

Independent Evaluation of the African Risk Capacity (ARC)

Formative Phase 1 Report

27th October 2017

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Executive summary

This report presents the findings of a formative evaluation undertaken as part of an independent evaluation of the African Risk Capacity (ARC) commissioned by the UK Department for International Development. The independent evaluation is being conducted by Oxford Policy Management and will run between 2015 and 2024.

The purposes of the evaluation are three-fold:

- To provide recommendations and lessons learned for the management of the ARC programme.
- To test if ARC is effective. This will provide broader lessons for the global evidence base relating to whether risk transfer and risk pooling are cost-effective ways of improving disaster risk management.
- To provide accountability to the UK taxpayer for the government's investment in ARC.

The evaluation has two components: a formative evaluation stage and an impact evaluation stage. This report is the outcome of the first of two formative evaluations, the second of which will take place in 2019. The two impact-focused evaluations will take place in 2020 and 2024.

1.1 The African Risk Capacity

ARC is an index-based weather risk insurance pool for African Union countries that was established by the African Union in 2012. Its mission is to “create a pan-African natural disaster response system that enables African governments to meet the needs of people at risk to natural disasters”¹. The expected impact of ARC manifests at different levels. Through a pooled insurance model, it should offer African countries competitive pricing for insurance products. At the national level, it should improve the ability of governments to better anticipate, plan, and respond to disaster risk by strengthening capacities, awareness, and action around DRM. At the local level, vulnerable households should be more resilient to disasters through the receipt of timely support.

Countries who wish to join the ARC risk pool must undergo a capacity-building programme which covers early warning, risk modelling, contingency planning, disaster risk management and risk financing. This includes training on *Africa RiskView*, ARC's proprietary software application which combines historical rainfall data with vulnerability data to estimate drought-related response costs and define triggers for the parametric insurance.

ARC is comprised of two entities: ARC Agency and ARC Limited. ARC Agency is the capacity building, educational, and advocacy arm. ARC Limited is a sovereign-level mutual insurance company that provides weather-related insurance coverage to Member States.

1.2 Evaluation approach

The evaluation centres on four questions:

¹ ARC Strategic Framework, April 2016.

1. To what extent does ARC's **institutional setup and outputs** lead to the adoption and effective use of ARC insurance products? Can this be improved?
2. To what extent has ARC contributed to **in-country timely and effective responses** that protect affected households' livelihoods and prevent asset loss and food insecurity?
3. To what extent has ARC influenced **AU Member States' capacity** to anticipate, plan, finance and respond to climate related disasters generally, and more specifically in making best use of ARC?
4. Do participating governments and other stakeholders **value ARC's risk pool and technical assistance**? Why?

The team has collected evidence across three different workstreams:

- Country case studies in Mauritania, Kenya and Malawi collecting information from 86 key informant interviews.
- An Organisational Review of ARC Agency and ARC Limited² involving interviews with 20 staff and board members.
- A Global Review comprising i) interviews with 30 international experts; ii) a survey carried out with 30 representatives from 17 African countries; and iii) a context assessment to identify broad trends across a sample of 20 African Union countries.

1.3 Findings

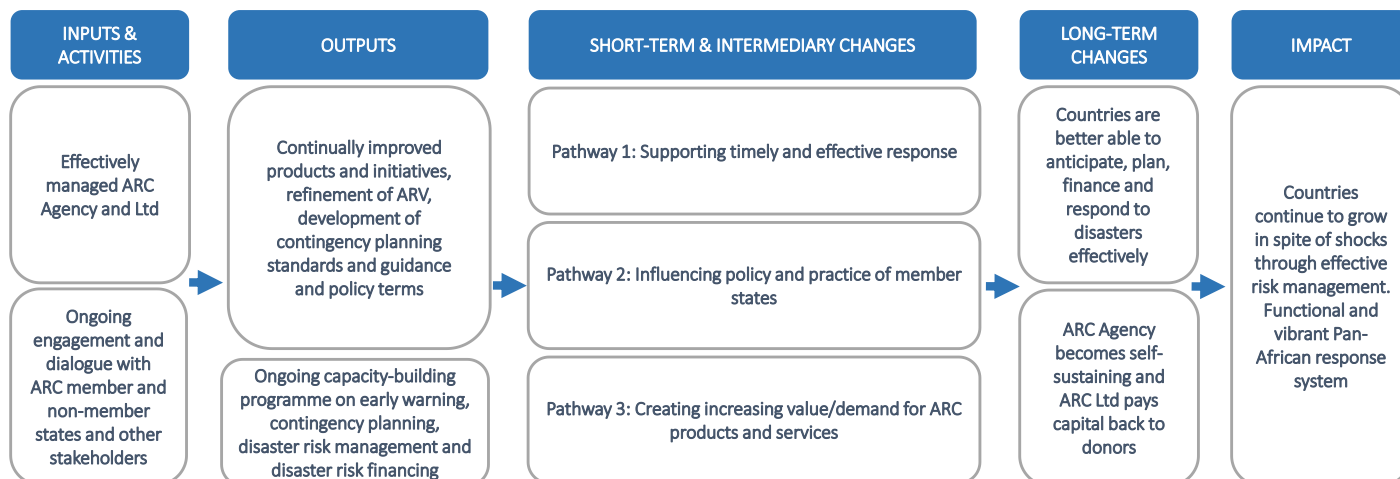
It is too early to be able to definitively answer the evaluation questions. The team needs to collect more evidence over several years to be able to robustly point to the contribution that ARC has made towards its desired outcomes and impact. However, we can assess progress towards each of the components of ARC's Theory of Change (ToC)³, which helps us to understand where progress is being made, what challenges exist and where assumptions might not be holding. This evidence allows us to provide an overall preliminary response to each of the evaluation questions.

Each different result in the ToC has been given a Red / Amber / Green (RAG) rating⁴ to give an overall indication of ARC's progress in that area. The assessment of progress towards intended results accounts for factors associated with ARC's activities and performance, as well as external factors that may have affected progress (positively or negatively). The diagram below is a simplified version of ARC's ToC:

² Most emphasis has been placed on ARC Agency given that they are the bigger organisation whose activities are most relevant to the Theory of Change.

³ A Theory of Change (ToC) is the thinking behind how a particular intervention will lead to its expected results. It shows the causal links between the activities being undertaken and the specific outcomes and ultimate impact the intervention hopes to produce.

⁴ A full description of the criteria for each rating is available in the Methods Section 3.2.4.

Figure 1: ARC Simplified Theory of Change

EQ1: To what extent does ARC’s institutional setup and outputs lead to the adoption and effective use of ARC insurance products? Can this be improved?

To investigate this question further, the Evaluation Team collected evidence on what progress was being made in the following areas of the ToC⁵:

Management of ARC Agency and ARC Ltd

Evidence suggests that ARC Agency is transitioning from a startup to a larger, more formalised organisation. This transition has revealed some significant organisational management challenges, such as a lack of robust processes and standards in some areas, concerns about adequacy of human resourcing and poor internal and external communications. ARC Agency has begun to address some issues, for example filling some key management positions, establishing an M&E function and opening a West Africa office. Other issues are harder to rectify—for example, a complex governance structure and difficult working relationship between ARC Agency and ARC Ltd presents significant challenges to both institutions’ abilities to deliver their mandates. ARC Ltd is generally viewed positively by the insurance industry. However, there are some concerns relating to the professionalism of the institution, particularly with regard to flexibility of premium payment deadlines and frequent changes to the portfolio. **Rating: Amber**

Engagement and dialogue with stakeholders

It is clear that ARC is undertaking many activities across a broad range of African Union countries, and is engaging with a wide range of stakeholders, including political decision-makers and technical personnel within member and non-Member States. It is building a presence across Africa and at the global level, and there is evidence that ARC Agency is trying to build strategic partnerships with various regional and international organisations. Against this broad progress there are still some areas for future adjustment. Firstly, ARC has not yet managed to engage successfully with all relevant organisations. Work with the World Bank has not been as close as ARC would have liked, although several attempts to reach out have been made by ARC staff at all levels (from the Board down, including at country level), with activities including presentations and a week-long workshop in Johannesburg. Secondly, at the country level, the story of ARC engagement is less positive and generally uneven, with strong evidence to suggest that civil society and NGOs have often not meaningfully been involved. There was also broad recognition of

⁵ This EQ relates most to inputs, activities and outputs in the ToC.

challenges in engaging effectively between technical staff and government officials. **Rating: Amber / Green**

Product development and improvement

Disaster risk insurance is a complex and emergent field in itself, and falls within a rapidly evolving disaster risk financing landscape. To ensure the continued relevance of its products, it is critical that ARC is responsive to contextual changes, as well as to feedback in relation to its products. The evidence shows some positive signs of ARC adaptation, particularly in relation to contingency planning processes and some ARV customisation to country contexts and different perils. ARC is developing innovative financing mechanisms like the ARC Replica and the Extreme Climate Facility, and is in discussion with several higher-income countries to try to understand what products could be developed to better meet their needs. However, many concerns remain regarding the effectiveness of ARV across highly diverse contexts. The complexity of customisation makes it inaccessible to many, raising questions around both the software itself and the institutional processes surrounding its adaptability. Some respondents also expressed more fundamental concerns that ARV is a 'black box' and that it is very difficult to successfully model climate risks, in particular progressive perils like drought, so ARC has set itself a very high bar. There is also a concern that by responding to Member States' requests for products for new perils and working on the other innovations mentioned above, ARC is over-extending itself and diverting from its core product and mandate. **Rating: Amber**

Delivery of capacity-building programme

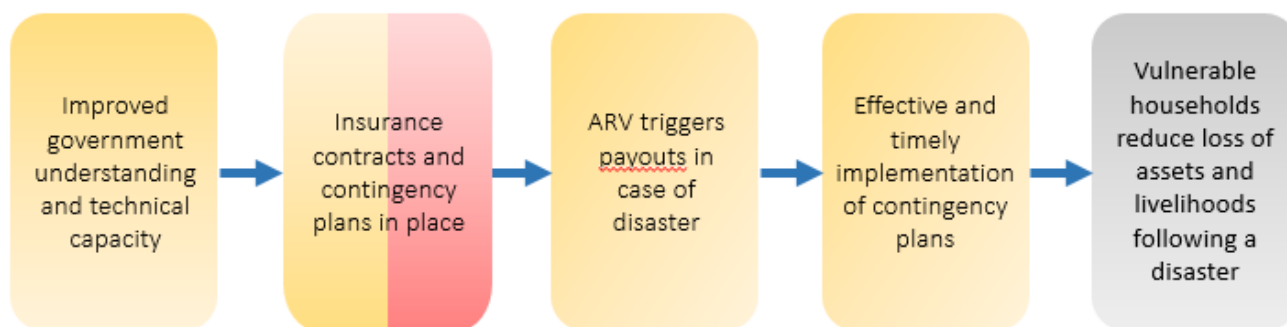
There was strong evidence to suggest that ARC does implement a broad capacity-building programme covering early warning, contingency planning, disaster risk management and disaster risk financing in a range of different countries, typically for much longer than was initially envisioned⁶. Although the activities definitely occur, the approach taken is not particularly innovative, relying on traditional tools like PowerPoint presentations and manuals—and it was observed that ARC staff, while having certain technical strengths, are not necessarily qualified educators. ARC is discussing ways to deliver more flexible and effective support through new tools (e.g. online training) and revising existing methods (e.g. regional workshops). **Rating: Green**

EQ2: To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods and prevent asset loss and food insecurity?

To investigate this question, the Evaluation Team collected evidence on what progress had been made across these steps in the ToC⁷:

⁶ Initial plans were for the capacity-building programme to run for 9-12 months.

⁷ These steps relate to the short- and intermediate-term changes referred to in the ToC as Pathway 1: Supporting timely and effective response.

Figure 2: Pathway 1: Supporting timely and effective response

Government understanding and capacity

ARC aims to improve governments' capacity in relation to the design and implementation of contingency plans for early response; risk modelling; risk pooling; and risk transfer. The evidence suggests that ARC's capacity-building activities have led to some capacity being built, but this is limited in breadth, depth and sustainability. The low starting capacity of many African governments and frequent turnover have been major challenges, but these are well-known typical issues for technical assistance programmes, and therefore could have been better factored into the design. Whilst there is evidence of improved understanding in some areas, countries who have completed the official capacity-building programme still require on-going support and assistance from ARC. Further, only a small number of stakeholders within governments are engaged in capacity-building activities, which suggests that the scope of achievements is narrow as well as relatively shallow.

Rating: Amber

Getting insurance contracts and contingency plans in place

Over the past four years, eight different African nations have taken out ARC policies in four annual pools, at a total cost of approximately US\$55 million. However, over the last two years, the risk pool has been gradually shrinking, despite continued food insecurity and drought in the region. Many contributing factors emerged in relation to this result, including a strong view that premiums are expensive when compared with likely payouts, a generally low level of understanding of how insurance works, and some mistrust of insurance. Politics presents a major challenge, particularly the short-term incentives of political decision-makers which are mismatched with the longer-term value proposition of insurance. Other challenges include the difficulty of justifying premium payments given other pressing needs, the presence of basis risk, and concerns over possible errors in the model. Evidence from Mauritania, Malawi and Kenya suggests that countries may be more likely to drop out if a payout is not received within a few years, or if a good agricultural season is predicted, although this is not always the case, as two countries (Gambia and Mali) have participated in three consecutive risk pools without a payout. Rating: Amber / Red

ARV triggering payouts when there is a disaster

There is mixed evidence as to the reliability of ARV and ARC processes to ensure that ARV consistently triggers payouts following droughts. Basis risk is inherent to parametric insurance, and so there will always be a risk that ARV will not trigger even if there is a drought. Concerns about the accuracy of ARV, and confusion or lack of understanding about how the model works contribute to a lack of trust. Malawi's late payout was widely perceived to be a situation where ARV and ARC processes did not function appropriately. Rating: Amber

Effectiveness and timeliness of contingency plan implementation

Evidence from Mauritania's experience shows that it is possible for ARC payouts to facilitate quick and effective emergency response. However, in this and in other cases, there are substantial political and procedural barriers to be overcome. The experiences of Niger and Senegal, two of four countries which have so far received ARC payouts, highlight the obstacles presented by country bureaucracies in transferring funds and more generally in implementing the plan. Lessons learnt documents have been developed by ARC, and published on their website to inform updates to plans for future years. Experiences in Malawi and Mauritania raise concerns about the transparency and quality of the process of updating Final Implementation Plans (FIPs). **Rating: Amber**

Reducing loss of assets and livelihoods

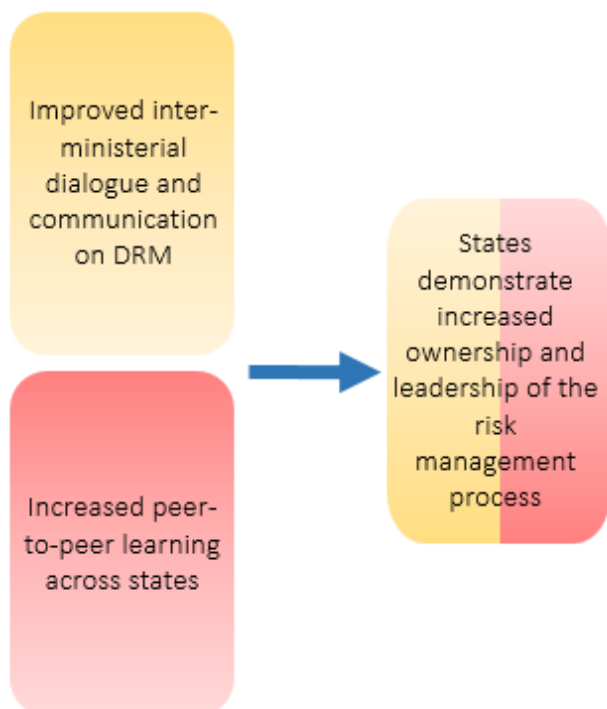
Secondary data on payouts in Mauritania and Senegal suggests that payouts did reduce sale of assets for some households and protect their livelihoods. However, this will be the focus of future phases of the evaluation, which will include data collection at the household level. It will be important to consider whether payouts are too small to make a meaningful impact on households' ability to reduce loss of assets and livelihoods, and whether (as happened in Mauritania) a payout creates disincentives to secure additional funds for emergency response. **Rating: Grey⁸**

EQ3: To what extent has ARC influenced AU Member States' capacity to anticipate, plan, finance and respond to climate related disasters generally, and more specifically in making best use of ARC?

