POLICY BRIEF

APRI
AFRICA POLICY RESEARCH INSTITUTE

CLIMATE JUSTICE INVERTED? GLOBAL SHIELD, INSURANCE, AND THE CLIMATE LOSS AND DAMAGES

POLICY BRIEF

CLIMATE JUSTICE INVERTED? GLOBAL SHIELD, INSURANCE, AND THE CLIMATE LOSS AND DAMAGES

By Nick Bernards and Grace Mbungu

APRI
AFRICA POLICY RESEARCH INSTITUTE

Acknowledgments and citation

This study was produced by the Africa Policy Research Institute (APRI) — a Berlin-based independent, non-partisan African Think Tank researching key policy issues affecting the continent.

APRI does not take institutional positions on public policy issues. The views expressed in publications are those of the author(s) and do not necessarily reflect the views of APRI, its staff, or its board. The boundaries, colours, denominations, and other information shown on any map in this work do not imply any judgment on the part of APRI concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

The authors would like to acknowledge Dr. Olumide Abimbola (Executive Director, APRI), Isabella Roberts (Junior Fellow & Project Coordinator, APRI), and Diana Rudic (Project Intern, APRI) for their invaluable support.

Bernards, Nick and Mbungu, Grace (2024). Climate Justice Inverted? Global Shield, Insurance, and the Climate Loss and Damages. Africa Policy Research Institute, Berlin, Germany. DOI: https://doi.org/10.59184/pb023.09

Table of Contents

List of Abbreviations

Africa-Re	Africa Reinsurance Corporation
ARC	African Risk Capacity
ARV	Africa Risk View
AU	African Union
BMZ	German Federal Ministry for Economic Cooperation and Development / *Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung*
BNDE	National Economic Development Bank / *Banque Nationale pour le Développement Économique*
BOAD	West African Development Bank / *Banque Ouest Africaine du Développement*
CDFRIA	Climate and Disaster Risk Finance and Insurance
CICA-RE	Joint Reinsurance Company of Member States of the Inter-African Conference for Insurance Markets / *Compagnie Commune de Réassurance des Etats Membres de la CIMA*
CNAAS	National Agricultural Insurance Company of Senegal / *Compagnie Nationale d'Assurances Agricoles du Sénégal*
CNCAS	National Agricultural Credit Fund of Senegal / *Caisse Nationale de Crédit Agricole du Sénégal*
COP	Conference of the Parties
DfID	UK Department for International Development
FAO	Food and Agriculture Organization of the United Nations
F.CFA	Central African CFA [Communauté Financière Africaine] franc
GIIF	Index Insurance Facility
GIZ	German Development Cooperation / *Deutsche Gesellschaft für Internationale Zusammenarbeit*
GS	Global Shield
GSFF	Global Shield Financing Facility
GSSP	Global Shield Solutions Platform
IBAI	Index-based agricultural insurance
IPCC	International Panel on Climate Change
KfW	KfW Development Bank
LDF	Loss and Damage Fund
LUNAR	Lilongwe University of Agriculture and Natural Resources
ODA	Official Development Assistance
PPP	Public-Private Partnerships
Sen-RE	Senegalese Reinsurance Society / Société Sénégalaise de Réassurance
Swiss-Re	Swiss Reinsurance Company
USAID	United States Agency for International Development
V20	Vulnerable 20
WFP	World Food Programme

Summary

- Previous experiences with insurance against climate risks in developing-country contexts have encountered several considerable obstacles. This suggests that, at the very minimum, Global Shield-linked programmes must be carefully designed to avoid them.

- The Global Shield and other insurance programs can only ever offer partial protection against climate hazards. As such, they are best suited to operate as a secondary complement to a wider suite of measures that offer comprehensive systems of social protection, including a well-resourced loss and damage fund (LDF).

- Insurance can protect against rare, randomly occurring events with predictable frequency and cost. Yet, the rarity and predictability of disasters are put in question by climate change.

- Catastrophic events are not the only ways in which climate change impacts people. Approaches that emphasise disaster responses alone risk failing to protect against the primary forms in which climate harm will be experienced by many people.

- Insurance entails very specific forms of data and expertise which are in short supply in African contexts. In this sense, certain forms of technical training and capacity building need to be part of any successful programme of climate insurance.

- It is out of line with understandings of climate justice and in many instances unfeasible to expect governments, communities or individuals in most of Africa to pay for protection from climate risks.

Background

During COP27 in Sharm El Sheikh, Egypt in November 2022, negotiators from all over the world were tasked with finding concrete solutions to deal with increasing climate losses and risks, especially for the worlds most at risk and vulnerable populations.[1] A range of new efforts were introduced to this effect and COP27 ended with a historic commitment to establish a global 'Loss and Damage Fund' (LDF) aimed towards covering the mounting costs of climate change for developing countries.[2] Yet the eleventh-hour agreement to establish the LDF deferred all major decisions about how the fund would be financed and operated to later negotiations. In negotiations over the following year, culminating at COP 28, the actual arrangements for the LDF have fallen short of the expectations of many developing countries and civil society participants. Perhaps most notably, the fund is based on voluntary contributions. Pledges to the LDF thus far, at about USD 700 million, fall significantly short of estimates of the scope of climate losses to vulnerable countries. To put this into perspective, the V20, a grouping of impoverished countries considered most at risk from climate breakdown, published estimates in 2022 that the costs of climate change for the most vulnerable countries have already exceeded USD half a trillion.[3]

Another important outcome of COP27 was the Global Shield (GS) initiative against climate risks. A few days prior to COP 27, the V20 and G7 had jointly announced the launch of an insurance-based 'Global Shield against Climate Risks'. The Global Shield, largely spearheaded by Germany, was announced during the Petersburg Climate Dialogue in Berlin in 2022.[4] According to the concept note, the main goal of the Global Shield is to increase "pre-arranged" finance "which disburses quickly and reliably before or shortly after disasters happen".[5] The Global Shield aims to do so primarily by supporting the development of a range of different insurance instruments at the household, business and national levels. Initially, the LDF announcement appeared to call into question the need for the Global Shield initiative, but developments have suggested that the GS and other insurance-based approaches, in general, are likely to play a significant role in the years to come. In this brief, we give an overview of Global Shield in relation to the existing state of climate-focused insurance. We explore the challenges faced by the schemes already in operation as well as opportunities and pathways for the successful, effective and sustainable implementation of others through the lens of Global South countries, particularly African nations.

