

# FACT SHEET 8

# Disaster Risk Financing for Agriculture

## Technical Learning Series

Disaster Risk Financing  
& Insurance Program



## Risk Finance Instruments: Risk Retention Mechanisms for Agriculture

The eighth webinar in the Disaster Risk Financing in Agriculture Series provides a deep dive into the financial instruments and process used by governments and other organizations to retain risks that cannot be mitigated and that are not appropriate for transfer. This session continues our deep dive series and builds on the previous two sessions, which discussed the use of various risk transfer instruments for individuals, businesses, and governments.

The Fact Sheet provides an overview of risk retention mechanisms, focusing on disaster reserve funds and their place within a risk-layering framework. It discusses key operational design considerations and offers some examples of the implementation of such funds, including the example of the Start Network, which provides nongovernmental organizations (NGOs) with pre-arranged funding so they can respond to disasters and crises faster.



# Introduction to risk retention mechanisms

## Overview of risk retention instruments

When a disaster or a crisis hits, governments often turn first to domestic public finance to respond to urgent needs quickly. This is an important resource in mitigating the impact of disasters because it is usually quick to operationalize and is directly within the government control. The range of risk retention instruments available to the government includes emergency budgetary instruments (e.g., reserve/contingency/disaster funds), contingency credit (e.g., Catastrophe Deferred Drawdown Option, or Cat DDO), grain reserves, and others. Additionally, governments use such ex post risk retention instruments as budget reallocations and borrowing; both, however, are subject to delays and entail substantial opportunity cost.

This Fact Sheet will focus primarily on contingency funds (or reserve funds; the two terms are used interchangeably here), and on the keys things that should be considered when setting up this instrument. It will not discuss Cat DDOs and other forms of contingent credit in detail. Contingent credit is an important financial instrument that can play a vital role in governments' fiscal disaster risk management. But it is less complex than a contingency or reserve fund and does not facilitate risk management to the same extent. In particular it does not require specific planning, management, and response criteria, as does a contingency or reserve fund. The key takeaways from this Fact Sheet focus on how a government can effectively design, implement, and manage a reserve fund.

Specific instruments such as grain reserves will not be the focus of this session, though they are an important instrument for protecting the agriculture sector in that they help stabilize grain prices and maintain food security after disasters. For example: grains (or a selected main grain) are set aside and distributed in the aftermath of droughts or floods that cause food insecurity. Grain reserves are similar to reserve funds, but instead of setting monies set aside they set grains aside to ensure that a key resource is available and its supply stable after a disaster.





**Reserve funds and the risk layering framework**

Reserve funds, while important, are not an all-in-one solution to cover any cost of a crisis or disaster. It is important to consider contingency funds alongside contingency credit and other instruments. As discussed throughout this series, a risk-layering approach, which combines different sources of funds to address different needs, is important to maximize cost-effective response to disasters. This risk-layering approach may include transferring disaster risk, accessing capital markets, putting contingent credit in place, and effectively mobilizing donor aid.

FIGURE 1 - FINANCING INSTRUMENTS BY HAZARD TYPE



Source: The World Bank Disaster Risk Finance and Insurance Program



**Reserve funds versus insurance**

In a previous session, micro-level insurance instruments were discussed as a way of building resilience for smallholder farmers. These instruments can offer farmers a method of managing their own risk, giving them increased access to credit and a way to stabilize their consumption and income. However, some risks to the populations cannot be covered through insurance and will require government support to households or the agriculture sector as a whole. Well-designed reserve funds should be a key part of government financing to complement other instruments such as insurance.






**Reserve funds**

In the aftermath of a disaster, governments can draw down on contingency or reserve funds for unexpected spending needs. Reserve funds are most effective for financing the lower layer of disaster costs for two main reasons:

-  The opportunity cost increases with the amount of funding that is idle therefore supporting lower layers where costs occur more frequently lessens the opportunity cost.
-  These lower-layer costs occur frequently enough that they are somewhat predictable to the government. Having this fund available means that the government does not need to access other types of funding, and that it can disburse these funds quickly.

Reserve funds can be used to fund emergency response, but they can also be used as vehicles to cover costs of recovery and reconstruction. The size of the reserve and its structure will depend on several factors, such as the fund’s objectives, government’s risk appetite, government’s capacity to quickly mobilize other funding sources after a disaster, and level of disaster risk faced by the country.

Disaster reserve funds can help governments meet their post-disaster financing needs and can speed up disbursement to intended beneficiaries while also strengthening overall fiscal stability. Establishing a disaster reserve fund as part of a holistic disaster risk finance strategy can lead to;

-  1. Improved planning for natural disasters
-  2. Strengthen fiscal stability after disasters
-  3. Facilitate greater discipline, efficiency, transparency, and accountability in post-disaster spending

Setting aside limited amounts of cash to mitigate the effects of disaster shocks reduces the need for emergency budget reallocations—which tend to have a negative impact on economic development—and strengthens budget credibility.

These benefits are especially apparent in cases where one ongoing disaster or crisis is compounded by another. Consider Afghanistan, where the impacts of the extreme drought have been compounded by conflict and COVID-19. The drought has crippled agricultural food production and diminished livestock, leaving millions of people hungry and malnourished. A reserve fund kept aside and readily available could facilitate more effective response to concurrent disasters. To address drought-related food insecurity, the reserve fund could provide people with food and cash assistance, enabling them to buy food supplies or to plant drought-resistant food crops and protect their livestock. Access to reserve funds is particularly important in the context of COVID-19: since many countries have already had to reallocate budgets and engage in borrowing, other instruments (such as contingent financing) have become less available or more expensive.



## Why set aside money in reserve funds?

For governments, setting aside reserve funds has an opportunity cost given that this money is not invested elsewhere, for example into development projects. So why might a government want to save funds for a rainy day? There are three main reasons:



**To be prepared:** Governments cannot know with certainty when and where they will need cash in the future. They do not know how COVID-19 will develop or when the next disaster—say a drought or severe floods—will strike. Nor do they know how many regions or people a disaster will affect. But there is certainty that something will happen. Uncertainty about how much money will be needed immediately and how it will be spent make regular budget planning a challenge. Having a reserve fund can help manage this uncertainty.



