

FOCUSING ON POVERTY: REDUCING VULNERABILITY WITH DISASTER RISK FINANCING



GUIDANCE NOTE

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Date: October 2020



About the Centre for Disaster Protection

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Suggested citation

Hill, R. (2020) 'Focusing on poverty: reducing vulnerability with disaster risk financing', guidance note, Centre for Disaster Protection, London.

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This guidance note reflects the views of the Centre for Disaster Protection at the time of publication. This material has been funded by UK aid from the UK government; however, the views expressed do not necessarily reflect the UK government's official policies.

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Aid distribution following Typhoon Ketsana, the Philippines.
Image: Yoshi Shimizu/International Federation of Red Cross and Red Crescent Societies

● WHY IS PRIORITISING VULNERABLE COMMUNITIES SO IMPORTANT?

Disasters have the biggest impact on those that are least able to protect themselves from them: vulnerable people. In most cases the most vulnerable are also the poorest in a society. Better protecting vulnerable people against disasters affords them with the chance to move and stay out of poverty. By securing a timely, pre-agreed payment to governments and organisations in low- and middle-income countries in the aftermath of a disaster, disaster risk financing (DRF) has a powerful potential to protect poor households.

However, achieving this potential is not automatic. It requires DRF to be directed to the types of risk that most affect poor households, to the households most affected, when they most need it. Or to re-establish the disrupted services and markets that poor households most rely on.

When this is not the case, DRF may still secure valuable benefits, such as preventing budget reallocations away from core public services, or preventing inflationary fiscal spending, which can be very harmful for poor households. But it falls far short of what it could achieve. Given DRF is costly, budgets are limited, and the protection gap facing poor households is large, this is not a desirable outcome.

This brief sets out some questions that can be asked during programme design to help ensure that DRF is most directed to those who are least able to withstand shocks.

● HOW IS IT USUALLY TACKLED?

Putting DRF in place is challenging. Ensuring that the right mix of financing instruments is used to provide finance in a cost-effective way, at the right time, requires specialist expertise. It is easy to get caught up in trying to solve the challenge— focusing on the financial instruments to get the ‘money in’, rather than focusing on the homework needed up front to ensure that it will actually result in a change for poor households. The latter requires a focus on ‘getting the money out’ in the right type of support, to the right households, at the right time. Sometimes the focus is on financing instruments that have worked well in one place even though that is not the main risk facing poor households in another context.

Over-focus on the financing instrument itself can result in reduced attention to how support would be targeted to the poor and vulnerable. When vulnerable people are explicitly prioritised, it is often through social protection programmes that scale up to provide transfers to poor households affected by a disaster (‘adaptive’ or ‘shock-responsive’ social protection). But not all countries have the required levels of geographic coverage or the systems in place to be able to scale up quickly after a disaster. Where infrastructure is insured, there is often little explicit targeting to poor households. Here we set out how some of these issues can be thought through at the time of designing DRF.

● PRACTICAL GUIDANCE

In this section we set out some questions that can be examined during programme design to help ensure that DRF optimises its potential to benefit poor households. We detail some of the sources of data that can be used to help answer these questions—and also where data gaps are most likely.

● 1. WHAT ARE THE PRIORITY RISKS FOR POOR HOUSEHOLDS?

Ideally, financing should be provided to cover events that cause losses that households cannot manage themselves. These are events that bring large losses and that affect most people in a given area at once ('covariate'). A strong body of literature (e.g. Dercon, 2002; Townsend, 1995) shows that it is these events that poor households are least able to manage, with recourse to savings, asset sales, borrowing, and gifts and transfers within their network. DRF should thus be directed to such events.

So, how can you determine which events impact poor households the most?