The Global Shield Initiative

The Global Shield was coordinated by Germany in the context of the 2022 G7 presidency in partnership with V20 countries. As noted in the introduction, the GS was envisaged as a collection of initiatives aimed towards establishing pre-arranged financing that can be disbursed quickly in the event of natural disasters.[6] The GS aims to do this by supporting the development of different insurance

instruments at household, business and national levels. Initial funding for the GS announced at COP27 came predominantly from Germany, which pledged EUR 170 million, with smaller pledges from Canada, Denmark, France and Ireland.[7] At the time of writing, the vast majority of pledged financial commitments related to climate losses have been fulfilled. In the most recent draft ahead of COP28, the LDF is set to be based on voluntary contributions.

The Institutional Architecture of Global Shield

Within days, the World Bank committed to the announcement for administering a 'Global Shield Financing Facility' (GSFF) at COP27.[8] The press release for the GSFF promised "integrated financial protection packages" which would also "enable and mobilise private capital for improved financial resilience".[9] At the time of writing, no further information is publicly available about the operations of the GSFF. The Frankfurt-based 'Global Shield Solutions Platform' (GSSP), another part of the institutional architecture of Global Shield, was launched in June 2023. The GSSP is co-financed by Germany and Denmark, with the expectation that further donors will commit funds in the future. It is designed to coordinate the activities of the previously existing InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions (CDRFI) through the technical assistance and development of existing CDFRI institutions and programmes.[10] Like the GSFF, GSSP emphasises the development of Public-Private Partnerships (PPPs), in this case by drawing on existing InsuResilience activities.

What sets the Global Shield apart from the LDF is that it entails relatively limited commitments of resources on the part of donors, which arguably accounts for the relative ease with which it has been rolled out. This can be seen by comparing the commitments of resources towards the GS (in the hundreds of millions of dollars) with the estimates of the cost of the climate crisis to the most vulnerable countries (conservatively in the hundreds of billions of dollars). Donor money is potentially needed for initial working capital of insurance schemes and to subsidise premium payments. But rather than a transfer from historical polluters to vulnerable countries, which an LDF financed through contributions based on historic emissions would potentially represent, insurance generally requires beneficiaries to pay a significant portion of the cost of their own protection.

Status of the Global Shield Implementation

The LDF announcement may have initially appeared to call into question the need for the Global Shield, but developments since then suggest that Global Shield and insurance-based approaches, in general, are likely to play a significant role in years to come. Unlike the LDF, significant chunks of the organisational architecture of the GS are already in place. In ongoing negotiations over the LDF, developed country representatives support that the funding for the LDF should come from private investment.[11] [12] Given the purposes for which the fund is intended, this would seem to imply, at least in part, an effort at building new insurance markets like that of the GS. The World Bank, alongside its contributions to administering the GS, recently announced expanded support for the development of new forms of sovereign catastrophe insurance as part of a new "comprehensive toolkit" to help countries recover from natural disasters.[13] The latter is not connected directly to GS or LDF negotiations but covers similar ground. Insurance is a keystone of the response to the climate crisis for a significant number of influential donors and organisations in global development.

The Current Landscape of Climate Risk Insurance in Africa

The Global Shield builds on a longer history of initiatives that manage climate risks through insurance in the Global South. This section provides an overview of this landscape. We focus primarily on African examples, although many similar schemes are in operation elsewhere and global programmes are of relevance in African contexts in some instances. Most climate-linked insurance projects have relied on what are known as 'parametric' or 'index' insurance products.[14] In a conventional insurance contract, the insurer provides cover to a specified person or property against the costs incurred by a specific hazard (e.g. a car accident, house fire or crop failure due to drought). With parametric insurance, contract holders are entitled to a fixed payout when a key parameter crosses the expected threshold in correlation to damages (e.g. where rainfall in a given district falls well below historic averages). These can be based on singular variables, such as rainfall or temperature, or an index of several variables. Payouts are not based on individual damages but are assessed against the index automatically. This is intended to reduce monitoring costs, in that a rain gauge or weather satellite can replace expensive and time-consuming site visits to assess policies and verify claims. It is also expected to reduce problems of moral hazard or fraud, insofar as payouts are determined by a measure that policyholders have no direct control over. Parametric insurance policies can be organised both at 'micro-levels' (bought by individuals, businesses or households) or 'macro-levels' (bought by governments). In the latter case, these policies have generally been intended to facilitate rapid response to natural disasters, like the GS.

Microinsurance for Climate Risks

Although the landscape of microinsurance initiatives addressing climate risks across Africa is longstanding, it is fragmented across national and local levels. These trials have produced mixed results and have generally been carried out by national governments in conjunction with different multilateral and bilateral donors. For instance, the government of Senegal established the Compagnie Nationale d'Assurances Agricoles du Sénégal (CNAAS) in 2008.[15] CNAAS is a public-private partnership, with financing from the Senegalese government and several Senegalese public-private banks — the Caisse Nationale de Credit Agricole du Sénégal (CNCAS) and the Banque Nationale Pour le Développement Économique (BNDE) — alongside donor support through the World Bank's Global Index Insurance Facility (GIIF) with Banque Ouest Africaine du Développement (BOAD) and wider technical support through a World Bank pilot study.