**To act early:** Early action helps reduce the negative impacts of disasters and crises. However, governments' resources are depleted day by day, and an absence of savings may worsen any crisis. Countries across the world are eating into their fiscal reserves, reallocating budgets, and borrowing, thereby worsening their debts. Revenues fall as people lose salaries, businesses lose earnings, and economies slow down. Setting money aside in a reserve fund gives governments the means to act early in a crisis. If there is a severe drought, for example, reserve funds can be used to provide fodder for animals, seeds for replanting, and food for populations whose subsistence crops have failed and who may be suffering from food insecurity.



**To respond:** A reactive approach is expensive and can cost lives. It is often said that it is easier to prevent than cure a disease. Preparing in advance requires thinking about how to manage financial costs before those costs materialize. Reserve funds can be used as a source of quick liquidity: if a disaster hits, they could secure emergency relief for the population, providing necessity goods and services to households or farmers affected. This relief will reduce negative coping mechanisms such as distress selling of livestock by pastoralists.



## Government Considerations When Designing and Structuring Reserve Funds

Reserve fund can be created to meet different objectives after disasters. These objectives form a key part in the design of the reserve fund. For example: Mexico's FONDEN aims to meet the cost of recovery and reconstruction, while providing top-up financing for emergency response, if required. New Zealand's Earthquake Commission, which administers a government catastrophe insurance program, holds a reserve fund to cover a low layer of post-disaster insurance cost that is not cost-effective to transfer to reinsurance markets. The US Farm Service Agency established a Salaries and Expenses Fund to provide financial aid to farmers for unexpected losses associated with the COVID-19 pandemic. In the Philippines, some key public agencies have Quick Response Funds that aim to provide quick liquidity for eligible expenditures after disasters (e.g., the Department of Public Works and Highways might require funding to clean up debris on affected roads).

Reserve funds can be established not only at central government level, but also at subnational and international levels. For example, the Asian Development Bank has established the Asia Pacific Disaster Response Fund to finance disaster response in eligible countries. The European Union (EU) has established the EU Solidarity Fund to assist disaster response and recovery in EU member states and accession countries. In many countries, local governments can establish their own reserve funds. In the Philippines, local governments can establish Local Government Disaster Risk Reduction and Management Funds to provide a quick source of finance for disaster response, recovery, and rehabilitation as well as risk reduction and preparedness.

Depending on the purpose of a disaster reserve fund, several considerations must be addressed to ensure the fund can meet its objectives. This is because such funds, while offering a series of benefits, are also prone to risks, most prominently in the fund's financial management, procurement, and financial control.

Governments should consider and scrutinize aspects such as legal structure, governance and oversight, disbursement rules, and funding sources. Maintaining transparency and efficiency as substantial emergency spending takes place can help generate trust among taxpayers and donors. The fund should have a monitoring and evaluation mechanism that directly builds in feedback from beneficiaries. Where available, government capacity for budget execution and mobilization processes should be leveraged.

The key decision to make before establishing a disaster reserve fund is its objective—i.e., what the fund will finance. For example, financial support can be targeted to support agriculture infrastructure after a disaster. This could include supplying inputs to restart production or cash transfers for emergency consumption and investment. Defining what the fund will be used for will affect its potential design and structure. It will also provide objectives against which to monitor the fund's effectiveness.



In each section below, we offer case studies or examples to suggest the range of different reserve funds used by governments, and how they have been structured in line with the principles considered. It should be noted that while these funds have been set up to provide fast liquidity against natural disasters, they differ in setup, structure, and governance depending on the specific country objectives. Reserve/contingency funds have (in many cases) been set up as part of a broader, holistic risk financing strategy that uses the risk-layering framework to provide increasing resilience to natural catastrophes.

The examples discussed in this Fact Sheet are not sector-specific, but the principles and results can and should be applied to the agriculture sector. It may be appropriate to have specific funds (or windows within overall funds) that solely focus on agriculture risks. However, a more common scenario is that the whole government reserve fund is used to cover risks in various sectors, not just those in the agriculture sector. Specific actions to support the agriculture sector following a disaster could be specified in the reserve fund processes and rules, alongside those for other key sectors such as energy or transport.

### Legal structure

There are generally two options to structure a disaster reserve fund:



**On-budget fund:** This is a regular budget account (a contingency line) managed by a designated agency, usually lapsing at year-end (and usually not allowing investment of idle resources).



**Off-budget (extra-budgetary) fund:** This is an accruing off-budget account (or a separate legal entity) usually run by a designated fund management structure and governed by a board of stakeholders. More flexible and usually larger in size than an on-budget fund, it should be carefully designed against misuse.

Establishing either type of disaster reserve fund might require revisions to legal frameworks. It will also require issuance of further regulations, including a decision on establishment of the fund, standard operating procedures (SOPs), and investment and risk management strategies. To ensure the fund can provide timely decisions on funding requests, it should include clear guidelines for damage evaluation and verification of damage reports.



## Governance and oversight

Effective governance of reserve funds, participation of key stakeholders, and transparent decision processes are fundamental to achieving faster and more effective decision-making. The speed with which funds can be channeled to critical interventions matters, particularly in respect to agricultural drought. Early, focused action can limit drought's human and economic costs, such as extreme food insecurity, distressed sale of assets, and other negative coping mechanisms.

The governance structure includes both a **decision-making** structure and structure for **managing the resources**. Both require careful consideration.

An effective decision-making structure can take many forms. Actions and release of funding can be agreed upon by a single institution, by government as a whole, or by multiple stakeholders or recipients of the fund. A single-decision-maker structure allows for faster disbursement, but also makes prioritization more challenging. A multi-stakeholder board with some members who are fund recipients allows the combination of different needs to guide funding allocation. For example, the board could include persons responsible for the coordination of disaster response, the Ministry of Agriculture, other public agencies, damage assessment experts, NGOs, or civil sector organizations. Presence of international observers and NGOs might help increase the trust in the decision making structure of the fund.