To investigate this question, the Evaluation Team collected evidence on what progress had been made across these elements of the ToC⁹:

⁸ A Grey rating indicates that insufficient evidence is currently available for a robust judgement.

⁹ This relates to the short- and intermediate-term changes referred to in the ToC as Pathway 2: Influencing the policy and practice of Member States.

Figure 3: Pathway 2: Influencing the policy and practice of Member States

Inter-ministerial dialogue and communication on DRM

There are some examples of improved inter-ministerial dialogue in risk pool member countries—but the dialogue is limited in breadth and depth (in that it focuses on ARC technical aspects rather than broader DRM), and as such is unlikely to be sufficiently transformative or sustainable. Evidence suggests that dialogue starts off strongly at the early stages of ARC engagement, but then tapers off, particularly if a country does not renew their policy. In addition, communication between technical and political actors is notably weak. **Rating: Amber**

Peer-to-peer learning

To date, there have only been a few formalised opportunities for effective peer-to-peer learning¹⁰, due in part to the very different levels of understanding and experience between countries engaged with ARC, which makes regional workshops difficult. In West Africa ARC appears to have successfully leveraged regional networks and built some momentum through that mechanism—but this change has not been replicated in other regions. **Rating: Red**

Country ownership and leadership of the risk management process

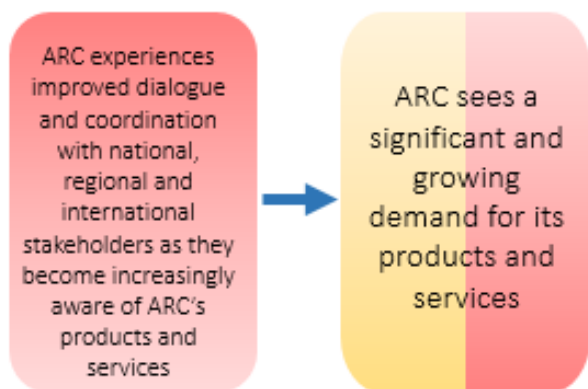
In Mauritania, the government has shown some positive levels of ownership and institutionalisation, but this was not seen in the other case study countries, where there was no evidence of ARC being embedded in country strategies. None of the case study countries had embedded ARC premiums in their national budgets at the time of data collection (this is unsurprising for Kenya and Malawi, who were not in the risk pool), although ARC staff report that premiums are in the budgets in Mali, Burkina Faso, the Gambia and Senegal at the time of writing. **Rating: Amber / Red**

¹⁰ An example is a regional workshop for SADC countries in August 2017.

EQ4: Do participating governments and other stakeholders value ARC's risk pool and technical assistance? Why?

To investigate this question, the Evaluation Team collected evidence on what progress had been made across these elements of the ToC:¹¹

Figure 4: Pathway 3: Creating increasing value / demand for ARC products and services



Stakeholders' awareness of ARC's products and services

Evidence suggests that while there is a relatively good level of awareness of ARC's existence amongst stakeholders in Africa, there is a very limited understanding of how ARC's products and services work, as well as on the respective roles of Agency and Limited. This is largely due to a lack of effective external communication on ARC's part, in informing stakeholders and broader audiences. There is strong evidence that ARC's current efforts in terms of transparency and communications are perceived as very weak. The handling of the situation in Malawi in 2015/6 was regarded by many stakeholders as poor. More generally, a lack of understanding of insurance across Africa, and a pervasive scepticism and distrust of the insurance industry hinder successful communications. **Rating: Red**

Demand for ARC's products and services

There is demand for ARC's capacity-building services: sixteen countries have been involved in ARC's capacity-building programme. Uptake of ARC's products, measured by growth of the risk pool, is certainly not growing, and actually appears to be shrinking. As mentioned above, reasons appear to include affordability, low understanding, perception that premiums are too high for the likely benefit, distrust of insurance, and political disincentives. For some countries, demand may exist but uptake is not possible due to affordability issues.¹² In these cases, ARC is making strong efforts to secure premium financing from donors like the African Development Bank. **Rating: Amber / Red**

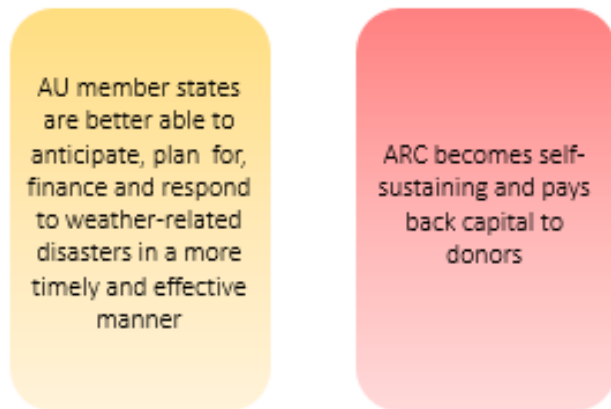
ARC's expected long-term changes and impact

ARC expects to contribute to the following long-term changes:

¹¹ This part of the ToC relates to Pathway 3: Creating increasing value/demand for ARC products and services

¹² ARC report that Niger, for example, would have purchased a policy but could not find the necessary finance.

Figure 5: ARC's expected long-term changes and impact



The Mauritania case study provides the strongest evidence that Member States are improving in DRM and emergency response, as the country experienced a broadly successful payout, and several stakeholders highlighted ARC’s contribution to managing the drought. However, other country experiences do not provide strong evidence of ARC’s contribution and suggest (for example in Kenya) that progress in relation to DRM is more likely to have resulted from initiatives other than ARC. The experience in Malawi was generally not positive in showing the value of ARC’s products and financing mechanisms to help anticipate, plan and finance responses to weather-related disasters. **Rating: Amber**

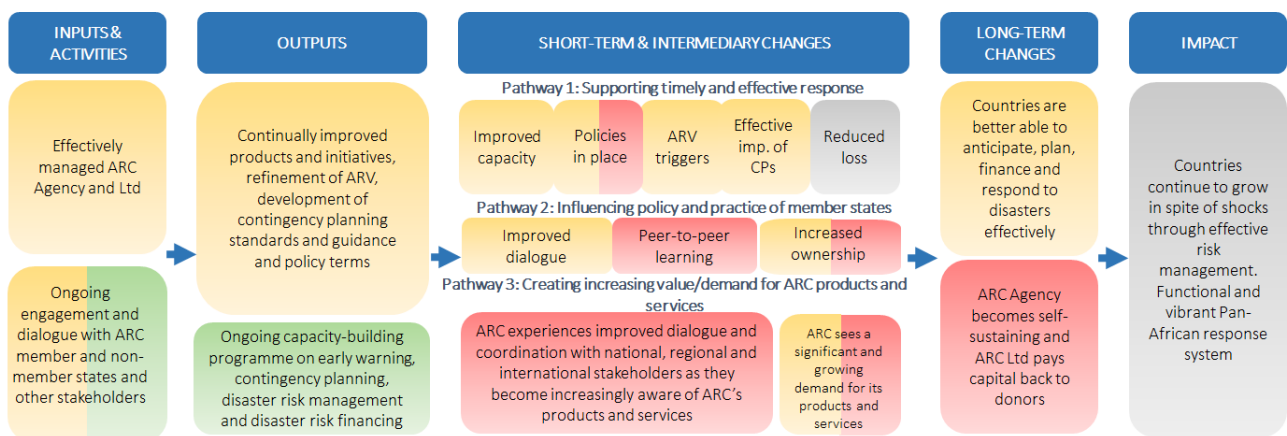
ARC is paying attention to issues around sustainability and is considering alternative funding streams. However, there is currently no evidence of ARC Agency becoming self-sustaining, and it is difficult to see how the current trajectory could lead towards that without fundamental adjustments. In particular, the lack of growth in the risk pool confounds ARC’s original strategy. There was strong scepticism from stakeholders that ARC had a viable track to self-sustainability. **Rating: Red**

It is too early to speak to the impact level change expected in the ToC, and so this has been rated Grey.

Conclusions and recommendations

Overall, the RAG ratings for the whole ToC are presented in the diagram below:

Figure 6: ARC Simplified Theory of Change with ratings



ARC has only been operational for four years, and so progress across all parts of the ToC should not be expected at this stage. In particular, strong progress by ARC in relation to

intermediary and long-term changes would not be expected at this early stage. However, our findings suggest that ARC is at a critical juncture. A number of important activities are being undertaken, and the evidence suggests that ARC is contributing in some ways to awareness raising and capacity building in relation to DRM, risk modelling and risk financing, across a range of African countries. However, in several key areas, progress falls far short of what is required for ARC to be on track, based on the current causal logic for achieving the results outlined in the ToC. Indeed, the findings suggest that the current Theory of Change does not hold, and without significant changes to the current model and business practices, the desired long-term changes and impacts will not be achieved.

A key problem area is the lack of growth in the risk pool. Without an increase in the number of countries taking out policies, ARC's business model will fail. This is therefore a priority area to address.

Whilst the risk pool is small, ARC is still able to make a contribution to a broad range of countries in relation to capacity building. ARC's current value therefore appears to lie in its contribution to institutional awareness raising and capacity development in relation to key elements of DRM across a range of African countries. This contribution should not be overlooked in superficial comparisons of the costs of ARC versus the amount being received in payouts in each country. Improving the effectiveness of ARC's capacity-building programme should therefore be a second priority.

Given that ARC is a relatively new organisation, we suggest a third priority area should be improving the organisational effectiveness of ARC Agency.

Overall, we recommend that ARC engages in a full strategic review to consider the findings of this formative evaluation. This review should focus most on the priority areas identified above:

Priority Area 1: Stimulating the risk pool via fundamental changes to ARC's approach

- Consider the implications of premium financing and use it to shift to insuring more infrequent events as part of an overall risk management package
- Improve communications
- Improve coordination with external organisations
- Review AfricaRiskView (ARV) and improve ARV's transparency

Priority Area 2: Improving the capacity-building offering

- Redesign capacity-building approach
- Consider the capacity of political stakeholders and their coordination with technical experts
- Accept longer timeframes for capacity building

Priority Area 3: Improving the organisational effectiveness within ARC Agency and ARC Ltd

- Review the MoU between ARC Agency and ARC Ltd to discuss the scope, missions and interaction between the two agencies
- Review and strengthen standard operating procedures and decision-making processes in critical areas
- Review and tighten deadline policies for premium payments
- Review staffing requirements to ensure capacity for high-level political engagement

Table of contents

Acknowledgements	i
Executive summary	ii
1.1 The African Risk Capacity	ii
1.2 Evaluation approach	ii
1.3 Findings	iii
EQ1: To what extent does ARC’s institutional setup and outputs lead to the adoption and effective use of ARC insurance products? Can this be improved?	iv
EQ2: To what extent has ARC contributed to in-country timely and effective responses that protect affected households’ livelihoods and prevent asset loss and food insecurity?	v
EQ3: To what extent has ARC influenced AU Member States’ capacity to anticipate, plan, finance and respond to climate related disasters generally, and more specifically in making best use of ARC?	vii
EQ4: Do participating governments and other stakeholders value ARC’s risk pool and technical assistance? Why?	ix
ARC’s expected long-term changes and impact	ix
Conclusions and recommendations	x
List of tables, figures and boxes	xv
List of abbreviations	xvi
2 Introduction	1
2.1 Overview of ARC	1
2.2 Overview of the Evaluation	1
3 Methods	3
3.1 Design considerations	3
3.1.1 Evaluation framework	3
3.1.2 Evaluation design	4
3.2 Implementation methodologies	5
3.2.1 Workstream 1: Case Studies	5
3.2.2 Workstream 2: Organisational Review	6
3.2.3 Workstream 3: Global Review	7
3.2.4 Analysis	9
3.2.5 Further information on data, evidence and methods	10
4 Findings	11
4.1 EQ1: ARC’s institutional setup	14
4.1.1 Management of ARC Agency	14
4.1.2 Management of ARC Limited	17
4.1.3 Engagement and dialogue with ARC stakeholders	18
4.1.4 Product development and improvement	20
4.1.5 Capacity-building programme	22
4.2 EQ 2: ARC’s support to timely and effective responses	23
4.2.1 Government understanding and capacity	24
4.2.2 Getting insurance contracts and contingency plans in place	27
4.2.3 ARV triggering payout when there is a disaster	31
4.2.4 Effectiveness and timeliness of contingency plan implementation	35
4.2.5 Reducing loss of assets and livelihoods	38
4.3 EQ3: ARC’s influence on capacity to anticipate, plan, finance and respond to disasters	39

4.3.1	Inter-ministerial dialogue and communication on DRM	40
4.3.2	Country ownership and management of risk management process	42
4.4	EQ 4: Governments and other stakeholders' views of ARC	43
4.4.1	Stakeholder awareness of ARC's products and services	43
4.4.2	Demand for ARC's products and services	45
4.5	Long-term changes and impacts	45
4.5.1	Countries' ability to anticipate, plan for, finance and respond to weather related disasters	46
4.5.2	ARC's plans to become self-sustaining and pay capital back	47
4.5.3	Impacts	48
5	Conclusions and Recommendations	49
5.1	Conclusions and lessons learned	49
5.2	Recommendations	52
5.2.1	Stimulating the risk pool via fundamental changes to ARC's approach	52
5.2.2	Improving the capacity-building offering	54
5.2.3	Improving organisational effectiveness within ARC Agency and Ltd	54
5.3	Final comment	55
	References / Bibliography	56
	List of Annexes	57

List of tables, figures and boxes

Figure 1: ARC Simplified Theory of Change.....	iv
Figure 2: Pathway 1: Supporting timely and effective response	vi
Figure 3: Pathway 2: Influencing the policy and practice of Member States	viii
Figure 4: Pathway 3: Creating increasing value / demand for ARC products and services	ix
Figure 5: ARC's expected long-term changes and impact.....	x
Figure 6: ARC Simplified Theory of Change with ratings.....	x
Figure 7: ARC Simplified Theory of Change.....	13
Figure 8: Steps in Pathway 1—Supporting timely and effective response	24
Figure 9: Evolution of the Risk Pool	28
Figure 10: Steps in Pathway 2—Influencing the policy and practice of Member States.....	40
Figure 11: Steps in Pathway 3—Creating an increase in value/demand for ARC products and services	43
Figure 12: ARC simplified Theory of Change with ratings	51
Table 1: ARC evaluation phases.....	2
Table 2: Stakeholders interviewed in Mauritania, Kenya and Malawi, March-July 2017	6
Box 1: Value of embedded Government Coordinators	26
Box 2: Reasons for withdrawing or staying in an ARC risk pool	30
Box 3: Malawi ARC failure	33
Box 4: Successful Mauritania disaster response with ARC funds.....	36

List of abbreviations

AfDB	African Development Bank
ARC	African Risk Capacity
ARC Agency	African Risk Capacity Specialised Agency of the African Union
ARC Ltd	African Risk Capacity Insurance Company Limited
ARV	Africa Risk View
AU	African Union
CA	Contribution Analysis
CARD	Centre for Agricultural Research and Development
CAT DDO	Catastrophe Deferred Drawdown Option
CCRIF	Caribbean Catastrophic Risk Insurance Facility
CEMs	Country Engagement Managers
CEO	Chief Executive Officer
CIMA	Inter-African Conference on Insurance Markets
COO	Chief Operating Officer
CoP	Conference of Parties
CP	Contingency Plan
CSA	Commissariat à la Sécurité Alimentaire (Food Security Commission—Mauritania)
DFID	Department for International Development
DNPGCCA	Niger's National Mechanism for the Prevention and Management of Disasters and Food Crises
DRF	Disaster Risk Finance
DRFI	Disaster Risk Financing and Insurance
DRM	Disaster Risk Management
DRMF	Disaster Risk Management and Finance
EQs	Evaluation Questions
EWS	Early Warning System
FIP	Final Implementation Plan
GC	Government Coordinators

GDP	Gross Domestic Product
IGAD	Intergovernmental Authority on Development
IPC	Integrated Phase Classification
ITAD	Monitoring & Evaluation for International Development
KII	Key Informant Interviews
L4D	Licensing for development
MoU	Memorandum of Understanding
M&E	Monitoring and Evaluation
NGOs	Non-Governmental Organisations
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
O&E	Outbreak and Epidemic
OPM	Oxford Policy Management
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PIP	Performance Improvement Plan
RAG	Red / Amber / Green ratings
R&D	Research and Development
SADC	Southern African Development Community
SOPs	Standard Operating Procedures
ToC	Theory of Change
TWG	Technical Working Group
UN	United Nations
UNISDR	United Nations Office for Disaster Risk Reduction
VF	Verified Fact
WFP	World Food Programme
WRSI	Water Satisfaction Requirement Index
XCF	Extreme Climate Facility

2 Introduction

In November 2015, the UK Government's Department for International Development awarded Oxford Policy Management (OPM) the contract for an Independent Evaluation of the African Risk Capacity (ARC) from 2015 to 2024. OPM's proposal was submitted as part of e-Pact, a consortium led by OPM and co-managed with ITAD.