Ownership of CNAAS is split between the Senegalese government, which held 36% of initial shares; a consortium of Senegalese and Ivoirian insurers and reinsurers (56%); peasant organizations (7%) and a small number of remaining shares held by individual shareholders. The scheme has also established partnerships with agricultural lenders operating in Senegal, including CNCAS (part state-owned) to offer index-based agricultural insurance (IBAI) products to borrowers. The state plays a critical role in underpinning flows of premium income by subsidising payments by up to 50%. Reinsurance is a particularly critical mechanism by which income streams are circulated into financial markets. CNAAS policies enter into a set of reinsurance arrangements covering 75% of premiums. SwissRE is the largest participant, with 55% of CNAAS's ceded policies through a quota share treaty. Another 35% of ceded policies are sold to West African reinsurers (Sen-RE, CICA-RE and Africa-RE). The sale of policies is primarily managed by the broker PlaNet Guarantee Senegal, a subsidiary of the Paris-based NGO PlaNet Finance Group whose capital is held by a number of public, commercial and charitable organisations, including the World Bank's InsuResilience fund. PlaNet Guarantee has received significant support from major donors, including the World Bank and several British and German development agencies.

Index insurance has multiple trajectories in Senegal. The number of policies and premiums has grown steadily since the first schemes were rolled out in 2011. In 2012, CNAAS issued 2,325 policies,[16] paying 28,687,294 Central African CFA francs (F.CFA) in premiums, against an insured value of F.CFA 186,395,000. By 2015, according to the most recently published figures at the time of writing, those numbers had largely quadrupled to 8,962 policies, F.CFA 124,301,461 in premiums and F.CFA 765,143,963 worth of crops. On the one hand, this is a significant rate of growth in a short period of time, yet it also represents a very small proportion of crops and the total population engaged in groundnut production. Several studies pointed to limited benefits for participant farms, questioning whether subsidies to insurance premiums are the most effective use of the public funds.[17]

'Macro'-level Climate Risks Insurance

The mixed results of individual and household-level experiments with parametric insurance led to a growing turn towards sovereign-level insurance schemes. The World Food Programme and USAID launched the first 'humanitarian weather derivative' in Ethiopia in 2006, and the World Bank set up a similar programme in Malawi in 2008.[18] The African Risk Capacity (ARC) has become the main provider of sovereign disaster insurance in Africa.

The African Risk Capacity (ARC)

ARC was launched by the African Union (AU) in 2014 in collaboration with a number of donors, among which the UK's Department for International Development (DfID) and the World Food Programme (WFP) are particularly important.[19] InsuResilience has also played a notable role in recent years. The ARC offers parametric insurance against climate disasters, primarily drought, to participating African governments. The system is based on the Africa Risk View (ARV) software package, which predicts the likelihood of famine in participating countries based on satellite rainfall data. If a payout is triggered, the receiving government must submit a Final Implementation Plan for approval, providing details on how resources are to be expended in light of the specific severity of the drought, its

geographical distribution and its associated population vulnerability. It is administered by the ARC, which operates as a specialised agency of the AU. The ARC also founded an affiliated financial entity to provide risk pooling and risk transfer services. ARC Insurance Ltd — domiciled in Bermuda — was formally launched in early 2014. The ARC Secretariat, housed in the ARC Agency, provides support to participating government administrators in customising the ARV parameters and by preparing disaster response plans. The practice of the ARC has faced a number of significant challenges. It has faced continual problems with low enrolment, conflicts over who should pay premiums and controversial 'basis risk events' — notably those in Malawi in 2016 and Mauritania in 2017, in which the ARV modelling failed to trigger payouts during severe droughts.

InsuResilience

As highlighted in the previous two subsections, multilateral organisations and bilateral donors have been important participants in African climate insurance experiments. The Global Shield follows previous attempts to consolidate and coordinate these efforts. Most notable here is the 'InsuResilience Global Partnership', which plays a significant role in the operation of the Global Shield itself. The InsuResilience initiative was initially established in 2015 by the G7 during the German presidency. Its secretariat is hosted in Bonn by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). In 2017, at the recommendation of the World Bank, InsuResilience was expanded into the Insuresilience Global Partnership (IGP) operating under the aegis of the G20 and V20. In 2018, the IGP launched the InsuResilience Solutions Fund, funded primarily by KfW, which finances technical support, capacity building and the development and introduction of climate insurance projects to the market.

Since the Global Shield promises to consolidate and expand on an existing network of organisations engaged in the promotion of insurance-based responses to climate risks, it is worth considering the challenges that these previous efforts have encountered.

Insurance Challenges

Previous experiences with insurance against climate risks in developing-country contexts have encountered considerable obstacles. Collectively, they have been under-subscribed and often ineffective in providing equitable protection against climate hazards.[20] Some of these obstacles may be mitigated by appropriate programme design and the acknowledgement that insurance programs can only offer partial protection against climate hazards. As such, they are best suited to operate as complementary measures within a wider suite of measures that include a well-resourced LDF (ideally funded from contributions based on historic emissions), sovereign debt relief and more effective social protection systems.

What Risks?

Insurance covers some hazards better than others. 'Insurable' events have a few things in common - they must be rare, random events occurring in a predictable frequency. If it is known 'where' and 'when' something will happen, targeted aid is more appropriate. If, for instance, an event is known to happen very often, there is little to be gained by pooling risks through insurance. If the average driver can be expected to destroy their car once a year, we could expect the average annual cost of insuring that car to be about the same as buying a new one. However, while the occurrence of insurable events must be random, we must be reasonably able to predict how often they will occur to calculate sustainable premiums and payout levels. These conditions are potential problems with respect to disasters associated with climate change. The climate crisis has been linked to increasing frequencies and severities of droughts, floods and storms, undermining the 'rarity' condition. Hazards are not distributed randomly but concentrated in particular places. Cyclone damage has proved difficult to incorporate into regional disaster insurance schemes in Africa (see the discussion of the African Risk Capacity above). For instance, among AU members, cyclone risks primarily affect the Indian Ocean island countries (Comoros, Mauritius, Madagascar, and Seychelles) and the coast of Mozambique. The future effects of climate change are also unpredictable. The price of insurance is normally based on historical data, but the only thing we know about climate change with certainty is that the future won't be anything like the past.