As reserve funds can become the core source of funds after disasters, ensuring efficient management of these resources is fundamental. It is important to identify how the allocations will be managed either within the government or externally. It is also important to clearly define roles of staff managing this fund, for example, through SOPs.

In addition, it is important to provide a strong monitoring and reporting function to ensure that resources are used for their intended purpose. Regular submission of progress reports by ministries/agencies or contractors and service suppliers implementing the activities is key for expenditure monitoring. A specialized coordination unit could be mandated to keep track of all expenditure and report it publicly. Financial reporting requirements should be clearly outlined (including responsibilities, process, and types of documents and statements produced and their frequency), and the audit institution should be identified. For increased control, accountability, and transparency, the financial performance of the fund can be consolidated with the government budget and recognized as a liability on the balance sheet.

Where governance and oversight are lacking, funds may be used for purposes not originally intended.

## Information for decision making

There are many sources of information that the government can collect to build policies on disaster management and reserve fund structure, and to inform decision-making around reserve fund disbursement and action when disasters hit. Such information should be collected as part of business as usual and planning, while additional data can be used to forecast disasters or assess them as they occur. These additional data can come from a range of domestic and international sources, and they require careful consolidation and coordination—ideally by a central department within government. Sources of information include disaster management agencies, crop forecasts, international meteorological organizations, development banks and other development partners, agricultural extension workers, satellite and remote sensing, and perhaps crowd-sourced digital information from population and businesses.

### Example: Mozambique



Mozambique is one of the most disaster-prone countries in Africa and has regularly faced emergency losses that surpassed available government resources for response, even for the emergency phase.



To make greater funding available for immediate preparedness and emergency response, the Government of Mozambique operationalized a Disaster Management Fund (DMF) in 2019 through the adoption of a bespoke Manual of Administrative Procedures and Financial Management, which sets out the DMF's governance and financial management arrangements.



The DMF is effectively a dedicated account whose resources are managed by a dedicated unit of the National Disaster Management and Risk Reduction Institute. It is set up to finance disaster response services by making resources available to relevant ministries/agencies as well as provinces, while centralizing procurement of most goods and services required for immediate disaster preparedness and emergency response operations. The operations manual specifies a positive list of goods and services that can be purchased with the fund's resources. In addition to goods and services, the DMF can also pay for sovereign insurance intended to backstop the fund after extreme events. The Government of Mozambique is currently working toward structuring and placing parametric insurance against tropical cyclone risk.



The fund is financed through an annual contribution of 0.1 percent of the national budget. The World Bank has also contributed significant amounts to funding the DMF through a disaster risk management project. The Government of China and the African Development Bank have also provided contributions. DMF resources can accumulate, i.e., funds not spent in any given fiscal year are not returned to the national treasury.

**US\$ 58M**

To date, the DMF has disbursed US\$58 million in response to natural disasters, the humanitarian crisis caused by the insurgency in the north of Mozambique, and the COVID-19 pandemic. A total of 5.23 million people have benefited.

Source: World Bank Group.



## Disbursement

Clear disbursement rules are fundamental for a disaster reserve fund; there is a large risk of funds not reaching the end beneficiary if disbursement practices are unclear or cumbersome. In designing a disbursement structure, it is important to think carefully about the country's main vulnerabilities and disasters' impact on focus sectors, value chains, and households. This effort may be significant and require research and consultation across a range of stakeholders, including end beneficiaries. Once this work is complete, planning for action and procurement along with clear disbursement rules and protocols can be developed to ensure that resources get where they are needed, when they are needed.

Reserve fund resources can be disbursed for different purposes and at different points in the chronology of a disaster:



Disbursement could be an anticipatory action before a disaster occurs (based on forecasts);



It could be an immediate emergency response after a disaster (based on hard triggers such as meteorological data, or soft triggers involving human judgement);



It could come in the longer term to fund reconstruction (based on detailed assessment of disaster impact).



The documents required for the funding requests should be defined and detailed in advance, and their complexity should depend on the amount of funding provided and speed of financing required.

Defining a minimum threshold for funding requests would avoid transaction costs on small transfers and would also ensure that smaller expenditures are covered through regular budget contingencies. Size thresholds can help to decrease the number of requests in regular years. Disaster reserve funds are especially useful for promoting resilience to medium- and large-scale disasters that exceed the financial capacities of ministries, agencies, or provincial governments. If used for small recurrent disasters such as small droughts or localized hail, reserve funds are quickly depleted, and transaction costs can be higher than for the regular contingency budgets.

Providing an explicit list of expenditures to be financed through the fund may allow for further discipline in the funding requests. These expenditures could be grouped based on the various stages of disaster: mitigation of the imminent threat and preparedness for it; anticipatory action as disasters are impending; and response, recovery, and reconstruction.

Clear rules and processes should also be defined for reviewing funding requests to ensure the reviews are done effectively and transparently. For example, the fund's decision-making body should have the capacity and formal basis to prioritize requests, especially when requests are many. Damage reports could be such a basis, while immediate support/cash advances (in a pre-defined limited amount) could be provided in a streamlined way. It is useful to have processes in place to evaluate the requests and verify if the requesting organizations have exhausted their own resources. Responsibilities of different members of the fund in the reviewing process should be defined upfront (these range from receiving, filing, and filtering to processing the requests). Personnel authorized to approve use of funds should be specified, along with which signatories are required at each step.



