



The cost of drought in Africa

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The African Risk Capacity (ARC) is a groundbreaking extreme weather insurance mechanism designed to help African Union Member States resist and recover from the ravages of drought¹. ARC provides participating African countries with quick-disbursing funds in the event of drought, and assists countries in developing drought response contingency plans to implement timely and effective responses. The result is significant economic and welfare benefits for participating governments and their vulnerable households.

Nearly 50 percent of all emergency multilateral food assistance to Africa is due to natural disasters. As currently structured, the cost of responding to extreme weather events in Africa, particularly droughts, is borne largely by the international community. To give an order of magnitude using World Food Programme (WFP) operations as a proxy for international aid flows, in 2012 WFP assisted 54.2 million people in Africa, spending US \$2.7 billion – 66 percent of WFP’s global expenditure that year. By comparison the Consolidated and Flash Appeal for 2012 required nearly US \$7.2 billion for Africa, for which approx-

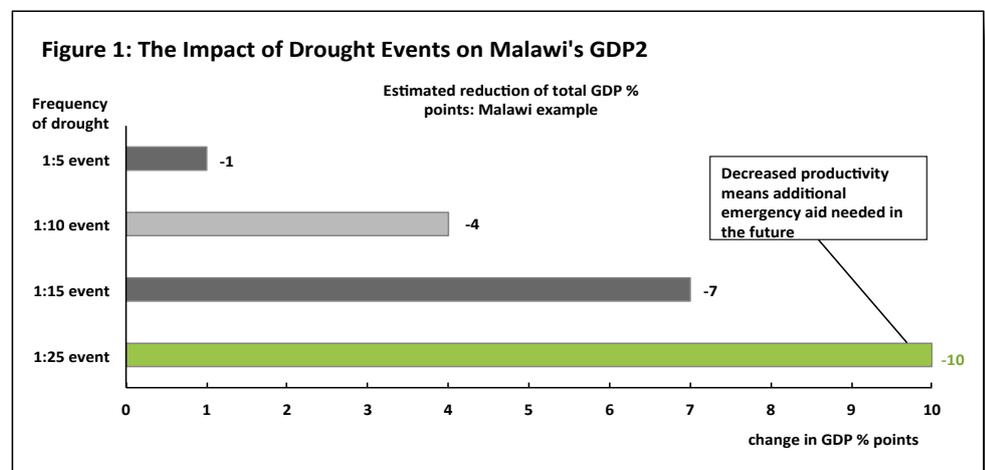
imately US \$4.5 billion of contributions were received, only 62.5 percent of the funding required.

Droughts significantly threaten record GDP growth in sub-Saharan Africa. A 1-in-10 year drought event could have an estimated adverse impact of 4 percent on the annual GDP of Malawi, with even larger impacts for 1-in-15 and 1-in-25 year events. Such decreased productivity detracts from economic growth, causes major budget dislocation, erodes development gains and resilience, and requires additional emergency aid from the international community in the future.

US \$1.00 spent on early intervention through ARC saves US \$4.40 spent after a crisis unfolds. At the

household level, the consequences of drought can be devastating in countries with low resilience where large sectors of population rely on rain-fed agriculture for their livelihood.

Experts from Oxford University and International Food Policy Research Institute (IFPRI) conducted a cost-benefit analysis (CBA)³ to examine household coping actions when faced with a drought, and the likely long-term cost impacts of these actions. The study estimated the economic benefits of early intervention and thus protecting a household’s economic growth potential – that is, intervening in time to prevent households’ negative coping actions such as reduced food consumption, livestock death, and distressed productive asset sales, which, in the



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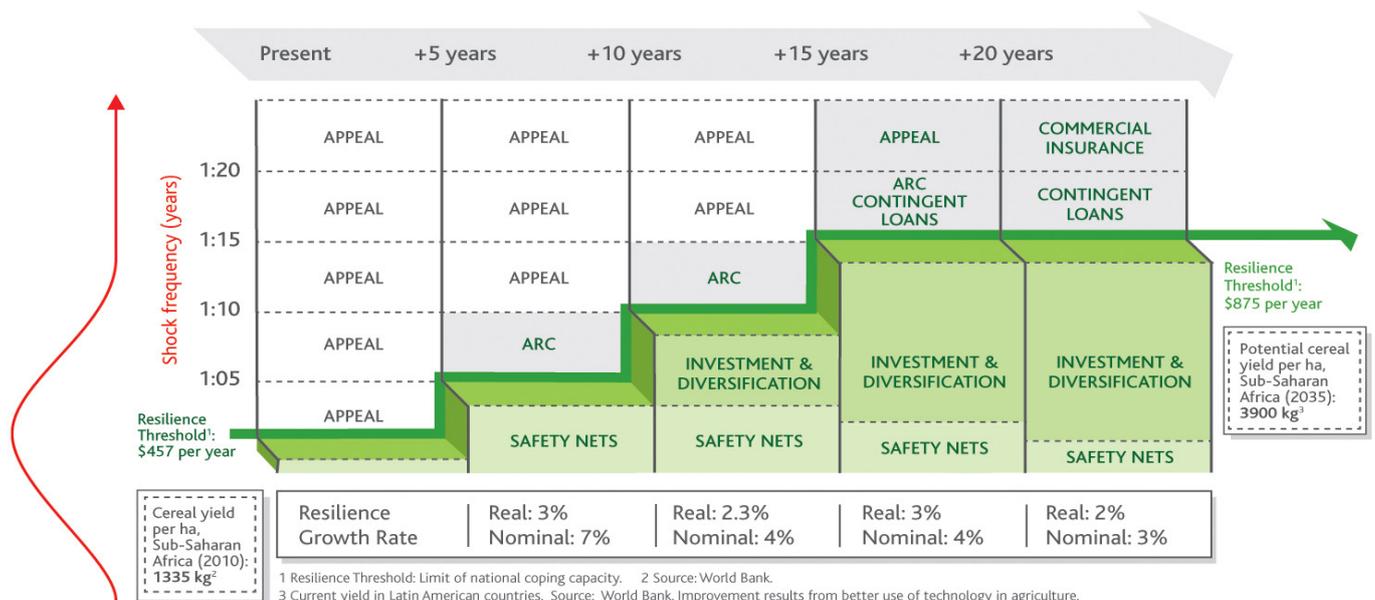
absence of external assistance, have increasingly pronounced negative consequences.

