were encouraged to rely on imports from global markets for their food requirements.

This dismantling of national food reserves is jeopardising the food security of millions of poor and vulnerable people and undermining their right to food, and we encourage G20 members to consider their policies on food reserves in this light.
Many existing national food reserves worked well to protect millions of poor people by releasing public stocks during the 2007-2008 food crisis, and a variety of national food reserves are proving to be flexible, effective, and progressive public policy tools. Transparent, efficient and accountable procurement, distribution, management and anti-corruption systems are an integral part of functioning reserve systems.

We believe sustained investment in a new generation of clearly mandated, well-governed, and efficient buffer and/or emergency food reserves involving the participation and oversight of smallholder farmers and civil society organizations (CSOs) can shield poor people and effectively help to:

- stabilise and smooth out volatile food prices
- ensure emergency food supplies
- foster small-scale agricultural production and longer-term rural development.

 Integrating national reserves into regional food reserves can also spread risks and ensure more reliable access to food supplies during emergencies and foster cooperative arrangements during food price spikes and crises.

Causes of Food Prices Crises

Extreme weather, structural changes in commodities markets, food and energy speculation, biofuels mandates and longer term trends on both sides of the food supply/demand equation are driving prices up. On the demand side the causes are population growth, rising affluence, changing diets, and the increasing use of grain to fuel motor vehicles.

On the supply side: soil erosion, aquifer depletion, loss of cropland to non-farm uses, plateauing crop yields and the growing impact of climate change are all squeezing supplies, while steadily rising oil and gas prices have increased fertilizer, production and transport costs. A weak dollar, ultra-loose monetary policies, and an explosion of speculative activity on commodity futures markets is also considered to be amplifying price movements.

What are food reserves?

Keeping reserve stocks of staple food is as old as civilisation, and food reserves have always been an instrument used by governments. Strategic food reserves were kept in ancient Egypt (since 1750 BC), China (used continuously, since 498 AD), and during the Roman empire.
Nowadays, countries such as India, Brazil, China, Indonesia, Mali, Canada, Senegal, Zambia and Malawi all maintain varying types of national food reserves.

There are two main functions of publicly held food grain reserves:

- **Price stabilisation reserves** buy commodities at harvest when prices are low to raise prices to support producers, and release stocks when prices are high to keep prices in check. Most of these reserves use “price-band” mechanisms which trigger action at maximum and minimum target price levels. In this way, reserves can help protect farmers’ incomes, create more certainty for making crop planting decisions, and mitigate the impact of steep price rises on poor consumers.

- **Emergency response reserves** maintain a smaller physical stock to guarantee food supplies during disasters and emergencies. Food aid organisations such as the UN World Food Programme (WFP) may be allowed to use some of these reserves during famines or emergencies. Some emergency reserves include cash reserves to purchase imports during emergencies. Of course these, like any reserves, cannot be used as a long-term solution to a chronic problem.

In addition, national food reserves can also be successfully integrated into wider rural development strategies, and can:

- **Stimulate smallholder agricultural production** by buying a capped amount of production from specific producers at guaranteed prices, such as smallholders and family farmers.
- **Underpin food entitlement schemes** such as public distribution schemes or food-for-work schemes by providing subsidised staple foods for the rural and urban poor.

**Main arguments against national food reserves**

**Reserves cost money**

Reserves are a recurrent expense on national budgets, and stocks must be physically stored and regularly rotated because food is perishable. The cost of holding grain stocks is estimated
as high as 15-20 percent of the value of the stock per year.\textsuperscript{14} Some argue it is cheaper and more efficient to hold earmarked cash reserves to buy supplies from global food markets; however, the dangers of over-reliance on this approach were exposed in 2007-2008. Extreme price volatility, which in 2008 cascaded into physical shortages, stems from serious flaws in the market system; so relying on markets as a backup risks exacerbating rather than alleviating the problem.