Secondly, only 'events' like the outbreak of fires, floods, droughts, cyclones or pests are insurable. These catastrophic events are becoming more frequent and severe. They entail significant costs in terms of lives, infrastructure, property damage and loss of livelihoods. Aid needs to be disbursed rapidly after these events, or even in advance of them where possible.

However, catastrophic events are not the only ways in which climate change impacts people. Research has documented a plethora of other, slower-moving climate vulnerabilities in different African contexts. Hotter weather means more exposure to heat stress for urban and rural workers

alike.[21] Heat also poses significant problems for some key cash crops, like cocoa production in much of the 'cocoa belt' stretching from Cameroon to Sierra Leone in West Africa.[22] For these countries, cocoa is a critical export crop and is a crucial source of livelihood for many people there. Changing patterns of precipitation manifest themselves not only in the greater frequency of catastrophic drought and famine, but also in intensified conflicts over water access.[23] Climate change will have highly variegated impacts on ecosystems, social well-being and economic productivity throughout the region. Approaches that only prioritise disaster response miss the primary forms in which climate harm will be experienced by many people. Insurance is much less suited for these slower forms of climate damage. These will instead require improvements to infrastructure and governance structures around access to water and shelter alongside more comprehensive systems of social protection.

Another problem in the case of parametric insurance is 'basis risk'.[24] Parametric insurance does not cover specific damages directly. As a result, there is the risk that people or governments will buy premiums and suffer losses individually, but not receive a payout because the specific variable(s) used as a proxy for damages didn't reach the threshold to trigger payment.

A case in point is Malawi in 2016, where a lethal drought failed to trigger payouts from the ARC.[25] In April 2016, President Mutharika declared a state of emergency due to a drought that had devastated crop production. In May, the FAO and WFP estimated that 6.5 million people (roughly 1/3 of the country) in 24 out of its 28 districts were food insecure. The ARC's estimate, based on the ARV modelling, had been that only 20,594 people would be affected and therefore no payout was triggered.[26] Pressed by civil society groups, the Malawian government launched an appeal. An investigation led by the Lilongwe University of Agriculture and Natural Resources (LUNAR) revealed that the discrepancy in estimates was partially due to errors in the ARV customisation, which had seen the wrong type of maize inputted as the reference crop.[27] The adjusted ARV modelling suggested that 2 million people were affected, and the ARC eventually made a payout of USD 8.1 million. For the Malawian government, this was still too little too late to facilitate an 'early response' because the model still underestimated drought impacts and response costs. Malawian government officials argued that, in light of the basis risk problem, parametric insurance did not represent the value for money that possible alternatives did: donor grants for social safety nets, adaptation plans and national contingency funds.[28] This stands as a strong critique of the risk-pooling model in general.[29] Inequalities in negotiating criteria for pay-outs and the general framework of the insurance between developing and developed nations would emerge to disadvantage African countries.

Who Pays?

The question of 'who pays' has emerged as an important practical problem for previous experiments with insurance against climate hazards. Simply put, the people and countries most in need of protection against climate hazards are often those least able to pay for it. As agricultural economist Hans Binswanger-Mkhize puts it:

The better-off farmers will have little demand for insurance because they are already sufficiently well insured via their informal mechanisms to achieve profit maximisation. On the other hand, the poor farmers could benefit from agricultural insurance, but are too poor and credit constrained to translate the potential benefit into effective demand.[30]

This is a significant reason why enrolments in parametric insurance programs across Africa have fallen short of expectations, both at micro- and macro-levels.

This is an ongoing point of contention in debates about the LDF. Wider climate justice perspectives generally suggest that the costs of climate change should be paid on the basis of historic contributions to carbon emissions. At the most basic level, insurance works very differently and those vulnerable to a particular risk are expected to purchase their own protection against future hazards.[31] As geographer Sarah Bracking puts it, insurance-based responses to the climate crisis can "den[y] historical responsibility for emissions and rese[t] the clock at the present, with the poor required to pay for their own adaptation into the uncertain future".[32]

To date, subsidies have generally been necessary for those climate-insurance programs that do exist, and similar patterns are visible within macro-level programmes.[33] While the ARC was initially designed to avoid premium subsidies, this approach was revisited after several years of poor enrolment. By 2019, DfID had conceded that '[i]t is now clear that the ARC will not become sustainable in the short term without premium support being made available for countries', evidenced by 'countries signing contracts and not paying their premium' and instances in which 'countries wish to join the pool but cannot finance the premium'.[34] From 2016 onwards, the ARC committed to developing 'Replica Coverage', whereby UN agencies, donors and NGOs could purchase insurance policies from the ARC that matched the existing coverage of individual countries, with the capacity to either double the coverage within individual countries or halve the fiscal demand on participating governments. The product was named 'ARC Replica' when it was piloted in 2018, though it was initially hampered by Senegal and Mauritania's refusal to pay their premiums. The 2019-20 Risk Pool saw the WFP and Start Network purchase insurance coverage for Burkina Faso, Mali, Mauritania, Senegal, the Gambia and Zimbabwe with funding from the German and Danish governments. However, participation in the ARC remains low due to the inability of many to afford premiums.[35]

It seems likely that donors are expecting participating countries and individuals to pay a significant share of the premiums themselves, especially if we compare the amounts currently committed to the Global Shield with the scale of potential climate losses. Based on experience, it seems unlikely that it will be possible to enrol countries in the programme while avoiding donor subsidies to premiums. This is particularly true since a growing number of African countries find themselves under increased financial distress following a global pandemic, the Russian invasion of Ukraine and anti-inflation measures in core countries, all of which have driven a surge in the value of the US dollar. Developing country budgets are under strain globally, with many being pushed into undertaking programmes of austerity.[36] With fiscal space increasingly strained, it seems particularly unlikely that more African governments will have the capacity to pay for climate insurance in the coming years.

Whose Voices Count?