- Several institutions conduct comprehensive and geographically detailed risk assessments. These studies can be an important source of information to map out the priority risks for poor households.¹
- Nationally representative household surveys with shock modules can be used to ascertain which shocks have been experienced in recent years and have had the most often reported impact on income and asset losses. The data can sometimes also be used to show how covariate a shock is—how many households in a given community reported experiencing the same shock. If the household survey has information on welfare levels, this can be used to identify the shocks that are most likely to affect poorer households. This can be a good place to start, but caution should also be used when using this data: self-reported data can suffer from significant reporting bias and the reference period of the surveys can strongly influence the results (Das *et al.*, 2012).
- Geocoded hazard data is a useful complement to help identify the important sources of risk. Exposure to risk can be overlain with data on sub-national poverty rates, either directly from the national survey at relatively large geographic levels, or by using poverty maps. This allows an assessment of the degree to which certain types of risk affect poorer households. The drawback of this approach is that other than ascertaining which shocks occur in places where poverty rates are high, there is no indication that these events are costly to poor households. When geocoded data on events is available it can be overlaid with household survey data, and the impact of shocks on household welfare assessed.²

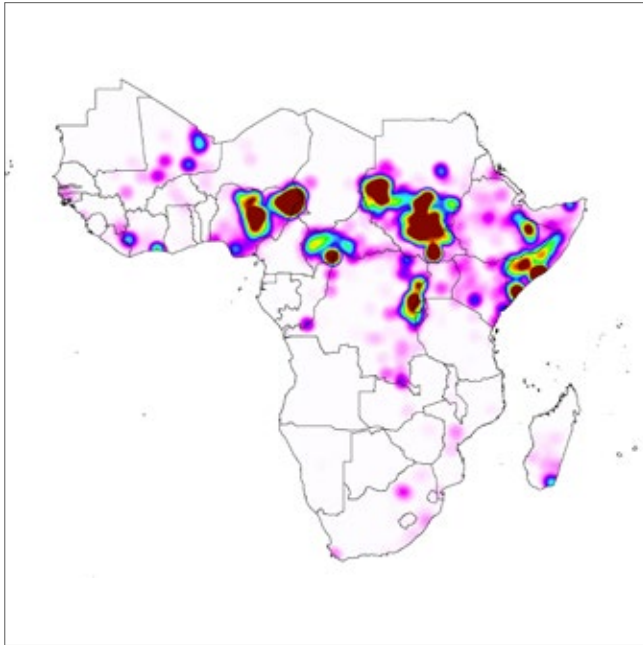
The shocks that are most important to poor households need to be assessed on a country-by-country basis, but there are some general trends that can also provide some guidance as to what might be expected for households in Africa. For example, a full assessment of risk will incorporate both past events and insights from models to extrapolate probabilities. This section looks at what can be learned from past events. Household survey data has been examined for a number of countries in the world. In Africa, households most frequently report climate and price shocks as those having the most impact on income or assets, followed by serious illness and death (Heltberg *et al.*, 2015; Nikoloski *et al.*, 2018). Satellite data for Africa highlights the importance of drought, health, and conflict risk (Figure 1). About a third of Africa's population is expected to experience a drought at least once every ten years and a fifth of Africa's population has a greater than 1% chance of experiencing conflict. Riverine flood risk is increasing and is higher than the risk of coastal flooding, but is still relatively uncommon in Africa. Earthquake risk (not shown in the figure) is low and present primarily in the Horn of Africa. Overlaying this data with poverty data for Africa shows that poorer places have higher levels of risk, particularly higher risk of drought, malaria, and conflict.

1 For example, see World Bank Disaster Risk Profiles, which are produced for a number of countries.

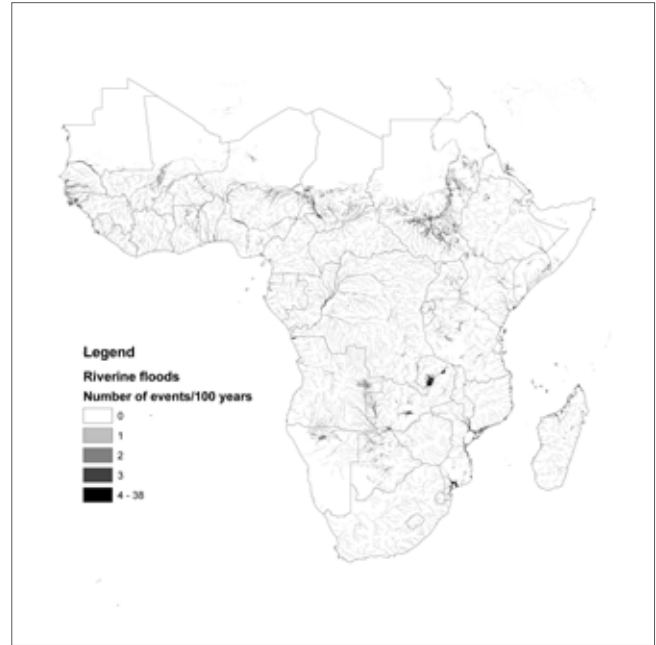
2 For a discussion of the broader literature on this see: Dell *et al.* (2012). For examples looking at household welfare impacts see Hill and Porter (2017), Baez *et al.* (2019) or Sulla *et al.* (2019).

