



AFRICAN RISK CAPACITY GROUP STRATEGY

2020 – 2024

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ACRONYMS

ADRFi	African Disaster Risk Financing Programme
AMI	African Media Initiative
ARC	Africa Risk Capacity
AU	African Union
CAF	Climate Adaptation Finance interventions
CP	Contingency Plans
CSP	Country Strategy Papers
CRC	Customisation Review Committees
CRI	Climate Risk Insurance
CSO	Civil Society Organisations
DIC	Directorate for Information and Communication
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECA	Economic Commission for Africa
FIP	Final Implementation Plans
GIIF	Global Index Insurance Facility
IFI	International Financing Institutions
LMS	Learner Management System
M&E	Monitoring & Evaluation
MDTF	Multi-Donor Trust Fund
NGO	Non Governmental Organisations
PMP	Performance Monitoring Plan
POA	Programme of Action
REC	Regional Economic Communities
RIC	Regional Implementation Centres
RMP	Risk Management Policy
R&D	Research and Development
SADC	Southern African Development Community
SDG	Sustainable Development Goals
SWOT	Strength, Weaknesses, Opportunities and Threats
TC	Tropical Cyclone
TRF	Technical Review Fora
TWG	Technical Working Groups
WFP	World Food Programme
WRSI	Water Requirements Satisfaction Index
XCF	Extreme Climate Facility

EXECUTIVE SUMMARY

A specialised agency of the African Union (AU), African Risk Capacity (ARC) is tasked with the role of assisting AU Member States improve their capacities to plan, prepare for and respond to extreme weather events and natural disasters, as well as to develop an outbreak and epidemic (O&E) insurance product and systems that enable African governments to protect the lives and livelihoods of populations at risk from such catastrophes¹. Its objective is to assist AU Member States minimise the risk of loss and damage resulting from such events by providing targeted responses to disasters in a timely, cost-effective, objective and transparent manner. As the threat of global warming and the resultant climate change continues to trigger extreme weather conditions, natural disasters such as droughts and cyclones as well as related pandemics have become a looming reality. It has therefore become even more necessary that governments across the world insure themselves against such threats and improve their preparedness to deal with natural disasters.

Since being founded in 2012, ARC's commitment to providing disaster risk solutions excellence has seen a continuous review of its processes in line with best practice. By learning from past experiences, considering the needs of Member States and conducting extensive consultations with staff, partners and subject-matter experts, the organisation seeks to align its programmes with national, regional and continental development agendas in order to build robust natural disaster, as well as outbreaks and epidemics resilience on the continent.

This strategy sets objectives, key priorities and improvement initiatives that will guide all decisions, actions, processes and priorities for the organisation and its partners. In addition to mainstreaming gender equality principles in all processes, it aspires for distinction in providing Early Warning Systems (EWS), Climate Risk Insurance (CRI), Contingency Planning (CP) and Climate Adaptation Finance interventions (CAF) and will position ARC as a global leader in Disaster Risk Management (DRM). To this end, ARC has set three new strategic objectives to steer the organisation towards its goals as follows:

Strategic Objective I: To Innovate - A Dynamic Approach to Research and Development:

Enabled by extensive Research and Development (R&D) and through its technical engine, Africa RiskView, ARC will develop innovative solutions with the objective of reducing costs, increasing reliability and building credibility as a disaster response agency. By partnering with established research institutions, credible universities and other professional service providers, ARC will improve Africa RiskView's functionality, offer improved products and better prepare Member States to deal with disasters.

Strategic Objective II: To Strengthen - Strengthen Disaster Risk Management on the

Continent: By improving early-warning systems as well as streamlining country engagement and capacity building, ARC intends to strengthen disaster risk management on the continent. There is a need to harness a holistic approach to risk management in ARC's Member States, ensuring a steady portfolio growth, including additional perils, and participation by increasing the number of Member States.

¹ Resolution 9:2 of the report of the First Joint Session Of The AU Specialised Technical Committee on Finance, Monetary Affairs, Economic Planning And Integration and ECA Conference of African Ministers of Finance, Planning And Economic Development, Addis Ababa, Ethiopia, 25-31 March 2015

Strategic Objective III: To Grow - Increase Scalability and Sustainability of ARC Operations and Insurance Coverage: ARC's vision is to pursue growth through increased scalability and sustainability of its operations on the continent. Growth will stem from increasing membership in ARC Ltd, product diversification as well as increased and consistent risk transfer transactions.

To support delivery of its objectives, a key focus area will be the streamlining of ARC's organisational and governance structures to create a unified governance structure that will steer the organisation's operations towards increased efficiency, better credibility and optimised functionalities. Improved collaboration with partners; strengthened donor relations and an increased donor pool will also enable the organisation to mobilise resources and ascertain that it is better able to respond to the needs of Member States. Furthermore, by promoting and encouraging the use of various rigorous methodologies and approaches in line with accepted professional standards, the monitoring and evaluation functionality will enhance the quality, credibility and utility of evaluations and contribute to ARC's continuous improvement initiative.

Significantly, the new strategy framework highlights ARC's commitment to incorporating and upholding gender equality principles in all its activities within the ARC Group as well as in Member States. The organisation will systematically build a gender perspective into its operations and policies with the goal of transforming DRM approaches to ensure the inclusion of vulnerable men, women, and children.

Finally, an innovative approach to communication will be a key part of the new strategy framework and ARC's growth and improvements efforts. The organisation's new communication strategy sets the tone to position ARC within a broader policy framework at national, continental and international levels, highlighting the successes of its on-going work. It seeks to foster harmonious internal communication and a strong culture; encourage continuous learning and finally, enhance, broaden and maintain existing partnerships.

Although this strategy is planned for a period of five years, this is a living document that can be subject to change as new lessons are learnt, and products developed. Due consideration will therefore be given to any intelligence gathered and the strategy may be adjusted as the need arises.

For ease of reference, this strategy document is laid out as follows:

- Chapter 1 introduces ARC, lays out the organisation's strategic objectives and gives its vision, mission and goals as the pillars upon which the strategy is anchored. It follows with a SWOT analysis, a strategy planning tool giving a 360-degree view of the operating landscape.
- Chapter 2 explores the three strategic objectives in detail and highlights the plan to achieve each one.
- Chapter 3 focuses on improving implementation mechanisms and details how ARC will streamline its operations to improve operational and administrative efficiencies.
- Chapter 4 builds on cross-cutting initiatives designed to strengthen partnerships with donors and partners. It also focuses on enhancing communication as a means to position ARC as a leader in the risk management space. It also commits the organisation to upholding gender equality principles within the organisation and in Member States.
- Chapter 5 concludes the strategy with an analysis of the Disaster Risk Management landscape – a background which confirms the need for better DRM on the African continent.

The table below summarises key interventions that will drive this strategy:

Table 1: Summary of key new interventions/approaches

Strategic objective	Key current interventions	Key intervention in the new strategy	Expected results from the changes
Strategic objective 1: Innovate - A Dynamic Approach to Innovation	Research and Development approach <ul style="list-style-type: none"> Built around <i>Africa RiskView</i> Mainly done in-house Focused on drought One model of drought offered 	New Research and Development approach <ul style="list-style-type: none"> Possibility to develop additional platform Consider outsourcing and market base approach for the development of peril models Consider offering at least 2 models per perils 	<ul style="list-style-type: none"> More accurate risk modelling tools Opportunity to get the best tools in the market More efficient and effective R&D More flexibility to change tools for better performance
	Innovation in contingency planning <ul style="list-style-type: none"> Paper base Lessons learned incorporated but not systematically 	Innovation in contingency planning <ul style="list-style-type: none"> Digitalised contingency plan (CP) Codification and digitalisation of lessons learned Systematic dissemination of lessons learned to stakeholders Systematic tracking of workflow process for Operations Plan(OP) development Publication and dissemination of developed OPs 	<ul style="list-style-type: none"> More efficient and effective CP development process Easy storage and retrieval of CP(s) Systematic and easy incorporation of lessons learned Better quality CP(s) for better disaster response Enhanced peer to peer learning between Member States
	Insurance product development <ul style="list-style-type: none"> Only national insurance policy for drought offered 	Insurance product development <ul style="list-style-type: none"> Pastoral index to be piloted and offered Consider offering sub-national drought insurance policy to respond to demand Consider offering insurance coverage for shock-responsive social protection programmes Develop insurance policies for new perils (TC, Flood, O&E, etc.) Develop O&E insurance product and a health data index to underpin the triggering of the product 	<ul style="list-style-type: none"> Diversified insurance portfolio Increase uptake of insurance (pool growth)

		<ul style="list-style-type: none"> Consider offering premium discount to countries 	
Strategic Objective 2: Strengthen - Strengthening Disaster Risk Management on the Continent	Early warning and Preparedness <ul style="list-style-type: none"> ARC risk model and early warning tool (<i>Africa RiskView</i>) used only by the members of the technical working group. <i>Africa RiskView</i> not integrated in the national Early Warning Systems Developed ARC O&E Preparedness Index and disease model 	Early warning and Preparedness <ul style="list-style-type: none"> Push for the integration of ARC early warning tool (including <i>Africa RiskView</i>) in the national and regional Early Warning Systems Facilitate the access to ARC risk modelling tool by African based academia and research institutions 	<ul style="list-style-type: none"> Better in-country understanding of the value of ARC early warning tools Better in-country understanding of ARC risk modelling tools Better positioning of ARC tools in Member States
	Country Engagement <ul style="list-style-type: none"> One-size-fit all approach to the country engagement New and integrated country engagement programme life cycle developed The in-country technical interactions done through the Technical Working Groups (TWG) 	Country Engagement <ul style="list-style-type: none"> 2 year Country Strategy Papers guide engagement with countries Prioritisation of countries Targeted roll out of products Implementation of the revised programme life cycle strengthen engagement at a political level with executive and legislative powers Extend the Technical Working Groups to include more technical and financial partners 	<ul style="list-style-type: none"> More cost-effective country engagement, Improved understanding of ARC mechanism by policy makers (executive and legislative) Increased uptake insurance
	Capacity Building <ul style="list-style-type: none"> Unstandardised in-country training Training targeting mostly Technical Working Group Limited sustainability options 	Capacity Building <ul style="list-style-type: none"> Standardised training material and delivery Roll out of an online learning platform (Learner Management System) Roll out innovative training programme for decision makers in government, parliamentarians, the media Build partnership with key players for a sustainable capacity building and awareness creation on DRMF 	<ul style="list-style-type: none"> Improved understanding of ARC tools by TWG Improved understanding of ARC product and mechanism by decision makers, parliamentarian and the media Increased uptake of ARC insurance

	<p>Gender</p> <ul style="list-style-type: none"> • Gender strategy developed 	<p>Gender</p> <ul style="list-style-type: none"> • Implement the gender strategy • Gender mainstreamed throughout the programme life cycle 	<ul style="list-style-type: none"> • Gender equality mainstreamed in disaster risk management and financing in ARC Member States • Better targeting and delivery of disaster response
<p>Strategic Objective 3: Grow - Increased Scalability and Sustainability of ARC Operations and Insurance Coverage</p>	<p>Increased members States participation</p> <ul style="list-style-type: none"> • Advocacy for the signing and the ratification of ARC treaty 	<p>Influencing the DRM Policy Framework</p> <ul style="list-style-type: none"> • ARC to work with the AU, the RECs and other key players to influence the adoption of developmental insurance as part of a broader Risk Management Policy (RMP) framework on the continent. • ARC to work with Member States to design, formulate and implement disaster risk financing policies and strategies. 	<ul style="list-style-type: none"> • Institutionalise disaster risk management and financing within governments • Increased uptake of ARC insurance
	<p>Replica</p> <ul style="list-style-type: none"> • Offer Replica Coverage to humanitarian actors which matches countries' insurance coverage 	<p>Participation of humanitarian actors</p> <ul style="list-style-type: none"> • Offer ARC insurance to humanitarian actors operating in a country (without the obligation to replicate the country's policy) 	<ul style="list-style-type: none"> • Increased uptake of ARC insurance
		<p>Providing incentives to Member States</p> <ul style="list-style-type: none"> • Support Premium financing mechanism • Promote the adoption of complementary risk financing mechanism • Provide co-(re) insurance to local and regional (re) insurance companies 	<ul style="list-style-type: none"> • Increased uptake of ARC insurance

GLOSSARY OF TERMS

Basis Risk: The difference between the level of drought impact as quantified by Africa RiskView and the reasonable expectations of the policyholder based on the impacts observed

Capacity Building: A process by which governments obtain, improve and retain skills, knowledge, tools and other resources required to manage a disaster situation.

Contingency Planning: A plan designed to take account of any possible future occurrence.

Disaster Risk Insurance: An arrangement by which a company or the state undertakes to provide a guarantee of compensation for specified loss or damage, in return for payment of a specified premium.

Disaster Risk Management: The different financial mechanisms that can be used, such as contingency funds, contingent credit or insurance to manage or mitigate the impact of a disaster.

Disaster Risk Financing: Protection against the financial risks resulting from disasters

Early Warning: A system of techniques, policies and procedures designed to predict, and prompt action required to mitigate the effects of natural disasters.

Global Resilience Programme: This is a blanket term for the various initiatives working to build disaster risk resilience in countries where ARC operates (e.g. InsuResilience and African Adaption Initiative)

Natural Disasters: A natural process or phenomenon – such as a drought, cyclone, flood hurricane, earthquake or drought that can potentially result in loss of life, property damage, livelihoods and services, social and economic disruption, or environmental damage.

Preparedness: A state of readiness to deal with a particular situation by taking well calculated measures

Risk: The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, disrupted economic activity or environmental damage) resulting from interactions between natural or human-induced hazards and vulnerable conditions.

Risk layering: separating risk into tiers to allow for more efficient financing and management of risks. High-probability, low-consequence events may be managed by savings or contingency funds. Lower-probability/higher-consequence events may be transferred to the markets. Low-probability/high-consequence events may need aid.

Risk Management: The identification of processes and procedures to eliminate or minimise the of a defined risk

Risk Transfer: This is a risk management technique that involves the contractual shifting of risk from one party to another.