The CBA calculated that the economic benefit of aid reaching households within the critical three months after harvest could result in nearly US \$1,300 per household assisted in terms of protected economic gains. A further analysis shows the potential benefit of ARC outweighs the estimated cost of running it by 4.4 times compared to traditional emergency appeals for assistance, as a result of reduced response times and risk pooling.

Contribution to Long-term Resilience and Growth in Africa

Low resilience households must grow by more than 3 percent annually in real terms to withstand a 1-in-5 year drought. For many countries in Africa, a small shock in terms of a rainfall deficit or elevated food prices can precipitate a call for a major humanitarian intervention and emergency response. The resilience in such countries is significantly low such that they struggle through most years, let alone during a drought. For example, in a country such as Niger, where households currently display very

low resilience, the ARC team has calculated that to event, the income of the most vulnerable households would have to grow by an annual average of 3.4 percent over the next five years in real terms to build sufficient resilience in order to adequately cope without requiring external assistance. In the meantime, insurance is not the correct tool to deal with this chronic risk. In order to improve such countries’ resilience to natural disasters, thereby enabling sustained growth on the continent, two key elements are required: risk management and investment.³



ARC offers the most value when it protects hard-won gains made through development investments. Investments that support long-term resilience against food insecurity can address chronic risks and provide a base of predictable on-going assistance that can support poor and vulnerable households to build assets and livelihoods, which will in turn develop resilience to cope with normal and somewhat frequent, mild shocks (e.g. every two to four years) without external assistance. From this base level of investment, in which chronic risks are addressed and households are able to begin to accumulate assets and secure livelihoods, sound risk management becomes critical. This is where a tool such as ARC offers the most value, providing dedicated contingency funds that can scale up safety net systems in a reliable, timely manner, allowing systems to remain solvent and sustainable, protecting hard-won gains for households, and reducing the country's reliance on emergency appeals.

Risk pooling can save countries up to 50 percent in the cost of emergency contingency funds.

By linking timely and reliable contingent funds to an objective and transparent trigger, the ARC offers an innovative solution to the substantial costs of drought at the international, national, and household level. Pooling risk across the continent, within its diverse rainfall patterns, could save countries up to 50 percent in the cost of emergency contingency funds while decreasing reliance on external aid. For example, if a risk pool consisting of nine countries were to set aside their own reserve funds of the same amount insured, they would require US \$270 million (US \$30 million x 9 countries). By pooling the risk, they can all be insured with only US \$155 million (43 percent savings), allowing more funds to go to development projects and resilience-building investments rather than being tied in a reserve account.

Utilising modern financial instruments to enable governments to better protect food insecure populations presents a tremendous opportunity for African leaders to address what has become an extremely costly problem and a significant hindrance to economic development on the continent.

African Risk Capacity

A Specialized Agency of the African Union

ARC Secretariat
Merafe House
11 Naivasha Road
Sunninghill 2157
Johannesburg, South Africa
www.africanriskcapacity.org

Tel: +27 (0)11 517 1535

Fax: +27 (0)11 517 1642

¹ ARC will provide coverage for other hazards, including floods and typhoons at a later date.

² UNOCHA Financial Tracking Service, 2012 Consolidated and Flash Appeals, www.reliefweb.int/fts

³ Boston Consulting Group (BCG), 2012, African Risk Capacity Cost Benefit Analysis

⁴ The analysis measures resiliency as a household's distance from the international poverty line, in this case assumed to be US \$1.25 per day, and uses a scaling factor of 1.5 to quantify the loss of agricultural income from a given deviation in an area's drought index from normal conditions (based on Africa RiskView default model settings). Using 1-in-5, 1-in-10 and 1-in-15 year events as estimates for different drought severity, the minimum loss of livelihood in dollar terms associated with all three frequencies of event in each region of the country is estimated, and then averaged across all areas to calculate a national figure. Finally, the required income today to withstand those losses 5, 10 and 15 years ahead is calculated in order to determine the annual growth rate (i.e. the geometric average) to reach such levels.