Another potential challenge illustrated by existing climate insurance programs concerns the lack of influence African communities and governments have in their design. To some extent, this is a product of the highly technocratic nature of existing insurance programmes themselves. In a blog post published shortly after COP27, Michael Liès, Chairman of the Zurich Insurance Group, laid out the logic behind the Global Shield.[37] He stressed the need for appropriate risk modelling to guide decision-making.[38] For Liès, the insurance industry is particularly well-placed to do this. The role of the Global Shield is in part dedicated to entrenching the role of insurance logic within decision-making:

Shielding decision-makers from the vagaries of political seasons and the relatively short-term nature of the current decision-making structures, the enabling environment created by the Global Shield will yield to a decisive approach in long-term planning. The insurance industry is at the centre of society's understanding of physical and transition risk and taking a long-term view. We play a role as a catalyst in providing the necessary impetus once that understanding of risk is clearly laid out and we stand ready to drive innovation in allocating capital both on underwriting and investment. The policy framework setting the stage for clear market signalling translates into innovation and competitive market forces that ultimately mobilise private finance.[39]

Liès comments reflect an understanding of climate risks common in insurance circles. The insurance sector's actuarial models confer them with a 'long-term' view of these risks, which is not easily accessible to policymakers who therefore need to be guided towards a proper understanding of climate risks and the appropriate measures to manage them. This is a highly technocratic view that precludes most serious involvement on the part of affected communities.

This is compounded in many African contexts by the paternalistic views of developing countries, governments and populations, which are commonplace in discussions of climate insurance. DfID's underpinning 'Theory of Change' for the ARC notably emphasised 'changing incentives for risk management', expecting that 'in valuing their extreme weather risks for insurance, African governments [will] become aware of the costs they face with each drought and are motivated to reduce these risks as far as they can and transfer the residual risk to a reasonably priced insurance policy'.[40] Indeed, DfID directly dismissed the option of directly supporting commercial insurance for participating countries, reasoning that this 'would not incentivise contingency planning or require reporting on the delivery of benefits to poor people'.[41] DfID's emphasis in its early evaluations of the ARC was almost entirely focused on whether participating countries were promptly paying premiums out of national budgets independently. DfID's position was justified, in paternalistic terms, of ensuring African countries maintained 'skin in the game' in relation to the management of their own climate risks.[42]

Programmes conceived of in such patronising, arguably colonial terms do not lend themselves to meaningful democratic participation in planning on the part of African governments or affected communities. Moreover, a focus on a narrow range of technical expertise as the sole means of managing climate risks, as implied in Liès comments, makes this kind of participation much harder to achieve. As we discuss further in the next section, insurance does necessarily entail very specific forms of data and expertise, which are generally in short supply in African contexts. In this sense, certain forms of technical training and capacity building very much need to be part of any potentially successful programme of climate insurance.

Insurance Expertise

Insurance operations are complex. Setting premiums at a sufficient level to cover expected payouts involves uncertainty with complex actuarial predictions. As a result, insurance depends on a highly elaborated infrastructure incorporating both highly specialised skills and extensive data. Given the unpredictability surrounding the future impacts of climate change, the complexity of this challenge is set to increase.

This has long been a problem for microinsurance and other operations in developing countries, where actuarial expertise is in short supply.[43] Responses to this problem have thus far relied on external

expertise delivered through software. The International Association of Actuaries has produced 'formula-based' actuarial models for health and life microinsurance.[44] These are pre-configured Excel spreadsheets containing formulas based on mortality and health data collected from publicly available sources. The ARC is not entirely different and distributes payouts based on famine forecasts derived from the ARV software package, which uses a combination of satellite data on rainfall, soil moisture and population data to predict vulnerability to famine. The software package is owned and licensed by the ARC, which also provides technical support to national governments in customising the model. There has been a good deal of technical assistance involved in climate insurance projects in the past, but this was often aimed at developing appropriate regulatory frameworks and developing or auditing disaster response plans. The ARC provided technical support for the development of independent actuarial skills in African countries. To the extent that there is a role for insurance in responding to the climate crisis, this must be remedied. This is essential if affected communities and African governments are to be able to lead and maintain democratic control over the development of insurance programmes responding to climate risks.

Who Benefits?

Finally, there is an important question around what happens to the premium income paid into insurance programmes. Recent research has highlighted that benefits for subscribers can be mixed and that climate insurance schemes have served to create a significant stream of rents for some predominantly European financial institutions, particularly reinsurers.[45] This is the result of the way that parametric insurance programs are organised. We noted in the 'Who pays?' subsection above that parametric insurance programs at micro- and macro-levels have both remained heavily reliant on subsidies.

An important corollary of the way in which parametric insurance schemes are set up is that they need access to reinsurance, regardless of whether the attendant risks are insured based on parametric or conventional insurance models. Reinsurance is, basically, insurance for insurers. In exchange for ceding a portion of premium income to a reinsurer, reinsurers agree to compensate insurers if claims exceed an agreed threshold. This is particularly important for parametric insurance schemes. For micro-level schemes, insurers must pay out many claims at once when a payout is triggered. Sovereign insurance needs to pay out very large claims to the overall risk pool.

We can see the effect clearly in the case of the ARC (see Table 1 below).

Table 1 – Reinsurers' share of ARC Premium income and claims paid, all figures in USD millions

Year	2020	2019	2018	2017	2016	2015	2014
Gross premiums written	21.1	16.0	4.8	8.7	11.3	24.8	17.0
Reinsurers' share of premium income	12.4	4.6	2.6	3.2	5.4	6.6	5.5
Claims paid	3.7	26.5	0.1	0	6.8	1.3	26.3
Reinsurers' share of claims paid	0	0	0	0	0	0	11.3

Source: ARC Ltd. (2021) ARC Ltd. Annual Report 2020, Johannesburg: African Risk Capacity

The ARC pays a substantial portion of its premium income to a range of reinsurers. Except for the first year of operation in 2014, claims against the risk pool have yet to meet the threshold to trigger reinsurance payouts. The ARC has thus proven to be a small but reliable stream of premium income for global reinsurers. Reinsurers, by virtue of their ability to command large pools of liquid capital alongside geographically and functionally diversified streams of premium income, retain an important ability to command these rents from parametric insurance programs. Arguably, the upshot of this is donor payments and the resources of African governments, which might otherwise be invested in social protection systems or climate-resilient infrastructure in AU member countries. However, we have seen these being returned to metropolitan finance capital as a stream of rent instead.