**Reserves distort markets**

This is partly their point—they are designed as an intervention to compensate for what markets cannot achieve. Reserves designed to smooth out price volatility may choke off some private sector activity, or incentivise and lock farmers into growing certain crops—such as rice and wheat—held in the food reserve, rather than diversifying into other crops.\textsuperscript{15} The current common practice of adopting target food price bands rather than fixed price targets mitigates some of these problems. Under price bands, stocks are released for sale when prices rise above a certain point, and purchases made when they dip below another. Some analysts, such as academic Brian Wright, argue that release of public stocks at the ceiling price smoothes price peaks as long as stocks are available, but anticipation of this discourages private storage as prices rise to the ceiling, and suppresses the stabilizing production response to anticipated shortages. He concludes that ‘adjustable’ price bands are the best approach because they reduce accumulation of losses and mimic what the free market can provide.\textsuperscript{16}

Some concern has also been expressed that using food reserves to control prices violates WTO rules. As analyst Sophia Murphy has demonstrated, the WTO’s Agreement on Agriculture was constructed in and for a period of abundance, when ample supplies were depressing prices.\textsuperscript{17} We have now moved into an era of higher volatility and rising prices, and WTO rules must adapt to the new situation. Until they do, ActionAid insists that a stable and just global food security architecture must prioritize food security, stable prices, and equitable development over obsolete WTO regulations.

**Reserves depend on good governance**

A public food reserve needs to be both well-designed and well-governed. With large amounts of money being managed, there is always the potential for fraud, mismanagement and corruption,
as seen in some Asian countries that have long maintained food reserves. Competent staff, properly trained and paid, strong oversight and accountability mechanisms, clear rules, transparent decision-making and a well-functioning independent judiciary are essential. It takes time and money to establish this oversight. ActionAid believes that few public expenditures are more important than precisely these measures, and urges the G20 to offer the political, technical, and material support required to overcome resistance and safeguard the well-being of millions of vulnerable people.

Successful Buffer and Emergency Reserves

Response to food crisis

The management and release of public stocks, often coupled with subsidised sales of food, was a key response to high prices during the 2007-2008 food crisis. Stock interventions took place in 35 countries during the crisis, including Burkina Faso, Cambodia, Cameroon, China, Ethiopia, India, Kenya, Nigeria, Pakistan and Senegal.

Crucially, with speed and timing a key factor in the fast moving crisis, FAO say that those countries with reserve stocks were able to respond more quickly and cheaply than those with limited or no reserves. Countries such as Bangladesh, Indonesia, China and India had large enough food reserves and public distribution systems to stabilise prices in domestic markets. For example:

- **Bangladesh** increased the target size of its public food stock to 1.5 million tonnes from the previous year’s target of 1 million tonnes in 2008. This spurred domestic production and helped calm local markets.
- Bangladesh also released up to 300,000 tonnes of public stocks of rice at a lower-than-market rate of US$0.41/kg in August-October 2008 to check high prices and rising rates of malnutrition. FAO concluded that the food crisis in Bangladesh would probably have been worse if there were no public stocks and public distribution system in place.
- **Indonesia** used a successful combination of policies including trade policy, national food stocks, buffer food reserves, and public distribution systems to protect millions of smallholders and poor consumers from soaring global rice prices in 2008.
• Working through BULOG, the state-owned buffer food reserve, they stabilized rice prices remarkably by:
  o restricting rice exports and relaxing imports;
  o increasing the government purchase price by 10 percent to encourage local production;
  o boosting rice reserves from 204,000 to 352,000 tonnes in 2008;
  o maintaining a minimum stock requirement of 3-6 months’ distribution throughout the crisis;
  o releasing 664,000 tonnes of buffer rice reserves into local markets; and
  o distributing a record 3.34 million tonnes of rice to poor people through public distribution systems.23

• A record procurement of rice and wheat at guaranteed prices by the state-funded Food Corporation of India (FCI) in 2007-2008 formed part of its policy of price insurance for farmers. The extra stocks allowed the FCI to release an additional 25 million tonnes of grain into the market through India’s Public Distribution System enough to keep a firm lid on rising prices.24

• National grain reserve systems, state trading companies, and a bumper harvest helped China escape the steep increases in grain prices that hit other countries in the Asia-Pacific region in 2007-2008, according to FAO.25

In all these cases, public national food reserves served several goals: they provided a buffer, controlled inflation, supported food production, and provided resources for food distribution or subsidised sales to poor and vulnerable people.