Risk Reduction: These are initiatives taken to mitigate or reduce the impact of a defined risk.

Sovereign Risk Insurance: This is insurance that is offered to supreme authorities, in this case, governments.

1 INTRODUCTION

1.1 ARC's mandate and strategy

The African Risk Capacity (ARC) was established in 2012 as a Specialised Agency of the African Union (AU) by a Conference of Plenipotentiaries to help AU Member States improve their capacities to better plan, prepare and respond to extreme weather events and natural disasters. Its objective is to assist AU Member States reduce the risk of loss and damage caused by extreme weather events and natural disasters affecting Africa's populations by providing targeted responses to disasters in a timely, cost-effective, objective and transparent manner. Additionally, in response to the increasing occurrence of multiple, complex trans-border public health emergencies over the last 20 years, ARC has, since 2016, been developing innovative finance mechanisms to enable country-led rapid responses to disease outbreaks and epidemics. These mechanisms are designed to prevent the further spread of such catastrophes and reduce over-reliance on external donor support.

To better serve its stakeholders, ARC seeks to understand the disaster response needs of Member States and expectations from all stakeholders through extensive and ongoing engagement. In carrying out its mandate and planning for the next five years, in addition to integrating gender equality principles in all activities, ARC has identified three strategic objectives designed to enable innovation, strengthen partnerships and improve DRM on the continent in line with global best practice. These strategies are:

Strategy I: Innovate – A dynamic approach to Research and Development: Develop innovative solutions enabled by research and development with the objective of cost reduction, increased reliability and greater credibility for ARC.

Strategy II: Strengthen - Strengthen Disaster Risk Management on the continent: Strengthen disaster risk management on the continent through improved early-warning systems, streamlined country engagement and capacity building.

Strategy III: Grow – Increase Scalability and Sustainability of Arc Operations and Insurance Coverage: Pursue growth through increased scalability and sustainability of ARC operations and insurance coverage on the continent.



ARC is committed to enabling African governments protect the lives and livelihoods of populations of AU Member States against natural disasters, thereby facilitating flourishing economies

1.2 Vision, Mission and Goal: the three pillars of ARC’s strategy

ARC provides an African solution to some of the world’s most pressing challenges of climate-induced natural disasters, and outbreaks and epidemics, by partially transferring the burden of such risks away from governments. To enable the organisation to carry out its mandate effectively, ARC is guided by a set of well-defined vision, mission and goals, the three pillars against which the strategy is anchored. These principles direct every decision and inform every action within the organisation, influencing staff, partners and Member States alike.

ARC’s new vision, mission and goal speak to the very core of what the organisation stands for and communicate its purpose to stakeholders. Further, ARC’s commitment to gender mainstreaming and its core values of *Integrity, Service, Innovation and Excellence* serve as the essence of the organisation’s identity.

Table 2 below shows the vision, mission and goals that will help steer this strategy over the next five years.

Table 2: ARC Strategic Pillars

ARC STRATEGY 2020-2024 Innovate, Strengthen, Grow		
VISION	MISSION	GOAL
The development partner of choice leading innovative Pan-African Disaster Risk Management solutions for climate resilience in Africa	To promote harmonised resilience solutions for protecting African lives and livelihoods vulnerable to natural disasters caused by climate change and other perils of importance to the continent	ARC Member States and their partners provide timely and targeted responses to protect the lives and the livelihoods of vulnerable population against natural disasters

1.3 THE SWOT ANALYSIS

To develop an effective strategy, a comprehensive analysis of the organisation and its Member States’ strengths, weaknesses, opportunities and threats was necessary. With this 360-degree view and understanding, ARC was able to put an informed strategy in place - one that would, as much as possible, leverage its strengths, address concerns and harness opportunities, thereby enabling the organisations to build a reputation as a leading disaster management agency on the continent. This comprehensive audit of ARC’S operating environment also informs decision-making processes and gathers helpful intelligence for the organisation and its partners.

Table 3 below depicts the SWOT analysis.

Table 3: SWOT Analysis

<p>STRENGTHS</p> <ul style="list-style-type: none"> • ARC team has diverse set of skills in Disaster Risk Management and financing and a committed staff • Strategically positioned in Africa to best serve its needs • Pioneer in developmental sovereign insurance • Unique offering of forecasting systems in DRM • Established and effective systems, guidelines and response strategies • The advantage of operating in both public and private spaces • Highly innovative Environmental Social & Governance protection provider as acknowledge by CFI.CO • Ownership by and commitment from African member states • Specialised Agency of the African Union • Strong partnership with committed donors and research agencies • ARC committed to continuous improvement and best practice • Proven capabilities in DRMF as demonstrated by cumulative number of policies 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Varying understanding of parametric insurance by member states policy makers • Lack in synergy in organisational structure • Insufficient capacity and capabilities in R&D and insurance • Inherent basis risk in parametric insurance • Lack of complementary risk financing instruments and premium support • R&D location remote and therefore limited synergies with HQ and the realities on the ground • Limited quality data available in member states • Lack of product and geographical diversification • Donor dependency • Poor succession planning • Limited uptake of ARC models for early warning and preparedness
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Diverse exposure of the 55 African Union member states to different perils • The existence of other complementary financial solutions to address the needs of African member states • The increased threat of natural hazards in Africa brought on by climate change • The governance reform process allows for improved organisational and functional synergies and better efficiency • Further collaboration with African institutions of higher learning and research institutes • Strong relationships with member states gives ARC leverage on the expansion of the programme • ARC's communication strategy tailored to segmented stakeholders for better understanding of ARC mechanisms • Gender-sensitive Disaster Risk Response, planning and coordination • The existence of a body of knowledge from ARC and similar mechanisms in other regions to enable best practices • ARC's strong value proposition and brand value • The existence of more advanced technologies and satellite data • Advocacy and campaign for continuous investment in DRR to improve resilience 	<p>THREATS</p> <ul style="list-style-type: none"> • ARC insurance perceived as expensive • Challenged technical and operational capacities for early warning, preparedness and response • Fiscal constraints and limited affordability of full recommended insurance cover by member states • Worsening global warming and the resultant climate change triggering extreme and violent weather patterns, leading to more disasters • Low resilience in member states due to poor or non-existent infrastructure and poverty worsens disaster impact, especially in rural areas • Political instability and insecurity in some member states may affect disaster strategies • Limited institutional, financial and administrative mechanisms in member states for a timely and effective implementation of disaster response • Uncoordinated response mechanisms between partners and member states might delay responses • Limited insurance culture in member states • The exclusion of the most vulnerable (women & children) in disaster management processes • Lack/poor regulatory framework for DRR in the countries • High turnover in governments

2 STRATEGIC OBJECTIVES AND INTERVENTIONS

2.1 Strategic Objective I: Innovate - A Dynamic Approach to Innovation

2.1.1 A Focused Research and Development Approach

Established as the technical engine of the ARC risk pool, *Africa RiskView* enables ARC Member States and its partners to monitor and quantify natural disaster risks. This information is critical for financial preparedness, providing the basic infrastructure needed to establish and manage a parametric risk pool and trigger early disbursements.

Going forward, some fundamental changes will take place in the context of the ARC R&D approach: First, a set of reforms will allow ARC to offer flexibility to Member States, with the aim of offering at least two models per peril that ARC covers. In this regard, ARC will explore the best models available on the market through open sourcing and benchmarking, competitive bidding, quality assurance and licensing. ARC intends to undertake a strategic review of the R&D programme to assess the efficiency, effectiveness and sustainability of the proposed shift in R&D approach. Before the implementation of any reforms, ARC will also commission research by a reputable research institution or a group of consultants to assess the suitability, robustness and fitness-for-purpose of all its existing models/products compared to similar products on the market.

Further, the ARC Technical Support Division (TSD) will be positioned to enhance in-country understanding of the functioning of selected models to targeted countries and to monitor the on-ground performance of selected models. This is intended to guard the interest of Member States and guarantee transparency in the risk transfer processes, therefore ensuring that research is responding to Member States' needs.

In addition, ARC will gradually move away from the in-house development of risk models to engaging and partnering with leading universities and credible research centres in drought-modelling (for both rain-fed crops and pastoral areas), flood and tropical cyclone modelling. This decision will enable ARC to harness the specialised skills of research centres and universities to consolidate knowledge and expertise globally and at the country level. The organisation will consciously source and sign partnership agreements with R&D partners who can advance and accelerate the development of risk models of interest to ARC. These partners will be tasked with the further development of *Africa RiskView* in a cost-effective manner.

Over the last five years, ARC's main focus has been on drought. The drought model is already on the market and has been positively received. In the medium term, ARC will finalise the integration of the Pastoral Drought model targeting the rangeland areas of Africa into its product offering. Prioritisation of these perils will be based upon Member States' requests, interests and the potential of the targeted perils to grow the ARC risk pool.

As regards the TC model, ARC will commission research to explore the possibility of incorporating excess rainfall in the TC model. This is because target Member States have indicated that excess rainfall brought about tropical depressions, as opposed to high wind speeds and storm surge, also result in significant damage and losses. For real-time TC monitoring in targeted countries, a specialised TC explorer will be developed within the next two years.

For perils that do not have adequate existing models on the market, specific research in partnership with entities that are advanced in the subject matter or peril of interest will be prioritised, depending on the availability of resources. In this case, the research will be treated as a separate project with clearly defined timelines and budget. A practical example of this is the O&E project that was launched in 2016 where the disease spread modelling and preparedness assessment pilot for the countries was outsourced to a specialist organisation, Metabiota, whilst ARC retained the intellectual property rights to all enhancements made to the original models produced. The O&E product will be supported by reinsurers and capital markets and therefore, maintaining impartiality and credibility of modelled output requires outsourcing of modelling.

The key considerations before launching such a specific R&D project will be the sustainability of the initiative, the likely continuity of R&D and the feasibility of the mechanisms to underwrite in the future. Upon completion of development, ARC may become a license holder or co-license holder (if the R&D project is undertaken in partnership as is the case) and thus, claim fees for sub-leasing of the license to other entities.

2.1.2 Drought Model Improvements

The current ARC drought model uses the Water Requirements Satisfaction Index (WRSI) to model the progression of agricultural and rangeland seasons. Although WRSI is a well-acknowledged and widely used in many existing operational drought early warning models across Africa, one of the main challenges implicit in its computational methodology is identifying the “crop timing” correctly. This has the potential to cause discrepancies between model estimates and the drought situation on the ground. ARC will give the highest priority to improvements that address basis risk from the current water balance and impact model and improve the software functionality. ARC will identify, test and incorporate alternative input data; review all static data sources that are inputs for the WRSI calculations and modify the time-step in which the water balance model is calculated to address some of these challenges.

2.1.3 Model Quality Assurance

All new and existing ARC risk models are subject to rigorous internal validation processes for quality assurance purposes as well as to enhance accountability and transparency of ARC’s product offerings. The ARC Agency Governing Board has established an expert advisory panel of technical experts on various perils to support the continued improvement and refinement of ARC risk models and their ability to replicate the impacts of weather shocks on the ground. The model sign-off processes will continue to rely on external experts represented in the Technical Review Forum (TRF) for all new and existing models and the Customisation Review Committees (CRC) for models that require in-country customisation. Whereas the TRFs provide technical guidance on model input data, parameters and functionality improvements, the CRCs review and assess model customisations to assure the quality of in-country customisations. All new ARC risk models such as the TC, pastoral models and O&E will pass through the TRF to validate their fitness-for-purpose and quality assurance before they can be used for underwriting purposes.

2.1.4 Preparedness and Contingency Planning

ARC’s Contingency Planning process is underpinned and informed by standards and guidelines which form a strong foundation for ensuring that ARC’s early financing is channelled towards affected

populations in a timely and effective manner in order to save lives and minimise loss of livelihoods. It allows countries to undertake their planning process by identifying the most credible delivery mechanisms, including scaling up existing social protection programmes, building an inventory of stakeholders, considering the logistics aspect, as well as standard operating procedures that could be effectively applied when disaster occurs. ARC will continue to refine these standards and guidelines in the following ways:

- a. **Country Evaluation and Learning:** The results of the evaluation processes which systematically take place following the implementation of a payout in the aftermath of a disaster will feed into ARC's contingency planning process and further into the programme cycle. This will ensure that experiences and lessons gathered are also systematically documented and consistently fed into future planning processes of ARC programmes to place the organisation as a global leader in the disaster contingency planning space.
- b. **ARC Research:** Empirical evidence from research studies such as cost-benefit analysis is critical to providing insight into optimal interventions that could protect the livelihoods of the most vulnerable in a timely and cost-efficient manner. ARC will pursue such studies as required to ensure that its response payouts have maximum impact on saving lives and reducing loss of livelihoods.
- c. **Innovation:** ARC will set up systems to digitalise the development of contingency plans and track efficiency of the development process. This will enhance access of tools and support to Member States and further improve accountability to stakeholders. ARC will publish and disseminate developed contingency plans to enhance learning between Member States.
- d. **Global Learning:** ARC will integrate relevant global perspectives and international knowledge to continuously refine its Contingency Planning Standards and Guidelines. This will also be informed by emerging best practices from country experiences which will be gathered by conducting annual reviews with Member States. This will strengthen capacity development in this stream of work as well as leverage such learning to effectively deliver on ARC's mission and goal.

2.1.5 Insurance Products Development

To enhance ARC's insurance products offering and position the organisation as a leading disaster risk insurance provider, it is important that the product portfolio be revised to meet the needs of Member States based on feedback received from them. While the focus for this planning period will be on Drought, TC, Flood and O&E products, ARC will continue to consider any new products that may add value to Member States and strengthen its product portfolio. The current main enhancements will be as follows:

Drought

- Implementation of alternative indexes, for example the pastoral index;
- Customising existing drought products for sub-national policies in line with demand from countries;
- Offering insurance coverage for shock-responsive social protection programmes to countries that are considering using insurance for financing scalability of their safety net programmes. Development of shadow models for in-season identification and quantification of basis risk. The shadow models will make use of alternative drought indicators such as soil moisture and vegetative condition index;

- Offering discounts funded by the insurance company in the form of reduced multiples/discounts for countries that have not received a payout for a defined number of years.