2.1 Overview of ARC

The African Risk Capacity (ARC) was established by the African Union (AU) in 2012, as an African-owned, index-based weather risk insurance pool and early response mechanism that combines the concepts of early warning, disaster risk management, and risk finance. ARC's mission is to develop a pan-African natural disaster response system that enables African governments to meet the needs of people at risk to natural disasters (ARC 2016). ARC is comprised of two entities: ARC Agency and ARC Limited. The ARC Agency is the capacity building, educational, and advocacy arm of ARC, responsible for making AU Member States and the broader public aware of ARC's mission and goals. Engagement of countries with ARC includes a 9-12 month capacity building programme on the elements of early warning, risk modelling (particularly *Africa RiskView* (ARV), ARC's proprietary software application which combines historical rainfall data with vulnerability data to estimate drought-related response costs and define triggers for the parametric insurance), contingency planning, disaster risk management and risk financing. ARC Limited is a sovereign-level mutual insurance company that provides weather-related insurance coverage to Member States.

The expected impact of ARC is, firstly, through a pooled insurance model, that it should offer African countries competitive pricing for insurance products. At the national level, it should improve the ability of governments to better anticipate, plan, and respond to disaster risk by strengthening capacities, awareness, and action around DRM. Finally, at the local level, vulnerable households should be more resilient to disasters through the receipt of timely support.

Further information on ARC is available in Section 1 of the Inception Report, Annex F.

2.2 Overview of the Evaluation

There are two components to the evaluation: a two-stage formative evaluation, and a two-stage impact evaluation. A pilot impact evaluation will also be carried out during the formative stage (see Table 1). The purpose of the overall evaluation is:

- To identify and feed lessons learnt into the management of the ARC programme. This will be the focus of the formative evaluation, which will consider ARC's effectiveness and performance.
- To test whether risk pooling and transfer is a cost-effective way to incentivise contingency planning and ensure rapid responses to drought and other extreme weather events. The impact evaluation will consider the value of contingency planning and early responses in minimising the impact of (and accelerating recovery from) extreme weather. It will consider where, when, why and how ARC is, or is not effective, with the aim of contributing to the global evidence base.

- To provide accountability to the UK taxpayer for DFID's investment in ARC, demonstrating evidence that informs continued DFID investment in the programme.

Table 1: ARC evaluation phases

Evaluation Stage	Description	Timing
First Formative	To test early stages of the ToC and provide an assessment of whether ARC is on the right trajectory towards achieving its outcomes.	Feb-Oct 2017
Second Formative	To test the learning adaptation cycle of ARC and continue to build evidence as to whether ARC remains on the right trajectory towards achieving its outcomes.	Feb-Oct 2019
Pilot	To design and test the set of tools to be used in the impact evaluation phase of the evaluation	Nov 2019-Jan 2020
First Impact	To assess the ARC programme's contribution to the outcomes identified in the ToC.	Feb-Oct 2020
Second Impact	To assess the ARC programme's contribution to the outcomes identified in the ToC.	Feb-Oct 2024

The Evaluation Team first developed a ToC in conjunction with ARC. This was used to further develop the overarching Evaluation Questions:

- **Q1 ARC Context:** To what extent do ARC's institutional setup and outputs lead to the adoption and effective use of ARC insurance products? Can this be improved?
- **Q2 Pathway 1:** To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods, and prevent asset loss and food insecurity?
- **Q3 Pathway 2:** To what extent has ARC influenced AU Member States' capacity to anticipate, plan, finance and respond to climate related disasters generally, and more specifically in making best use of ARC?
- **Q4 Pathway 3:** Do participating governments and other stakeholders value ARC's risk pool and technical assistance? Why?

Further information on the design of the evaluation and the methods used is included in section 2. The analysis and findings are included in section 3, presented as a 'Contribution Story' that maps onto ARC's ToC, and therefore onto the four over-arching Evaluation Questions stated above.

3 Methods

This section on methods is divided into two parts. The first part on *design considerations* reviews key aspects of the global context and programme complexities that informed the theory-based design of the whole evaluation. The second part then goes into the *methods*, looking specifically at how the design was executed during the first formative evaluation.

3.1 Design considerations

3.1.1 Evaluation framework

The 10-year evaluation of the African Risk Capacity (ARC) uses a theory-based approach and includes two formative evaluations, two impact evaluations (baseline and end-line) and an option for a quantitative household survey based on a separate experimental design (still to be confirmed by DFID). It was agreed during the inception phase that a theory-based approach was the most appropriate model given the unique context and objectives of ARC. These arguments are clearly laid out in the ARC Inception Report and are summarised briefly below:

The context in which ARC sits presents a number of potentially non-linear and interrelated facets, all of which combine into a complex set of unique characteristics and many spatial levels. At the local level, the impact of drought and the response will vary from place to place. At the national level, government management of a disaster may vary significantly depending on the strength of government disaster planning mechanisms, the flexibility of established distribution channels for implementing interventions, potential political influences on the allocation and distribution of funds for payouts, and a number of other institutional factors. Finally, at a global level, the institutional framework through which the United Nations (UN) and related humanitarian response mechanisms operate is contingent, controversial, political, and often slow to react. Furthermore, the insurance market consists of yet another set of stakeholders with different objectives and goals that must be addressed.

The success of ARC's programme design is highly dependent on the global context described above. ARC Agency focuses on capacity building around, and the provision of, early warning, disaster risk management, and risk finance options (namely pooled risk insurance), and was established to fill a clear gap and address some of the challenges posed by weather-related disaster risk in Africa. ARC Ltd is the commercial arm that sells insurance which drives the ultimate sustainability of both organisations. To be successful, ARC must interact with multiple ministries in multiple countries, all of which have unique contextual, social, political, and economic challenges and competing priorities. ARC must also engage regularly with the broader humanitarian response landscape—most of which are large organisations or multilateral agencies influenced by multiple factors. Furthermore, ARC must engage with the broader insurance and capital markets. And finally, while ARC does not have direct engagement at the local level, its mission is to help protect the livelihoods of beneficiary households.

ARC insurance is not intended to cover the full risk of a weather disaster, which fact poses challenges when trying to evaluate ARC's contribution to success. The intention of an ARC payout is to get funding to arrive early and in large enough quantities so as to protect vulnerable assets and livelihoods. It is therefore anticipated that other forms of relief will also come into these same communities, perhaps using the same distribution channels (e.g. via an

existing social safety net mechanism). As such, it will be a challenge to clearly separate the ARC impact from that of other assistance.

Within a theory-based approach, we use Contribution Analysis (CA) as our primary analytical framework for evaluating the contextual and programmatic complexities of the ARC initiative. CA posits '*if an evaluator can validate a theory of change with empirical evidence and account for major external influencing factors, then it is reasonable to conclude that the intervention has made a difference*' (Treasury Board of Canada, 2012: 9). To conduct a CA analysis, a Theory of Change is examined in depth from inputs to outcomes, to establish a plausible contribution to observed changes. Placing the ToC at the centre of the overall design allows us to identify critical shortcomings, not only where ARC may or may not be achieving certain objectives (a critical assessment of performance), but where the ToC itself may or may not be holding (a critical assessment of strategy). These findings are developed around identifying progress that ARC is making towards contributing to desired outcomes and impacts, or challenges to ARC's progress towards achieving its objectives.

3.1.2 Evaluation design

The ARC ToC is based on a set of activities and outputs leading to three causal pathways (i) *supporting timely and effective response*; (ii) *influencing policy and practice of Member States*; and (iii) *creating increasing value / demand for ARC products & services*. In inception, we identified four key evaluation questions (EQs) that link to these key elements of the ToC:

- **EQ1 ARC Context:** To what extent do ARC's institutional setup and outputs lead to the adoption and effective use of ARC insurance products? Can this be improved?
- **EQ2 Pathway 1:** To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods and prevent asset loss and food insecurity?
- **EQ3 Pathway 2:** To what extent has ARC influenced AU Member States' capacity to anticipate, plan, finance and respond to climate related disasters generally, and more specifically in making best use of ARC?
- **EQ4 Pathway 3:** Do participating governments and other stakeholders value ARC's risk pool and technical assistance? Why?

Each of these key evaluation questions consist of a series of detailed questions which we (i) mapped against the OECD Development Assistance Committee's evaluation criteria; (ii) aligned with the phases of the evaluation (formative and impact); and most importantly, (iii) linked to the ToC result. This mapping table can be found in Annex G.

To answer these questions and provide evidence of contribution against the different stages of the ToC, we developed three workstreams that frame our data collection activities:

1. Workstream one involves a series of in-depth country case studies;
2. Workstream two provides an organisational review of the ARC Group; and
3. Workstream three involves a global review that captures the views of a broader set of stakeholders, perceptions, and contextual factors.

Each of these workstreams are described in more detail in the following sections.

3.2 Implementation methodologies

In this section, we describe the data collection instruments, sampling and tools of analysis for each workstream used in the implementation of this first formative evaluation. The section then concludes with a description of how these data were collectively analysed to inform our findings.

3.2.1 Workstream 1: Case Studies

The country case studies provide rich, in-depth contextual information about how the ARC initiative unfolds in different regions and under different circumstances. This workstream involved document collection, and a series of key informant interviews (KII).

The countries selected for the first set of case studies were Mauritania, Kenya and Malawi. To arrive at this list, we took the countries currently engaged with ARC and then used a set of criteria to filter and develop a shortlist. The criteria for selection included geographical region, disaster risk, early / late signatories, DRM institutional capacity, and received / not received payout (see section 5.10 of the ARC Inception Report in Annex F for more details). From this shortlist, the final set of countries was determined through a consultative process between OPM, DFID and ARC Agency.

For data collection, we designed a semi-structured interview guide, based on our initial set of evaluation questions (see Annex G). Given breadth and scope of the country analysis, and the large number of stakeholders, we assigned each question a respondent type so as to limit the number of questions any one person would have to answer. The guide was then reviewed by the research team to ensure consistency with other workstreams, flow, appropriateness of wording, and overall quality control¹³.

Ahead of the fieldwork in each country, the team collected country-related documentation, including ARC Contingency Plans, FIPs (if a payout had occurred), Africa Risk View (ARV) reports, and any other relevant material. This information was used to familiarise the Evaluation Team and to tailor the interview guides to the country context, so that particularly salient issues could be investigated in greater depth in each context.

Respondent sampling occurred through a two-staged approach, beginning with a country mapping exercise and followed up by a snowballing approach. The research team started by speaking with the ARC Country Engagement Manager, who then made a connection to the in-country Government Coordinator (GC). As a key ARC representative, the GC created a list of informants who had been closely involved with ARC (such as via membership in the Technical Working Group) and who could provide important perspectives on the topics of interest. DFID and OPM staff, as well the national consultants, provided additional connections to Key Informants (KIs) via their own personal and professional networks. As the interviews unfolded, snowball sampling¹⁴ was then used to identify additional informants. In every case, the research team attempted to speak with as many stakeholders as possible, given the allocated time and resources, who could provide an informed perspective on the country's experience with ARC.

A total of 86 stakeholders were interviewed across all three countries. See Table 2 for a breakdown of stakeholder interviews.

¹³ Where possible, the questions for this interview guide were cross-referenced and made consistent with interview guides in the other workstreams.

¹⁴ Snowballing is an approach where additional KIs are identified by asking existing KIs to suggest appropriate, additional people to interview. It can be a very effective way of identifying networks within a country, although care must be taken to ensure broad representation.

Table 2: Stakeholders interviewed in Mauritania, Kenya and Malawi, March-July 2017

	ARC Agency Staff	Government representatives & technical staff	Other stakeholders (donors, civil society & NGOs)	Total
Mauritania	3	20	9	32
Kenya	2	15	7	24
Malawi	2	20	8	30
Total	7	55	24	86

The country fieldwork teams consisted of two international consultants and two national consultants who worked together to collect and review relevant documentation, map key stakeholders, arrange and conduct interviews, debrief on the information collected, and conduct a joint analysis of the findings. The national consultants also provided critical logistical support, such as liaising with the respondents for interview set-up, and helping the research team with local customs, sensitivities, and any other ethical or cultural nuances to ensure appropriate implementation of the fieldwork. Data collection lasted for approximately three weeks in each country.

Data from the discussions were managed with the use of an evaluation coding matrix (discussion questions arranged horizontally, respondents arranged vertically). By so doing, the team could easily disaggregate findings by respondent type, gender, and other characteristics as needed. The research team then developed a detailed analysis of the results for each country, and analysed comparatively across the three countries. The cross-country analysis is summarised in Annex C.

3.2.2 Workstream 2: Organisational Review

The Organisational Review addresses questions related to the processes, procedures, capacities and resources of ARC Agency. It focuses on information, documents, and views directly from the ARC Agency and ARC Ltd staff and their related governance structures. The Organisational Review, therefore, provides a systematic method of assessing the value, consistency and strength of the processes, activities and capacities that underpin the ARC organisation.

The methods used by the Organisational Review included a document review and key informant interviews. The document review looked primarily at internal organisational documentation, such as aspects of ARV, contingency planning documents, strategy notes, standard operating procedures, back office reports, M&E material, and other similar documentation.

Similar to the country case studies, the interview guide was developed from the evaluation questions, linking these with different components of ARC operations (see Annex G). The guide was then vetted and validated by the research team. OPM identified the initial list of KIs in planning discussions with DFID and ARC Agency. The list covered a large spectrum of staff and board members, and included representatives from all areas of the business (e.g. country engagement, risk transfer, ARV, contingency planning, insurance etc.).

OPM conducted the majority of the interviews in person, in January 2017 in Johannesburg, leveraging a joint meeting of the ARC Agency and ARC Ltd Boards. This initial set of interviews was then supplemented with a number of remotely held follow-up interviews over the course of the evaluation period. In total, 20 in-depth interviews were conducted, including 13 with ARC Agency staff, two with ARC Agency Board members, three with ARC Ltd staff and two with Ltd Board members (see Table 3).

Table 3: Breakout of ARC organisational review interviews

Area	# of interviews
ARC Agency staff	13
ARC Agency board	2
ARC Ltd staff	3
ARC Ltd board	2
Total	20

Similar to the country case studies, data from the discussions were managed with the use of an evaluation coding matrix so that the information could be easily analysed and disaggregated. The full summary report of findings can be found in Annex C.

3.2.3 Workstream 3: Global Review

There are three components to the Global Review: (i) key informant interviews with industry experts; (ii) a Perceptions Survey with a broad range of stakeholders from ARC-Member and non-Member States; and (iii) a continent-wide Baseline Context Assessment. For a more detailed discussion on the implementation of the Global Review and its methods, please see Annex D.

Industry Expert Interviews

There are a number of very specific, detailed evaluation questions that require a high degree of technical knowledge. To answer these questions, we turned to global and regional experts in disaster risk management (DRM) and disaster risk finance (DRF). The experts interviewed for the Global Review include individuals from academia, governmental and non-governmental aid agencies and from different sectors in the insurance industry: brokers, reinsurers, and catastrophe risk modellers.

We identified respondents through a global stakeholder mapping exercise that sought to ensure a broad range of perspectives and backgrounds were represented. In total we conducted 27 interviews, speaking with a total of 30 experts.¹⁵ (see Table 4).

¹⁵ Some of the interviews included more than one interviewee, hence the difference in numbers between interviews and interviewees.

Table 4: Overview of Key Informant Interviews

Expert Affiliation	Number of Interviews	Number of Interviewees
Aid Agencies	-	-
Non-governmental	6	7
Governmental	6	6
Insurance Industry	-	-
Broker	2	3
(Re)insurer	9	10
Risk Modeller	3	3
Academia	1	1
Total	27	30

An interview guide was developed containing approximately twenty questions per type of expert interviewed (see Annex G). The questions were categorised according to whether the expert was associated with a Governmental/Non-governmental Agency or associated with the Insurance Industry or Academia, and aligned with the specific technical aspects of the ToC and EQs needing to be addressed.

Data from the discussions were managed with the use of an evaluation coding matrix so that the information could be easily analysed and disaggregated. The full summary report of findings can be found in Annex D.