What is the Way Forward for an Effective and Sustained Implementation of the Global Shield?

Given these challenges, the question becomes: how do the implementers of the GS proceed? As the analysis has underscored, insurance schemes such as the GS are additional tools for better responses to climate risk and disaster. However, the implementers of the GS must seek to learn from and address the challenges currently experienced by other insurance initiatives in order to be effective. Beyond learning from past challenges, they also need to be innovative and proactive in meeting the growing and diverse needs of their potential beneficiaries. In the next section, we suggest several areas that the implementers of the GS can pursue to minimise these challenges and maximise their impacts.

Pay Attention to the Limits of the Global Shield

Like all other insurance schemes, the Global Shield has limitations. Insurance initiatives are designed to help with discrete catastrophic events (droughts and cyclones, etc.), but not with slow-onset and non-economic needs, such as the gradual erosion of livelihoods through desertification, pests, soil degradation and the health and psychological impacts stemming from the loss of social and cultural heritage. The GS must therefore be willing to evolve and account for these risks, especially as the breadth and scope of the costs of climate-induced risk intensify. Insurance coverage is not available or accessible to large populations operating in small-scale subsistence and informal sectors. The heightened vulnerabilities are underscored in the IPCC's sixth assessment report on impacts, adaptation and vulnerabilities, in which climate change impacts and their interaction with poverty, inequality and climate are underscored.[46] To consider the needs of these vulnerable populations, the GS must not exist in lieu of or in competition with funds for humanitarian or other climate actions, such as loss and damage, adaptation, mitigation and resilience building. It is also critical that this initiative be strictly rolled out and implemented as an addition to and not as a substitute for current or future climate financing. They must be pursued simultaneously.

Invest in the Building Capacity and Enabling Conditions to Engage African Stakeholders

Insurance has not historically benefitted African countries, in part because of limited insurance expertise, infrastructure, access and affordability. Although the consolidation of tools, skills and technologies that foster dialogue in the Global Shield's approach is transformative, operationalisation and implementation will require well-trained staff and effective institutions and infrastructures in the beneficiary countries. To get to this level of participation and engagement, support for African countries will need to go beyond technical support towards developing capacity and skills that enable Africans to participate and benefit from the GS. A key element of this must be the development of appropriate methodologies and models that assess visible and invisible loss

and damages by identifying their different aspects. As the case of Malawi demonstrated, estimates of loss and damage differ according to the choice of model, data availability and the contextual realities of the affected locations. Lastly, to increase ownership, coherence and coordination among participating governments, African decision-makers must also be empowered to participate in the management of the GS.

Finance is Critical, but Origin, Scale, Quality and Access are also Important

The Global Shield was established in the context of a shrinking climate finance landscape amidst challenges to honouring existing and pledged climate finance, such as the USD 100 billion annual pledge by developed countries to address the impacts of climate change for developing countries. To put this into perspective, there is estimated to be a "98% financial protection gap against climate and disaster risks in the V20".[47] To close this gap, the finance provided under the GS must be new and in addition to other climate finance, such as adaptation and loss and damage funding. It should be independent from the Official Development Assistance (ODA) and humanitarian assistance fund. In addition to scaling funding to close such gaps and meeting growing needs, there should be equity in relation to who pays. In this context, it is unjust to require vulnerable countries to pay premiums without considering the degree to which the country is responsible for contributing to climate change in the first place. An equitable share of the costs would be based on contributions to historic emissions. Lastly, finances should also be accessible and predictable. Ease of access is particularly important in the event of an unforeseen climate disaster where people are in distress. Overall, it is unlikely that anything short of sustained, predictable, adequate, and timely finance can guarantee the long-term existence of the GS.

Justice Matters

Diverse stakeholders have attached different meanings to the concept of climate change,[48] yet it generally remains of disproportionate concern for developing countries. While the GS seeks to address current climate change-induced events, the context of historical and current sources of climate change impacts and risks such as colonialism, imperialism and extractivism should not be ignored. Moreover, wider climate justice perspectives generally suggest that the costs of climate change should be paid based on historic contributions to carbon emissions. It is not by accident that the question of 'who pays' has emerged as a practical problem for the GS, which must be dealt with meaningfully. Lastly, insurance will only be able to cover a fraction of the costs associated with climate change. In the interest of fairness, the question of who takes up the rest of the cost should be addressed, either in the context of the GS through the LDF or through another designated avenue. Failure to address this translates to the further suffering of already impacted and traumatised communities.

Conclusion

It is clear that the Global Shield can serve as a useful complement to wider climate financing, however, insurance mechanisms cannot meaningfully address all of the diverse and growing needs of climate change-induced disasters. Given the limited financing of the GS in relation to the scale and magnitude of loss and damages, as well as the unreadiness of African states and other stakeholders to respond to climate change impacts, more needs to be done to protect lives and livelihoods from climate-induced disasters. It is, however, important to realise that while financial support is at the core of the success and sustainability of the GS, it is by far not the only precondition for its success and sustainability. In the spirit of shared but differentiated responsibilities, it will also hinge upon the trust between developing and developed countries.

About the Authors

Dr. Nick Bernards is an Associate Professor of Global Sustainable Development at the University of Warwick in the United Kingdom. He holds a PhD in International Relations from McMaster University, Canada. His research focuses on the political economy of development finance and has written about the role of insurance in managing climate hazards and precarious livelihoods. In his most recent book, *A Critical History of Poverty Finance: Colonial Roots and Neoliberal Failures*, he examines how digital financial inclusion reinforces existing patterns of inequality and uneven development.