Tropical Cyclone (TC)

- Testing of the TC model to enable ARC Ltd to offer policies from Pool VII, following the reactivation of the TC model development after the suspension of activities in 2017 (subsection 3.2.4 (iii) provides details of concrete activities that will be implemented to operationalise the TC model).

Flood

- We expect the roll-out the flood model to start with targeted West Africa countries and have the product on the market from 2021. Premium financing for the flood product will also be required.

Extreme Climate Facility

- The Extreme Climate Facility is under development and the programme's transition from R&D to establishment and operational phase is expected over the medium term plan (see Annex for more details).

Outbreaks and Epidemics (O&E)

- The O&E pilot will conclude at the end of 2019 with the view to begin preparing the implementation plan for delivering the product to countries and reinsurance markets.
- We expect to roll-out the product in 2020 and have Member States start taking out policies from 2021.

2.2 Strategic Objective II: Strengthen - Strengthening Disaster Risk Management on the Continent

Climate-change induced disaster effects caused by hazards such as drought, floods, cyclones, as well as outbreaks and epidemics are devastating and can cause economic losses of hundreds of millions of dollars annually. Unfortunately, technical and operational capacities for early warning through risk identification, risk quantification, vulnerability assessment and disaster response preparedness on the African continent are limited. It is with this in mind that ARC and its partners recognise the urgent need to prioritise DRM on the continent.



With the growing threat of climate change a constant reality, scenes such as this one have devastated many populations.

To achieve its goal, ARC will continue its core work of strengthening in-country capacity for DRM over the next five years by undertaking strategic actions in the following areas:

2.2.1 Early Warning and Preparedness

Over the years, ARC has developed innovative tools and models for country disaster risk profiling. These include tools for drought, flood and tropical cyclone risk modelling. The Agency is also in the process of finalising models to quantify the impact of outbreaks and epidemics. To enhance the value of these tools and models that have been developed, ARC will partner with relevant institutions in the Member States and Regional Economic Communities (RECs) to advocate for the integration of ARC's risk models for early warning, risk identification and quantification as well as vulnerability assessment.

ARC will also proactively engage African research and academic institutions to enhance access to ARC's risk models and the underlying data for research purposes. Free and easy access to ARC risk models will be pursued with institutions engaged in DRR on the continent to increase the usefulness of and value derived from ARC. To enhance preparedness within Member States, ARC will use its risk modelling platform, *Africa RiskView*, and other forthcoming risk models to produce and disseminate regular regional bulletins focused on the most prevalent hazards that impact vulnerable populations on the continent.

Contingency planning is a critical feature in ARC's work with its Member States. To enhance preparedness, the organisation will continue to provide Member States with technical guidance to elaborate country-owned and led contingency plans against all the perils for which ARC has operational models.

2.2.2 Streamlined Country Engagement

ARC will streamline and strengthen its country engagement approach with all targeted countries by developing and periodically updating Country Strategy Papers (CSP) that articulate ARC's comparative advantage and effective entry points in Member States. The CSPs will serve as an indicative business strategy for the delivery and institutionalisation of the ARC programme of work over a set timeframe and help to contextualise the institutional and disaster risk landscape, corporate and government priorities, and relevant partner initiatives. In addition, the CSPs will articulate the kind of risk-financing products, both existing and new, that different Member States should be targeting based on their specific needs and exposure to hazards.

Cognisant of the multiple hazards that AU Member States are exposed to and their limited financial capacity to address issues of DRM, compounded by ARC's own limited resources, the need to prioritise countries and products for engagement has become more imperative. ARC will consciously focus and manage its engagement with Member States on the three climate-related priority perils of drought (focusing on both crop and pastoral areas), tropical cyclones (focused on the South Western Indian Ocean countries) and riverine floods (limited to the main sub-river basins) as well as public health O&E.

Over the next five years, ARC will also prioritise countries targeted for roll-out of different products in the short and medium term and ensure that the programmes in these countries are securely embedded before further expansion. This will help to optimise limited resources and enable ARC to focus on Member States most exposed to the targeted perils.

ARC has revised its programme lifecycle to incorporate lessons from its years of operation. Based on the revised programme cycle, a revamped targeted approach with tailored content and a delivery focus on technical, policy and political level engagement at country level will be used to enhance understanding, ownership and buy-in into the programme objectives at specific stages of the programme lifecycle. Specifically, ARC will strengthen engagement at a political level with executive and legislative powers to emphasise the importance of DRM, the potential gains that could accrue to Member States and the benefits of properly defined and integrated risk management and financing strategies. Enhancement of the capacities of Country Engagement Managers (CEMs) and in-country Technical Working Groups (TWGs) by emphasising technical training of CEMs, and by co-opting more in-country technical and financial partners such as international research institutions, UN agencies such as FAO and WFP, International Financing Institutions (IFIs) and academia is one of the priority actions. This is intended to improve understanding and quality of in-country model customisation and buy-in to ARC models from key in-country stakeholders, and access to possible financial support for premium payment from IFIs. This will also support sustainability of capacity built in-country. In the same light, the O&E country engagement strategy will build on the current relationships established with Ministers of Finance and expand to involve Ministries of Health in the participating African nations. Further, a more cohesive regional strategy will be used to drive country engagement and product introduction, supported by organisations such as Africa CDC, ECOWAS, the Ministries of Health and National Public Health Institutes of AU Member States, and other partners and stakeholders.

2.2.3 Capacity building

ARC undertakes in-country capacity building of government technocrats organised in a TWG on the following themes: risk profiling for different perils; contingency and response planning; risk layering and transfer; and monitoring and evaluation of post-disaster responses. To date, these capacity building activities have been undertaken through a series of in-country workshops that have proven to be not only costly but also unsustainable due to the high turn-over in targeted government departments. To rationalise ARC's capacity building programme, the Agency is developing an online Learner Management System (LMS) to standardise and systematise its training programmes. This will ensure that relevant materials and remote support are readily available to DRM actors on an ongoing basis. This will also reduce the level of expenditure on in-country capacity development and free limited resources for other equally important activities.

ARC capacity building has mostly focused on the national technical experts who have a strong understanding of parametric insurance. Unfortunately, the decision makers who sign-off on insurance policies have limited understanding of such technical issues, resulting in delays or refusal to sign. Going forward, ARC will partner with like-minded institutions such as World Bank (through the Global Index Insurance Facility - GIIF and the Economic Commission for Africa - ECA) to design innovative training programmes on index and sovereign risk insurance for various stakeholders key to this process such as decision makers in government, parliamentarians involved in national budget reviews and the media to enhance understanding of the role of disaster risk financing and insurance for all critical stakeholders involved in the engagement process. These training programmes are intended to raise awareness on climate and DRM options and enhance understanding of the fundamental concepts of index and disaster insurance product development. To achieve these objectives and to contribute to ARC's goal, ARC and its partners will collaborate on the development of the curriculum, handbooks and risk models, and train a pool of experts through a train-the-trainer programme. The courses will be piloted through select universities and other academic and training institutions in Africa.

2.2.4 Accountability and Gender in DRM

ARC will build the capacity of countries and partners to put a monitoring system and relevant tools in place to ensure effective reporting. By providing training and support, ARC M&E department will contribute to the development of country Contingency Plans (CP) and Final Implementation Plans (FIP), ensuring that these plans include a robust M&E framework and clear Performance Monitoring Plan (PMP) with expected results and key performance indicators. In the event of insurance pay-out, the department will support countries and implementing partners to track and report progress against expected results and targets monthly as specified in the plan.

In 2019, ARC elaborated its Gender Strategy to consciously ensure that gender issues and the protection of vulnerable men, women, and children are taken into consideration throughout the systematic process of DRM and the entire ARC programme life cycle. One of the key objectives of the strategy is to build institutional and individual capacity and tools for mainstreaming gender in DRM. To this end, ARC will build the capacity of partners to integrate gender in DRM processes by supporting Member States to conduct DRM targeted gender analysis using the gender audit methodology. Results will be used during the customisation of ARC risk models and contingency planning processes. Sustained gender and DRM capacity building efforts will also be designed for members of the TWG, as well as for collaborating Civil Society Organisations (CSO). (See ARC Gender Strategy for more details on gender mainstreaming in all ARC processes)

2.3 Strategic Objective III: Grow - Increased Scalability and Sustainability of ARC Operations and Insurance Coverage

In pursuing growth, ARC seeks to scale up of its operations on the continent. By influencing DRM policy frameworks, increasing membership of Member States and providing incentives to countries in ARC product offering, growth will follow. This expansion will enable ARC to develop a more sustainable financing structure for its core operations and therefore, for the programme as a whole.

Influencing the DRM Policy Framework

ARC's strategy is anchored in a number of global DRM policy frameworks. The African Union Agenda 2063, the Sustainable Development Goals, the Paris Agreement on Climate Change and the Sendai Framework all recognise the importance of disaster risk reduction. ARC will work with the AU, the RECs and other key players to influence the adoption of developmental insurance as part of a broader Risk Management Policy (RMP) framework on the continent. Similarly, it will identify and support key champions to advocate for the integration of risk financing mechanisms in DRM practices in the Member States.

Further, in its advocacy efforts to improve ARC's visibility as well as profile and extend its global outreach in the DRM space, ARC will select goodwill ambassadors to champion its vision, mission and DRM activities.



To strengthen DRM on the African continent, ARC's partnerships with various stakeholders are a platform through which policy and culture can be influenced and lives and livelihoods protected

Ambassadors will be selected from outstanding public figures, business leaders and donor community. The organisation will develop criteria that will guide the selection, designation and involvement process. ARC, jointly with Member States, will design, formulate and implement disaster risk financing policies and strategies and effectively embed these in national, regional and continental development agendas. The disaster risk financing policy and strategy will guide financial interventions and arrangements for premium payment support, among others.

2.3.1 Advocacy for Member State Participation

ARC will continue its dialogue with AU states which are not yet members in order to expand membership. Increased membership will strengthen ARC's position as the continental leader in DRM and financing, both within the African context and globally. In parallel, ARC will continue to provide technical support to Member States as well as encourage their timely ratification of the ARC Establishment Treaty. To increase Member State participation, ARC will engage political advocacy and constant dialogue with governments, national parliaments, regional and continental political bodies on the benefits of joining ARC mechanism in order to build a continent that is resilient to climate risks and natural disasters. Regional and continental institutions will include Regional Economics Communities (RECs), Permanent Representative Committee (PRC) of the African Union, Pan-African Parliament (PAP) of the African Union and regional parliamentarian networks. In addition, ARC will strongly leverage on its Board members to advocate for an active and constant participation of Member States in ARC's products and service offering. Hence, ARC will develop and implement Board advocacy interventions tailored to target countries and regions to operationalise activities that call for growing ARC treaty signature, ARC treaty ratification and Member States' participation in the ARC risk insurance pool.

2.3.2 Participation of Humanitarian Actors

While African states are evidently willing to allocate more domestic resources to disaster funding, the portion of risk covered by their insurance premium remains limited compared to the transferable risk. Under ARC's Replica coverage, humanitarian actors (Replica Partners) can match Member States' (Replicated countries) insurance coverage from ARC by purchasing a 'Replica policy'. This enables ARC to expand its developmental insurance portfolio to humanitarian actors to better meet the disaster financing requirements of Member States by cost effectively capitalising on ARC's government-led risk management system and using international resources to match country coverage. This in turn enables countries lacking the financial and operational capacity to benefit from insurance coverage supported by humanitarian actors.

The role of humanitarian actors is therefore to provide a window through which either i) they complement the country's insurance cover and thus cover a greater percentage of the country's transferrable risk and/or ii) take out insurance cover independent of the government's preferred DRF option to curtail the magnitude of a potential humanitarian crisis, should an extreme weather event occur. Providing humanitarian actors access to the insurance mechanism provides ARC an additional channel through which to deliver cover to intended beneficiaries. In addition, ARC, in collaboration with humanitarian actors, will enhance their capacity building activities offering to governments and continue to exchange key lessons learned in the use of ARC's products.

2.3.3 Providing Incentives to Member States

Part of ARC's goal is to provide affordable services that will assist governments in responding to disasters in a manner that saves lives and preserves livelihoods. Providing incentives to Member States is one way to ensure that the financial burden on governments is lessened. ARC will provide incentives through strategic partnerships with the aim of supporting Member States' sustainable access to the insurance pool for a minimum of 15 countries:

The Africa Disaster Risk Financing Programme (ADRFi)

ADRFi is the result of an ARC – AfDB collaboration. The framework aims at embedding disaster risk management and financing in government systems by supporting national disaster risk management public policies and strategies, and supporting the ARC insurance premium payments in each participating government for a determined period while policies are being built and integrated. Resource mobilisation for ADRFi will be through:

I. Concessional financing through World Bank - International Development Association (WB-IDA) and African Development Bank - African Development Fund (AFDB-ADF)

ARC will support the use of concessional financing provided by multilateral and regional development banks. Access to those concessional resources allows premium mobilisation while emphasising governments' willingness to prioritise funding for financial protection. Because concessional financing is usually available for three years, it would contribute to embedding the cost in the national budget. The African Development Bank's ADRFi framework is the first initiative that Member States have access to which fits this mechanism. However, one major constraint remains the difficulty to find resources within the limited resources available, with governments giving priority to social sector financing (education, water,...), and postponing disaster risk that appears hypothetical at the point of decision. To address this, ARC will also prioritise advocacy for additional bilateral co-financing.

II. African Development Bank – African Disaster Risk Financing Multi-Donor Trust Fund (ADRFi MDTF)

Hosted by the African Development Bank, the proposed ADRFi MDTF (the trust fund) will support programmes and projects in line with the overall goal of ADRFi to enhance resilience and response to climate shocks by improving the management of climate disaster risks, including through sovereign risk transfer. The ADRFi MDTF will therefore be used to scale up and support the use other concessional and direct government resources. As such, support from partners would incentivise countries to join initiatives such as ADRFi and address the main challenge of limited availability of concessional and budgetary resources expressed above. In addition, the fund will aim to leverage innovations in pool growth such as supporting the growing interest of the humanitarian community to access the pool.