Perceptions Survey

Several of the detailed evaluation questions across the ToC relate to stakeholder perceptions of ARC. More specifically, the perceptions survey was designed as a closed-ended survey to gauge African countries' perceptions of ARC's products and services which would allow us to conduct a quantitative analysis of respondents' engagement in a number of different areas. Areas of focus included: ARC workshops and training; demand for ARC's products and services; ARC's relevance, influence and contributions in the DRM and financing space; trust in ARC's products and services; and perceived affordability of ARC's insurance premiums.

The questionnaire (see Annex G) is designed to be administered repeatedly throughout the entire evaluation, and is likely to retain a cross-sectional structure which captures different stakeholders' sentiments regarding ARC products, training and influence in the DRM space. Although adopting a panel structure to the survey would allow us to track the sentiment of the same respondents over time, it is unlikely that we will be able to achieve this given that we are unlikely to encounter the same respondents, who originate from different countries, at different global events over several rounds of the survey and over the course of the entire evaluation. That being said, the cross-sectional element to the perceptions survey will still be useful in allowing us to compare changes in sentiment for ARC's products and services over multiple waves of the survey.

To collect as wide a range of views as possible, our intention is to 'piggy-back' ARC events and DRMF related conferences in the region and globally. As such, for this first formative evaluation, we made use of the Conference of Parties (CoP) meeting held in Abidjan during March 2017. The survey questionnaire was distributed randomly to key stakeholders who attended the CoP and who may or may not have engaged in ARC-related activities. In almost all cases, the survey was completed by the respondents themselves rather than being administered by an enumerator.

We collected perception survey data from 30 individuals, representing 17 African countries and one North American country (Canada). The majority of the respondents worked within their respective governments, including at director-levels (two thirds) and technical appointments. A small share of the respondents represented development organisations. Please see Annex E for further information on the cleaning, coding and analysis of data collected via the survey, and a full summary of the findings.

Context Assessment

The continent-wide baseline Context Assessment provides a broad-brush indication of risk and response capacity within governments across African countries with high disaster vulnerability. This effort was a desk-based activity, drawing on data from global DRM and development monitoring initiatives.

For sampling, our starting point was all African Union countries, which we grouped according to five regions using the UN categories (Middle Africa, Northern Africa, East Africa, Western Africa, Southern Africa). We then selected the four most populous countries from each region for a total of 20 countries out of the 53 African Union Member States. The reasons for selecting population size as the sampling criteria were twofold. Firstly, so that the sample represents a large proportion of the African population. While ARC operates at a sovereign level, its ultimate objective is to reduce disaster risk at the individual level—and therefore the quantity of individuals covered is a relevant criterion. However, this needs to be balanced with the representativeness of the survey. The second reason for selecting population size is because it results in a sample that retains significant variation, both in population size (given the previous sampling criteria of equal regional selection) and across other characteristics which might influence their engagement with ARC, for example Gross Domestic Product (GDP) and income status, percentage of the population employed in agriculture and vulnerability levels.

Out of the 20 countries included in the final sample, five are ARC signatory countries who are not currently risk pool members, two are ARC signatories that are also risk pool members, and 13 are countries that are neither ARC signatories nor risk pool members. Participation in ARC was purposely not chosen as a sampling criterion, since the key purpose of the assessment is to identify trends of rising or falling engagement and better understand what characteristics are associated with decisions to engage or not to engage.

The context assessment includes 22 index indicators related to ARC involvement, hazard & exposure, vulnerability & food security, and policy & institutional context. The constructed indicators are populated through a corroboration of selected credible data sets, which were also carefully selected for inclusion as a data source based on an assessment of rigor. For further information on the methodology used, specific indicators selected and the key findings emerging from the analysis, please see Annex A.

3.2.4 Analysis

To systematically assess the evidence collected via the three workstreams and frame our findings, we went through a number of steps. First, each workstream leader wrote a report of their main findings (see Annexes A-E). Next, team members mapped their findings against the ARC ToC, providing an indication of the strength of this evidence using a simple rubric¹⁶. The team then came together for a two-day workshop, whereby we discussed areas where there was a triangulation of

¹⁶ Rating of: 1 if coming from one credible source, 2 from two credible sources, 3 from 3+ credible sources, or VF if can be considered a verified fact.

evidence either supporting or refuting elements of the ARC ToC. Based on the identified evidence, we collectively agreed on a 'RAG' (Red / Amber / Green) rating for each component of the ToC to assess ARC's progress along the causal pathways that articulate how it expects to achieve its desired impact.

Our criteria for the RAG ratings were developed as follows:

Green: evidence suggests positive progress is being made in line with the ToC causal pathways, and underlying assumptions are holding as valid and accurate.

Green / Amber: evidence suggests considerable progress is being made in line with the ToC causal pathways, but there is evidence of minor challenges and / or concerns that underlying assumptions may not hold.

Amber: evidence suggests some progress is being made in line with the ToC causal pathways but with challenges, and underlying assumptions are tenuous without sufficient evidence to confirm or refute as valid and accurate.

Amber / Red: evidence suggests less progress is being made than expected, with major challenges and some evidence that underlying assumptions are not holding.

Red: evidence suggests little to no progress is being made in line with the ToC causal pathways and significant challenges are noted, and underlying assumptions appear tenuous and are not holding as valid and accurate.

Grey: insufficient evidence at this stage in the evaluation to make a judgement on progress or assumptions.

The output of this process is our Analysis Matrix, which summarises the progress noted and challenges identified for each link in the ToC (see Annex G). Using this analysis document, we then developed an overarching narrative using more detailed findings and evidence from all workstream data sources. This narrative is largely informed by our use of Contribution Analysis as an analytical framework that seeks to test elements of the ToC, build evidence of progress along causal pathways, and ultimately determine whether ARC has indeed contributed to observable impacts. As this is only the first formative evaluation, we are not yet able to establish impact contributions, thus our findings are presented largely around ARC making progress or encountering challenges along the three causal pathways of the ToC. The evaluation questions were used to gather evidence that related to the specific causal pathways within the ToC.

This overall approach has enabled us to provide a thorough assessment of the ToC, verifying whether the result chains (causal pathways) are occurring as expected, identifying key areas of progress driving the expected changes, challenges to achieving those changes, while also paying attention to other potential influencing factors. This approach has also allowed us to identify critical shortcomings not only where ARC may or may not be achieving certain objectives (a critical assessment of performance), but where the ToC itself may or may not be holding (a critical assessment of strategy).

3.2.5 Further information on data, evidence and methods

More detailed information on data and methods is provided in Annex G, including a section on the quality of evidence and limitations, analysis of the key assumptions identified at inception, the evaluation framework and the analysis matrix.

4 Findings

Our findings for this first formative (F1) evaluation report are informed by two guiding frameworks: the first is that our evaluation design is *theory-based*, meaning that we are using the ToC as the key to measuring success: if progress is being made within the components of the ToC and its underlying assumptions are holding as valid and accurate, then we can determine positive progress towards achieving ARC's desired impact, or suggest corrective action if not. The second aspect of our findings is informed by Contribution Analysis—our proposed analytical framework outlined in greater detail in the Inception Report (see Annex F)—which aims to establish how ARC may have contributed to specific observed outcomes and impacts. As this is only the first formative evaluation, not an impact evaluation (as it is too early in ARC's life to establish impact), this evaluation was not designed to measure impact, but rather to assess *progress towards* achieving impact, according to the causal pathways outlined in the ToC.

Our findings, therefore, are aimed at articulating where evidence suggests that positive progress is being made towards ARC's contribution to desired outcomes, or where challenges to this progress are evident. Similarly, the critically important assumptions that underlie the way that change is believed to occur in the ToC are also assessed as to whether or not they are 'holding' as valid and accurate. Our evaluation questions were developed to gather evidence to assess each component of the ToC, mapped against the three causal pathways of the ToC. The detailed ToC can be found in Annex F (Figure 1), but to ease understanding for the reader, we have provided a simplified version of the ToC below (see Figure 7).

Therefore, based on the structure of the ToC, the findings begin by assessing ARC's activities, inputs and outputs, all of which are considered within ARC's sphere of *direct control*. From the basis of ARC's outputs, then, the analysis diverges into the ToC's three causal pathways, addressing the evaluation questions as to the extent of ARC's progress towards its intended impacts. The phases covered by each causal pathway include short-term and intermediary changes (ARC's sphere of *direct influence*), and long-term changes and impacts (ARC's sphere of *indirect influence*).

A tool that we use in communicating our findings is a RAG rating system, assigning 'red', 'amber' or 'green' ratings to each of the stages in the ToC that are assessed against specific evaluation questions and evidence. The RAG ratings speak to our qualified assessment—based on evidence—of the extent to which ARC appears to be progressing positively (green), cautiously (amber), or to little effect (red) along a causal pathway towards impact. Each stage in the ToC is assessed against a RAG rating and summarised in a box, with alternative explanations, at the start of each section.

Our criteria for the RAG ratings were developed as follows:

Green: evidence suggests positive progress is being made in line with the ToC causal pathways, and underlying assumptions are holding as valid and accurate.

Amber: evidence suggests some progress is being made in line with the ToC causal pathways but with challenges, and underlying assumptions are tenuous without sufficient evidence to confirm or refute as valid and accurate.

Red: evidence suggests little to no progress is being made in line with the ToC causal pathways and significant challenges are noted, and underlying assumptions appear tenuous and are not holding as valid and accurate.

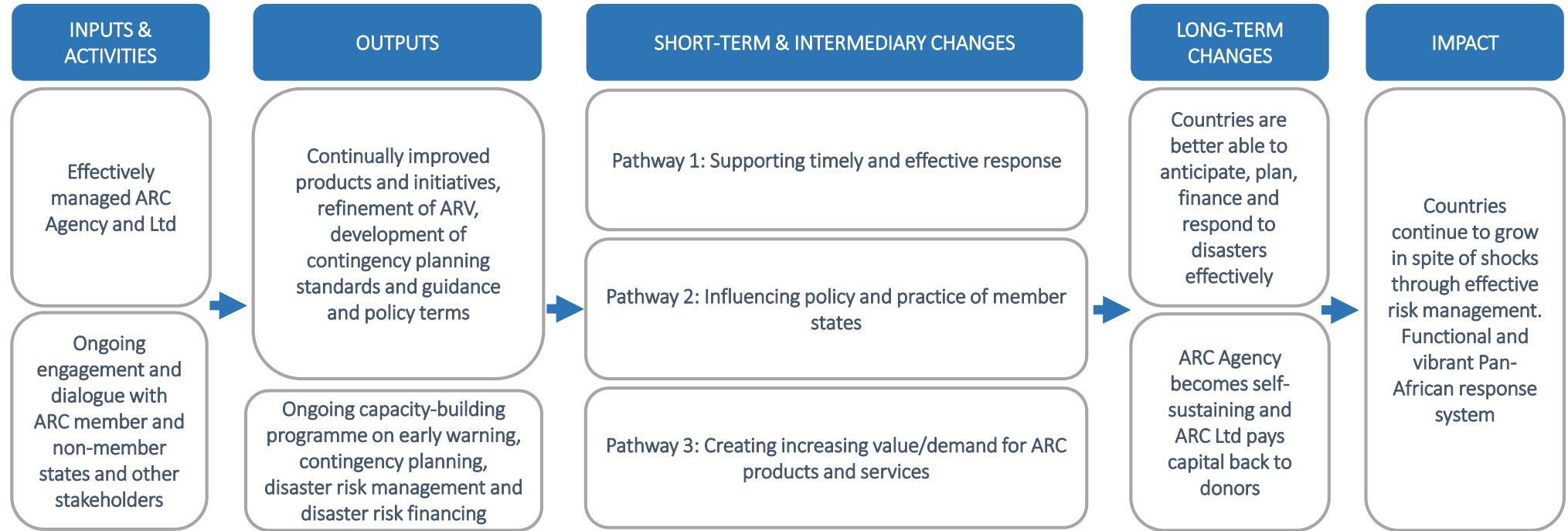
Grey: insufficient evidence at this stage in the evaluation to make a judgement on progress or assumptions.

Each component of the ToC is assessed against a RAG rating and summarised in a box, with specific progress and challenges noted. The findings section is structured according to the evaluation questions:

- EQ1: To what extent do ARC's institutional set-up and outputs lead to the adoption and effective use of ARC insurance products? (inputs, activities and outputs)
- EQ2: To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods and prevent asset loss and food insecurity? (Pathway 1: Supporting timely and effective response)
- EQ3: To what extent has ARC influenced AU Member States' capacity to anticipate, plan, finance and respond to climate-related disasters generally, and more specifically in making best use of ARC? (Pathway 2: Influencing policy and practice of Member States)
- EQ4: Do participating governments and other stakeholders value ARC's risk pool and technical assistance? (Pathway 3: Creating increasing value/demand for ARC products and services)
- Long-term Changes and Impacts

Please see Annex G for a table illustrating how different parts of the ToC connect to each of the evaluation questions.

Figure 7: ARC Simplified Theory of Change



4.1 EQ1: ARC’s institutional setup

Evaluation Question 1 in full is:

“To what extent does ARC’s institutional setup lead to the adoption and effective use of ARC insurance products?”

To begin to answer this first evaluation question, we look at ARC’s progress towards achieving the inputs, activities, and outputs as defined by the ARC ToC. More specifically, we examine:

- Whether ARC Agency and ARC Ltd are effectively managed
- Whether there is ongoing engagement and dialogue with ARC Member States, non-Member States, and other stakeholders
- How and in what ways ARC is continually improving and adding to its products and initiatives
- ARC’s progress in establishing a capacity-building programme

Each of these elements are critical for the longer-term success of the organisation, and are addressed in depth in the next few sections.

4.1.1 Management of ARC Agency

Result	An effectively established and managed ARC Agency (INP_01) ¹⁷
Summary:	The ARC Agency is transitioning from a startup to a more mature organisation. This transition has exposed some significant challenges to the management of the organisation to the extent that donors have established a Performance Improvement Plan (PIP). While ARC has begun to address these issues, how they are managed in the next few years will be critical to its longer-term success.
Progress:	<ul style="list-style-type: none"> - Progress filling key management positions; - Established an M&E plan and in process of operationalisation - Opening West Africa office; - Developed training materials and set of standard operating procedures.
Challenges:	<ul style="list-style-type: none"> - Poor internal and external communications; - Lack of clarity around roles and responsibilities between ARC Agency and Ltd which has led to confusion, problems with joint working, and distrust; - Lack of process and standardisation around critical back-office functions such as employee induction; - Exposure to institutional risks (e.g. deep understanding of ARV is concentrated with a few individuals, although there are positive signs this is improving); - Staff are not trained trainers, but capacity-building is a key component of value proposition;

The Organisational Review workstream focused largely on the effectiveness of ARC’s management. Evidence from this workstream suggests that ARC Agency has made progress in transitioning from a small startup organisation to a more mature organisation. Evidence of the

¹⁷ The results codes in the summary boxes relate to different elements of the ToC—please see Annex G for more details.

progress towards this transition can be found in many areas of their operations and activities. ARC Agency is building out their organisation, filling critical roles such as Chief Operating Officer (COO), Monitoring and Evaluation (M&E) Officer, and Deputy Director of Research and Development (R&D). The team is also actively recruiting a new R&D Director, after the departure of the current director in late 2017. They are also making efforts to transition staff from contract to salaried positions. Furthermore, in recognition of the business activity in West Africa, ARC has opened an office in Cote D'Ivoire so Country Engagement Managers (CEMs) can better serve their clients.

There is wide recognition both internally and externally that ARC's association with the African Union (AU) and its identity as an African-owned institution is a key component of its value proposition. This identity is well marketed and leveraged by the Agency. For example, all respondents in the Perception Survey identified ARC as an AU initiative, and 83 percent said it made them value ARC differently compared to other external agencies.

With regards to operational processes, documentary review revealed mixed findings. ARC Agency has developed a set of Standard Operating Procedures (SOPs) around key components of the organisation's capacity-building programme (e.g. country engagement, CEM, CP, ARV, Risk Transfer). The existing SOPs detail the critical steps needed to perform each function. While the SOPs represent a good start towards a well-functioning agency, some are dated and lack robustness and in other areas, there has been less attention paid to operational processes. For example, as of early 2017, there remained a lack of process and standardisation around critical back-office functions such as employee induction and training¹⁸. Most learning on the job is experiential and happens as they go about their day-to-day tasks. This lack of standards poses several problems. First, given the complexity of the ARC products, without the appropriate training materials it is hard to rapidly bring staff up to full capacity. Second, it poses challenges to the development of institutional knowledge. For example, in our initial set of interviews in January, several respondents indicated their view that there was an exposure risk for the Agency in that the Head of R&D was the main person who fully understood the technical details of ARV. As we write this report, this person has since left the organisation, making this risk a reality¹⁹.