Although some smaller countries such as Malawi had re-built their public food reserves sufficiently enough to manage and release public stocks and protect themselves during the food crisis,26 many other low-income food-deficit countries found that the paltry size of their reserves reduced them to merely performing a safety net function during the crisis, where stocks were used for distributions or subsidised sales to the vulnerable, with little impact on prices.27

Reserves should be large enough to be used for both price-control and emergency food security.
Criteria for Good Food Reserve Systems

The US-based Institute for Agriculture and Trade Policy (IATP) has developed a list of desirable criteria for a coordinated food reserve system designed to help stabilize prices, respond to food emergencies and improve producer opportunities. The criteria include:

- an accountable governance structure with an arms-length principle to ensure that management of the reserves is not politicized
- enough policy flexibility to respond to unusual events and to evolve as circumstances change
- a clear mandate and the requisite authority and means to fulfil that mandate
- a measure of financial independence
- a realistic (and dynamic) assessment of what role world markets can be expected to play.

To these ActionAid would add that reserves should be constituted with produce purchased from local smallholders, where it is possible to do so without distorting local markets.

The FAO notes a growing interest in grain reserves at local and national levels, citing Burkina Faso, Comoros, DR Congo, Madagascar, Malawi, Nicaragua, Pakistan and Zambia as countries with proposals to strengthen existing grain reserves or to introduce them. Some African countries, including Burkina Faso, Burundi and The Gambia, have focused on building village-level grain reserves to ensure food security at the community level. Comoros, for example, is seeking food aid to build a strategic reserve of six months’ supply of rice, milk powder, oils and canned fish; this is the sort of material assistance that the G20 should help to mobilize.

The best and most accountable national food reserves increasingly are integrated into wider rural development strategies, promote local production, and involve smallholder farmers and CSOs in their governance structures. For example:

- **Integrated food reserves**

  **Mali**’s integrated food reserve system is held up as an effective food security reserve, and served as a model for some of the poorest and most vulnerable countries such as Burkina Faso, Chad, Mauritania and Niger. Mali’s food reserve system, known as PRMC, combines market information, financial tools and physical reserves in six elements:
  - an early warning system
  - a market information system
  - a national security stock of 35,000 tonnes
• an emergency intervention unit
• a joint counterparty fund
• a food security fund.\(^{30}\)

Although the physical reserve stock is currently not large enough to bring down high prices during a severe food price shock, the reserve is well-coordinated among various government departments and donors, and smallholder farmers' groups and CSOs participate in its oversight structures.

- **National buffer food reserve**

  Malawi's low food reserves and stock mismanagement contributed to a devastating famine in 2002, and so this landlocked country is now rebuilding its physical reserves through the National Food Reserve Agency. New silos are being built throughout the country to store and maintain 400,000 tonnes of maize – enough for three months' supply. Decisions on when to release stocks are made by a stakeholder committee, which includes representatives from smallholder farmers' groups, the private sector, and CSOs – a process that can be time-consuming, but if made more efficient could serve as a good model.\(^{31}\)

- **Emergency and social protection food reserve**

  In Ethiopia recurring drought, conflict and declining agricultural productivity have increased chronic hunger and the frequency and severity of food emergencies, and as such the country is still heavily reliant on food aid. A model emergency food reserve system has evolved to facilitate timely delivery of food for relief distribution.\(^{32}\) The Ethiopian Food Security Reserve is managed by an autonomous administration and has proved its effectiveness on several occasions since the 1990s.\(^{33}\) The maximum stock level is maintained at 407,000 tonnes, and stocks are released to distribution agents in a national donor-funded safety net programme, although the Ethiopian government pays the running costs.\(^{34}\)

- **National reserve and rural development**

  Brazil uses its national food reserve system to stabilize local prices of staple crops such as maize, and also to foster and support smallholder agriculture and family farms.\(^{35}\) Working through the National Supply Company (CONAB), which monitors food supply, stocks, and distribution, and the programme for the acquisition of food from family farming (PAA), which
guarantees a minimum price to food producers, smallholders can sell a set amount of crops to the state at subsidised rates. The PAA is supposed to pay 30% more for agro-ecological products, which provides an incentive to promote sustainable agriculture; however, in practice this premium price is not yet universally applied. The food purchased is then donated and re-circulated through local food-security related organisations or lodged in the national or local food reserves. The minimum price policy played an important role in the 2008 crisis by stimulating production.