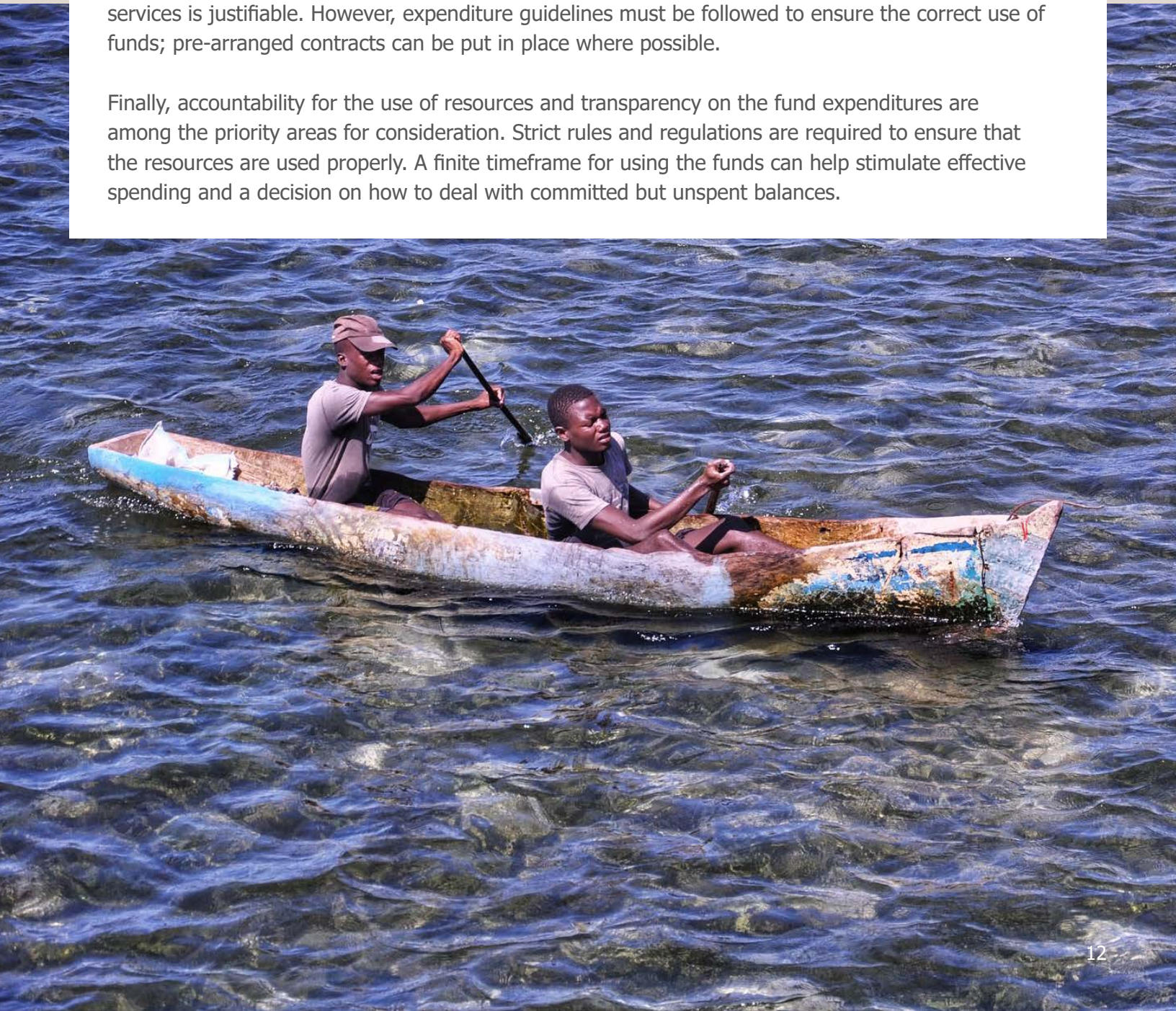


It is also important to define the process for the release of funds following the approval, and to determine the method of payment—e.g., electronic bank transfer, check, etc. Having the withdrawal forms and payment method prepared and defined in advance will facilitate timeliness of post-disaster financing.

Note that transferring resources from the reserve fund directly into the accounts of the service providers or contractors can reduce redundant and inefficient steps in the funding chain. It will, however, require more coordination between the government ministries and oversight agencies to ensure these contracts are put in place properly and the works are executed.

Resources should reach beneficiaries in a timely, transparent, and accountable fashion. Using emergency procurement procedures to enable rapid emergency relief and provision of goods and services is justifiable. However, expenditure guidelines must be followed to ensure the correct use of funds; pre-arranged contracts can be put in place where possible.

Finally, accountability for the use of resources and transparency on the fund expenditures are among the priority areas for consideration. Strict rules and regulations are required to ensure that the resources are used properly. A finite timeframe for using the funds can help stimulate effective spending and a decision on how to deal with committed but unspent balances.





## Examples: State Reserve Fund of Lao People's Democratic Republic two approval processes; and Mexico's FONDEN

The State Reserve Fund in Lao PDR has two different streams of approval processes, depending on the category of expenditure:



A "standard" approval process is used for "non-urgent" disaster-related expenditure (e.g., reconstruction expenditures). Requests for reconstruction funding from line agencies responsible for those assets are based on a post-disaster needs assessment and approved by the prime minister.



There is also a "rapid" approval process for urgent emergency relief and recovery expenditures. Requests for urgent funding are made to the prime minister by line agencies and are triggered by a government notice of disaster.

Time frames have been set out for each step in the approval processes. The rapid approval process was set to take a maximum of seven days from the time of the disaster for funds to be disbursed.

FONDEN, Mexico's natural disaster fund, sets a number of criteria for financing infrastructure for transport and communications. It establishes upfront the different types of assets that can be supported, such as

**01**

Highways and toll-free bridges;

**02**

Rural roads and bridges in certain states;

**03**

Highways and feeders in charge of states and counties;

**04**

All of the country's rural roads;

**05**

All elements that are part of the ports infrastructure.

Toll roads, highways, municipal roads, and urban streets are excluded. The damages to be financed through FONDEN, such as cracking, holes, erosion, etc., are listed in the FONDEN SOPs. FONDEN further sets out the procedure to provide funds on recovery and reconstruction of these assets, and it also establishes the procedure for the request; for instance, for funding reconstruction, evidence is presented to FONDEN, and immediate partial support can be provided before the full evaluation. Relevant ministries/institutions are then in charge of the restoration works. Risk reduction is considered among the potential measures to finance.