Co-insurance and localised insurance: To encourage uptake of insurance and to respond to the demands of Member States, ARC will involve local and regional (re) insurance companies in the design and the offering of some of its products and services to member states. In addition, ARC will tailor its insurance product to provide coverage to sub-national/localised entities within the country where need has been expressed. Strong links

with African-based insurance regulatory and Development Finance Institutions companies will be enhanced.

Risk Retention Instruments: ARC will proactively work with governments and financial partners in the identification, quantification and understanding of hazards towards risk layering and associated risk financing risk options. For example, ARC will work with governments towards understanding and enabling access to a suite of instruments necessary to address the risk layer retained by the government. This includes contingency funds and contingent lines of credit to help Member States to retain risks of high frequency and low impact events, particularly for countries that have been actively participating in ARC's insurance pool.

Basis Risk Fund: A ring-fenced basis risk contingent fund will be established to respond to quantifiable basis risk events for drought through shadow models (models that have alternative triggers for drought e.g. vegetative condition index) or through independently verifiable estimates. The fund will not necessarily be limited in scope to avoid creating disincentives for arbitrary claims. Seed capital will be required to 'kick-start' the fund and avoid the long accumulation phase associated with a premium funded mechanism. Basis risk payments approved by an appropriate governance mechanism will be made to affected countries from the fund. A replenishment mechanism will be required to ensure sustainability of the fund. Options identified thus far are: basis risk premium, investment returns from the basis risk fund, matched basis risk taker (development partner) or any combinations of the above. Steps required in the implementation include:

- Step 1: The completion of shadow modelling for the identification and quantification of basis risk
- Step 2: The initiation of investigations into basis risk legal, operational and oversight mechanism within ARC
- Step 3: Discussions with development and technical partners on design and seed capital funding
- Step 4: The modelling of basis risk contingent fund initial capital
- Step 5: The marketing of basis risk coverage to potential clients
- Step 6: The inclusion of basis risk coverage in drought policies

Premium financing prioritisation is set to mirror the financing strategy set for ADRiFi and the MDTF which sees financing support decreasing as the programme progresses. As countries build their DRF strategies and institutionalise the use of selected DRF mechanisms (including sovereign insurance), there will be less need for premium financing as an incentive for pool participation in the medium to long term. With 15 as the target number of countries, between year 1 and 2, these targets should be met. By year 3, there should be enough options for new entrants: ADRiFi, MDTF, IDA etc, and enough lessons learned/capacity building integrated in the programme to ensure that incentives are no longer a high priority activity. It could be argued that with the introduction of new products incentives would be a priority. With multiple peril cover (years 3-5), its becomes less to do with incentivising but rather about finding financing solutions to address the affordability of multi-peril cover.

2.3.4 Prioritisation of initiatives

While this plan identifies a number of critical initiatives that will be rolled out as part of the ARC Group strategy, it is important that such elements be prioritised in order to optimise the use of available resources. As much as possible, due consideration will be given to the most critical elements of the strategy that will contribute to the sustainability of the organisation. The roll-out will also consider the most feasible options.

The table below depicts all initiatives and their priority levels over the planning period:

Table 4: Key Interventions and Priority Levels

Strategic Objective	Key Initiatives over Planning Period	Year 1	Year 2	Year 3	Year 4	Year 5
		Priority Levels: Low(L), Medium(M), High(H)				
Strategic objective I: Innovate - A Dynamic Approach to Innovation	Advance Research and Development	L	M	H	H	H
	Improve the Drought Model	H	H	M	M	M
	Enhance Model Quality Assurance	H	H	H	H	H
	Refine Preparedness and Contingency Planning	M	M	M	H	H
	Focus on Insurance Products Development:					
	• Drought	H	H	M	M	M
	• Tropical Cyclone	M	H	M	M	M
	• Flood	M	H	M	M	M
	• Outbreaks and Epidemics (O&E)	H	H	H	M	M
	• Extreme Climate Facility (XCF)	L	L	M	M	M
Strategic Objective II:	Strengthen Early Warning and Preparedness	M	H	H	M	M

Strengthen - Strengthening DRM on the Continent	Streamline Country Engagement	H	H	H	M	M
	Improve Capacity Building	H	H	H	H	H
	Strengthen Accountability	M	M	M	L	L
Strategic Objective III: Grow - Increased Scalability and Sustainability of ARC Operations and Insurance Coverage	Strengthen Advocacy Efforts	H	H	H	H	H
	Increase Member State Participation	H	H	H	H	H
	Involve Humanitarian Actors	H	H	M	M	M
	Provide Incentives to Member States	H	H	M	M	M
Cross-Cutting Initiatives	Enhance Communication to Support Advocacy Efforts	H	H	H	H	H
	Mainstream Gender in all DRM processes	H	H	H	H	H

3 IMPLEMENTATION MECHANISM

3.1 Organisational Structure and Governance

ARC governance is critical for the effective delivery of the organisation's mandate. Currently, even though ARC Agency and ARC Ltd are closely linked by creation and operations, the two ARC institutions have been driven by different strategic priorities and independent governance structures. This has resulted in inefficiencies in the delivery of service to Member States.

In order to fully serve and engage with AU Member States, ARC will streamline its organisational and governance structures. The ultimate objective will be to have a unified governance structure that will steer ARC's operations towards increased efficiency, credibility and strengthened collaboration between the ARC Agency and its affiliates and subsidiaries. The unified governance structure will be achieved in a way that does not interfere with the independent commercial operations of ARC Ltd or any other affiliate(s) that may be established.

To achieve a unified governance structure, the Boards of ARC Agency and ARC Ltd have agreed on a number of changes to be implemented. ARC will have a Group Strategy that will set and drive the priorities of the Group. It will also have a Group Board, composed of Agency and affiliate board members, a Group Director General responsible for all ARC Group components/affiliates, a Group Secretariat and if required, independent streamlined Boards for business units/commercial affiliates². These changes will be made with the full involvement of all AU Member States and other stakeholders (AU Commission, World Food Programme, The London Centre, partners etc). Before the unified structure is fully achieved, the ARC Group will adopt transitional measures to increase collaboration and align their activities to the extent permitted under their governing instruments. Some of those measures will include the revision of the Memorandum of Understanding between ARC Agency and ARC Ltd; the continuation of joint sittings of the Boards as well as the establishment of joint committees and joint operations by the ARC institutions.

Starting with the adoption of a Group strategy by the Conference of Parties (CoP) in November 2019, the Boards have agreed that all elements of the new governance structure should be in place by the end of 2020. This includes the recruitment of the Group ARC DG by the CoP in March 2020, the adoption of ARC Treaty amendments by plenipotentiaries by April 2020 and the subsequent organisational and structural changes.

3.2 Operational and Administrative Efficiency

In addition to effective programming that ensures that ARC is doing the right thing at the right time and doing them well, the organisation is committed to ensuring that its work and resources are managed as efficiently as possible. Efficiency is achieved when better results are obtained using the same level of resources or when the same results are achieved using fewer resources.

Performance-based budgeting helps ARC in achieving its strategic objectives more efficiently by prioritising fund allocations by linking activities to the outcomes to be achieved. The ARC budgeting

² At the moment, the only affiliate is ARC Ltd.

process starts from a description of results that lay out what ARC and its departments intend to achieve through the planned activities. Based on the selected results and indicative budget ceilings, departments identify, prioritise and cost the activities required to achieve the results and submit a consolidated work plan budget. Results from previous activities are used in the planning and budgeting for new activities. The budgeted work plans of the departments are integrated into a single ARC budget and work plan after an interactive process between departments and management.

To reach the objectives and goals in this framework, ARC has developed a workforce plan. The governance review includes an assessment of the organisational structure and those recommendations are being implemented. The strategy maps out existing capacities within the ARC Agency and ARC Ltd teams, how these teams will work together as one organisation, clearly defined roles and responsibilities, areas for development and finally, to identify and capitalise on organisational synergies.

ARC is bound by a 5-year Administrative Service Agreement (ASA) with WFP and as such, it continues to improve its efficiency by using the comparative strengths of the administrative services provided therein, enabling savings in terms of time and costs. Through the ASA, WFP provides ARC Agency with technical, administrative, personnel and project management services.

For its part, ARC seeks maximum efficiency gains from partnership arrangements while maintaining quality. Efficiencies and economies of scale have been achieved by out-sourcing various activities where this creates cost savings while maintaining quality standards. This includes research programmes to provide cost-benefit analyses of ARC, external audits, as well as the design of the Extreme Climate Index for XCF among other items.

3.3 Partnerships

As a Specialised Agency of the AU, ARC's political existence and legitimacy is anchored at the level of the AU. ARC will seek to strengthen policy and organisational coherence between the AU, its organs and the AU's specialised agencies on its mandate of disaster risk management on the continent. Furthermore, ARC will intentionally support the AU in delivering on Africa's continental priorities and development agenda of building climate resilience and reducing vulnerability – Agenda 2063, through its contribution towards the strategic and operational coordination and synergy among AU organs.

In only 5 years of operations, ARC has proved its value and position continentally as a unique and innovative disaster management infrastructure that integrates early warning through risk modelling, contingency planning and risk transfer into one ecosystem.

Globally, ARC is gradually recognised as a first-of-its-kind continental natural disaster insurance pool providing international public goods related to resilience, and this has been achieved through global, continental, regional and national partnerships and constant advocacy.

3.3.1 Aim of Partnerships for ARC

Moving toward sustainable transformative solutions of ARC's offerings within the changing context of climate change and a fast-changing disaster risk management landscape, ARC will seek opportunities to consolidate existing partnerships and forge new strategic ones to advance common

goals related to resilience and sustainability. Therefore, the aim of ARC's partnership strategy is to develop and maintain collaborative efforts with institutions in Africa and around the world that will hone ARC's efforts at building an effective and efficient system that responds to climate change-related shocks and other natural disasters. These efforts include but are not limited to leveraging on technical expertise, driving policy thrusts, scaling up impact, financial collaboration and for advocacy purposes.

3.3.2 Guiding Principles of Partnerships

ARC views partnerships at three levels with a focus on 6 main categories. These levels include strategic, technical and financial partnerships. The forging of partnerships with civil society, including gender-focused entities, NGOs and farmer organisations, given their roles and responsibilities in building resilience of countries, is important. This includes the Global and African Network of Civil Society Organisations for DRR.

ARC will ensure that the strategic partnerships built will facilitate the achievements of its strategic objectives. In that sense, ARC will consider three specific components:

- Strategic partnerships with policy makers, regional economic communities and multilateral organisations that support country policy frameworks, with the aim of increasing advocacy and ensuring ARC's participation in Africa is seen as a strategic macro-economic development instrument.
- Strategic partnerships with financial institutions to serve Member States needs. ARC will continue to forge and enhance good working relationships with IMF, WB, AfDB, IsDB and other financial development institutions to advance disaster risk financing. ARC will leverage on their technical and financial resources to support ARC public's goods offerings related to building Member States' disaster resilience, and country premium payment support.
- Strategic partnerships with research institutions and technical experts to support the development of ARC products will further enhance its effectiveness.
Strategic partnerships with development agencies and other specialised institutions (i.e. UN, GCF, JICA etc) to provide technical and financial support to the ARC capacity building programme and bolster in-country foundational capacity on which the ARC programme would ideally rest

ARC's interventions to achieve its strategic objectives are guided by a common vision, values and complementarity in order to build climate resilience and reduce vulnerability; provide clarity on the roles and responsibilities to build robust partnerships agreements; and finally ensure transparency and mutual accountability to be demonstrated through results that delineate clear targets, M&E mechanism, reporting at impact, outcome and output levels. ARC also commits to high ethics and standards in the use of partners' financial resources.

In a bid to catalyse the uptake of the disaster risk insurance sector on the continent, ARC will extend its partnerships strategy to include local and regional insurance companies through offering co-insurance opportunities. This will ensure that ARC is strengthening national capacities in disaster risk financing. It will also prioritise collaborations with associations and regulators in the insurance industry such as the African Insurance Organisation, Africa Re and the *Conférence Interafricaine des Marchés d'Assurances* (CIMA).

ARC will move beyond a reactionary participation in advocacy for and proactively seek partnerships within the UN system. Specifically, strong collaborations will be forged with the UN office for Disaster Risk Reduction, the UN office for South- South Cooperation and the UNDP among others on humanitarian financing windows to provide technical assistance and the needed buffer pending countries' full uptake of premiums.

3.4 Resource Mobilisation

With the changing fundraising and aid environments, ARC will need to be agile and innovative in the face of the current trend of tightening traditional donor funding resources. It will also need to be more proactive in expanding its donor base in order to scale up products and services. This will enable ARC to adequately respond to the complex challenges related to disaster and climate risks. To this end, a comprehensive Resource Mobilisation Strategy will be developed to support implementation of the ARC Group Strategy 2020 – 2024.

Whilst ARC Group will continue to work with its traditional donors, the organisation will also explore funding opportunities in Africa aided by the rising trend of domestic resource mobilisation in African middle income countries, public and private partners and private philanthropic foundations. Currently, a strategy for donor premium support is being developed for O&E, bearing in mind the need to fit within an overall ARC donor strategy to enhance efficiency whilst understanding that health funding is usually separated from climate donor funding, with many donor organisations dedicated to specific areas of interest.

ARC will partner with the Global Resilience Programme (a collection of initiatives aimed at building resilience on the continent such as InsuResilience Investment Fund and African Adaptation Initiative) and other continental and international initiatives to mobilise additional resources for DRM and financing. In addition, the organisation and its Member States will jointly explore new ways to mobilise country membership fees that could contribute to financing ARC's operations. ARC will also explore funding possibilities with the south-south cooperation which refers to Africa-Latin American-Asia Corporation for the exchange of resources.

ARC Ltd's financial strategy is predicated on growing the capital base through retained earnings while also being able to withstand multiple pay-out events in multiple countries over several successive years. This means mobilising financial resources to support pool growth in the next 5 years is critical and the current premium support being sought through various instruments is a must have to increase premium income. ARC Ltd has recently revised its investment guidelines to include equities to improve investment returns revenue.