**Regional food reserves**

There are several ongoing efforts to establish regional food reserves in Asia, Africa and Latin America, and if supported and established effectively they have the potential to:

- enhance disaster and emergency preparedness
- help stabilise prices of key commodities in the region
- boost regional cooperation and integration

Food reserves at the regional level allow for interplay between national and regional reserves. The idea is that a country agrees to earmark and contribute five percent, for example, of their national food reserve stocks into a ‘regional food reserve’ which participants can then mutually draw on during a food emergency.

Some regional food reserves also intend to stabilise key commodity prices in the region, such as the ASEAN+3 Emergency Rice Reserve (see below), although they have not been operationalised to this effect yet.

Contributing stocks are managed and maintained in country by either the host country or the coordinating regional body, and participating countries also make in-kind or cash contributions into a regional food security fund or stockpile.

Operating under tight rules and guidelines about how and when the reserve can be triggered, the potential benefits of regionally coordinated food reserves include:
• public monitoring of national reserves by a supranational body can help prevent governments monopolising reserves for political gain
• cost savings through economies of scale
• enhanced price stabilisation due to the wider scope of the supply and distribution systems.\textsuperscript{36}
• provide a forum to achieve collective agreement to avoid trade restrictions during a major food crisis.

Some governments have been reluctant to commit to such reserves, because of costs, a perceived loss of sovereignty over national food reserves, distrust of neighbours, legal obstacles, and a lack of commitment to honour the rules of the reserve during times of national food stress.\textsuperscript{37}

The following regional food reserves are currently at varying stages of establishment:

- **Asia: Asean+3 Emergency Rice Reserve (APTERR)**

Building on a pilot project from 2004-2007 that never really became operational, the ASEAN+3 Emergency Rice Reserve (APTERR) promotes regional cooperation among the 10 ASEAN member states, plus China, Japan and South Korea, to provide food assistance and strengthen food security in emergencies caused by disasters, as well as for poverty alleviation purposes.

The reserve also aims to stabilise rice prices in the region, and although the volume of rice stocks pledged into APTERR’s two rice reserves – earmarked and stockpiled – have been low to date, rice stocks have been released under the following schemes:

- Tier 1 – to address an emergency caused by a calamity
- Tier 2 – to address the lingering impact of a calamity and to strengthen food security
- Tier 3 – for poverty alleviation and/or malnutrition eradication programmes.\textsuperscript{38}

Thailand, for example, donated 520 tonnes of rice to victims of typhoon Ondoy in the Philippines in 2009.

There are proposals for the region’s major producers such as Thailand and Vietnam to donate about 90,000 tonnes of rice, while Japan, China and South Korea could contribute a combined 700,000 tonnes.\textsuperscript{39} In total, the reserve is anticipated to be around 787,000 tonnes when it is due to become fully established in October 2011.\textsuperscript{40}
While APTERR is also geared towards fostering intra- and inter-regional trade, local CSOs are concerned about the lack of CSO representation in its governance structure and worry that countries such as Thailand and Japan will use it to dump surplus rice onto regional markets or to bypass WTO commitments.\textsuperscript{41}

- **SAARC Food Bank (SFB)**
  Re-launched in 2007 by SAARC\textsuperscript{42} members in South Asia – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka – the reserve is intended to be tapped during emergencies and during serious food shortages.

  Stocks in the food bank are held in member countries and decisions on release are taken by an oversight board. The SFB is not fully operational yet mainly because of some political issues, and at present only around 243,000 tonnes of rice or wheat have been pledged, although there are proposals to increase this to 400,000, or possibly a million tonnes.\textsuperscript{43}

- **West Africa: RESOGEST**
  Members of CILSS\textsuperscript{44} and the Club du Sahel in drought-prone West Africa – including Benin, Burkina Faso, Cape Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, Niger and Senegal – are committed to establishing a regional food reserve, known as RESOGEST, to be used only for food emergencies.