Source: World Bank, "Guidance Note: Disaster Reserve Funds: Principals for Establishment and Operation—Lessons Learned from International Experience (World Bank, Washington, DC, forthcoming); World Bank, "CADENA Catastrophe Insurance: A Social Safety Net for Small-scale Farmers in Mexico," October 2013,





<https://documents1.worldbank.org/curated/en/124521468287160777/pdf/881000BRI0P1300urance04P-ager0Cadena.pdf>



## Financing and sustainability

There are several decisions to be made to ensure the financial viability of a disaster reserve fund. These include how large or small the fund should be, how it will be financed, what will happen when it is exhausted, and what will happen to any funding not used up (i.e., will money rollover to the next year or not).

To ensure the sustainability of a disaster reserve fund and to decrease over reliance on supplementary budgets while strengthening fiscal planning, the following sources of finance can be used:

	<p><b>Annual budget allocation</b> (e.g., in the form of fiscal transfers or earmarked revenues). A provision in the budget law will help ensure consistent and sustained allocations to the fund. Structuring a fund so that reallocations from supplementary budgets can be channeled through it could significantly contribute to the transparency and sustainability of post-disaster financing, even during the ongoing pandemic. It could also significantly reduce the time needed for implementing necessary response measures, since the financial procedures would be in place.</p>
	<p><b>Investing idle resources and earning interest.</b> Investing unused resources could help reduce the opportunity cost of keeping funds idle. For example, keeping some funds in liquid assets, such as domestic bank deposits, would allow rapid response and provision of immediate assistance, whereas investing a proportion in return-seeking assets could achieve a financial return from the use of additional funds.</p>
	<p><b>Using risk transfer for more severe disasters to protect the fund's balance.</b> Risk transfer instruments are often more effective for protecting against large-magnitude events. These can be structured as budget support through sovereign insurance or catastrophe bonds.</p>
	<p><b>Donations and private sector contributions.</b> The fund can also be structured to receive money from private citizens, international organizations, and businesses.</p>

The size of the fund will depend on many factors, including the fund's objectives, the country's disaster risk profile, the government's risk appetite, the expenditures to be covered, and the existence of alternative sources of financing for natural disasters (such as insurance). Data and analytics could be used alongside risk modeling techniques to increase the understanding of risk in the country and thereby enable more effective risk management and financial planning. The fund should be designed alongside consideration of the overall disaster risk financing strategy and should allow for other instruments and funding that are available to the government.

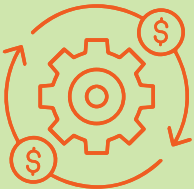
## Example: Indonesia's contingency fund as part of a disaster risk financing and insurance strategy



### Policy choices: How the fund interacts with other government objectives

Between 2007 and 2018, disasters in Indonesia claimed 7,375 lives and displaced 55 million people, with annual economic losses of approximately US\$2.2 billion to US\$3 billion (equivalent to 0.2–0.3 percent of the country's 2018 gross domestic product). From 2014 to 2018, the central government spent between US\$90 million and US\$500 million annually on disaster response and recovery, and local governments spent an estimated additional US\$250 million over the same period.

In October 2018, the Government of Indonesia issued the National Disaster Risk Finance and Insurance Strategy aimed at strengthening Indonesia's fiscal and financial resilience to natural disasters and health shocks. A key element of the strategy involved the establishment of a Pooling Fund for Disasters (Pooling Fund untuk Bencana, PFB). The PFB is a dedicated fiscal mechanism intended to ensure effective access to sufficient resources for disaster response, as well as to streamline the execution and transparency of spending.