Dr. Grace Mbungu is a Senior Fellow and the Head of Climate Change Program at the Africa Policy Research Institute (APRI), supporting policymakers with timely and evidence-based policy options to enable the creation of long-term, sustainable, and inclusive wellbeing and livelihood opportunities. Before joining APRI, Dr. Mbungu was a research associate at the Institute for Advanced Sustainability Studies (IASS), now RIFs where she worked on topics such as the politics and governance of the global energy transition, social performance, and opportunities of renewable energy development with a focus on the Global South. She holds a Bachelor's degree from Bowling Green State University in political science and gender studies as well as a Master's degree in public administration, with a focus on human rights and international development. She also holds a Doctorate from the University of Stuttgart, Germany.

Endnotes

1 UNFCC. (2022, Nov 6-18). COP 27 [Event] [Agenda] [Documents]. *United Nations Climate Change*. Available at: **https://unfccc.int/event/cop-27**

2 UNFCC. (2022). COP27 Reaches Breakthrough Agreement on New "Loss and Damage" Fund for Vulnerable Countries. UN Climate Press Release, *United Nations Climate Change*. Available at: **https://unfccc.int/news/cop27-reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-countries**

3 V20. (2022). Climate Vulnerable Economies Loss Report. Vulnerable Twenty Group. Available at: **https://www.v-20.org/resources/publications/climate-vulnerable-economies-loss-report**

4 BMZ. (2022, July 18). Shield against climate risks can build bridges in conflict over climate-related damage in developing countries [Press Release]. *Federal Ministry for Economic Cooperation and Development*. Available at: **https://www.bmz.de/en/news/press-releases/petersberg-climate-dialogue-shield-climate-risks-116772**

5 G7 & V20. (2022). Global Shield against Climate Risks: German G7 Presidency and V20 Concept for Consultation. *Federal Ministry for Economic Cooperation and Development*. Available at: **https://www.bmz.de/resource/blob/127498/global-shield-against-climate-risks-concept-barrierefrei.pdf**

6 Ibid

7 BMZ. (2022). V20 and G7 jointly launch Global Shield against Climate Risks at COP27. *Federal Ministry for Economic Cooperation and Development.* Available at: **https://www.bmz.de/en/news/press-releases/v20-g7-launch-global-shield-against-cllimate-risks-at-cop27-128244#:~:text=Germany%20is%20providing%20some%20170,related%20climate%20risk%20finance%20instruments**

8 World Bank. (2022). World Bank Group launches Global Shield Financing Facility to Help Developing Countries Adapt to Climate Change [Press Release]. *World Bank*. Available at: **https://www.worldbank.org/en/news/press-release/2022/11/14/world-bank-group-launches-global-shield-financing-facility-to-help-developing-countries-adapt-to-climate-change**.

9 Ibid.

10 InsuResilience is discussed further in the next section.

11 Guerrero, D.G. (2023). The UN Loss and Damage Transitional Committee's First Meeting: What Was Discussed? *Global Justice Now Blog*. Available at: **https://www.globaljustice.org.uk/blog/2023/03/the-un-loss-and-damage-transitional-committees-first-meeting-what-was-discussed-so-far/**

12 Lo, J. (2023, Aug 30). Developing countries call for $100 billion loss and damage target. *Climate Home News*. Available at: **https://climatechangenews.com/2023/08/30/loss-and-damage-100-billion-target/**

13 World Bank. (2023). World Bank Group Announces Comprehensive Toolkit to Support Countries After Natural Disasters [Factsheet]. *World Bank*. Available at: **https://www.worldbank.org/en/news/factsheet/2023/06/22/comprehensive-toolkit-to-support-countries-after-natural-disasters**

14 Markovic, T. & Harry, S. (nd). Parametric Insurance: A Tool to Increase Climate Resilience. *Marsh McLennan.* Available at: **https://www.marshmclennan.com/insights/publications/2018/dec/parametric-insurance-tool-to-increase-climate-resilience.html**

15 The following paragraphs are adapted from this previous work by the author: Bernards, N. (2021). "Latent" surplus populations and colonial histories of drought, groundnuts, and finance in Senegal. *Geoforum* 126: 441-450, pp. 447-448.

16 The number of policies does not correspond to the number of individuals covered, as many of these policies were issued to cooperatives or producer associations rather than individuals.

17 Ricome, A., F. Affholder, F. Gérard, B. Muller, C. Poeydebat, P. Quirion, and M. Sall (2017) 'Are subsidies to weather index insurance the best use of public funds? A bio-economic model applied to the Senegalese groundnut basin', *Agricultural Systems* 156: 149-176.

18 See L. Johnson (2021) 'Rescaling index insurance for climate and development in Africa', *Economy and Society* 50 (2): 248-274; p. 264.

19 DfID has since controversially been folded into the re-named Foreign, Commonwealth and Development Office (FCDO). In what follows, I use whichever of DfID or FCDO is accurate for the time of the events being described.

20 Ndlovu, L. (2022). Can parametric insurance mitigate Africa's climate risk? *World Economic Forum.* Available at: **https://www.weforum.org/agenda/2022/08/parametric-insurance-africa-climate-change-risk/**

21 Dodman, D. et al. (2023). Climate change and informal workers: Towards an agenda for research and practice. *Urban Climate.* 48: 101401.

22 Schröth, G., Läderach, P., Martinez-Valle, A.I., Bunn, C., & Jassonge L. (2016). Vulnerability to climate change of cocoa in West Africa: Patterns, opportunities, and limits to adaptation. *Science of the Total Environment.* 556: 231-241.

23 See: Mkutu Agade, K., Anderson, D., Lugusa, K., & Atieno Owino, E. (2022). Water governance, institutions and conflicts in the Masaii rangelands. *Journal of Environment and Development* 31 (4): 395-420; Thébaud, B. & Batterbury, S. (2001). Sahel pastoralists: Opportunism, struggle, conflict and negotiation. A case study from Eastern Niger. *Global Environmental Change.* 11 (1): 69-78.