  Still embryonic, the aim is to establish a co-operative regional framework where members pledge five percent of their national food reserves into a regional emergency food reserve, comprising a regional food stock and a regional food security fund, as well as enhanced information, early warning and surveillance systems. The priority will be holding food produced in West Africa in the reserve, and approaches have been made to the ECOWAS economic regional committee to speed up the coordination of RESOGEST. Indeed, RESOGEST is likely to be supported by the G20 through a five-year pilot program as part of the Pre-Positioning for Predictable Access and Resilience (PREPARE) emergency food reserve system in West Africa.

- **Latin America**
  The Latin American and Caribbean Emergency Preparedness and Response Network (LACERN) has partnered with WFP to set up an effective regional emergency food reserve to
respond to natural disaster such as droughts, floods, hurricanes and earthquakes. The Network has a main hub in Panama City, plus three sub-regional hubs, and it provides ready-to-eat high-energy biscuits food aid to countries in the region.

Regional Reserves: Overall Analysis
The G20 should provide strong political endorsement and additional financial support to speed up the establishment of these regional food reserve systems, but they must also investigate extending them to go beyond emergency assistance. Many of these regional reserves have drifted and failed to establish themselves effectively up until now, and urgent high-level political support is now essential for their success—especially in perennially vulnerable regions such as East Africa. Other important regional bodies such as the East African Community (EAC), or the Southern African Development Community (SADC), which have long discussed setting up regional food reserves—such as SADC’s Regional Food Reserve Facility—should be urgently encouraged by the G20, including with concrete pledges of technical and material assistance where required.

Conclusion
ActionAid believes food reserves can play a vitally important role in dealing with food price volatility, securing food security, and helping to realise the right to food for all.

That is why we are urging G20 countries to consider their positions on food reserves and calling on them to increase their support for a new generation of clearly mandated, well-governed, transparent and efficient national and regional food reserves. Where these reserves already exist, the G20 should support their maintenance and continual improvement.

There are many ways for poor countries to insulate themselves from global food price volatility— including trade measures, greater financial reserves, commodities futures, swaps and options, and investing in safety nets, social protection, smallholder food production and transport, storage, markets and communications infrastructure. The use of buffer reserves as a price stabilising mechanism offers greater flexibility to respond nimbly to price spikes and swings, and has a more direct impact on the prices paid and achieved by the most vulnerable populations. For the most critical moments, emergency reserves are an irreplaceable tool. But focusing on
them to the exclusion of buffer stocks will do little to address price volatility, nor help to stabilize prices during food price shocks or surges. An effective system of food reserves is an essential part of the institutional architecture for achieving genuine food security.

While it is important for the G20 to continue to investigate the feasibility of setting up a system of global food reserves, perhaps including the idea of virtual global food reserves, it is action at the national and regional levels that has the greatest potential to spare the most vulnerable people from added burdens and desperation. With key global food stocks near historic lows, and prices and volatility expected to rise, the time has come for the G20 to take a stand for strong food reserve systems that can help prevent future global food price crises.

Notes

1 Huchet-Bourdon, M (2011) Developments in commodity price volatility, forthcoming, OECD Agriculture and fisheries working paper.
16 FAO (2009) International grain reserves and other instruments to address volatility in grain markets, FAO: Rome
18 IATP (2010) Stabilizing agriculture markets, Why we need food reserves, Minnesota: IATP, see: http://tradeobservatory.org/library.cfm?frefid=107728
Food Reserves as Key to Preventing Food Crises


FAO (2009) Responding to the food crisis: synthesis of medium-term measures proposed in inter-agency assessments, FAO: Rome

The Programme de Restructuration du Marché Céréalier (PRMC)

CDI (2011) Strategic food grain reserves, Wageningen: CDI. Available on request.


CDI (2011) Strategic food grain reserves, Wageningen: CDI. Available on request.


Reuters, Indonesia, Asean move to ease rice supply fears - 1 March 2011, see: http://www.asiancommunityindonesia.org/agriculture/207-indonesia-asean-move-to-ease-rice-supply-fears.html

CDI (2011) Strategic food grain reserves, Wageningen: CDI. Available on request.

South Asian Association for Regional Cooperation (SAARC)

CDI (2011) Strategic food grain reserves, Wageningen: CDI. Available on request.

The Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)