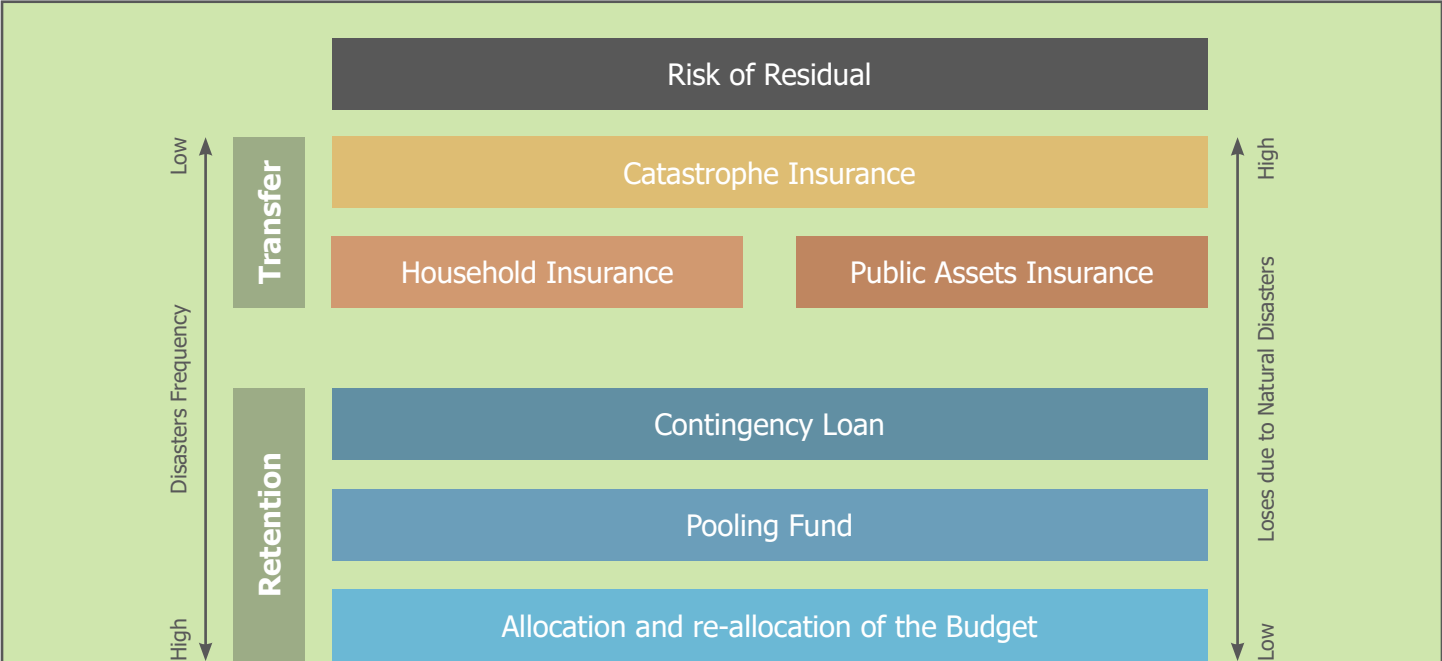


### Fund size and scope: Accumulation and expenditure strategies

The government intends for the PFB to become the central mechanism for managing its disaster-related contingent liabilities in a cost-efficient manner. It has therefore committed to providing regular budget funding to the PFB. Thus far, it has allocated US\$71.5 million to both the 2019 and 2020 budgets; similar amounts have also been committed to the 2022 and 2023 national budgets. In addition to direct budget contributions, the PFB will also allow for additional domestic contributions, funds from international partners, and/or insurance payouts. The World Bank approved a US\$500 million loan in January 2021 to support implementation of the country's disaster risk finance and insurance strategy through the establishment and operationalization of the PFB. Development partners have also supported this effort over the years through various trust-funded programs. The Government of Indonesia has indicated that the PFB is expected to play a role within the proposed risk-layering arrangement depicted in the figure below.



FIGURE 2 - PROPOSED RISK LAYERING FRAMEWORK FOR THE GOVERNMENT OF INDONESIA



Source: Government of Indonesia Disaster Risk Finance and Insurance Strategy

The PFB’s funds are to be ring-fenced from other government accounts. Work is ongoing to define the governance and technical requirements for the pooling fund.





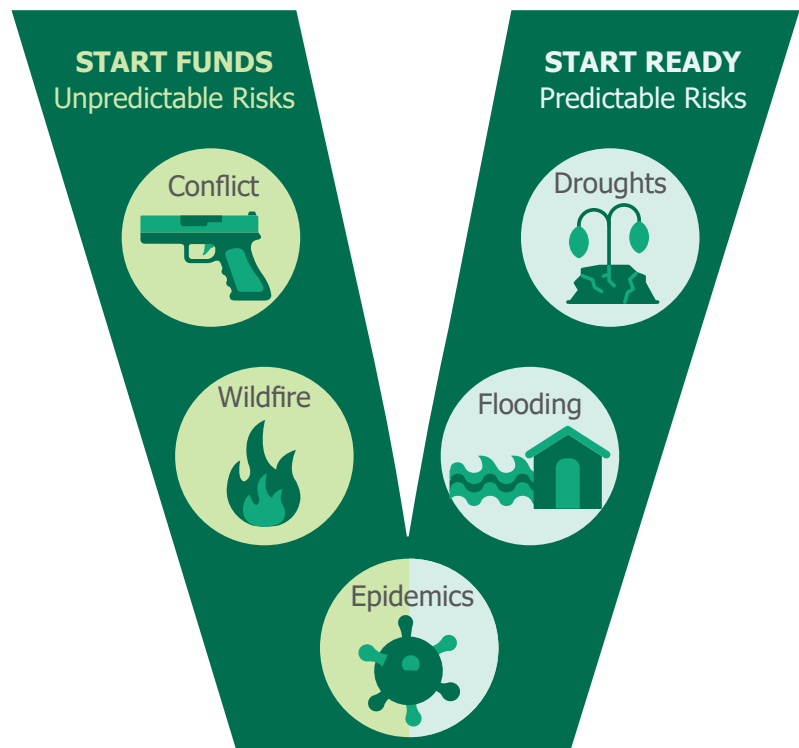
# A Deeper Dive into a Nongovernmental View on Contingency Funds: Start Network

## What does the Start Network do?

The Start Network is made up of more than 50 aid agencies across five continents, ranging from large international organizations to national NGOs. Start Network's financing facility houses a range of innovative crisis financing mechanisms, enabling faster, more efficient, and more effective global humanitarian action.

There are two key tranches to the Start Network's programs:

**1. Start Funds.** Provides rapid, flexible, pooled contingency funding and dynamic decision-making for small to medium-scale crises. The Start Network created Start Funds to provide rapid humanitarian funding for crises in more than 68 countries. As the first collectively owned, NGO-pooled funds, Start Funds have filled a critical gap in fast financing for under-the-radar crises. To date, the Start Funds have reached more than 22 million people, with most funds disbursed within 72 hours after NGOs raise a crisis alert. The Global Start Fund, to which Ireland was the first donor in 2014, was joined by Start Fund Bangladesh in 2017 and Start Fund Nepal in 2021.



**2. Start Ready.** Start Ready pre-positions funding for crises that recur regularly (like floods, droughts, and heat waves) and that can be modeled to predict location, frequency, and impact on vulnerable communities. Start Ready, launched in 2021, uses global finance principles to make funding go further, through risk pooling, NGOs can help save more lives at a reduced cost. Moreover, Start Ready promotes localization by putting power and decision-making in the hands of locally led groups to co-develop early action systems. Start Ready builds on the Start Network's experience in developing locally led systems that enable frontline humanitarians to access early, predictable disaster risk finance. NGOs are supported to collectively analyze and quantify crisis risks, set trigger levels for action, and agree on plans and arrange financing ahead of crisis events. These systems, which include country-specific trigger funds and insurance policies, currently protect more than 450,000 people from hazards, including forecasted drought and heat waves in countries such as Pakistan and Senegal.



### Start Ready case study: Senegal and the ARC Replica initiative

To understand Start Ready's work in Senegal, it's helpful to have a brief recap of the African Risk Capacity (ARC) and the insurance product offered by ARC.