The long- term focus is on building an insurance portfolio aimed at creating a financially sustainable mutual company wholly owned by the countries that can grow the Class A capital to a level that will enable redemption of the interest free loan (\$100m) to the capital contributors by 2034. Beyond pool growth and premium revenue focus, key strategic shifts for the insurance business will focus on building and diversifying ARC's capital base. Priority will be placed on building Class B or Class D capital pools under the current membership structure of ARC Ltd.³ As the potential Class D members would expect a return on investment and when considering the current pool performance, the

³ **Class B Member**" means any person that provides capital to the Company without expectation of repayment.

Class D Member" means, if approved by the Members in accordance to the by-Laws, any person who provides capital with an expectation of investment return.

existing members will determine the specific terms and conditions of any Class D investment to protect the interests of ARC Ltd.

From a cost perspective, ARC Ltd will strictly enforce the underwriting protocol to avoid losses from premium arrears. ARC Ltd will only allow purchasing reinsurance for policies whose premiums have been received. Operational costs will be tightly managed with a lean team maintained and critical skills (such as technical insurance skills) sourced only on a needs basis or at a time when the financial position permits.

3.5 Monitoring and Evaluation (M & E)

ARC adopts a results-based approach to monitoring and evaluation in tracking progress and reporting on the use of resources, the implementation of its interventions (at continental, regional and country level), the delivery of expected results (outputs, outcomes and impacts) and in the assessment of institutional core assumptions, effectiveness, efficiency, and sustainability of its results. ARC's approach to monitoring and evaluation is detailed in the ARC M&E plan.

Monitoring Approach

The continuous monitoring collects data to track performance and progress against established targets and focuses on resources used (inputs); activities, products and services delivered (outputs); expected short- and medium-term changes in people as well as institutional awareness and capabilities in the area of DRM (outcomes and impacts). The detailed log-frame with key performance indicators for output, outcome and impact is presented in Appendix 1. It generates routine information for management decision making, timely adjustments, planning and accountability. ARC will also use monitoring to systematically and continuously identify and document challenges, best practices and lessons learnt from the implementation of its programmes. Specifically, a robust and automated monitoring system will be put in place to track progress in:

- **ARC country engagement life cycle:** From the initial scoping mission to the signature of the policy and the payment of the insurance premium, ARC will systematically and continuously monitor and report on key milestones and related timelines, the supervision missions and key expected outputs. This will help ARC staff and management know the status of engagement at any given time and the risk pool in each active Member State.
- **Contingency Planning Development:** This will help monitor key milestones in the development and approval of CP and their related timelines in order to identify bottlenecks and improve efficiency of the whole workflow.
- **ARC payout:** From the payout trigger to completion of implementation of the contingency plan, ARC will monitor key milestones and related timelines to ensure a rapid and effective delivery of response to the peril for each the insurance triggered. In addition, ARC will organise at least one in-country supervision mission during the implementation of the payout.
- **Risk register:** ARC has identified and quantified events out of its control that might affect the successful delivery of ARC programmes. During implementation, these risks will be monitored, reassessed and reported on using a dedicated ARC risk management tool.

Evaluation Approach

ARC is committed to international and United Nations evaluation principles, norms and standards and adheres to WFP evaluation policy (2016-2020). To enhance the quality, credibility and utility of evaluations, the organisation will promote and encourage the use of various rigorous methodologies and approaches in line with accepted professional standards. At a minimum, it will use theory-based impact approaches and as much as possible, a combination of qualitative and quantitative methods. ARC will conduct:

- Process evaluations to assess the implementation of the contingency plan by Member States that receive an insurance payout
- Programme evaluation to assess the design, implementation, and results of ARC programmes
- Special studies to test some key assumptions and the cause-effect relationships between different levels of results as depicted on the theory of change.

M&E and Gender

ARC M&E plans and approaches are gender sensitive. Thus, the M&E system in place is designed to ensure and track how gender equality is mainstreamed within ARC. This will also help to demonstrate how vulnerable men, women and children are involved and impacted by ARC interventions. Specifically, gender equality will be fully integrated into relevant segments of the ARC programme cycle and logic model, and appropriate indicators disaggregated to track progress and demonstrate improvement in gender equality.

(See attached ARC Gender Strategy for more details on gender mainstreaming in all ARC processes)

4 CROSS-CUTTING

4.1 Integrating Gender in Disaster Risk Management and Financing

ARC will uphold gender equality principles in all its activities within the Group as well as with Member States. In this regard, the organisation will systematically build a gender perspective into its operations and policies with the goal of transforming DRM approaches to ensure gender equality for vulnerable men, women and children in ARC Member States.

In pursuance of the goal above, the following three objectives will guide ARC's gender mainstreaming approach over the next five years:

Institutionalise gender and DRM for innovative knowledge development and management

ARC will, through a flagship initiative entitled 'Gender and DRMF Platform', mobilise DRM partners and practitioners, including governments, humanitarian actors, CSOs, the private sector and research institutes to develop continent-wide innovative approaches to fill the knowledge gap on gender and DRM.

Build institutional and individual capacities and tools for mainstreaming gender in DRM -

ARC will build the capacity of partners to integrate gender in DRM processes by supporting Member States to conduct DRM targeted gender analysis. Actions undertaken will lead to the development of:

- (i) Tools and guidelines for gender transformative DRM capacity building,
- (ii) Standards for gender transformative contingency plan and
- (ii) Standards for gender sensitive M&E.

Engage in sustained policy dialogue and advocacy for a gender transformative DRM policy environment

- In line with the risk financing instrument of ARC, this objective aims to contribute to a policy environment that enables gender sensitive culture of insurance as well as other DRM financing mechanisms, including social protection programmes.

ARC will also seek to partner with humanitarian actors, CSO partners, the private sector and development partners to engage in gender transformative activities throughout the DRM spectrum through a dedicated gender transformative fund. ARC's gender mainstreaming efforts will also focus on the Group internal operations to ensure gender sensitive staff and gender responsive systems and procedures to accompany Member States on the gender and DRM journey.

(See attached ARC Gender Strategy for more details on gender mainstreaming in all ARC processes)

4.2 Communication

ARC adopts an innovative approach to sharing experiences on its work to protect the lives and livelihoods of vulnerable populations in Africa against the impact of natural disasters. This is contained in the organisation's communication strategy which sets the tone to position ARC within a broader policy framework at national, continental and international levels, highlighting the successes of its on-going work and systemic challenges to achieving its vision. The strategy highlights the organisation's commitment in the following areas:

- **Fostering harmonious internal communication and strong culture:** A culture of internal information-sharing that harmonises the flow of information across all work streams towards achieving effective external communication. This will boost advocacy and visibility for the work of ARC.
- **Enhancing Partnerships for Treaty Ratification and Pool Growth:** ARC will continue to seek effective communication channels to support broad partnerships and forge the necessary coalition for innovative and dynamic mechanisms to better address the challenges of climate change and natural disaster risk management on the continent.
- **Broadening and maintaining existing partnerships:** Existing partnerships with regional media practitioners and institutions, including the African Media Initiative (AMI), African Union Directorate for Information and Communication (DIC) and communication units of various sister agencies, will be maintained and further broadened to include other actors.

‘Big picture’ reporting of ARC

ARC will leverage on the influence of its multidisciplinary Boards; the advantage of being rooted in AU treaty, as well the strong donor / multilateral support to deepen advocacy and understanding of its agenda, work and achievements towards a climate resilient continent.

Building Stakeholder Capacity for Disaster Risk Communication:

The ARC Communication Strategy elaborates the dual importance of pursuing the best practice in ‘Institutional Communication (IC)’ and ‘Communication-for-Development (C4D)’ to effectively share information about its products, services and programmes. This serves to create advocacy around ARC vision, mission and work at national (including grassroots) level, thereby enabling the people to have a voice, participate and develop a sense of ownership in its activities. ARC will seek to invest in effective information sharing and communication among the academia, research institutions, faith-based organisations, civil societies, as well as the media. This will help foster awareness, transparency, and influence decision makers and the wider public on all aspects of the ARC programme life cycle.

Gender & Communication: Reports on ARC interventions from inception of country programmes to possible payouts will provide disaggregated information on the impacts on women, men, youth and vulnerable populations in line with the recommendations of the ARC Gender strategy.

Tools & Networks: ARC will continue to deepen its media and advocacy networks. The use of multimedia in disseminating information on the impacts of ARC’s work as well as challenges faced within countries will bring into focus peculiarities of individual Member States. Therefore, viable communications networks will be leveraged to assess political and development risks in countries for more effective strategy, engagement and better outcomes on ground.

5 ARC Group Projections

1. Insurance Uptake

Table 5: Projections (2020-2024) of the number insurance policies per peril

	2020	2021	2022	2023	2024
Drought	7	7	7	7	9
Tropical Cyclone	0	2	3	3	4
Flood	0	1	1	1	2
Outbreaks and Epidemics	0	2	4	6	8
Total	7	12	15	17	23

2. Indicative Budget

Secretariat Operations

ARC is undergoing a governance reform process, and the recommendations of the governance review are being put into place. The indicative ARC Group Budget 2020-2024 is based on a streamlined organisational structure which incorporates the anticipated changes resulting from the implementation of reform structure and process. The budget incorporates assumptions with respect to increased efficiency gains and cost savings over the medium-term plan. As the implementation of the approved reform structure is imminent, adjustments to the current indicative budget are inevitable. The budget will also be impacted by the relocation of the ARC headquarters, the timing and location of which is uncertain.

Table 6: ARC Costed Strategy 2020-2024 (USD*1,000)

ARC Strategy 2020-2024	2020	2021	2022	2023	2024
Direct Project Costs	11,393	10,254	9,434	9,434	9,434
Indirect support Costs	742	667	613	613	613
Total Costs	12,134	10,921	10,047	10,047	10,047

Insurance Operations

Projections for insurance operations are still under development and will be submitted as a separate document once completed.

5.1 ARC O&E Business Plan Forecast

Table 7 shows O&E business plan projections. These assume a product launch of mid 2020 through an insurance vehicle supported by donor funding and reinsurers or capital markets, as well as insurance uptake by countries from 2021. Full projections and stochastic capital model for O&E will be built once the modelling for the target countries is completed. This would incorporate a full business plan assessment, including reinsurance and scenario testing. At this point, ARC cannot

assess the pricing and impact of reinsurance and therefore presents a gross of reinsurance business forecast with an assumed gross loss ratio of 50% (gross of all expenses, reinsurance and deductions).

This version of the business plan forecast is calculated on a prudent scenario basis where 8 countries are signed up over five years. Although we expect the signing up process to speed up substantially over time, we do not account for this here. The number of the countries signed up to the programme will also be a function of the resources deployed in country. This aspect is still under consideration as it also depends on level of donor funding and structure of O&E’s operations.

Table 7: O&E Business Plan Five Year Projection

Projected Number of Countries/Limits for Payout	Five Year Projected O&E Pool Business Plan														
	Year 1			Year 2			Year 3			Year 4			Year 5		
	2020			2021			2022			2023			2024		
	Countries	Premiums	Principal Debt Amount (Pay-out)	Countries	Premiums	Principal Debt Amount (Pay-out)	Countries	Premiums	Principal Debt Amount (Pay-out)	Countries	Premiums	Principal Debt Amount (Pay-out)	Countries	Premiums	Principal Debt Amount (Pay-out)
Selected or Earmarked African Union Member States	Guinea			Guinea	359,125	5,000,000	Guinea	359,125	5,000,000	Guinea	359,125	5,000,000	Guinea	359,125	5,000,000
	Uganda			Uganda	1,411,194	10,000,000	Uganda	1,411,194	10,000,000	Uganda	1,411,194	10,000,000	Uganda	1,411,194	10,000,000
							Senegal	538,688	7,500,000	Senegal	538,688	7,500,000	Senegal	538,688	7,500,000
							Cote d'Ivoire	538,688	7,500,000	Cote d'Ivoire	538,688	7,500,000	Cote d'Ivoire	538,688	7,500,000
										Kenya	1,763,992	12,500,000	Kenya	1,763,992	12,500,000
										Mali	718,250	10,000,000	Mali	718,250	10,000,000
													Rwanda	1,058,395	7,500,000
													Zambia	1,058,395	7,500,000
	Total Assumed Exposure					15,000,000			30,000,000			52,500,000			67,500,000
	Total Expected Premiums					1,770,319			2,847,694			5,329,936			7,446,727
	Cat Bond Operational Expenses			583,303		703,398			819,765			972,342			1,001,379
Cat Bond Transactional Expenses			-		425,000			500,000			612,500			687,500	
Cat Bond Total Expenses			583,303		1,128,398			1,319,765			1,584,842			1,688,879	
Programme Operational Expenses (excl. Cat Bond)			1,498,207		1,624,610			2,267,006			3,006,317			3,095,765	
All O&E Programme Expenses			2,081,510		2,753,008			3,586,771			4,591,159			4,784,644	

This is drawn from the total exposed countries, it is illustrative as the composition of actual countries in the pool and order to be signed up may vary due many factors. The premiums and limits for pay-out will in reality vary subject to country preference, outbreak response cost analysis/needs and individual country modeled losses. Premiums here are only based on pilot country pricing. They assume half of the capital would be from donor investment in the cat bonds for all countries in Table 7, including entity set up, structuring fees and operational expenses. Table 7 separates operational expenses in respect of capacity building work from cat and expenses. Please bear in mind that cap bonds premiums are not paid to ARC but rather paid to investors/reinsurers on behalf of covered countries alongside coupons which are assumed to be included within premium figures here.

ANNEXURES

ANNEX 1: THE DISASTER RISK MANAGEMENT LANDSCAPE

Disaster risks; a global challenge

Extreme natural events such as droughts, floods, earthquakes, tropical cyclones, and pandemics continue to threaten lives, livelihoods, and even entire economies. Global economic losses from disasters are now reaching an average of more than US\$300 billion a year. A recent World Bank report finds that the impacts of disasters on well-being are equivalent to a US\$520 billion drop in consumption (60percent more than the asset losses usually reported) and force some 26 million people into poverty every year (Hallegatte et al., 2017)¹. It is estimated that 93 percent of people facing extreme poverty today are living in countries that are politically fragile or environmentally vulnerable, and in many cases both. Most of these countries are in sub Saharan Africa. In 2017, it was estimated that 15 countries and almost 32 million people were food insecure in Africa, with population in crisis worse in countries vulnerable to climate shock¹. Continuing this path will derail achievement of the sustainable development goals.