Several key informants suggested that the Agency also experiences challenges around staffing and capacity issues. Some of these issues are typical for a startup transitioning, while others are more a function of the current, outdated business plan. Addressing the latter first, we question whether the ARC Agency has adequate staffing to effectively carry out the broad scope of its mission. The original plan called for each CEM to engage with 1-4 countries a year. Given the intensity of the ARC capacity-building model, such an effort requires many country visits and much attention by staff from all parts of the Agency. Additionally, the original business plan anticipated just one year of intense work with a country around capacity. However, as discussed later in this report, the engagement process is much longer and more complicated than first expected. Furthermore, ARC Agency is introducing more products, which puts additional strain on capacity and resourcing. How ARC Agency addresses this capacity gap will be critical to their sustainability. Indeed, a key assumption underpinning this area of the ToC is that ARC has the resources and the capacity to carry out its activities.

Other constraints to capacity are much more typical to a transitioning startup, and were raised by KIs. For instance, there are internal debates on how to hire the 'right' people for the job, mostly related to the appropriate combination of skills that make a perfect candidate. There were also several frustrations raised regarding the contract with World Food Programme (WFP) for back-

¹⁸ Note: ARC reviewer comments on this report indicate that as of late 2017, there is now a standard administration induction within the week of appointment, and HR and the COO have designed a full day organisational induction to happen every three months (as long as there is new staff) from 2018.

¹⁹ Note: ARC reviewer comments indicate that since early 2017 when these interviews were conducted, the knowledge base around ARV has improved and expanded beyond the R&D Director.

office administrative services, mostly noting that ARC Agency loses quality candidates due to bureaucratic red tape. As a result, ARC Agency is considering how to best develop the capacity to handle these services themselves when they come the end of the WFP contract in 2019. There are also some typical internal tensions related to roles and responsibilities. ARC Agency has started to create more tailored, role-defined positions. Like many startups, in the beginning ARC staff members each played many roles; but as the organisation grows, these roles are becoming more defined, raising tensions as people must give up some responsibilities and take on others.

While slow to start, ARC Agency recently formalised an M&E Plan which includes several proposed improvements that, if implemented, will increase guidance and support to countries around M&E. The M&E plan also calls for more attention towards gender mainstreaming via use of gender responsive indicators. Given the gendered nature of disaster risks and capacities, this will strengthen ARC's ultimate objective of reaching the most vulnerable populations. Additionally, the country case studies provide evidence that ARC Agency has integrated important learning from the first three Risk Pools, integrating new processes accordingly. For example, CEM's and other ARC staff recognised challenges associated with the initial capacity-building methods and have transitioned to providing in-country workshops with more hands-on support for ARV customisation and contingency planning. Finally, ARC is actively discussing strategies related to risk pool growth, financial sustainability, communications, and the design of missing internal back-office processes. These are all normal positive signs of organisational transition and we would expect by the next formative evaluation to see these discussions turn into concrete actions.

One area of concern is ARC Agency's challenges with both internal and external communications. These were acknowledged by KIs in the Organisational Review, and identified as weak in Global Review KIs and the country case studies. The Agency has struggled to share important timely and critical information with donors which has led to frustration on the part of ARC's donors. Some international stakeholders accuse ARC of a lack of transparency, as key ARC reports and reviews (for example, country response process audits) were not publicly available until recently²⁰. The Agency has also experienced some high-profile bad press from its handling of various challenges, such as the situation in Malawi (see Section 4.2.3). Over the course of this evaluation, given these missteps, there has been growing recognition among interviewees across all three workstreams that ARC must improve their internal and external communications.

ARC's governance structure is also critical to effectiveness. There is general agreement among those interviewed as part of the Organisational Review that the ARC Agency Board functions well. However, a strong finding from those interviewed as part of the Global Review was that the overall governance structure was opaque and confusing, with KIs unclear as to how ARC Agency and Ltd relate to each other and work together. This confusion was also noted in each of the country case studies, leading to a lack of trust (ARC Agency were sometimes viewed as a 'salesman' for ARC Ltd rather than a separate capacity-building arm). The shared identity and mission of ARC Agency and ARC Ltd is problematic. There are growing tensions between the two agencies as their mission, purpose, and objectives appear to be somewhat misaligned. Several of those interviewed see ARC Ltd as a commercial business, and ARC Agency as a development institution, each with different goals. Within this context there are issues around communication and delegation of responsibilities. Some feel that ARC Ltd should have more and earlier engagement with Member States to explain their products. In contrast, some stakeholders from across the three country case studies expressed a need for greater independence between the capacity-building programme offered by ARC Agency and the selection of financial products (of which ARC insurance is advertised as just one option). Currently, by design, ARC Ltd has little interaction with the countries until it is time to sign a policy. Some of those interviewed, both for the Organisational Review and the Global Review, have suggested that two separate but equal organisations will not work in the

²⁰ ARC has published a summary of the Lessons Learnt from the Process Audits on their website.

long run. This contingent believes there should be a plan to combine the agencies, with one subordinate to the other—the decision on which agency should end up on top varies depending on the respondent. Again, these discussions underscore the need for ARC to rethink its business structure and sustainability plan.

For these many reasons, this element of the ToC has been graded as Amber. Although some issues are to be expected as ARC is a new organisation, some of the problems raised above are serious blockages to ARC fulfilling its potential impact. For example, donors, concerned by ARC's performance, have established a Performance Improvement Plan (PIP) that flags areas of concern and timebound steps that must happen to right these issues.

4.1.2 Management of ARC Limited

Result	An effectively established and managed ARC Limited (INP_02)
Summary:	While ARC Ltd is viewed favorably by the insurance industry, frequent changes to the portfolio and flexible premium payment deadlines suggest a lack of robust procedures or lack of rigour in implementing procedures.
Progress:	<ul style="list-style-type: none"> - In late 2016 hired a CEO and in 2017 hired other key positions, including a COO; - Reinsurance routinely over-subscribed;
Challenges:	<ul style="list-style-type: none"> - Plan to build-out staff put on hold due to lack of growth in risk pool; - Flexible policy around premium payment viewed as unprofessional and poses reputational risk to the company; - Strained relationship with ARC Agency

ARC Ltd is a small organisation whose focus is on developing and signing insurance policies and managing the risk pool. Like the ARC Agency, ARC Ltd is transitioning to a more mature organisation. However, their growth is somewhat bounded by the size of the risk pool. In late 2016, Ltd hired a CEO, along with a few other fulltime positions, and opened-up an office in Johannesburg. The plan to build-out staff was put on hold, however, due to small risk pool and lower than expected transactional need.

Evidence from the Global Review indicates that overall the insurance industry views ARC Ltd favourably, largely substantiated through the number of companies subscribing (risk pools are routinely over-subscribed) and the competitive price for the insurance product. One major concern for the industry, however, is ARC's flexible attitude towards deadlines for premium payment. On one hand, since the key goal is growing the risk pool, ARC wants to do everything in their power to ensure those countries who sign a policy do then pay their premiums, and is currently allowing some flexibility in deadlines. However, the insurance industry expects professionalism, and that includes timely premium payments. According to respondents from the Global Review, the uncertainty in the size of the risk pool (due to frequent adjustments for countries who do not pay premiums on schedule) impedes business relations and risks the reputation of ARC Ltd.

When asked what would happen if reinsurance was purchased for a country who never paid their premium (past the point of no return) and who ended up being eligible for a payout, Organisational Review interviewees indicated that if the payout amount were to go beyond the deductible, ARC Ltd would collect the reinsurance and pay the country, deducting the cost of the premium. Clearly this practice is both unsustainable and serves as a large disincentive for countries to pay premiums. There are signs that ARC Ltd is finding better balance between maximum country flexibility and sustainable, professional business practices. For example, the organisation has

recently implemented a new structure for reinsurance that allows a quarterly review to adjust premiums, so that payments accurately reflect the overall risk.

As mentioned in the previous section, another concern for ARC Ltd is its relationship with ARC Agency. When ARC was first conceived, the vision was that once the country capacity-building programme was complete, ARC Agency would hand the relationship over to ARC Ltd for ongoing maintenance. In this future, ARC Ltd would then build out a series of engagement managers to take over these relationships. However, given the challenges with developing in-country capacities in DRM and risk financing (see Section 2.2, Annex B and C), how this future relationship will look remains unclear.

While the overall view of ARC Ltd is generally positive, the business and reputational risk posed by the flexible policy on premium payments warrant an Amber rating.

4.1.3 Engagement and dialogue with ARC stakeholders

Result	Ongoing engagement and dialogue with ARC Member States and non-member states (ACT 01 and ACT 02)
Summary:	ARC is undertaking many activities across a broad range of African Union countries and is engaging with a wide range of stakeholders, although dialogue with some key players is limited.
Progress:	<ul style="list-style-type: none"> - 32 signatory countries, four ratifications, and 17 active MoUs. Sixteen countries have either started or completed the initial capacity-building process and 14 countries have designed contingency plans²¹; - Conduct regular trainings and participate in relevant conferences, workshops, etc.; - Actively building strategic partnerships;
Challenges:	<ul style="list-style-type: none"> - Limited success in sustained political engagement and sensitisation across a broader group of political decision-makers; - Limited success in outreach to broader set of stakeholders including civil society; - Strained communications with donor community;

ARC is clearly building a presence across Africa. The organisation has 32 signatory countries, four ratifications, and 17 active MoUs. 16 countries have either started or completed the initial capacity-building process, and 14 countries have designed contingency plans. Both the Organisational Review and the Country Case Study workstreams point to evidence of regular in-country workshops between ARC Agency staff and technical working groups (TWGs). Furthermore, most respondents from the Perception Survey claim to have had repeated involvement in ARC; 73 percent had participated in more than one type of ARC event or activity, for example, 67 percent report having attended an ARC workshop, and 54 percent a TWG (See Annex E for further detail). ARC also has actively participated in relevant conferences and AU policy platforms, such as the African Disaster Risk Reduction Platform in Abuja in 2014.

Evidence from the Country Case Studies shows that ARC was, at least initially, successful in engaging in country political leadership. In all three countries, ARC arranged high-level meetings between the Director General and key political decision-makers as part of the initial scoping.

²¹ Note: some reviewers acknowledge slightly different numbers. The authors note that the figures are as of the close of data collection, September 2017.

Beyond this initial effort, the Director General was noted for having welcomed and engaged with visiting diplomats in South Africa, and for engaging more informally during joint trips to Washington DC or during African Union meetings. Political buy-in and engagement appears to remain relatively high in Mauritania, as a long-time ARC member which has benefitted from a payout. However, the Malawi and Kenya case studies suggest that ARC has not been as successful in sustaining political engagement and sensitisation across a broader group of political decision-makers once a policy has been signed. Often, after the early stage high-level engagement, efforts would understandably shift toward the technical capacity building and customisation activities for the TWG members, with less ongoing sensitisation among political decision-makers. Beyond the Director General, there is some question as to whether ARC Agency has the appropriate staff to do sustained political engagement. Indeed, some of those interviewed for the Organisational Review suggested that the CEMs were too junior to be effective in this high-stakes engagement.

There is evidence that the ARC Group is conducting outreach activities in a variety of different areas to reach non-Member States and other stakeholders. In the global arena, ARC has been active in attending various events related to insurance and disaster risk management. For instance, they have been involved in panels as part of the United Nations Office for Disaster Risk Reduction (UNISDR) Global Platform 2017, the Insurance Development Forum 2017, and a recent roundtable at the Overseas Development Institute in London.

ARC Agency is also focused on building strategic partnerships of different kinds that can help improve the functioning of the ARV model, educate the public about ARC products and services, and grow the risk pool. To this end the organisation is signing or seeking to sign MoUs with various organisations such as the African Development Bank (AfDB) for premium support; weather and food security information services (e.g. AgriMET) to improve the ARV model; and regional trade groups such as West Africa's Inter-African Conference on Insurance Markets (CIMA), Southern African Development Community (SADC), and East Africa's Intergovernmental Authority on Development (IGAD), to help promote ARC. The scope and reach of such agreements is not yet fully defined, but will be explored in more detail in the next formative evaluation.

Findings from the Country Case studies are less positive, and suggest that while ARC has some success at engagement, its efforts have only reached a limited network of stakeholders, with very few from civil society or international agencies. Indeed, there are reports from all three countries that civil society was marginalised or excluded from the process (see Annex C). After some increasingly negative press around ARV in Malawi, ARC has sought to better engage INGOs, for example consultations with UK NGOS, and the START Network, in an effort to pilot the ARC Replica coverage product in selected countries.

Outreach and communication with donor organisations has also been strained (see section 2.1.1) and Global Review interviewees noted the polarisation of views relating to ARC from both the donor community and INGOs. In particular, KIs noted a lack of dialogue with the EU, although ARC has briefed EU offices in several West and Central African offices, and has pursued high-level engagement. KIs also noted that the relationship with the World Bank was not as close as would be expected. ARC have, however, taken a number of steps to address this, including reaching out at senior levels to pursue closer working, running a week-long joint workshop in Johannesburg in May 2017 working together at country level on DRF advice given to governments. Between November 2016 and January 2017, ARC conducted the first phase of robustness and sensitivity analysis of ARV in collaboration with the Disaster Risk Financing and Insurance Program team from the World Bank. The country case studies noted some examples of difficult relations with other international organisations (see Annex C). From ARC's perspective, some Organisational Review interviewees expressed their frustration with donors, believing that donors support other programmes that directly conflict with ARC objectives. These include: (i) provision of contingency

funds for disasters; (ii) contingent credit that countries may misinterpret as replacing the need for insurance (e.g. World Bank Cat DDOs); and (iii) disconnected local programming.

While ARC has made some important strides towards outreach and engagement across an impressive range of countries, several of the challenges (e.g. sustained engagement with political decision-makers, communications with donors and INGOs), are critical to ARC’s longer-term value proposition. Turnover of political decision-makers can be very frequent, creating a significant challenge for ARC’s operations. This element of the ToC has thus been rated Amber / Green.

4.1.4 Product development and improvement

Result	Continually improved products and initiatives & refinement of ARV (OUT_01)
Summary:	ARC is managing several products that are either active or under design including models for drought, cyclones, floods, and outbreaks and epidemics along with several financial mechanisms intended to help grow the risk pool. There is a tangible tension between the need to grow by expanding into new areas and focusing to make sure core products function correctly. ARV, the signature drought model is complicated to configure, requires detailed input data, and is sensitive to changes in data.
Progress:	<ul style="list-style-type: none"> - Learning adaptation demonstrated through improvements to CP model; - Perception survey indicates level of trust in ARV; - Countries indicate ARV has been customised and refined based on learnings, greatly improving product; - Evidence that ARC is actively thinking about solutions to improve process of customisation and help demystify complexity; - Responding to client demands for different products and services;
Challenges:	<ul style="list-style-type: none"> - Despite improvements, evidence to suggest more changes to the CP model needed; - Global review questions whether ARV keeping up with technological advances in modelling. Given its complexity, there remains an outstanding question whether ARV can be customised sufficiently to individual country contexts; - ARC, in its response to client demands, is experiencing mission creep which puts strain on capacity and resources;

There is strong evidence from the Organisational Review that ARC has taken lessons learned to successfully update and improve its contingency planning process, both in the design of the plans and the process of the independent review. This suggests that ARC Agency has the ability to learn and adapt its programming in positive ways. However, other perspectives on this process are much less sanguine. In the Global Review, for instance, several interviewees indicated that the contingency planning process remained insufficient and could use further improvements in rigour. Similarly, evidence from the Country Case Studies suggest that the process of FIP approval could be strengthened, as it may not have been rigorous enough to avoid the influence of political factors in how funds were used (see an example from Mauritania in Section 4.2.4 for more details).

There is also much debate among different stakeholders as to the effectiveness of ARC’s signature product, the ARV model, and the flexibility with which it has been configured to different country contexts. Overall, those interviewed for the Organisational Review are supportive of the ARV

product. There is also strong evidence from the Perception Survey that ARV is trusted. On a scale of 1-4 where one is less trusted and four is most trusted, 84 percent of survey respondents indicated a trust level of three or higher.