24 See: Johnson, L. (2013). Index Insurance and the Articulation of Risk-Bearing Subjects. *Environment and Planning A.* 45 (11): 2663-2681; Angeli Aguiton, S. (2021). A market infrastructure for environmental intangibles: the materiality and challenges of index insurance for agriculture in Senegal. *Journal of Cultural Economy.* 14 (5): 580-595; Aitken, R. (2022). Mediating and mapping climate risk: Micro-insurance and earth observation. *Journal of Cultural Economy.* 15 (4): 468-487.

25 ActionAid. (2017). The wrong model for resilience: How G7-backed drought insurance failed Malawi, and what we must learn from it. *Johannesburg: ActionAid International.* Available at: **https://actionaid.org/publications/2017/wrong-model-resilience**

26 Ibid. pp. 4.

27 Ibid. pp. 9.

28 Ibid. pp. 17.

29 Sadasivam, N. (2022). Facing a call for climate reparations, wealthy nations propose an insurance scheme. *Grist.* Available at: **https://grist.org/international/loss-and-damage-insurance-global-shield/**

30 Binswanger-Mkhize, H. (2012). Is There Too Much Hype about Index-based Agricultural Insurance? *Journal of Development Studies*, *48*(2), 187-200. **https://doi.org/10.1080/00220388.2011.625411**

31 Dehm, J. (2020). Climate change, 'slow violence' and the indefinite deferral of responsibility for 'loss and damage'. *Griffith Law Review* 29 (2): 220-252.

32 Bracking, S. (2019). Financialisation, climate finance, and the calculative challenges of managing environmental change. *Antipode.* 51 (3): 709-729. **https://doi.org/10.1111/anti.12510**

33 Johnson, L. (2022). Rents, experiments and the perpetual presence of concessionary weather insurance. *Annals of the American Association of Geographers.* 115 (5): 1224-1242. DOI: 10.1080/24694452.2021.1966294

34 DfID. (2019). African Risk Capacity – Annual Review, March 2019. *UK Foreign, Commonwealth Development Office (FCDO), gov.uk.* Available at: **https://devtracker.fcdo.gov.uk/projects/GB-1-203469/documents (accessed 22.07.2022)**.

35 Amandla, V. (2022). African states urged to insure citizens against disaster risk. *The Star* [Kenya]. Available at: **https://www.the-star.co.ke/business/kenya/2022-05-16-african-states-urged-to-insure-citizens-against-disaster-risk/**.

36 See Ortiz, I. & Cummings, M. (2023) *End Austerity: A Global report on budget cuts and harmful social reforms in 2022-25*, Brussels: Eurodad.

37 Liès, M. (2022). The Global Shield Against Climate Risks: From ambition to reality. *Zurich Insurance Group - Industry Knowledge*. Available at: **https://www.zurich.com/en/knowledge/topics/climate-change/the-global-shield-against-climate-risks-from-ambition-to-reality**.

38 Ibid.

39 Ibid.

40 DfID. (2014a). African Risk Capacity – Business Case, November 2014. Available at: **https://devtracker.fcdo.gov.uk/projects/GB-1-203469/documents** (accessed 21.07.2022), p. 57.

41 Ibid, p. 26.

42 DfID (2016) African Risk Capacity – Annual Review, March 2016. Available at: **https://devtracker.fcdo.gov.uk/projects/GB-1-203469/documents** (accessed 22.07.2022), pp. 19-20.

43 For more detail on these challenges and some responses, see: Bernards, N. (2022). Waiting for the market? Microinsurance and development as anticipatory marketization. *Environment and Planning A: Economy and Space.* 54 (5): 949-965, pp. 959-961. DOI: 10.1177/0308518X221073986

44 IAA (International Actuarial Association). (2014). *Issues Paper: Addressing the Gap in Actuarial Services in Inclusive Insurance Markets*. Ottawa: IAA. Available at: **https://www.actuaries.org/LIBRARY/Papers/Paper_Inclusive_Insurance_Markets.pdf**

45 Johnson, L. (2022). Rents, experiments and the perpetual presence of concessionary weather insurance. *Annals of the American Association of Geographers.* 115 (5): 1224-1242. DOI: 10.1080/24694452.2021.1966294

46 IPCC. (2022): *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Pörtner, H.-O., Roberts, D.C., Tignor, M., Poloczanska, E.S., Mintenbeck, K., Alegría, A., Craig, M., Langsdorf, S., Löschke, S., Möller, V., Okem, A., Rama, B. (eds.)]. *Cambridge University Press*. DOI:10.1017/9781009325844

47 V20. (2022). Climate Vulnerable Economies Loss Report: Economic losses attributable to climate change in V20 economies over the last two decades (2000-2019). V20 Group. Available at: **https://www.v-20.org/wp-content/uploads/2022/06/Climate-Vulnerable-Economies-Loss-Report_Project_june_2022.pdf**

48 Mead, S., & Wewerinke-Singh, M. (2021). Recent Developments in International Climate Change Law. *International Community Law Review*. *23*(2-3), 294-309. Available at: **https://brill.com/view/journals/iclr/23/2-3/article-p294_16.xml?language=en**

About APRI
The Africa Policy Research Institute (APRI) is an independent and nonpartisan African think tank. It researches key policy issues affecting African countries and the African continent. APRI provides insights to the German and European Union policy-making processes on Africa. In addition, APRI provides policy options to African policymakers and civil society actors.

Imprint
APRI – Africa Policy Research Private Institute gUG (haftungsbeschränkt)
Brunnenstraße 9
10119 Berlin Germany

Executive Director:
Dr. Olumide Abimbola

Contact:
Dr. Grace Mbungu
Senior Fellow and Head of Climate Change Program
gmbungu@afripoli.org

APRI
AFRICA POLICY RESEARCH INSTITUTE

Photo credit – Unsplash

Designed, typeset and artwork redrawn by COMPRESS.dsl | 800863 | **www.compressdsl.com**