Response to the climate and disaster risk challenge

Recognising this, under the leadership of the United Nations at the global level, countries adopted the Sendai Framework for Disaster Risk Reduction 2015-2030. Among priority actions in the framework is the Priority 4 which is enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction¹. The growth of disaster risk means there is a need to strengthen disaster preparedness for response, take action in anticipation of events, and ensure capacities are in place for effective response and recovery at all levels.



Without effective DRM on the continent, natural disasters such as drought can plunge populations into extreme poverty and devastate economies

The Sendai Framework provides the opportunity to focus disaster risk management (DRM) on implementation of the new global framework for disaster risk reduction (DRR) in Africa. In line with this, AU Commission championed the development of the Programme of Action for the implementation of the Sendai Framework, a follow up to the Africa Regional Strategy for Disaster Risk Reduction. The Programme for Action (POA) strengthens efforts to increase resilience which will drive poverty reduction, sustainable development in line with Sustainable Development Goals (SDGs), Agenda 2063 and other development frameworks and processes.

The POA applies to the AUC, RECs, Regional Implementation Centres (RICs) and national ministries, agencies and departments responsible for DRM, as well as their sub-national structures. It provides elements of and guidance for national DRR programmes of countries which are aligned with and complement the POA. Non-government organisations, partners and stakeholders, including the

private sector, are encouraged to align their DRM strategies and programmes to the POA for coherence of DRM in Africa. To scale down the continental efforts, REC's have adopted various frameworks to guide the Policy dialogue at the country level in DRM, such as the Southern African Development Community (SADC) Disaster Risk Management Strategy and Fund that aim to foster regional collaboration on disaster risk management and the ECOWAS Policy on Disaster Risk Reduction.

In addition to these frameworks aimed to guide DRM on the continent, in 2012, African Heads of States established the African Risk Capacity (ARC) with a mandate to support AU Member States better plan prepare and respond to effects of extreme weather events and natural disasters. ARC's mandate is part of the continent's comprehensive framework for disaster risk management. The establishment of ARC offered an opportunity for a solution to one of the key challenges for early response; the adhoc humanitarian fund raising which can often be too slow, leads to a fragmented and underfunded response, and encourages underinvestment in risk reduction and preparedness, thereby increasing the economic and human costs of catastrophes. The United Nations' humanitarian appeal for 2017, for example, stood at a record US\$22.2 billion, to help almost 93 million people affected by conflicts and natural disasters was only 60% funded⁴. ARC has to-date offered insurance coverage of over 500 million dollars and made payout to 4 participating countries of up to 36 million dollars.

Evidence shows that with disaster risk financing, where governments and their partners to adopt pre-agreed, pre-financed, rules-based preparedness approach, plans are dependable and timely support to households can be achieved⁵

Globally, similar initiatives like the ARC that are supporting disaster risk financing include; Caribbean Catastrophe Risk Insurance Facility (CRRIF) and Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) which offer disaster insurance coverage for the Caribbean and Pacific islands respectively. These efforts are supported technically and financially by the developed countries through initiatives such as the Insu-resilience Fund, The Global Risk Financing Facility (GRIF) and the Insurance Development Forum, reinforced by the G7 countries during the 2015 Paris Agreement on Climate Change.

Despite these efforts and evidence, adoption and integration of disaster risk financing tools has been slow. Adhoc humanitarian appeals remain the major source of response funding for most countries. Following tropical cyclone IDAI in Mozambique, the humanitarian funding was the largest share of the response financing needs. Fiscal limitations have been the main hindrance for countries to adopt a risk financing options which often require advance expenditure in anticipation of disasters.

Enhancing the dialogue on the critical importance and role of disaster risk financing and availing a mix of tools for financing disasters such as contingency funds, contingent lines of credit such as the World Bank CATDDO, risk transfer and insurance mechanisms such as one ARC is providing, would afford countries an opportunity to respond early, and build back better. Ad hoc, post-disaster support is still needed, but it should act as a back up when plans fail. It should not be the first line of defence for droughts, floods, earthquakes, tropical cyclones, or pandemics.

⁴<https://www.un.org/press/en/2017/sgsm18819.doc.htm>

⁵ Disaster risks

Disaster risk financing; ARC's Comparative Advantage

Member State Ownership

Member States are at the centre of ARC's operations leading to programme development that is aligned with national strategies and embedded within national programmes. This ensures that ARC is tailored to the needs of a given country and complements existing initiatives, thereby strengthening national capacities. By linking early warning, contingency planning and contingency financing, ARC is well positioned to make tangible contributions to the areas of disaster risk management, early response and climate change adaptation, and to do so in response to the demand from Member States.

Member States that purchase insurance coverage become members of a mutual insurance facility, ARC Ltd, thereby participating actively in its governance functions. Such dynamics result in a programme that is demand-driven, context-specific and 'owned' by the Member States, harmonising the public and private functions required to serve Member State needs. In-country working groups enable integration of ARC's early warning tools into national Early Warning Systems; similarly ARC contingency plans can be viewed as a component of a broader contingency plan to be developed for the different risk layers a country faces. In-country discussions on risk transfer have resulted in governments considering how best to manage risks not transferred to ARC and looking at other risk management and mitigation tools available.

An Inter-Disciplinary Approach: By combining early warning, contingency planning and insurance, ARC takes an approach that breaks down silos and creates a comprehensive package with tangible applicability. *Africa RiskView* organises existing data in an innovative and pragmatic manner in order to provide governments with meaningful indicators that inform planning and response and can underpin ARC's parametric insurance policies. By linking this early warning tool to pre-approved contingency plan insurance, the information received can be converted into concrete action. ARC leads countries to discuss the development of broader, holistic risk management framework.

An Objective and Transparent Approach: ARC's use of objective and transparent parametric triggers brings impartiality to discussions around disaster risk management and climate change, which are often highly political in nature. ARC's scientific approach to modelling risks and climate change add much needed objectivity and transparency, particularly with respect to the causes and drivers or food insecurity and other disaster impacts. In addition, involvement of country experts in the review, customisation and further development of *Africa RiskView*, and the establishment of best practices in contingency planning and risk management more broadly ensures that ARC's approach to risk transfer remains transparent.

A Cost-Effective Model: One of ARC's key comparative advantages is its cost-effective use of donor funding. By leveraging small amounts of donor capital, ARC has been able to access additional private risk capital through reinsurance. The impact of the initial donor funding is further amplified by ARC's framework through 23 which countries can define mechanisms to channel response payout funds within short periods of time to mobilise early response. This ensures the value of ARC to its Member States. The mutualistic nature of ARC Ltd ensures that funds are ploughed back into the company to further contribute to the reduction of the cost to the countries.

Annex 2: ARC Logframe

The ARC Results Framework for 2020-2024 sets out two to five expected outputs for each of ARC's three strategic objectives/outcomes

Result Level	Result Statement	Performance Indicator	Data Source/Mean of Verification	Assumptions
Impact	AU Member States are better equipped to manage the impacts of natural disasters on the livelihoods of vulnerable populations in a timely manner and build resilience to climate related shocks	Number of people that are indirectly insured through ARC insurance policies	ARC Ltd issued policies	
		Average number of days taken between the payout trigger and the actual payout	ARV, ARC Ltd records	
		Average number of days taken between the payout trigger and the start of the implementation of the response	Process evaluation following implementation; country reports	
		Cumulative number of people who received assistance through ARC-payout (disaggregated by gender)	Process evaluation following implementation; country reports	
Outcome 1	Dynamic and Applied Research and Development that provides improved access to innovative tools and insurance products for AU Member States to effectively manage their natural disaster risk	Outcome 1 Indicator 1: Number of peril risk modelling tools offered to ARC Member States	ARV and other peril risk modelling tools offered by ARC; ARC reports	There is political will to participate in ARC at national and continental level for countries and their partners; ARC Member States continues to be interested in other peril risks and
		Outcome 1 Indicator 2: Number of Preparedness tools offered to ARC Member States	Contingency planning and Early Warning; ARC reports	
		Outcome 1 Indicator 3: Number of insurance products offered to ARC Member States	ARC Ltd issued policies	

		Outcome 1 Indicator 4: Number of basis risk events identified in ARC insurance policies	ARC Ltd issued policies	insurance products; Donors continue to support the development of other perils risk modelling tools;
Output 1.1	Improved hazard modelling and early warning platform for better performance	Output Indicator 1.1a: Number of hazard modelling products developed/evaluated	ARC Annual report	The Member States accept the new products developed The new products respond to the need of some Member States
		Output Indicator 1.1b: Number of new or improved datasets integrated into Africa RiskView	ARV	
		Output Indicator 1.1c: Number of new or improved drought index integrated into Africa RiskView	ARV	
Output 1.2	Risk financing product developed	Output Indicator 1.2a: Number of risk financing instrument developed/evaluated	ARC Annual report	
Outcome 2	Strengthened Disaster Risk Management on the Continent through enhanced AU Member State ability to anticipate, plan for and respond to natural disasters in an efficient and effective manner	Outcome 2 Indicator 1: Number ARC Member States with ARC insurance policy (Annually)	ARC Ltd issued policies	The Member States have the basic institutional, financial and, administrative mechanisms and procedures for a timely and effective implementation of disaster response;
		Outcome 2 Indicator 2: Number of Humanitarian actors with ARC insurance policy (Annually)	ARC Ltd issued policies	
		Outcome 2 Indicator 3: Number of ARC Member States using ARC tools in their national Early Warning Systems	ARC client survey	

		Outcome 2 Indicator 4: Number of ARC Member States that have a valid Certificate of Good Standing (CoGS)	Signed customisation report, Approved contingency plans	There is political will in ARC Member States to put in place complementary disaster risk financing instruments;
		Outcome 3 Indicator 5: Number of Member States with valid Contingency Plans for perils covered by ARC	Approved Member States contingency plans	
		Outcome 3 Indicator 6: Number of Humanitarian actors with valid Contingency Plans for perils covered by ARC	Approved Humanitarian actors' contingency plans	
Output 2.1	Africa RiskView platform is continually disseminated through the provision of training and technical support to Member States	Output Indicator 2.1a: Number of ARC Member States with completed and approved ARV customisation	ARV customisation report	Basic capacities exist within member countries/Humanitarian actors to develop, refine and deliver credible contingency plans and engage in ARV review, customisation and validation;
		Output Indicator 2.1b: Number of ARC Member States with ARV customisation reviewed by the Customisation Review Committee	CRC report	
Output 2.2	Robust Contingency Plans are developed in collaboration with Member States through the provision of training and technical support	Output Indicator 2.2a: Number of Member States that have developed a contingency plan	Member States contingency plans	ARC Member States/Humanitarian actors prioritise development insurance;
Output 2.3	Gender is mainstreamed	Output Indicator 2.3a: Number of national experts trained on gender mainstreaming in DRM (disaggregated by gender)	Gender training report	ARC Member States accept the integration of ARV in their national Early Warning System
		Output Indicator 2.3b: Number of policy advocacy meetings attended/organised on gender in DRM	Advocacy meeting report	

		Output Indicator 2.3c: Number of ARC Member States represented in the Policy advocacy meetings on gender on DRM	Advocacy meeting report	ARC Member States/Humanitarian actors have the financial resources to purchase ARC insurance products; The Member States and Donors adopt and support ARC gender strategy
Output 2.4	In-depth and comprehensive training provided on the selection of risk transfer parameters to policy makers and technical experts in ARC Member States	Output Indicator 2.4: Number of policy makers/national experts trained on the selection of risk transfer parameters	Training report	
Output 2.5	In-country policy/decision makers engaged on ARC programme	Output Indicator 2.5a: Number of AU Member States that have ratified the ARC Treaty and deposited the instrument of ratification with the AU	Ratification instruments	
		Output Indicator 2.5b: Number of ARC Member States with valid signed MOUs	Signed MOUs	
		Output Indicator 2.5c: Number of ARC Member States with functional Technical Working Groups	Lists of technical working groups members	
		Output Indicator 2.5d: Number of in-country decision/policy makers introduced to Disaster Risk financing and ARC approach	ARC flash report	
		Output Indicator 2.5e: Number of country strategy papers developed	Country strategy papers	
Outcome 3	Increased scale and sustainability in ARC operation and insurance coverage	Outcome 3 Indicator 1: Total insurance coverage taken by Member States and Humanitarian Actors (Annually)	ARC Ltd issued policies	Political support for ARC at country level is maintained /

		Outcome 3. Indicator 2: Average percentage of insurance premium paid by ARC Member States from their national budgets.	ARC Ltd records	increases; There is political will in ARC Member States to put in place complementary disaster risk financing instruments;
		Outcome 3 Indicator 3: Percentage of ARC Member States that have renewed ARC insurance policy from previous year	ARC Ltd issued policies	
		Outcome 3 Indicator 4: Percentage of Humanitarian Actors that have renewed ARC insurance policy from previous year	ARC Ltd issued policies	
Output 3.1	DRM policy dialogue and advocacy held	Output Indicator 3.1a: Number of DRM policy advocacy meetings attended/organised	Meetings reports	Positive influences of ARC and Partners prompts improvements in national disaster risk management through new policies and systems development;
		Output Indicator 3.1b: Number of ARC Member States represented in the Policy advocacy meetings	Meeting reports	
Output 3.2	Policy briefs released	Output Indicator 3.2: Number of DRM policy briefs released	ARC policy briefs	ARC Member States/Humanitarian actors prioritise development insurance;
Output 3.3	ARC Ltd performs as a financially robust and sustainable entity	Output Indicator 3.3a: ARC Ltd's cumulative combined ratio (Operating expenses excluding investment expenses + Underwriting expenses / Gross Premium Income) - below 100%	ARC Ltd reports	ARC Member States/Humanitarian actors prioritise development
		Output Indicator 3.3b: ARC Ltd's cumulative expense ratio (Operating expenses excluding investment expenses / Gross Premium Income) - capped at 15%	ARC Ltd reports	

		Output Indicator 3.3c: Gross premium income	ARC Ltd reports	insurance; ARC Member States/Humanitarian actors have the financial resources to purchase ARC
Output 3.4	Premium subsidy secured	Output Indicator 3.4a: Amount of premium subsidy provided to ARC Member States	ARC Ltd records	ARC insurance products; ARC Ltd remains solvent and benefits from portfolio growth; ARC Ltd is able to make use of reinsurance markets;
		Output Indicator 3.4b: Number of ARC Member States provided with premium subsidy	ARC Ltd records	

Annex 3: Risk Register

The Risk Register lists 18 potential risks that could impact ARC reaching its goal and outcomes the ARC strategy 2020-2024. The risks fall under the categories of financial, institutional, managerial, reputational, political and technical risks. Each risk is given an inherent risk score based on the probability of occurrence and the severity of the impact to ARC. The register then provides a detailed description for control measures that ARC will undertake for each risk.