Those interviewed as part of the Organisational Review argue that the primary limitations of the model relate to client demand for customisation and to data input requirements rather than with issues of technical functionality. With regards to the latter, ARC Agency manages a 'features request list' for changes to the software, prioritised by the potential to significantly affect/improve model outcomes and second by demand (e.g. number of countries requesting the change)²². Country Case study data suggest that this process works fairly well. Respondents in Mauritania, Kenya and Malawi all note that ARV has been customised and refined based on learning from experience year to year, and that the model's performance has greatly improved. This is partly due to use of improved indicators and data sets via in-country TWG learning, and also thanks to adaptations that have been made to the model to account for prior weaknesses or country demands. For example, in Kenya, ARC began offering two sub-national policies to accommodate different regional needs—a flexibility feature that was subsequently incorporated into the model. Similarly, after the experience in Malawi, ARC is investigating how to include temperature and the timing of crop maturation cycles into the model.

In contrast, respondents from the Global Review were less positive, raising concern as to whether ARV had 'kept up' with major technological advances over recent years. Because ARV is not public, interested stakeholders are unable to independently verify its robustness. A common criticism levied against ARV through the Global Review is that it is a 'black box' and therefore it is hard to know what exactly is driving the model. ARC refutes this, stating that the methodology is detailed in the technical notes that are provided with the software, the input data are all publicly available from NOAA or can be downloaded by users and the formulae to calculate the drought index, and the number of people affected and the cost of the response are all available. Other similar models are not public, for example those owned by the World Bank, and ARV end of season reports are available on ARC's website. ARC maintains it is the quality of the inputs and the accuracy of the assumptions that most strongly influence ARV outcomes, although some KIs were not so certain. For example, many of those interviewed in Malawi were not convinced that the input of the incorrect crop was the driver of the original 'no-payout' outcome (see Box 3 on Malawi for more detail). In any event, across workstreams most agree that drought modelling is highly complex and any system needs to reflect these complexities. At issue, however, is the fact that this complexity makes ARV inaccessible to most people and inherently leads to greater suspicion.

Many stakeholders and political-decision makers in both Malawi and Kenya continue to question whether ARV can be adapted accurately and extensively enough to their unique country contexts. Specific concerns include the accuracy and resolution of satellite rainfall data, use of the Water Satisfaction Requirement Index (WRSI), accuracy in predicting vulnerability, lack of regional sensitivity to show localised droughts, inability to capture dry spells that occur during critical times within the growing season, and inability to capture evapotranspiration, water-logging or vegetation cover. So, while there appear to have been strong improvements to ARV over the first several years through R&D, there is an ongoing need for customisation and trust-building. If ARC must effectively create a bespoke system for each country, maintaining the model code may be unsustainable.

How ARC deals with the issues of ARV complexity will largely drive future success. ARC is actively thinking about solutions. For instance, they are rethinking the country configuration/customisation process, and hope to institute a review process with outside experts, similar to the process followed for contingency planning. ARC is also raising appropriate internal questions around key

²² Some of the features demands go beyond the scope and purpose of ARV.

components of the system. For instance, there have been internal discussions on the reliability of ARV historical data in light of more rapid climate change, and how to better disaggregate vulnerability data as that driven by drought versus chronic food insecurity.

In addition to ARV, there is strong evidence from the Organisational Review that ARC is responding to client demands by researching and developing several additional products and models. ARC is piloting a flood model, although it is unclear exactly when policies will be made available related to this product. The existing flood product focuses on rural flooding, while the greater demand is for an urban flood product, both of which are proving very challenging to model. ARC has also just announced the launch of its Outbreak and Epidemics model²³. ARC has a model for cyclones based on that designed for the Caribbean Catastrophic Risk Insurance Facility (CCRIF) programme, although this has currently been suspended awaiting further R&D work. The demand for this product is low, as only a few African countries face tropical cyclone peril, and cover is not yet being sold. In the Global Review, some KIs noted that cyclone modelling in itself is not particularly innovative, as it is being done by others in other parts of the world (although models would, of course, need to be tailored to an African context). KIs also raised concerns about ARC over-extending itself by moving in so many different directions.

In addition to these weather models, ARC is also discussing and developing several innovative financing mechanisms. While outside the agreed scope of this evaluation, as a critical part of ARC's strategic plan, they deserve mention here. First, there is the design of what is called Replica Coverage. This is a financial mechanism that allows UN agencies and other humanitarian actors to match ARC country insurance policies. Second is the Extreme Climate Facility (XCF). The XCF is a financial mechanism that will provide current country policyholders with additional funds should extreme weather events in their region increase in magnitude and/or frequency, as reflected by an objective index. This product is expected to be made available in 2018.

As part of a conversation around sustainability, ARC is also in discussions with several higher income African countries that do not fit the typical ARC profile. These countries may already have insurance products that adequately cover citizens, or perhaps have the financial mechanisms to respond to weather disaster without needing additional insurance. ARC is trying to find ways to leverage its products to serve these outliers, for example, exploring how an ARC payout could be used to protect farmers producing cash crops in countries less prone to drought. These opportunities raise several questions related to the ToC. For example, is a sovereign-level insurance the right model (as opposed to micro-level insurance)? And does this stray too far from the ARC ToC key impact—that of protecting the most vulnerable? Interestingly, one of ARC's employees indicated that the ARC Treaty does not specify that ARC needs to focus on the most vulnerable people. There is perhaps a danger of mission creep, and the need to continuously raise the question: "What is ARC's mandate?"

Again, while there are some positive signs of learning and responsiveness to client demands, the questions around the complexity of its signature product, ARV, and scope creep, lead to a rating of Amber.

4.1.5 Capacity-building programme

Result

Ongoing capacity-building programme (OUT_02)

²³²³ Note: the O&E model is outside the agreed scope of this evaluation.

Summary:	ARC's well-defined capacity-building programme is comprehensive, and countries are supported well beyond the initially agreed upon time period of one year. The methods used are not particularly innovative, but there is some evidence that the programme will evolve and improve overtime
Progress:	<ul style="list-style-type: none"> - ARC responsive to Member States need for technical assistance, beyond set capacity-building programme; - ARC discussing options to improve aspects of the programme (e.g. online training tools, role of Government Coordinators (GCs), and goals of regional workshops);
Challenges:	<ul style="list-style-type: none"> - Methods for capacity transfer are not innovative and staff are not trained in training; - The capacity-building programme runs for much longer than originally envisaged.

ARC has a well-defined capacity-building programme that includes standard operating procedures, training materials and presentations, and in-country workshops. Countries also have ready access to ARC technical staff to help facilitate the design of contingency plans and ARV configuration. One big challenge ARC faces is that true institutionalisation of capacity takes much longer than the initially envisioned one year programme. Even those countries who take out insurance still often need assistance when thinking about how to assess and update ARV configuration, CP documents, and risk transfer parameters.

To date, the capacity-building programme can be criticised for its traditional approach. The tools used such as PowerPoint presentations and manuals are commonplace. One reason for the lack of originality in an otherwise innovative institution is perhaps because ARC staff are not trained as trainers. Indeed, one of the points raised during the Organisational Review was that CEMs, ARV and CP technical experts did not have the necessary experience on how to train. Expertise in a field does not necessarily translate into excellence as an educator/trainer.

There is evidence that ARC is considering ways to make the programme more effective. For instance, ARC Agency staff have discussed how they might leverage online tools to help customise training to create self-paced modules. There have also been discussions around providing training skills courses to ARC country engagement teams to strengthen their skills. Other internal discussions revolve around how to improve various aspects of the programme. For example, there are on-going discussions around the value of embedded government coordinators and how to make this position work more effectively (see Box 1). ARC Agency is also reflectively thinking about the nature and shape of regional workshops. These workshops were designed to facilitate peer-to-peer learning, but for various reasons (e.g. different skill levels, wrong people attending workshops, etc.) this learning did not transpire. ARC Agency is considering how to better leverage these workshops for learning.

Given ARCs responsiveness to capacity-related issues and their reflectiveness on how to make improvements to the programme, this ToC element is rated Green.

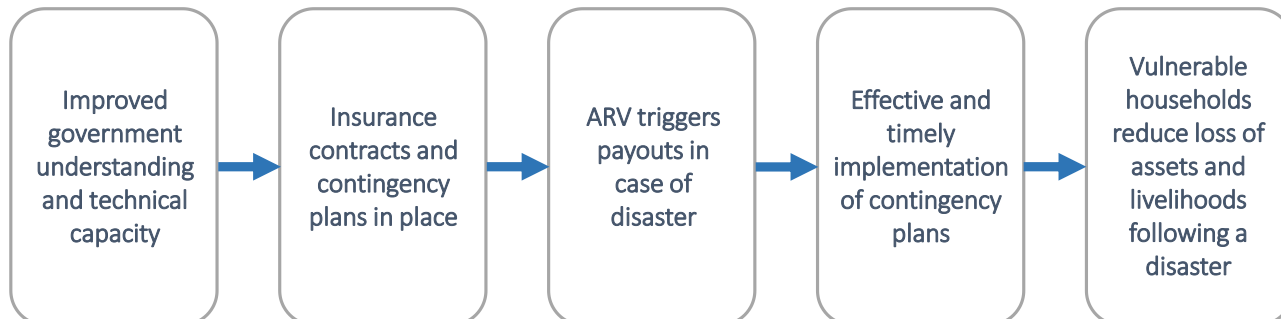
4.2 EQ 2: ARC's support to timely and effective responses

Evaluation Question 2 in full is:

“To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods and prevent asset loss and food insecurity?”

This question is answered by looking at short-term and intermediary changes along Pathway 1 in the ToC on supporting timely and effective responses. The ToC sets out 5 key steps along this pathway (see Figure 8).

Figure 8: Steps in Pathway 1—Supporting timely and effective response



The sub-sections below consider each of the steps in the pathway.

4.2.1 Government understanding and capacity

Result	Member States develop improved understanding and increased technical capacity in the design and implementation of contingency plans for early response, risk modelling, risk pooling, and risk transfer mechanisms (STC_01)
Summary:	Some capacity has been built against a backdrop of weak DRM institutional capacity, but this is limited in breadth and depth—it is not sufficient to support the causal pathway. Capacity development is typically not following a linear pathway in-country, is focused on a relatively small group of people, and mainly covers DRM topics specifically related to ARC products.
Progress:	<ul style="list-style-type: none"> - The majority of perception survey respondents (56%) see some success in ARC’s capacity-building efforts; - There have been year-on-year improvements in the sophistication of discussions around ARV customisation at the country level; - There are some examples of improved use of contingency planning and improved ability of TWGs to justify customisation and risk transfer decisions to political decision makers without ARC support;
Challenges:	<ul style="list-style-type: none"> - ARC’s capacity-building model has not been able to overcome structural problems such as low starting capacity and frequent turnover, so capacity development is not linear and is slower than expected; - Government Coordinators are overstretched; - ARC’s capacity-building focus is on model customisation amongst a small group, rather than wider aspects of DRM across a broad range of stakeholders in-country.

This ‘short-term change’ relates to how successful ARC’s capacity-building efforts (outlined under 4.1.5) have been in developing understanding and skills across a range of disaster risk finance and management functions in Member States. ARC has provided technical assistance in the following

areas for each country: customising and validating the ARV model, contingency planning, concepts around risk transfer and insurance, and, in the case of Mauritania and Malawi, developing a FIP. Additionally, ARC offers (as detailed within the Country Work Plans) to provide assistance at the request of the government around developing a holistic national strategy for disaster risk management and ultimately signing an insurance policy with ARC Ltd. ARC facilitates dialogue and agreement among key government stakeholders, supports decision making around the extent of coverage and associated premium payments following the country's needs and budget, and advocates for political support and buy-in to the idea of disaster risk insurance. Interview findings from the case studies suggest that the national disaster/drought management agencies in each country were not inclined to ask ARC for support in developing a more holistic disaster risk management strategy. Several reasons emerge to explain this. Responses suggest that ARC is not perceived as offering neutral advice around DRM strategy, given the agency's focus on promoting the uptake of ARC insurance products. Additionally, the case study countries each have ongoing initiatives with other partners to support improved DRM strategy and planning, making it unclear how exactly ARC's services for developing a more holistic DRM strategy (including insurance financing options) could complement ongoing efforts. In some cases, in-country stakeholders do not necessarily make the link between engagement with ARC and other ongoing initiatives. Nonetheless, all countries worked closely with ARC in customising ARV and validating it with other early warning systems, developing contingency plans aligned with existing response strategies, elaborating insurance parameters and signing a policy with ARC Ltd (at least for one season).

In assessing this element of the ToC, it is useful to remember the overall context in which ARC's activities are taking place. Our Baseline Context Assessment demonstrates that across Africa there is generally a low starting point in terms of DRM understanding and institutional readiness/capacity for DRF. From our sample of African countries, just under half do not have a DRM national policy or strategy, and just over half do not have a DRM institution in-country. From the sample, those who are engaged with ARC (signatories to the treaty) are not significantly better or worse than the rest of the sample in terms of these indicators of institutional capacity for DRM. Indeed, the case study sample revealed a wide range of institutional capacity for DRM, and associated use of early warning systems, contingency planning and response financing. More specifically, though, the case studies revealed strong evidence of a low starting point in terms of institutionalised knowledge of disaster insurance concepts as an integral part of DRM. This means that any assessment of ARC's activities in this area should take into account low levels of current capacity and understanding, and puts into question the assumption of whether or not there is sufficient capacity within governments to understand the ARV mechanism.

We found mixed evidence from the Perceptions Survey on how successful survey participants judge ARC's capacity-building efforts to be at facilitating knowledge transfer and capacity building in relation to DRM, contingency planning, Early Warning Systems (EWS) and DRF. This is particularly interesting, given that 73 percent of survey participants had participated in more than one type of ARC capacity-building initiatives themselves, and so had first-hand experience. On a scale of 1 to 4 (1 = low, 4 = high), no-one graded one and 12 percent gave a grade of four, the highest level possible. However, the bulk of responses lay equally across grades two and three (each with 44 percent). This suggests that the majority (56 percent) of respondents see that there has been some success in ARC's capacity-building efforts, but it should be noted that almost half (44 percent) gave a grade in the lower half of the range—a fairly concerning proportion.

This mixed view also emerged from the KIIs conducted under the Organisational Review. A small number of positive views were expressed around the success of ARC's capacity-building efforts, for example around year-on-year improvements in the sophistication of discussions around ARV customisation at country level, or about Contingency Plans being used more widely than for just

ARC. However, a significant number of respondents noted that the capacity-building process was taking much longer than first anticipated, and is not linear. Countries who have completed the official capacity-building process still continue to require support and technical advice from ARC. Some interviewees noted that whilst capacity was acknowledged to have been built amongst a small group of individuals in-country, frequent staff changes undermine progress and slow the institutionalisation of knowledge.

Some interviewees expressed concern around the capacity-building approach adopted by ARC, suggesting that tools and workshops need to be more personalised given very different levels of understanding within countries. There were also very mixed views on the value and effectiveness of the GCs (see Box 1).

Box 1: Value of embedded Government Coordinators

ARC staff have mixed views on the value of using embedded GCs versus hiring ARC staff in each country. One view is that the embedded GC model does not work. Since ARC tasks are an addition to the existing responsibilities of a GC, they tend to see it as extra cash rather than a larger responsibility and are over-stretched. The second view is that the embedded GC is a critical part of the ARC sustainability model. The case studies similarly revealed mixed findings in this regard, with KIs in Kenya and Malawi claiming that it would be more effective for ARC to have a full-time staff person in each country dedicated to coordination and communication responsibilities, given the GC's other responsibilities. Indeed, in both cases multiple TWG members appeared not to have been updated on significant ARC developments in the country. The GC system appears to have worked more effectively in Mauritania for continuing to drive forward the work, though this may not be surprising given the country's continued investment in ARC insurance policies.

While in the past GCs were only paid for one year, ARC now pays the GC salary in full for the first two years, and then continues with two years of half-payment. For this reason, GCs should not continue with their previous workload and view ARC responsibilities as a minor add-on. There have also been some discussions around having some type of small milestone 'bonus' payments to incentivise the GC to do more work.

However, the challenges with transitioning ownership of key ARC activities to appointed GC's without also subsidising their salaries puts into question whether the assumption holds that there is enough political will within governments to engage with ARC, and dedicate the necessary individuals/resources for its proper functioning.

Several of the international experts who were interviewed applauded ARC for including capacity-building processes within their approach, in contrast to approaches taken by other risk pools such as CCRIF, or the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI). For example, ARC requires independent approval of a contingency plan as a pre-requisite for taking out an insurance policy. This was generally regarded as representing a step forward in global best practice in the design of sovereign risk pools. However, a strong view emerged from the international experts that capacity development in relation to contingency planning was not as effective as it could be. Several of those interviewed argued that ARC's capacity building generally needs improvement so that understanding can move beyond a relatively small group within countries.