Figure 1: Exposure to different types of risk in Africa

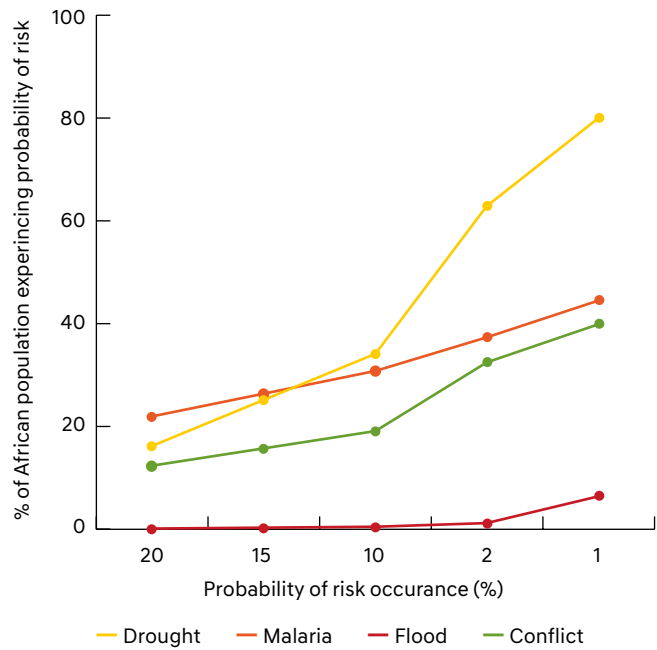
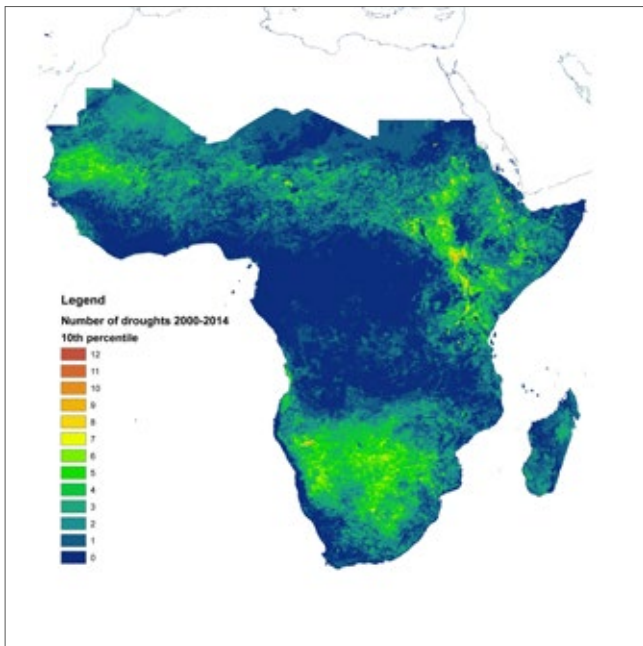
a. Conflict prevalence, 2010–14



b. Risk of riverine flood



c. Drought prevalence, 2000–14



Source: Fisker and Hill (2018)

● 2. WHAT SERVICES AND MARKETS DO THE POOR RELY ON?

Disaster assistance can take the form of direct support to households, such as money or food or drought-resistant seeds, or indirect support provided to keep the services and markets poor households use functioning. This section assesses indirect support.

DRF can be provided to ensure that public assets and services are rebuilt or put back online again quickly in the event of a disaster. In this case there is no need to get money directly into the hands of beneficiaries—but rather there is still a need to appropriately target the finance. This does not necessarily mean just targeting

infrastructure and services in poor parts of the country. The key is to support infrastructure and services that poor households use and rely on. This could be local infrastructure in poor neighbourhoods that connects many poor people to needed services, or it could be infrastructure in better off parts of the country that provides an essential trade link for the goods and services that poor households sell and buy. Infrastructure with more immediate beneficiary catchment areas, such as schools or drainage, is more likely to warrant poverty-focused targeting.