Description of Risk					Scoring the Risk (Probability Rating x Impact Rating)			
					Manageable (1-4)		Material (5-10)	
					Significant (12-24)		Severe (32-80)	
					Inherent Risk			Target
Risk #	Short Description (cause, event)	Consequences	Outcome/Impact	Proximity	Probability - How likely that risk will occur?	Impact - how severe will the impact be?	Inherent Risk Score	Target risk
1	Lack of political will to participate in ARC at national and continental level for countries and their partners	Lack of/slow pool growth ARC Ltd. viability affected	Outcome 2, Outcome 3, Impact	Throughout ARC's operational lifetime	Medium - Unlikely (3)	High -Severe (16)	48	16
2	ARC Member States are not interested in ARC insurance products	Lack of/slow pool growth ARC Ltd. viability affected	Outcome 2, Outcome 3, Impact	Throughout ARC's operational lifetime	Medium - Unlikely (3)	High -Severe (16)	48	16
3	The Member States do not have the basic institutional, financial and, administrative mechanisms and procedures for a timely and effective implementation of disaster response;	Poor or lack of delivery of the disaster response	Impact	Throughout ARC's operational lifetime	Medium - Possible (3)	High -Severe (16)	48	16

4	Due governance reform and its perceived uncertainty, ARC is not able to retain key staff	Lack of/slow pool growth. Reduced capability of ARC to deliver on its mandate. Loss of institutional memory.	Outcome 3	Completion of the implementation of governance reform and respective change management process.	Medium - Possible (3)	High/ Medium (8)	24	8
5	Countries are not able or willing to sustain premiums payment	Lack of/slow of pool growth and sustainability. ARC Ltd. viability affected	Impact, Outcome 2; Outcome 3	Throughout ARC's operational lifetime	Medium/ High - Likely (4)	High -Severe (16)	64	16
6	ARC donors are unwilling/unable to provide premium support.	Lack of/slow of pool growth and sustainability. ARC Ltd. viability affected	Impact, Outcome 2; Outcome 3	Throughout ARC's operational lifetime	Medium/ High - Likely (4)	High -Severe (16)	64	16
7	Change in government results in slow progress and limited transfer of knowledge to new technicians and decision Makers	Result that the country is unable to complete the necessary activities to join the risk pool and/or decision makers need to be resensitised or no longer support the work	Outcome 2	Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (16)	48	8
8	Country chooses not to follow the FIP and uses money for other things	The needed response is not executed, and the country is out of compliance	Impact	Throughout ARC's operational lifetime	Medium - Possible (2)	High -Severe (8)	16	8
9	No payout triggered, which leads to less participation by African governments and decisions not to participate in the pool (due to lack of understanding)	Lack of/slow pool growth. ARC Ltd. viability affected	Outcome 2 and Outcome 3	Throughout ARC's operational lifetime	Medium - Possible (3)	High -Severe (16)	48	8
10	Africa RiskView does not act as an adequate proxy for risk in a given member country or other types of basis risk occur.	ARV does not trigger payout when drought is significant on the ground. Loss of credibility in ARC mechanism. Lack of/slow pool growth. ARC Ltd. viability affected	Outcome 2, Outcome 3	Throughout ARC's operational lifetime	Medium - Possible (3)	High -Severe (16)	48	16

11	Business disruption due to Headquarters relocation	Need to slow down or stop ARC operations	Outcome2, Outcome 3	Two years after a permanent headquarters is found	Medium - Possible (3)	High/ Medium (16)	48	8
12	Attempt by commercial and/or entities to establish a risk pool for African governments	Competition Reduced demand for ARC products	Outcome 2	Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (16)	48	16
13	Lack of political will in ARC Member States to put in place complementary disaster risk financing instruments	Ineffective Disaster Risk Management in the Member States; Increased occurrence of perceived basis risk;	Impact, Outcome 2	Throughout ARC's operational lifetime	Medium/High – Likely (4)	High/ Medium (16)	64	16
14	ARC Donors withdraw their capital from ARC Ltd	ARC Ltd. is unable to carry out its activities; ARC Ltd. viability affected	Outcome2, Outcome 3	Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (16)	48	16
15	ARC Ltd is not solvent and does not benefits from portfolio growth	ARC Ltd.is unable to carry out its activities; ARC Ltd. viability affected	Outcome2, Outcome 3	Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (16)	48	16
16	Poor quality of in-country data used in Africa RiskView	Inaccuracy of ARC Heighten probability of basis risk		Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (16)	48	16
17	Low number of ratifications of ARC treaty	ARC unable to levy fees on Member States Reduced number of countries that can work with ARC	Outcome2, Outcome 3	From 10 th ratification	Medium - Possible (3)	High/ Medium (16)	48	16
18	Lack geographical diversification in ARC risk pool	Lack of/slow pool growth High premium. ARC Ltd. sustainability affected. Perception that ARC is a regional rather a continental institution	Outcome2, Outcome 3	Throughout ARC's operational lifetime	Medium - Possible (3)	High/ Medium (8)	24	8

Risk register totals

	Low - Negligible (1)	Low/Medium (2)	High/Medium (8)	High (16)
High - Almost Certain (5)	5	10	40	80
Medium/High - Likely (4)	4	8	32	64
Medium - Possible (3)	3	6	24	48
Low/Medium - Unlikely (2)	2	4	16	32
Low - Rare (1)	1	2	8	16

Managing the Risk

Risk #	Short Description (cause, event)	Risk Owner	Decision on Action to manage risk	Description of Control Measure	Status of Control Measures	Control Owner	Broad Risk Category
1	Lack of political will to participate in ARC at national and continental level for countries and their partners	ARC Group	Reduce impact & Likelihood	As a specialised of the AU, ARC treaty has been signed by 33 African States. ARC will continue high level political engagement at continental, Regional Economic Communities and country level to maintain buy-in and support. ARC is working to diversify Donors supporting its operation while exploring options for its long-term sustainability.	In progress	ARC Group	Financial/ Institutional

2	ARC Member States are not interested in ARC insurance products	ARC Group	Reduce likelihood	ARC will continue to align its products to the Member States demand and requests. ARC is looking to offer sub-national insurance, co-insurance with local companies, and insurance for tropical cyclone and flood at the request of Member States. In its new strategy (2020-2024) ARC will work the its Member States and partners to support the development a holistic disaster risk financing strategy.	Existing	ARC Group	Political/Institutional
3	The Member States do not have the basic institutional, financial and, administrative mechanisms and procedures for a timely and effective implementation of disaster response	ARC Group	Reduced impact	More thorough review of government financial/payment systems; planning in place in advance to ensure that payments are made through timely channels; Explore with each country ways to channel funds directly to institutions in charge of implementation (and with control measures in place including Treasury involvement) and possibly without the funds channeled to Treasury	In progress	Member States	Institutional
4	Due governance reform and its perceived uncertainty, ARC is not able to retain key staff	ARC Group	Reduce impact & Likelihood	ARC will implement a seamless and well-planned change management as the governance review is completed. This will include a clear and transparent communication with and involvement of ARC staff.	In progress	ARC Group	Institutional/Managerial
5	Countries are not able or willing to sustain premiums payment	ARC Group	Reduce impact & Likelihood	The ARC will continue to endeavor to keep premiums affordable. ARC will intensify its advocacy effort to influence disaster risk management and financing framework in Member States and on the continent. This includes incorporating regular premium payments into the national country budgets. In addition, ARC will seek to partner with donors to develop and finance premium payment support mechanisms. national systems.	In progress	ARC Group	Political/Financial
6	ARC donors are unwilling/unable to provide premium support.	ARC Group	Accept	The ARC will continue to endeavor to keep premiums affordable. ARC will intensify its advocacy effort to influence disaster risk management and financing framework in Member States and on the continent. This includes incorporating regular premium payments into the national country budgets. ARC will continue to diversify the donor support on	In progress	ARC Group	Financial

				the premium payment.			
7	Change in government results in slow progress and limited transfer of knowledge to new technicians and decision Makers	ARC Group	Reduce impact & Likelihood	ARC will intensify its advocacy effort to influence disaster risk management and financing framework in Member States and on the continent. ARC will extend its technical working groups to include development partners and civil societies. In addition, ARC will put in place an online training platform that will facilitated the in-county knowledge transfer.	In progress	ARC Group	Political/Operational
8	Country chooses not to follow the FIP and uses money for other things	ARC Group	Reduce impact & Likelihood	ARC has a process through which countries can submit an updated FIP. The FIP will be judged on its implementability, which will take into account the current context, the capacity of the government and its partners to implement the plan and the existing mechanisms and frameworks. In addition, the ARC Board and the CoP has adopted Compliance Rules outlining the steps that ARC Agency should take if a country has not followed its FIP.	Existing	ARC Group	Political/Operational
9	No payout triggered, which leads to less participation by African governments and decisions not to participate in the pool (due to lack of understanding)	ARC Group	Reduce impact & Likelihood	ARC is strengthening its capacity building to improve the understanding of ARC mechanisms and the parametric insurance by in-county policy makers. Thus ARC will expand its training to include (i) decision makers in government, (ii) parliamentarians involved in national budgets review and (iii) the media to enhance understanding of the role of disaster risk financing and insurance for all critical stakeholders involved in the engagement process.	In progress	ARC Group	Political/Financial

10	Africa RiskView does not act as an adequate proxy for risk in a given member country or other types of basis risk occur.	ARC Group	Reduce likelihood	Continued customisation of ARV to minimise basis risk (real and perceived) as well as ongoing communication and sensitisation with countries on model limitations and basis risks. Moreover, ARC has put in place a rigorous quality control process of the ARV customisation through the Customisation Review Committee (CRC) at both national and sub-regional level. In addition to a rigorous in-season monitoring, ARC is considering to offer to the countries at least 2 models per perils. ARC is establishing R&D partnerships on ARV across Africa and internationally to ensure ARV remains at the cutting edge of new EW and modeling technologies and that model limitations as identified can be addresses.	In progress	ARC Group	Technical/Operational
11	Business disruption due to Headquarters relocation	ARC Group	Reduce impact & Likelihood	Work with the ARC Governing Board and CoP to pick appropriate location for ARC Headquarters with adequate planning.	In progress	ARC Group	Institutional/Operational
12	Attempt by commercial and/or entities to establish a risk pool for African governments	ARC Group	Reduce impact	ARC will partner with African based insurance and reinsurance companies (including Africa Re) to provide co-(re) insurance in Member States.	In progress	ARC Group	Political/Financial
13	Lack of political will in ARC Member States to put in place complementary disaster risk financing instruments	ARC Group	Reduce Likelihood	ARC will intensify its advocacy effort to influence disaster risk management and financing framework in Member States and on the continent. ARC is strengthening its capacity building to improve the understanding of ARC mechanisms and the complementarity of different instruments for a holistic disaster risk management and financing.	In progress	ARC Group	Political
14	ARC Donors withdraw their capital from ARC Ltd	ARC Group	Reduce impact & Likelihood	ARC will continue dialogue with all the shareholders of ARC Ltd on the way to bring ARC Ltd to the industry standards and improve its financial viability. ARC will look to diversify its capital base. Priority will be placed on building Class B or Class D capital pools.	In progress	ARC Group	Financial

15	ARC Ltd is not solvent and does not benefit from portfolio growth	ARC Group	Reduce impact & Likelihood	ARC will continue dialogue with all the shareholders of ARC Ltd on the way to bring ARC Ltd to the industry standards and improve its financial viability. In its new strategy (2020-2024) ARC will implement new initiative that will improve the pool growth.	In progress	ARC Group	Financial/Operational
16	Poor quality of in-country data used in <i>Africa RiskView</i>	ARC Group	Reduce impact & Likelihood	In collaboration with the in-country Technical Working Groups, ARC will continue to explore reliable sources of data for <i>Africa RiskView</i> Customisation. The in-country and the sub-regional Customisation and Review Committees (CRC) are also put in contribution for improved data quality.	In progress	ARC Group	Technical
17	Low number of ratifications of ARC treaty	ARC Group	Likelihood	As a specialised agency ARC is embedded in the AU Executive Committee decisions; ARC will work with partners and Member States to advocate for the ratification of ARC treaty.	In progress	ARC Group	Political/Institution
18	Lack of geographical diversification in ARC risk pool	ARC Group	Reduce impact & Likelihood	In the new strategy ARC are seeking to expand its coverage to other geographical regions in Africa. ARC will strive to bring in its insurance pool more countries from East and Southern Africa.	In progress	ARC Group	Financial/Operational

Annex 4: Extreme Climate Facility (XCF)

At the African Union Conference of Ministers of Finance in March 2014 at the Seventh AU-ECA Joint Annual Meetings in Abuja, Nigeria (decision no. 927(XLVII)), ARC Agency was specifically requested to develop a proposal for a mechanism through which African states can access financing to respond to the impacts of increasing climate volatility. Over the period 2010-2050, the World Bank estimates an adaptation investment cost need of US \$14-17 billion per year for sub-Saharan countries to adapt to an approximately 2°C warmer climate by 2050¹⁷. Despite the amount of climate adaptation funds African countries have attracted to date, there remains a significant investment gap for ARC member states to build more resilient communities and to develop adaptive capacity to the impact of climate change.