This view was confirmed with strong evidence across all three case study countries: the team found evidence that capacity had been built, but this was generally limited to a small group of technical people with little wider impact. In all three countries, TWG members spoke highly of the trainings provided by ARC. In Mauritania, interviewees expressed a very positive view of the ARC team that has supported at the country level, including their dynamism and responsiveness. Stakeholders in Kenya who had attended regional and local ARC workshops spoke to their value in

gaining technical capacity related to ARV customisation and associated policy parameters. This was also the case in Malawi, where TWG members said that ARC was effective in teaching about ARV. Following the capacity-building programme, the technical team in Malawi can now explain key concepts to decision-makers, and answer questions as needed. Additionally, TWG members working on ARV understand how satellite rainfall data can be linked to production and vulnerability data to predict disasters using a more holistic model. They have learned how to work with a cross-sector team on customisation, and see the value of their data for other aspects of the government's early warning and disaster response systems (though it is unclear whether this learning has translated to other early warning systems in Malawi).

The contingency planning process is intended to build from existing activities and response mechanisms within a country to achieve more rapid and effective delivery. It has been considered useful for enhancing existing planning processes in both Mauritania and Kenya. For example, the concept of contingency planning is already well accepted in Kenya, and resources are set aside every year to support counties to undertake their own contingency planning process. According to those involved in the contingency planning process with ARC, it nonetheless helped to build better principles and scenarios for organising interventions, and required them to develop a national-level contingency plan specific to drought disasters. Additionally, according to an interviewee within the Treasury, the process is useful because it provides stipulations for how funds can be used, and keeps the disbursement transparent. The contingency planning process was also seen as useful in Mauritania, where the timing and precision was an improvement from previous plans. However, in Malawi there was no perceived improvement in CP processes resulting from ARC's involvement. Additionally, the capacity-building programme appears to have been insufficient to prevent serious problems with model customisation. Multiple stakeholders in the country claimed that the technical team working to customise ARV had 'graduated too early' from ARC's capacity-building efforts.

Two clear challenges for ARC's capacity building emerged from the case studies. In Malawi, there was strong evidence that turnover and staff rotation undermined capacity-building efforts; and in Kenya, some interviewees expressed concern that trainings were not attended by the most suitable people. These imply that the assumption that people trained in ARC's capacity-building programmes stay in their posts or transfer their knowledge before moving on is not currently holding. Additionally, during the early stages of Kenya's capacity-building programme, the ARC team provided customisation remotely, which did not lend itself to the type of hands-on support and knowledge transfer necessary for quality ARV customisation. It should be noted that these challenges are typical for capacity-building interventions—international development and public management literature²⁴ widely acknowledges that capacity building is often non-linear, slow and easily reversed, often because of loss of capacity through turnover or ineffective training methods. However, precisely because these challenges are widely acknowledged, ARC should make more of an effort to overcome them in their design of their capacity-building programme. For this reason, this element of the ToC has been graded Amber.

4.2.2 Getting insurance contracts and contingency plans in place

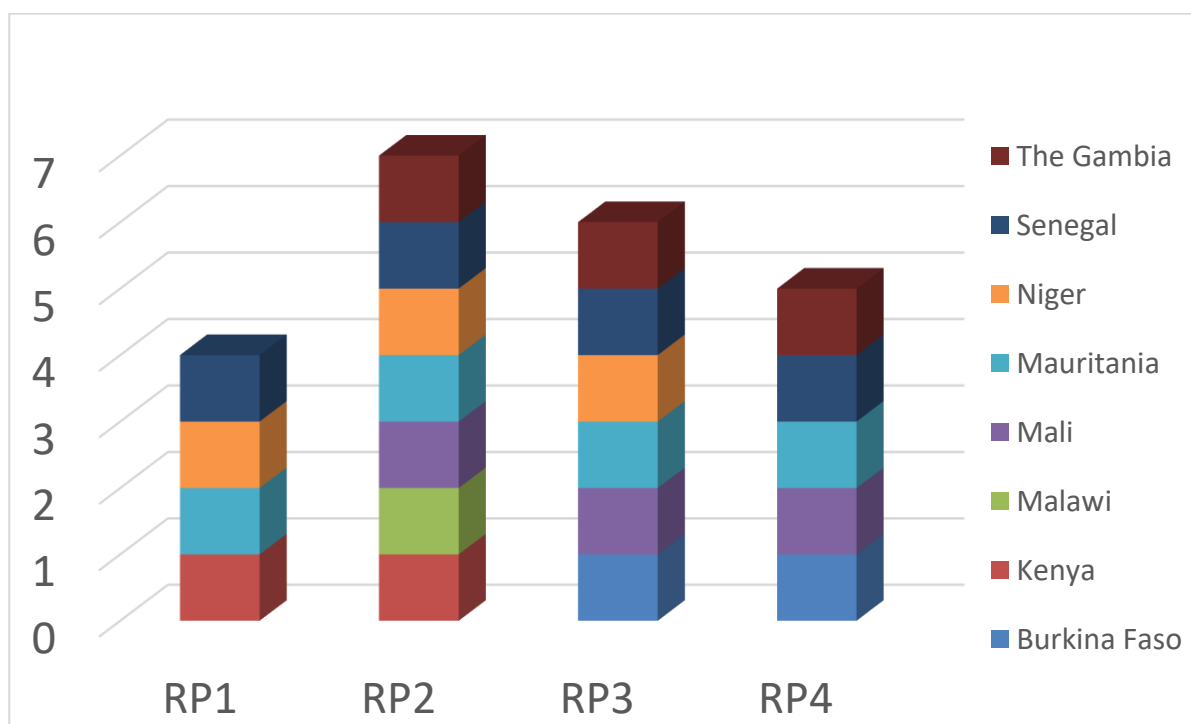
Result	Insurance contracts and contingency plans are in place (STC 02)
Summary:	The risk pool is shrinking despite continued food insecurity and drought in the region.

²⁴ See for example, Scott et al (2015) Strategic Research into National and Local Capacity Building for Disaster Risk Management: Literature Review, http://www.ifrc.org/Global/Documents/Secretariat/Research/version-2/Literature_Review_v2_2015.pdf

Progress:	<ul style="list-style-type: none"> - Insurance contracts and contingency plans are in place for a sub-set of member countries, though numbers have shrunk; - Two countries (both of which received a payout the first year) have purchased policies and updated their contingency plans year-to-year;
Challenges:	<ul style="list-style-type: none"> - Countries consider premiums to be unaffordable; - Low understanding of how insurance works undermines risk pool growth; - Policies with low attachment points are more appealing to the short-term incentives of politicians, but they drive up premiums and reduce the potential benefits to be gained from insurance, ultimately making ARC's offering less appealing; - Countries appear to be less willing to purchase subsequent policies if they do not experience a payout; - Concerns over ARV undermine risk pool growth; - Countries have other options for managing their risk that are often considered to be more attractive, and are less likely to buy insurance if they expect a 'good year'.

Over the past four years, eight different African nations have taken out ARC policies in four annual pools, at a total cost of approximately US\$55 million. However, contrary to ARC's plans for growth, the number of Member States purchasing ARC policies and participating in the risk pool is actually reducing (see Figure 9).

Figure 9: Evolution of the Risk Pool



However, the Baseline Context Assessment shows that the most food insecure countries are not all engaged with ARC. For example, FEWSNET projections of food insecurity, which are presented in terms of the Integrated Phase Classification (IPC) system, show that four countries projected to be in a food insecurity crisis in November 2017 are not ARC signatories or current risk pool members (see Annex A). Although there are wider causes of food insecurity than just drought, this evidence from a sample of African countries suggests that there are other countries who could reasonably be expected to have an interest in purchasing insurance through ARC. That said, there are many reasons why a country may have considerable food insecurity but not be suitable as an ARC member, for example lacking in capacity, political instability or conflict-affected. However, we

surmise that the risk pool is not shrinking because of lack of potential clients, but for other reasons.²⁵

Evidence from across all the workstreams suggested that a major cause of the risk pool shrinking is that premiums are widely perceived as unaffordable. This was a strong finding from stakeholders in Kenya, Malawi and Mauritania and 75 percent of perception survey respondents stated that they believed ARC premiums are expensive in comparison with other options, such as humanitarian aid or Catastrophe Deferred Drawdown Options (CAT DDOs)²⁶. This is in contrast to multiple stakeholders from the reinsurance industry, who argued that ARC had been able to secure very low prices for premiums. This suggests that, even though competitive prices have been secured, these are still considered to be too high by national government stakeholders. Our Baseline Context Assessment found that ARC countries are typically low income, or lower-middle income (as would be expected; higher-income countries are more likely to be able to mobilise budgets for early response themselves in the event of a drought) and have relatively high Official Development Assistance (ODA) per capita levels. Low-income or lower-middle income countries therefore have a history as aid recipients, and may be less likely to be able to pay premiums themselves than higher-income countries. In several cases, even when a policy is agreed, countries miss deadlines to make their premium payments. In at least one case, a country signed a policy but did not make the premium payments in full.

However, affordability is not just judged on ability to pay but also on the basis of the perceived potential benefits (i.e. not just ‘is it expensive?’ but ‘is the cost worthwhile for the benefit we are likely to receive?’). Evidence from several workstreams suggests that there are political barriers to the potential benefits of ARC payouts being fully realised. All the policies that have been taken out through ARC have had 1 in 5 year, or lower, attachment points. From the country case studies, it seems that ARC is unable to build political traction for higher attachment points, which would lead to lower premiums. This is not surprising—politicians are incentivised to invest in initiatives that are likely to provide benefit to their people within the current electoral cycle (Scott and Tarazona 2011). However, insurance of this type works best for infrequent events, so that premiums can be lower. If lower attachment points are used, for example 1 in 3, 4 or 5 year events, then countries are likely to receive payouts more regularly, but with higher premiums, so coverage and total payouts are likely to be lower, which becomes an unattractive prospect over the short-term. In Kenya, for example, the premium was \$9 million annually for a maximum of \$30 million payout for both Risk Pool I & II. Malawi paid a premium of \$4.7 million for the maximum payout of \$30million for Risk Pool II. Mauritania, for example, paid a total of \$1.4 million for a maximum payout of \$6.3 million for Risk Pool I. Overall, in the case study countries, the premium was considered too expensive compared to the potential size of the payouts, making it appear more like a disaster fund (but from which the country is not guaranteed to be able to draw). Additionally, multiple interviewees from both inside and outside the government claim that the maximum payout for the policies that were used is relatively small, compared to the potential level of need in both Kenya and Malawi, and relative to Kenya’s national budget.

There is also some evidence that countries may drop out of ARC unless they get a payout. ARC has the most traction in West Africa, where two countries (Senegal and Mauritania) have taken out four successive policies. Both countries received payouts in their first year of participating in the risk pool. In Mauritania, KIs reported that this early benefit from ARC helped them to build political favour for continuing in the risk pool, and enabled sustained engagement in subsequent years. We have also noted the opposite scenario, with evidence from both Kenya and Malawi of countries dropping out if they do not receive a payout (or, in the case of Malawi, if they receive it following a

²⁵ For instance, Ethiopia and Tanzania are both projected to be in ‘crisis’ stage in November 2017, and do not have significant conflict or political crises.

²⁶ Here we are merely presenting the perceptions of survey participants—we are not stating that this is the case.

difficult process). This is not the case everywhere, however, as both the Gambia and Mali have participated in the risk pool for three consecutive years without getting a payout. However, it is worth recognising as a potential risk. In Mauritania and Malawi, we found strong evidence of inadequate understanding around insurance concepts, which is likely to lead to unrealistic expectations regarding payouts. Pre-conceived notions of insurance as exploitative and ineffectual have made ARC's awareness-raising task more challenging. In some countries, insurance premiums seemed to be viewed more as a savings account, with an expectation that you should get out at least what you put in. In Kenya, one interviewee told the team that they may re-join the risk pool in another El Niño year but not otherwise. Stakeholders in Malawi also expressed that they would only consider re-joining the risk pool if they felt there was a high likelihood of drought. This low level of understanding regarding how insurance works presents a risk of unrealistic expectations, and ultimately is a significant threat to the future growth of the risk pool. It also raises questions around a critical assumption implicit in the ToC, that early adopters of ARC programme see value of sovereign insurance for extreme weather.

Box 2: Reasons for withdrawing or staying in an ARC risk pool

When asked why Kenya chose not to purchase a policy for the 2016/2017 season, interviewees cited wide ranging reasons, including a loss of trust in the model, expensive premiums, unmet expectations, internal coordination challenges, and political sensitivity due to the election season.

- **Loss of trust:** Multiple TWG members claim that ARV customisation had been flawed in the first two years and, according to some, did not accurately predict the impact of drought. Because of this, many stakeholders (including politicians) thought the model should have triggered a payout. They were frustrated by the lack of payout, and felt that their case was not properly looked at.
- **Limited understanding and unmet expectations:** Others primarily blamed a lack of understanding on the part of key political decision-makers who do not see insurance as a long-term proposition. Interviewees claimed that many people do not understand that ARC is designed to provide a response of last resort, only in cases of severe drought.
- **Expensive premiums:** According to many stakeholders, ARC is too expensive compared to the potential payout. The Treasury is facing competing budgetary priorities, and there is a high opportunity cost associated with the sum that Kenya pays in premiums (including using them for immediate response or mitigation).
- **Political sensitivity:** The 2016/2017 season was a politically sensitive time, prior to national elections. Drought management and response are particularly sensitive political issues, so allocating funds to a mechanism considered ineffective was difficult to justify to parliamentarians.
- **Internal coordination:** Finally, there appears to have been a lack of internal coordination at the technical level, and inadequate upward communication to key decision-makers. For example, the TWG teams and informed officials from other key ministries did not know that the Cabinet Secretary for the Ministry of Finance was not planning to include ARC premiums in the budget, and so never had an opportunity to advocate for its inclusion.

Stakeholders in Malawi cited the following reasons for not purchasing a policy for the 2016/2017 season:

- **Frustration and disappointment:** Stakeholders and champions of ARC felt frustrated following the delayed payout to Malawi for the 2015/2016 season, and this was the primary reason given for not purchasing a policy. At the time of allocating resources for the 2016/2017 budget, Malawi had not yet heard whether they would receive a payout, which would have made it very difficult to justify another premium payment at that time. The political fallout was significant, leading to a context far from conducive to signing another policy. Awareness of ARC's products and services among key groups, such as parliamentarians and CSOs, was much higher than when the 2015/2016 policy was signed, and largely focused on negative coverage of what had gone wrong.

This meant that the visibility was also higher, and few officials were ready to defend inclusion of another premium in the budget.

- **Expectation of a good agricultural season:** Based on climate forecasts, Malawi anticipated a good year in terms of rainfall (thanks to El Niña), providing little reason for joining the pool. However, with the next season projected to be poor, some stakeholders claimed that Malawi may see value in it again.

Despite not receiving a payout the previous year, and the knowledge that they were unlikely to get a payout during the 2016/2017 season, Mauritania chose to take out a policy for the following reasons:

- **Long-term benefit:** Mauritania recognises the year-to-year benefit of having an ARC policy, as they saw its value during the first year when they were hit with a serious drought.
- **Commitment to a pan-African/AU initiative:** ARC was one of the first countries spearheading the creation of ARC as a pan-African response to increasing disasters, and had a successful experience with the payout, so feels an obligation to see it continue.

As outlined in Box 2, evidence from Malawi and Kenya suggested that lack of trust in ARV has undermined growth of the risk pool. In Malawi, the apparent discrepancy between ARV results for the season and realities on the ground led to extraordinary steps being taken by ARC to redress what was deemed a failure due to inaccurate assumptions used for customisation, and led to widespread speculation and distrust. This was a high-profile situation which attracted international media attention and, as evidence from the Global Review demonstrates, was very damaging for ARC and ARV’s reputation. Key stakeholders in Malawi and Kenya questioned whether ARV could be adapted accurately and extensively enough to unique country contexts.

Although there is not yet a diverse market for risk financing products in Africa, countries have other options available to them for managing their risk. In particular, several interviewees commented on the appeal of options like World Bank CAT DDO’s, contingency funds or humanitarian appeals instead of paying ARC premiums. Several stakeholders, both internationally and within the case study countries, argued that premium financing from donors was needed to stimulate the risk pool. This is also a message that ARC is supporting, which represents a significant shift in discourse—originally, the fact that countries were paying their premiums was considered to be an indicator of ownership and sustainability.