When considering the type of infrastructure to target it can be useful to consider the following questions to assess the markets and services poor people most rely on

- What transport infrastructure do poor people use to get to work? *Japan International Cooperation Agency (JICA) urban transport surveys often exist for large cities and provide an analysis of the main commuting modes and routes for different socio-economic groups.*
- What are the main markets and transport routes used for: (i) goods that poor people sell (ii) inputs

into the productive activities the poor engage in? *FEWSNET market assessments often provide information on main trade routes for goods sold by poor households.³*

- What is the source of energy for activities of poor households? *National household surveys often provide information on this.*
- What publicly provided services do poor households use? What are usage rates of primary, secondary, and tertiary schools and medical facilities across different socio-economic groups? *This data can be found in most household surveys.*

For infrastructure that has a large catchment area (primary roads, bridges, and ports) there is often little information available to determine the degree to which poor households will benefit from reconstruction and judgement will have to be used. For infrastructure that has a small catchment area of beneficiaries, poverty maps can be used to determine the degree to which poor

households are likely to use the service. Poverty maps are available for most countries and are increasingly becoming available within cities also. In the absence of a poverty map, census data on proxies of poverty (for example education of household head) can be used to provide some indication of which parts of the country or city are poorer.

3 The Famine Early Warning Systems Network, <https://fews.net>





Flooding in Mozambique, following Cyclone Idai.
Image: Christopher Black/International Federation of Red
Cross and Red Crescent Societies

● 3. PROVIDING DIRECT SUPPORT TO HOUSEHOLDS

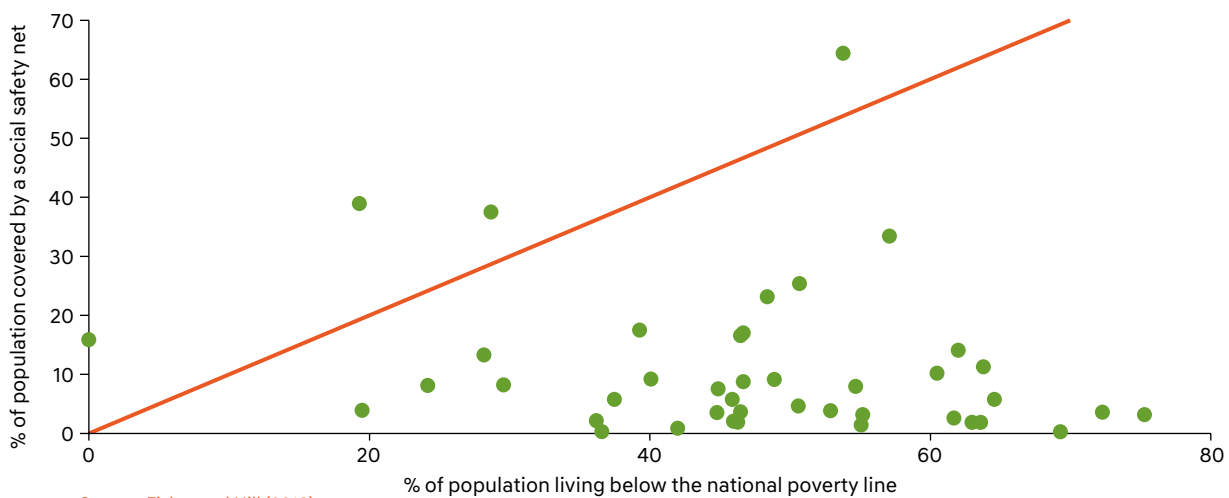
Getting funds to poor households quickly

Households have varied needs post-disaster, from meeting basic food requirements, to having access to shelter or clean water or health services. In some cases, provision of diverse services will be needed to meet these needs. There is also increasing evidence that cash can be as effective in certain settings, and has the advantage of being cheaper to deliver (Gentilini, 2016; Give Directly, 2018).