What is XCF?

The eXtreme Climate Facility (XCF) is an African-led initiative that is being developed to enable ARC Member States to access private capital, diversifying the funding sources and increasing the amount of international funding available for climate adaptation in Africa. The initiative was formally launched by Dr Ngozi Okonjo-Iweala, the ARC Governing Board Chair, at the Secretary General's Climate Summit in New York in September 2014.

Climate is an ensemble of weather over a period, and the XCF is envisioned as a multi-year, parametric-driven financial vehicle that tracks the frequency and magnitude of extreme climate shocks in Africa, and provides additional financing for countries already managing their current weather risks through ARC Ltd. Payments to countries over series of multi-year periods during a 30-year period, or some long-term adaptation period, would be entirely objective and data-driven; and, if there are no significant increases in the frequency or magnitude of extreme weather events over current climatology, then no payments would be made. Where payments are made, countries would use the allocated funds to invest in climate change adaptation measures specified in pre-defined national adaptation plans.

To attract private capital, XCF payments would be based on an objective and standardised multi-hazard Extreme Climate Index (ECI). The extreme natural disasters are tracked by the index, which has been designed using the state-of-the-art modelling techniques and methods. The index is based on meteorological data, specific to climatic regions and designed to capture the severity and frequency of extreme heat, drought, flood and other extreme weather events important to specific regions, such as cyclones.

Similar to the index-based insurance contracts issued by ARC Ltd, the XCF would trigger payments to all eligible countries in a climatic region/zone should the ECI in a given year exceed a pre-defined threshold, indicating an increase of severe weather across that region.

The second part of the mechanism focuses on improving in-country institutional frameworks, such as fiduciary and project management capabilities, at a level of global best practices for climate adaptation projects. This includes a systematic analysis of various prevention, intervention and insurance measures for countries leading to recommendation of the priority projects in national adaptation plans.

The XCF payouts would, therefore, be specifically used to finance clearly pre-defined investment plans that meets ARC's approval criteria. The conceptualised framework is analogous to how ARC links its insurance payouts to pre-approved in-country contingency plans for vulnerable population.

Countries that are already managing their weather risk through ARC as members of ARC Ltd would be eligible to join XCF and donors would pay the costs to secure access to private capital through XCF.

Current Status

The Research & Development (R&D) on XCF commenced in 2014 with financial support from the Rockefeller Foundation, Swiss Development Corporation and Canadian International Development Agency. Over the next 12 month, a multi-disciplinary R&D programme would focus on deliverables across 5 work-streams for the programme's transition to an establishment phase, namely: 1) implementation-ready adaptation standards set for countries' investment plans; 2) a parametric-driven mechanism to assess climate impact by tracking extreme weather events across the continent in an objective and standardised manner over time, with established indices, thresholds and criteria for triggering XCF payments to climatic regions/zones; 3) an efficient financial vehicle that could finance XCF's obligations to African governments over time; 4) Stakeholder management and communication plan; and 5) an operational readiness framework to meet the legal and financing structuring arrangement, and leveraging on existing ARC infrastructure and in-country operations with respect to preparedness and implementation of climate adaptation plans.

ARC will partner with research, financial and other relevant partners with significant experience in financing structuring, legal and climate modelling in Africa to work on this cutting-edge research. To ensure the programme outputs meet market investor requirements, ARC would also consult with an informal investor advisory group and potential donor groups throughout the process.

Annex 5: Public Health Emergencies

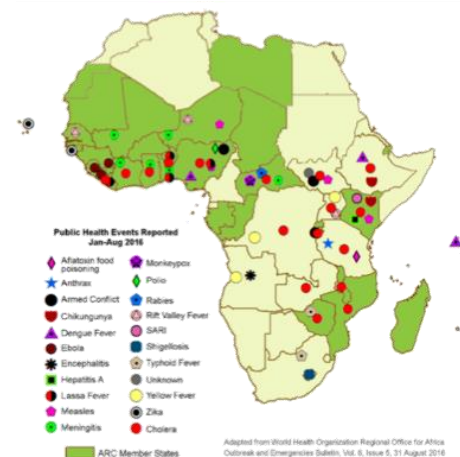
Public Health Emergencies: The challenge facing Africa, and the African Union’s response

Since the enforcement of the International Health Regulations (IHR) IHR (2005) in 2007, as a mechanism for ensuring global health security through containment of spread of infectious diseases, and thereby maintaining stable international travel and trade, Joint External Evaluations (JEE) of country capacity and preparedness has revealed that most African Union Member Countries are poorly prepared.

Over the past years, several global and regional initiatives have emerged to support Member States in epidemic and pandemic response. These have included Africa Centers for Disease Control, The World Bank Pandemic Emergency Facility, African Risk Capacity Outbreak and Epidemics (O&E) and WHO Emergency Funds.

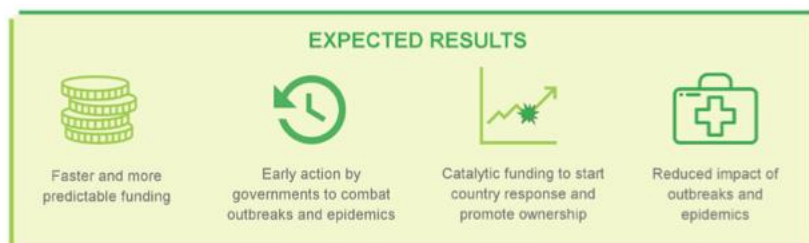
ARC’s O&E Pilot Programme: An African Union Initiative to Public Health Emergencies preparedness and early response financing

ARC’s Outbreaks and Epidemics (O&E) insurance programme was born in the wake of the devastating 2014 West African Ebola crisis. The lessons from the Ebola outbreak in West Africa, revealed that, in addition to weaknesses in health systems, slow unpredictable funding was a major contributing factor to the inability of the Guinea, Sierra Leone and Liberia to rapidly respond to the initial outbreaks, the ARC Conference of the Parties, states and African Ministers of Finance in 2015⁶, requested the ARC Secretariat to develop a product to address Africa’s financing needs to contain outbreaks of viruses and diseases common to the African continent, and in the event of spread or secondary transmission.



Funded by The Rockefeller Foundation and Swiss Development Corporation and building on its experience in disaster risk management related to droughts, in 2016 ARC commenced a Research and Development programme to establish the systems and funds needed to identify, contain and ultimately respond to outbreaks and epidemics.

For Africa, the need for an O&E product is based on the increasing occurrence of multiple, complex trans-border public health emergencies over the past 20 years, characterised by delayed and ineffective response mechanisms.



⁶ Resolution 9:2 of the report of the First Joint Session Of The AU Specialised Technical Committee on Finance, Monetary Affairs, Economic Planning And Integration And ECA Conference Of African Ministers of Finance, Planning And Economic Development, Addis Ababa, Ethiopia, 25-31 March 2015

The aim of the O&E product is therefore to:

- Establishing a pool of cost-effective capital that can be rapidly deployed at the early onset of a disease outbreak
- Incentivising countries to acknowledge O&E by tying declaration of epidemiologic events to immediate financial pay-out
- Facilitating better health systems strengthening and preparedness (e.g. through better surveillance mechanisms and incentivised contingency planning)
- Promoting pan-African and sub-regional solidarity and coordination

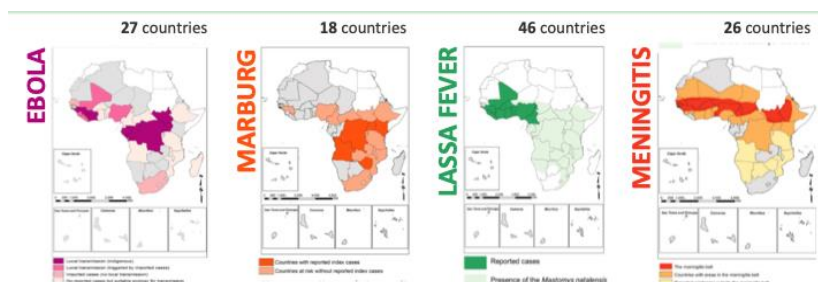
The pilot has focused on four diseases of epidemic nature; Ebola, Meningitis, Lassa Fever and Marburg. The above four pathogens/diseases can potentially cause outbreaks in 40 African Union Member States. ARC O&E is built on thorough country risk analysis, contingency planning and sovereign parametric insurance, the success of which reduces the need for pandemic scale response. O&E programme aims to be funded via the private sector as far as possible with the support of global reinsurers and ILS funds.

ARC strongly believes multiple systems are necessary to help deliver global protection against outbreaks and epidemics. ARC is heavily engaged with the World Bank to link their Pandemic Emergency Risk Facility (PEF) with the O&E product as far as possible for the exposed African nations. It is expected that upon renewal of the PEF in 2020 that the O&E programme would sit below PEF to provide early response pay-out before PEF is triggered. There are ongoing discussions on the best mechanisms to link the two programmes which will require consultation with the market to understand appetite over the next few months.

Choice of Pathogens

Infectious diseases such as Ebola virus disease, Marburg virus disease, Lassa fever, and meningococcal meningitis pose an increasing threat to health, security and development in Africa. In 2015, The 2014-2015 Ebola outbreak in West Africa resulted in over 11,000 deaths in Guinea, Sierra Leone and Liberia, and the estimated economic impact of the outbreak was USD 2.8 billion on

the three countries, according to the World Bank. It is estimated that Initiating the Ebola response two months earlier could have averted the fatalities by up to 80%.



The meningitis belt in Africa covers 26 countries and has an estimated population of approximately 300 million people, and the region experiences large epidemic outbreaks in cycles lasting between 8 to 15 years⁷ with an average incidence of 1000 cases per 100,000 population. In 1996, almost 190,000 cases were

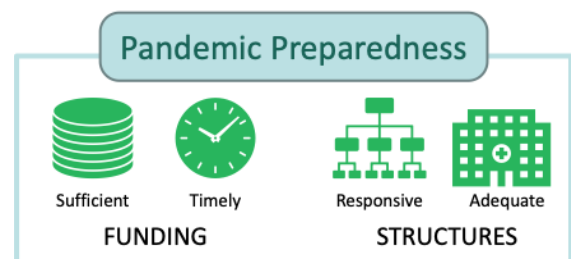
⁷ Harrison, Lee H., Caroline L. Trotter, and Mary E. Ramsay. "Global epidemiology of meningococcal disease." *Vaccine* 27 (2009): B51-B63.

notified to WHO in Burkina Faso, Chad, Mali, Niger, Nigeria, and other countries in the meningitis belt leading to a loss of economic output to a significant swathe of the continent.

Lassa fever has an at-risk population estimated to be as high as 59 million, with an annual incidence of illness of three million, in Sierra Leone, Guinea, and Nigeria. Similar to Ebola virus disease, Marburg virus disease (MVD) has a case fatality rate of around 50% and has serious health and socio-economic effects on affected populations.

Product design, characteristics, and coverage

The O&E product will be a parametric Excess of Loss insurance contract, to be issued by ARC with the beneficiaries being the sovereign African governments during a covered outbreak. The product is likely to trigger using a Data Index which serves to describe the alert level in a particular country based on confirmed cases and other data collected during the outbreak and validated by historical data. More than one source of data will be expected for reporting including WHO. Modelling of response costs will determine how much limit/coverage a country need. The contingency planning and preparedness work will serve to reduce the premiums paid by countries and serve to contain the risk early. The product is expected to be layered to ensure staggering of payments.



Proposed product Structure

- One-year cover, based on outbreak response cost needs, could be expanded to three years cover depending on reinsurer appetite for supporting this programme
- Excess of Loss structure akin to Industry Loss Warranties for catastrophe risk
- Parametric non-indemnity single pay-out per layer
- Policies per country stacked at different probability thresholds
- Each policy Pays out 100% of the limit stated in contract upfront when triggered
- Payment through one layer should serve to reduce the risk of trigger other layers if the disease is contained
- Multi-peril cover with first attachment for a country equal to peak pathogen exposure for the country in question
- Aggregate limit cap is considered for now corresponding to single event peak exposure but covering all four pathogens
- Dual-trigger mechanism; with initial trigger following WHO's confirmation and reporting of an outbreak in a covered country, and the Data Index level threshold of policy attachment reached

Proposed Data Index characteristics

- Triggering pay-out based on the Data Index – index levels referenced in contract per covered peril, these will vary by pathogen
- Data Index will likely be a calculated metric based on case numbers and other data collected. It will be derived transparently and structured to minimise basis risk for insured country and gain reinsurer support

- Data sources used will be consistent, credible and avoid moral hazard.

WHO data will be used alongside at least one other source

The diagram below illustrates the expected transition from pilot to full programme.

Phase 1	Phase 2	Phase 3
2018-2019	2020-21	2022-23
Technical and Funding Agencies	Partnerships with Private Sector and Global Development Agencies	Scaling and addition of more pathogens
To finalize the development of O&E tools and templates	Product launch - Live Insurance: Testing premium financing ; To test the viability, validity, robustness, and sensitivity of the tools and templates of the O&E product	To scale up the O&E insurance product
Outputs	Outputs	Outputs
O&E risk models, disease spark and spread models, index design, trigger design, and contingency planning standards & guidelines, and templates	Validated O&E models, contingency planning templates and risk profiling frameworks; Live O&E insurance run	Offer parametric O&E insurance in collaboration with the private sector to AU member states with the aim of complementing existing mechanisms.
2 Countries 4 Pathogens	5 Countries 4-6 Pathogens	12 Countries 6-8 Pathogens
ARC (Agency and Ltd); Africa CDC; WHO AFRO; outsourced research partners (Metabiota, HSCL, and Columbia University); Expert Advisory Panel members	As in phase 1, plus private sector (insurance and re-insurance companies), global and regional development, and funding agencies	As in phase 2 (Cameroon, Central African Republic, Nigeria, Benin, Burkina Faso, DR Congo, Ethiopia, Ghana, Senegal, Sierra Leone, Guinea, Uganda)



Annex 6: ARC Gender Strategy

The ARC Gender strategy is provided as a separate attachment.