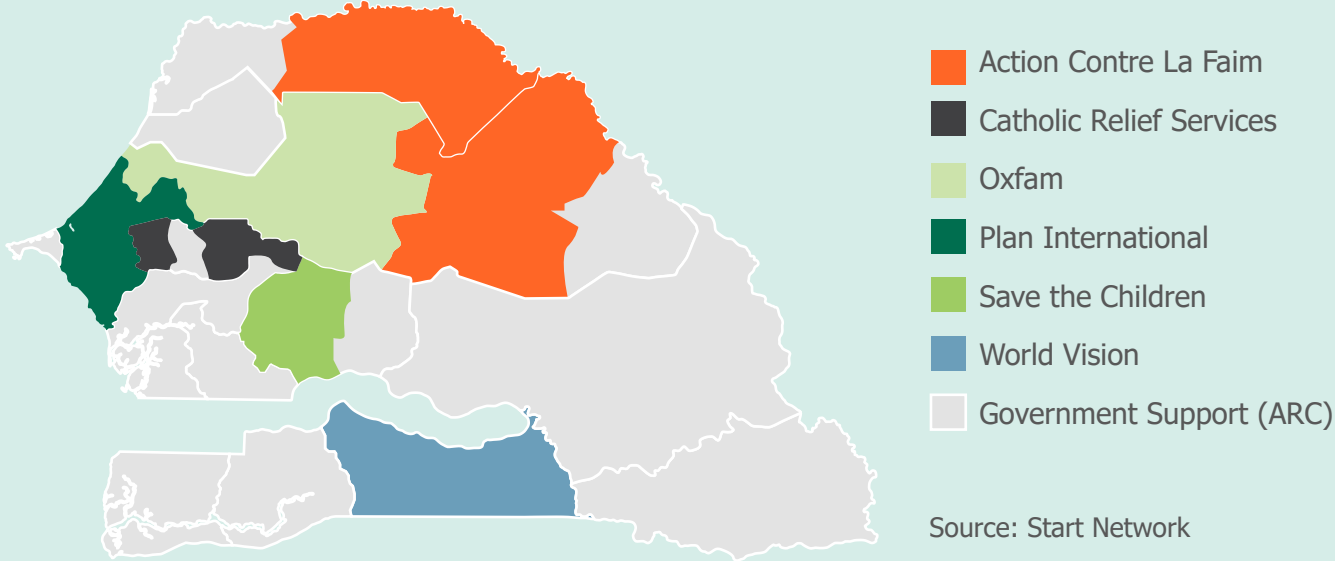
ARC is an African Union agency created to help African Union member states manage natural disaster risk. It offers a three-pronged approach to climate risk self-management by member states: an early warning system, contingency planning, and access to funding. As part of the funding stream, ARC Ltd., a separate but related entity, currently offers a parametric drought insurance product. Member states can purchase an insurance policy to release the funds for a rapid response to impending drought on the basis of pre-approved contingency plans.

The ARC Replica initiative was developed to provide an opportunity for nongovernmental stakeholders, including NGOs and UN agencies, to benefit from the same mechanism. ARC Replica supports, reflects, and reinforces the ARC approach to drought risk management. Nongovernmental partners (such as the Start Network) are supported by donors that help to pay the corresponding insurance premiums. If rainfall and risk levels fall below a pre-defined threshold, they will receive corresponding payments at the same time as the government so that they can launch timely and coordinated measures to protect communities at risk. Using this framework, six agencies grouped in the Start Network—Catholic Relief Services, Save the Children, World Vision, Oxfam, Plan International and Action Against Hunger—received a payout at the end of 2019, at the same time as the Government of Senegal following its purchase of an insurance policy from ARC.





FIGURE 3 - MAP OF AGENCIES AND WHICH REGIONS THEY SERVED



In addition to the ARC Replica program, a contingency fund of US\$ 375,000 was provided by the German Development Bank (KfW) as a grant to the Start Network. The contingency fund was set up to reduce basis risk events, in which insurance payouts do not cover the losses faced by Senegal. The fund covers three main scenarios:



A drought event below the attachment point of the ARC Replica policy (small events that would not trigger the payout)