Using government programmes is one way to get funds quickly to poor households. This will be more effective in

places where government programmes have a higher rate of coverage. The ASPIRE database details all the social protection programmes and their coverage, which can be a particularly useful resource in assessing whether transfers could be channelled through a national social protection system. Figure 2 summarises some of the data from this database for Africa. While all countries have at least one social protection programme, few have coverage levels high enough to reach all poor households. Just because a social protection system exists in a country, it cannot be assumed that it will be an effective route to reach those most in need.

Figure 2: Safety net coverage in sub-Saharan Africa



Source: Fisker and Hill (2018)

Other government programmes and services could be used to provide support to households after a disaster. There are other resources that can be used to identify the full range of government services poor households have access to, thereby identifying other ways to reach poor households affected by a disaster. Fiscal incidence analyses conducted by the World Bank and the Commitment to Equity Institute (CEQ Institute) can be useful as they analyse the distribution of all government transfers—both cash transfers and transfers received in kind, either through the receipt of government services such as health, education and agricultural extension, or through subsidies such as food and fertiliser. They show not only which services are received by what proportion of the population, but also which services are well targeted to poor households in each country. Many countries in the world now have this type of analysis undertaken. The CEQ

Institute website provides information on this (see Tools and resources section).

Household consumption data can also be used in CEQ analysis to indicate the degree to which subsidies on food, energy, or other products reach poor households, in addition to showing the types of government services that households receive. Although subsidies can often benefit the non-poor more than the poor (given they usually consume more food and energy than poor households), in some contexts they can be effective. For example, subsidies on wheat in Ethiopia were able to target poor urban households in the aftermath of sudden price inflation. This type of analysis can also be done with any household consumption survey if there is no CEQ analysis for the country.

Beyond government systems, financial markets can be used to provide transfers. Although few households have formal insurance contracts that cover livelihood losses outside of India, China, and Mexico, many households are banked. Growth in transaction account ownership is increasing rapidly in some of the poorest countries in the world as a result of the expansion of mobile money. The Global Findex database (see Tools and resources section) details on the financial services poor households have access to for most countries in the world, and can provide useful information on the types of financial market mechanisms that could be used to distribute funds (Figure 3). The question of how to identify potential beneficiaries becomes more challenging in this case.

Targeting vulnerable households

Determining how best to target direct support to vulnerable households is very challenging. This is usually broken down into two parts. First, the area most affected by the shock is identified and support is provided in that area. Second, the households that are most at need are identified.

Often the people that are in need after a disaster are not the same as the people that were poor before the disaster. This means a targeting system is needed that brings those newly in need into the beneficiary list. Even when there is a social registry that is up to date and used for targeting, it will not have a dynamic component that allows households targeted by shocks to be identified. Social registries tend to collect information on assets and

Questions to ask when thinking about how best to provide direct support

- Do households need cash or something else?
- What is the coverage of different national systems that can provide support? can price subsidies be designed that target support to poor consumers?
- What proportion of poor households have transaction accounts that they can easily access?

household characteristics that do not change over time. There is some innovative work being done on identifying dynamic targeting methods that consider local rainfall conditions but they have yet to be piloted (Baez et al., 2019). In the absence of this, one option is to identify households that were near-poor before the disaster as the ones most likely to be poor after the disaster. Another mechanism that has traditionally been used in humanitarian contexts or when there is no social registry, is community-based targeting. This can work well when there is strong local accountability and time to do it properly, but it can also be subject to elite capture and replicate social inequalities, so it is important to provide the right training, oversight and grievance redress mechanisms. Combining targeting systems can also help (Alatas et al., 2012).

Given the challenges in identifying the right poor households to target after a disaster, programmes that rely on self-targeting—when the right poor households select themselves for a particular scheme or programme—can be particularly effective. Employment guarantee programmes are the most common form of self-targeting. They provide payments to households that engage in the work offered, but at a lower hourly rate than the market wage. This allows poor households that cannot earn enough income through the market to self-select into the programme. A successful example of this type of programme is the National Rural Employment Guarantee Scheme in India. However, this does not work well in all contexts, or for all households. In some contexts the number of households that would self-select into such a scheme is more than the programme can afford to support. When the interest in public works increases quickly post-disaster, it can be hard for the number of public works projects to keep up. There is also a risk that the public works do not carry a high return. Also, households that do not have able-bodied members to participate in public works are left out of these schemes.