Needs that are below the attachment point in case of insufficient payout

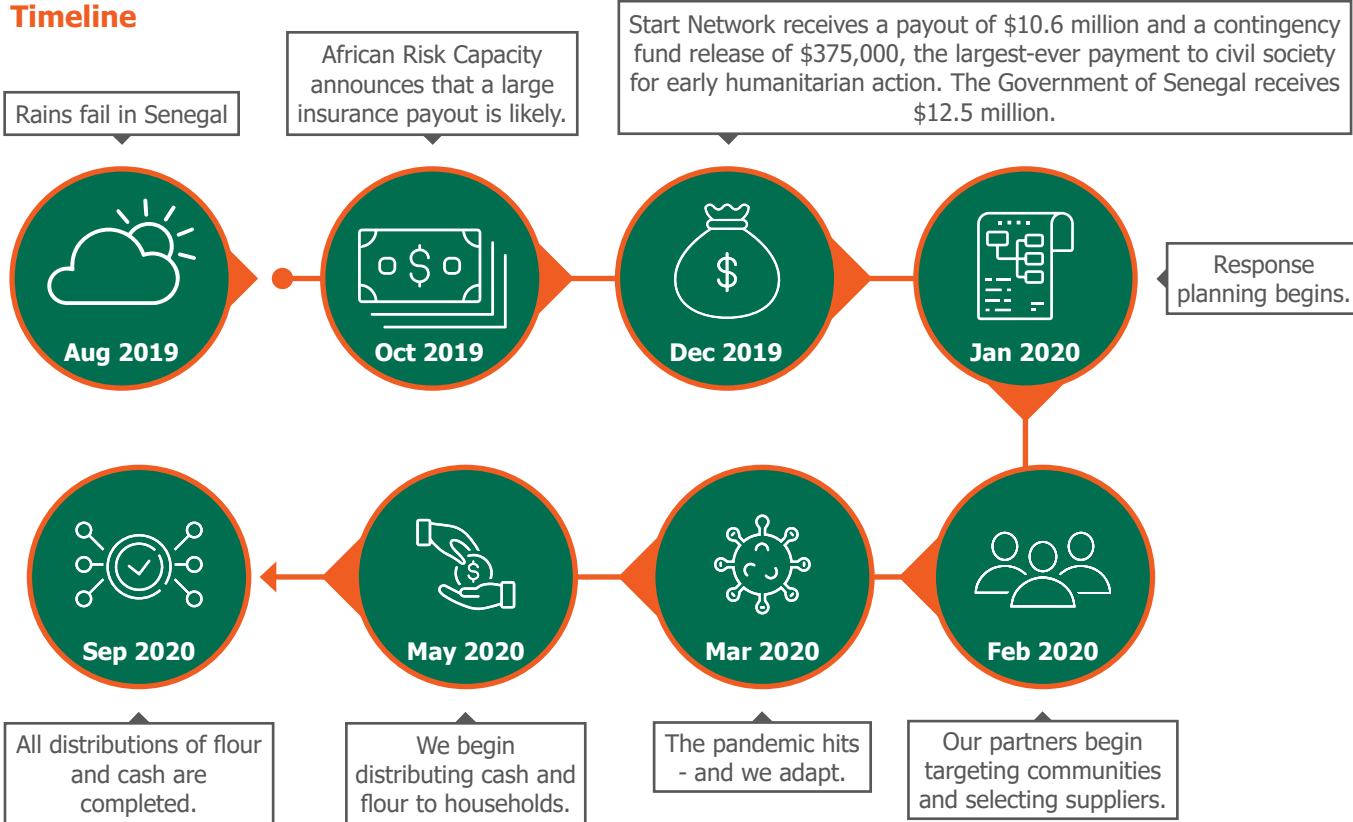


Basis risk events





**Timeline**



In 2019 there was an ARC Replica payout of US\$ 10.6 million as well as a trigger and full disbursement of the Contingency Fund (US\$ 375k). The Contingency Fund supported 8,693 people with cash grants and fortified flour distributions, when it was triggered and disbursed in full in 2019.

While the Contingency Fund has been designed to try and minimize basis risk, this is not fully eliminated. The trigger for release of the fund is drought specific, for example if Senegal experiences yield loss from floods, this will not trigger the Contingency Fund. It is important to be aware of the triggers and understand where basis and uncovered risk is present.



# Lessons and Conclusions



Reserve funds can be used for financing a variety of different post-disaster costs—costs that cannot be anticipated or planned. They help governments to act early, be prepared, and save costs (compared with relying only on ex post financing).



Reserve funds, while important, should be considered as part of a broader risk management strategy.



Reserve funds require careful design and implementation to avoid being used ineffectively and to ensure funding reaches those most in need, quickly. Key areas of consideration are legal structure, governance, information to inform decision-making, disbursement process, and financing and sustainability.



Timely intervention is better intervention. It costs agencies and governments less; it is more efficient; and most importantly it prevents untold hardship for people most at risk and for those who would otherwise resort to negative coping strategies.



Reserve funds can be used to minimize the gap of uncovered risk and basis risk from other products such as risk transfer.





# Further reading

Financial Protection Forum.2021. "The Impact of COVID-19-Related Budget Reallocations." November 2021.

<https://www.financialprotectionforum.org/publication/the-impact-of-covid-19-related-budget-reallocations>

Skalon, Tatiana. 2021. "How Much Did It Cost to Make Budget Cuts for Fighting the COVID-19 Pandemic?" Financial Protection Forum (blog), November 10, 2021.

<https://www.financialprotectionforum.org/blog/how-much-did-it-cost-to-make-budget-cuts-for-fighting-the-covid-19-pandemic>

Start Network. "Defeating Drought: Crisis Averted in Senegal."

<https://startnetwork.org/news-and-blogs/defeating-drought-crisis-averted-senegal#>

Start Network. 2021. "Parametric Insurance: A New Approach to Humanitarian Financing (ARC Replica)." Video. February 24, 2021.

<https://www.youtube.com/watch?v=5AULsiO5yWE&t=3s>

World Bank.2021. "Factsheet 3: Managing Disaster Funds for Response and Recovery."

[https://www.financialprotectionforum.org/sites/default/files/SECO%20Factsheet%2003\\_22July2021.pdf](https://www.financialprotectionforum.org/sites/default/files/SECO%20Factsheet%2003_22July2021.pdf)



# Work Sheet 8 – Risk Finance Instruments: Risk Retention Mechanisms for Agriculture

Test your knowledge and record your insights through this easy, do-it-yourself work sheet!

**Activity 1: Referring to the content covered in this worksheet, identify each of the following statements as true or false.**

	Statements	True	False
1.	Reserve funds can be used for financing post-disaster costs that cannot be anticipated and planned.		
2.	When a disaster or a crisis hits, governments seldom turn first to domestic public finance to quickly respond to urgent needs.		
3.	Ex-post risk retention instruments such as borrowing and budget reallocation entail substantial opportunity cost.		
4.	Reserve funds are an all-in-one solution to cover any cost of crisis or disaster.		
5.	Reserve funds are often used as vehicles to cover costs of recovery and reconstruction after the disaster.		
6.	Reserve funds can be established only at the central government level.		

**Activity 2: A list of financing instruments is given below. Can you identify which instruments best match the different types of hazards?**

Financing instruments	High frequency/Low severity	Low frequency/High severity
Catastrophe bonds		
Agriculture insurance		
Reserve funds		
Contingent credit		
Budget reserves		



**Activity 3: Can you identify three advantages and three constraints that arise from setting aside reserve funds to manage disasters in your country?**

	Advantages	Constraints
1.		
2.		
3.		

**Activity 4: Reflections**

[1] These are the most important things I learned from this Fact Sheet.

[2] Here are two concepts or ideas about which I would like to have more information.