Subsidies are another form of self-selection. As noted above, unless there is an item that is consumed more by poor households than non-poor households, this method of targeting can result in a lot of benefits ‘leaking’ to those that are not poor. This leakage is a cost and should be weighed against the cost of public works, the cost of targeting, and the leakage involved through other methods.

Questions to consider on targeting support

- Does community-based targeting work well in this context? is there good information and accountability within communities?
- Is there an up to date social registry that could be adapted to include a dynamic component?
- Is there a form of self-targeting that could be used or are there goods that are consumed more by poorer households and less by richer households?

Timing of support for households

The timing of when households need help varies between sudden and slow onset disasters and across contexts. Across contexts, households need support as soon as possible after a sudden onset disaster such as a flood that has wiped away income or assets (Hill *et al.*, 2019a). For slow onset disasters like drought, context is a more important determinant of the appropriate timing of support. Early support can help mitigate losses if appropriate mechanisms such as fodder distribution are available (Cabot Venton *et al.* 2012; Hill *et al.* 2019b). When losses have occurred, the timing of needed support varies depending on the initial level of reserves of a household, and the proportion of income that is affected by the event. As a result, support is needed almost immediately for most households in Somalia where reserves are lower compared to an average of about four months after harvest in contexts such as Malawi and Uganda. In all settings, letting households know as soon as possible what support will be coming can be beneficial.

Questions to ask to identify the appropriate timing of the response

- Is the shock being protected against slow or fast onset?
- If slow onset, are there mechanisms in place that could reduce the loss (for example, short-yielding varieties that can still be planted and an extension system to deliver it, irrigation systems that can be put into action if farmers have funding available, water and supplementary feeding for livestock)?
- If not, when will the harvest and other sources of income run out?

The amount of support will be determined by overall budget and number of people reached. But it is worth thinking about adequacy. The key question to consider here is:

- what is needed for bringing household consumption up to the extreme poverty line?

Optimising the impact on poverty for a given budget will require choosing the right combination of coverage and transfer size. This can be assessed using simulation approaches.⁴

4 For example, see Pape and Pontera (2015), <http://documents.worldbank.org/curated/en/509501467993187581/pdf/98808-WP-P155414-PUBLIC-Box393182B.pdf>

● TOOLS AND RESOURCES

Thinking impact before instruments in humanitarian disaster risk financing, 2019 (Start Network, Red Cross Red Crescent Climate Centre and International Federation of Red Cross and Red Crescent Societies):

<https://startnetwork.org/resource/1-thinking-impact-instruments-humanitarian-disaster-risk-financing>

People-centred and transparent risk analytics

<https://startnetwork.org/resource/people-centred-and-transparent-risk-analytics>

The Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE):

<http://datatopics.worldbank.org/aspire/>

CEQ Institute:

<http://commitmenttoequity.org/>

International Household Survey Network:

<https://ihsn.org/>

The Global Findex Database on how adults save, borrow, make payments, and manage risk:

<https://globalfindex.worldbank.org/>

● GLOSSARY

Covariate

Covariate shocks are those which affect many people in the same community at once; the experience of one household is highly covariate with that of other households in the community (Jalan and Ravallion, 1999).

Disaster risk financing

Disaster risk financing covers the system of budgetary and financial mechanisms to credibly pay for a specific risk, arranged before a potential shock. This can include paying to prevent and reduce disaster risk, as well as preparing for and responding to disasters (Centre for Disaster Protection, 2019).

Household consumption

Household consumption refers to the total value of all goods and services consumed by a household. In many middle and low income countries this is used to approximate household income (as it can be more accurately measured) and is used to assess whether or not a household is in poverty (Deaton, 1997).

Social protection

All public measures providing benefits to guarantee income security and access to essential health care, such as unemployment insurance, disability benefits, old-age pensions, cash and in-kind transfers, and other contributory and tax-financed schemes United Nations Department of Economic and Social Affairs (UN DESA), 2018.

Shock-responsive social protection

Social protection that has the ability to increase its caseload and/or its intensity of support in response to catastrophic events. This is also called adaptive social protection (Clarke and Dercon, 2016).

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Berries plucked from trees to feed pastoralists and their livestock, Galgaduud region, Somalia.
Image: Anisa Hussein Dahir/International Federation of Red Cross and Red Crescent Societies

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