ARC started well in selling over 25 policies to eight different African nations, but the risk pool has been shrinking over the last two years, and there are serious barriers to its growth over the long term; therefore this element of the ToC has been graded as Amber / Red.

4.2.3 ARV triggering payout when there is a disaster

Result	ARV triggers payout in case of disaster (event)
Summary:	There is mixed evidence as to the reliability of ARV and ARC processes to ensure that ARV consistently triggers payouts following droughts.
Progress:	<ul style="list-style-type: none"> - In multiple cases of drought, ARV triggered a payout, namely in Mauritania, Senegal and Niger; - Perception survey respondents expressed positive views on the reliability of ARV;

Challenges:

- Basis risk is inherent to parametric insurance;
- Malawi's late payout was widely perceived to be a situation where ARV and ARC processes did not work well enough to trigger a payout;
- Concerns in Kenya about the adequacy of ARV customisation for the first two risk pools to trigger a payout in case of disaster.

Basis risk is an inherent part of parametric insurance; it refers to the risk that there will be a mismatch between the payout that is triggered and the actual situation on the ground. This may arise because of problems with input data, the model being used or the customisations made to the model. Drought has multiple causes beyond reduced rainfall and crop failure, and so, for this element of the ToC, it is important to recognise that a situation may well arise where a drought occurs, but ARV (despite having been customised correctly) does not trigger. Given the existence of basis risk, the issue then is the measures taken by ARC to measure, monitor and minimise basis risk, as well as explaining it to countries taking out a policy. ARC does not have a 'plain English' basis risk policy, and does not go through a formalised process to document and record agreement with countries that they understand the concept. Officially, ARC has a process of ground-truthing at the end of each season, as a way of measuring and monitoring basis risk. Once ARV is customised, the ARC technical team continue to follow up with the country throughout the season to ensure ARV output matches physical government ground-truthing assessments and other information shared by the TWG. Post-season, the technical team does a validation process, seeking to explain any discrepancies between ARV and other sources of drought information (e.g. vulnerability assessments, FEWSNET or other early warning data, etc.). ARC staff note that often it can be quite easy to explain differences which usually have to do with various assumptions. However, ground-truthing is not done before a payout determination is made. Some case study respondents thought the process to be inadequate, with one respondent in Kenya citing the lack of ground-truthing for ARV bulletins and seasonal reports associated with ARV to be a major weakness.

As noted in the section above, evidence from two case study countries (Kenya and Malawi) suggested that there were concerns about the reliability of ARV for triggering a payout following a drought, although perceptions among informed stakeholders in Kenya have greatly improved with the latest customisation. It should be noted that payouts do not follow every drought—only if the pre-determined attachment threshold has been reached. A drought may be visible on the ground, but a payout will correctly not occur unless the threshold is reached. This is difficult to communicate, and may lead to distortions in stakeholders' perceptions of ARV's reliability. Additionally, respondents in Mauritania, where ARV did trigger a payout, expressed trust in the model, particularly noting improvements in customisation from year to year. Perception survey respondents were more broadly positive about the reliability of ARV, with 68 percent giving a score of 3 out of 4 for how much they trusted the software, and 16 percent giving a score of 4/4, implying complete faith in the model. However, only 58 percent of survey respondent said that they felt payouts matched expectations, meaning a significant group felt that payouts did not match expectations. The fact that some people therefore trust the model but feel that payouts are not in line with expectations is surprising, and could imply that respondents felt that while the model itself could be relied upon, the processes around its use were lacking. It should be noted that Perceptions Survey respondents were typically senior level government officials from African countries. In contrast, international experts who were interviewed tended to say that payouts had been in line with their expectations, with the clear exception of Malawi.

Evidence from the case studies suggests that there have been significant reliability issues with ARV modelling and customisation, mainly linking to a learning period of customisation which is too short before countries sign a policy—so that policies are taken out on a model that is not as well adapted as it could or should be. However, in all three case study countries, there is widespread

consensus among TWG members that ARV customisation very much improved over the course of the three years during which it has been refined.

Finally, there is general agreement that the model is so complex that it is inaccessible to most people, which may also explain the seeming contradiction between trust in the model and misaligned expectations within the perception survey. This may be necessary to better reflect the reality of drought impacts on vulnerable populations. However, it also means that for now, ARC's technical ARV experts ultimately do much of the data manipulation and modelling behind the scenes, leading to more room for questions to arise.

Many stakeholders, both internationally and from country representation, believed the late payout in Malawi in 2017 to be a situation where ARV and ARC processes did not work well enough to trigger a payout, despite clear evidence of a drought occurring on the ground. Box 2 provides detailed findings from the case study demonstrating the complex reality that led to this situation.

Box 3: Malawi ARC failure

The lack of immediate payout in Malawi following the 2015/2016 rainy season created widespread controversy and negative publicity for ARC. On one hand, the incident has been used as evidence to demonstrate the inappropriateness of market-based insurance products as a response to climate-change related food insecurity. On the other, the response taken by ARC demonstrated considerable flexibility and a willingness to identify and address the cause of the problem. While these assessments represent the extreme ends of perspectives, the reality of what happened, and why, is much more difficult to tease out. The following provides a summary of findings from the Malawi case study conducted in June 2017 that suggests a more complex and nuanced story.

What happened

After Malawi's signing of a first policy for the 2015/2016 agricultural season, the TWG, Government Coordinator and ARC Supervisor in Malawi were closely following ARV bulletins. The rains had started late, and multiple intense dry spells, coupled with higher than usual temperatures, were boding poorly for farmers, the vast majority of whom rely on rain-fed agriculture. During the early part of the season, which starts in November, ARV bulletins were showing increasing numbers of vulnerable people affected by the poor rains, and the mid-season report estimated an impact on 4 million people. However, following several weeks of heavy rains later in the season, the number dropped dramatically, to only 20,000 people. The ARC Government Coordinator and other TWG members refused to sign the end of season report in April, as it did not correspond with the crop devastation seen on the ground, and raised their concerns to ARC.

An initial ground-truthing exercise was undertaken in April/May 2016 by ARC, the Government Coordinator and select TWG members in three districts, which revealed discrepancies between ARV and realities on the ground. Within a week following this initial ground-truthing, ARC employed a consultant from the Centre for Agricultural Research and Development (CARD) to undertake an investigation into why the model had failed to predict the drought. The consultant first conducted an initial study in May 2016, in five districts where the discrepancy had been highly visible. This was followed by a country-wide quantitative survey conducted in August/September 2016 to validate initial findings about which varieties had been planted, and which suffered most from the drought. According to the consultant's findings, the model used a maize variety with longer maturation period (120-140 days) than the average maturation period for the varieties actually planted by farmers (90-100 day) during the 2015/2016 season. However, the CARD report also states that both varieties of maize appear to have been equally impacted, and that higher than usual temperatures (not previously included in the ARV model parameters) had negatively impacted production in a way that the model did not account for. 53 percent of farmers claimed that high temperatures exacerbated the impact of the dry spells and 47 percent felt that it directly damaged their crops.

Why ARV failed to predict the impact of the drought on food security:

The findings of the CARD report were disseminated via a workshop for stakeholders in Malawi, but the study itself was not made public. ARC's primary argument about why the model failed to predict the impact of the drought is that the longer maturation period used in the model estimated a less severe impact of the dry spells. On the other hand, shorter maturing varieties increasingly planted by farmers

were severely affected by a three-week dry spell that hit during flowering and that dramatically affected production (thus the failure of ARV to trigger a payout). This explanation appears to be only partly validated by findings presented in the CARD report. The report does in fact show that a greater percentage of farmers in the whole country have progressively used shorter term varieties over the last four growing seasons, regardless of the region, agro metric practices and ecological zones. However, findings outlined in the CARD report also claim that “low yields were widespread for both short and long term maturing varieties,” thus putting into question whether this adequately explains the major discrepancy between the model’s predictions and realities on the ground.

Opinions among stakeholders in Malawi about why the model failed to predict the actual impact of the drought in 2015/2016 vary widely, largely according to the Ministry and institution to which respondents belong. According to interviewees in multiple ministries, the TWG team responsible for customising ARV made an inaccurate assumption about the crop used for calculating the Water Requirement Satisfaction Index—essentially the same primary cause put forward by ARC. Indeed, following the ‘non payout’, the TWG faced intense scrutiny, criticism and pressure from the government. Government officials who posited the same argument as ARC had attended a meeting where ARC presented report findings to this effect. This argument is supported by the fact that the government was anticipating an El Niño year and so advised farmers to plant a short-maturing variety, and provided free hybrid (short-maturing) seeds to about 1.8 million beneficiaries under the Farm Input Subsidy Programme.

Another possible explanation, though not the one put forward publicly by ARC, is the compounded impact of heat and evapotranspiration, as well as the temporal nature of dry spells (i.e. heavy rains for one/two weeks and then two/three weeks of dry spells during critical periods) which landed at a pivotal moment in the crop’s maturation cycle. Such factors were not originally accounted for in the parameters of the model, suggesting that inaccurate assumptions/inputs were not the only cause of the problem. This may be substantiated by the fact that the ARC technical team in Johannesburg overseeing ARV customisation subsequently decided that temperature should be accounted for within the model to generate more accurate estimates of the impact of drought, as well as the timing of dry spells during the growth-cycle.

Finally, another contributing factor for the discrepancy may be the compounding nature of droughts, floods, food prices and other factors that affect food security. Indeed, some stakeholders argued that Malawi had faced a major food security crisis in 2015/2016 due to a convergence of multiple factors, including from climate disasters from previous years, corruption, and poor policy decisions. Therefore, when the dry spells hit during the 2015/2016 season, they contributed to what was an already dire situation. This demonstrates the challenges of developing a model that isolates the effects of drought, while adequately accounting for related factors that negatively affect production and exacerbate food insecurity and famine.

Conclusions drawn:

Based on an assessment of the contradictory claims and potential motivations among various interviewees to assign or deflect blame for the malfunctioning of the customised model, the case study team drew some key conclusions. There is a need for shared responsibility of model failure between ARC and the government, and the ARV customisation should include a more formalised validation process. Given that the model used a composite crop cycle that represented an average maturation period for three commonly used varieties (local, composite and hybrid maize), the differences in the crop used for the WRSI and the realities of what farmers planted during the 2015/2016 season appear unlikely to fully account for the difference between the ARV projections and what was perceived to have been the full impact of the drought on vulnerable populations. However, according to ARC staff interviewed, multiple factors (economic, past climate disasters—including floods, and previous droughts during years when the country did not have coverage) converged during the 2015/2016 season to create a dramatically bad year in terms of food insecurity.

Ultimately, the team was unable to validate the conclusion that an inaccurate assumption about maize variety fully explains the model’s failure, however there is a convincing argument for it being a significant contributing factor. The customisation process does seem to have neglected adequate input from agronomists, agro-meteorologists and other critical expert stakeholders, and appears to have been too removed from the ‘ground’. No single other explanation provides a fully satisfactory answer to why ARV did not predict the impact of the drought, either. Multiple people spoke to the highly strange and unpredictable nature of the 2015/2016 season, with short periods of heavy rains following by dry spells, raising questions about the overall reliability of ARV in such cases. Additionally, ARV technical experts

recognised a need to factor temperature and other parameters (such as the specific time-period when a crop is most vulnerable to dry spells) into the model.

This convergence of factors demonstrates the complexity and challenge of a) ensuring that the correct indicators and data are selected for ARV customisation, b) minimising basis risk inherent in any parametric insurance and developing strategies for managing a situation where downside basis risk *does* occur, and c) isolating the factors that are in fact tied to how drought is defined and accurately reflecting this in the ARV model.

4.2.4 Effectiveness and timeliness of contingency plan implementation

Result	Effective & timely implementation of country contingency plans, including speed of payout (INT_01)
Summary:	Mauritania demonstrates that it is possible for ARC payouts to facilitate quick and effective emergency response – but in that and other contexts, there are major political constraints and problems with the process.
Progress:	<ul style="list-style-type: none"> - The process audit of Mauritania’s payout demonstrates that implementation largely matched the FIP, which aligned with the country’s approved Contingency Plan;
Challenges:	<ul style="list-style-type: none"> - Political and procedural barriers cause considerable challenges to speedy, and therefore effective, implementation of contingency plans; - Country-level bureaucracy is an important determinant in how rapidly ARC funds can be deployed; - Lack of robust processes for making changes to the FIP creates a risk of inappropriate or ineffective use of funds.

Countries must have a contingency plan (CP) approved by ARC in order to be able to take out a policy. CPs contain an Operations Plan (which must be in place for a country to qualify for a Certificate of Good Standing and then be able to take out a policy), and an FIP which details how an ARC payout will be used after a specific disaster. Effective and timely implementation of CPs is therefore an important part of the ToC, especially given that ARC funds are not intended to replace humanitarian interventions by covering all emergency needs, but aim to provide early response through speedy, reliable payouts.

To date payouts have been made in Niger, Senegal, Mauritania and Malawi. In terms of our case studies, we were able to collect information on CP implementation in Mauritania and Malawi. ARC Agency contracts an independent organisation to conduct post-payout process audits and financial audits. These reports have been kept confidential by ARC Agency although they were shared with the Evaluation Team on a confidential basis. At the time of writing we have been informed that these reports are now publicly available.²⁷

Speed and certainty of funding following a disaster were key benefits associated with ARC insurance in the case study countries. However, the process audits of two of the three countries that were paid out in the first year (Niger and Senegal) report important country difficulties with timely and effective implementation. In Niger, a payout of \$3.34 million was released by ARC on 24th February 2015. But due to a change in national policy and rules regarding the state budget,

²⁷ A summary report of the audits is available here, <http://www.africanriskcapacity.org/arcdocuments/> Lessons Learnt and Audits tab.

ARC funds were transferred into the National Treasury where they remained until the Prime Minister personally intervened and they were forwarded to the DNPGCCA (Niger's National Mechanism for the Prevention and Management of Disasters and Food Crises). The process audit states that 'this resulted in significant delays in programme implementation related to the food distribution. This intervention had not yet commenced six months after the ARC payout had been made and only the first phase of the CFW had been completed' (F Braidotti, 2016:2). Similarly, in Senegal, significant delays in the implementation of the programme, in particular the rice distribution, were observed. Amongst other challenges, ARC funds were retained within the Senegalese National Treasury rather than being transferred to government departments responsible for implementation in a timely manner.

Additionally, some stakeholders in Kenya showed concern that an ARC payout would not be received quickly enough to provide 'early response', because by the time the threshold is reached for triggering a payout, the situation will already be very serious for large numbers of people. Therefore, rapid drought response would likely be initially paid through a contingency fund that would then be reimbursed with ARC funds. Other interviewees contended that funds would in fact be dispersed more quickly than when appealing for donor funds. However, this point of disagreement has implications for whether Kenya would in fact see value in including ARC insurance among other financing mechanisms that may provide equally rapid funds. In both Kenya and Malawi, funds were/would be channelled through treasury departments, leading to a lag time before they could be used. In Kenya, rapid drought response would likely be initially paid for through a contingency fund that would then be reimbursed with ARC funds.

The experience in Mauritania was considerably more successful, and evidence from stakeholders in-country, interviewed as part of our evaluation, suggests that CP implementation did facilitate a quicker and more extensive response than has been possible in the past. This was possibly because bureaucratic processes were circumvented by channelling funds directly to the National Drought Management Authority, which was then able to put them to immediate use. Box 3 provides details on the perceived success factors and challenges faced during the 2014/2015 payout.

Box 4: Successful Mauritania disaster response with ARC funds

As the results of ARC funds used in Malawi remain unclear, it is only possible at this time to draw clear lessons from the payout implementation and monitoring in Mauritania, which, as noted above, was generally perceived as having been very successful. Factors contributing to this success include the following:

- ARC funds were deposited directly into the Commissariat à la Sécurité Alimentaire (Food Security Commission, CSA) account, leading to a rapid response time.
- CSA's previous experience with delivering food aid and its administration structure allowed rapid mobilisation of needed resources (human and otherwise) for implementation.
- CSA has the existing infrastructure (food trucks, decentralised 'shops', local personnel, etc.) in place for rapid delivery, leading to very cost-efficient delivery (i.e. low cost of aid delivery per household per month).
- Strong coordination between regional and departmental institutions, and with the ministry of the interior, allowed for an efficient response.
- Flexibility associated with the development of the FIP allowed the CSA to choose rice instead of wheat (though this may have come at questionable cost).

However, CSA officials responsible for overseeing implementation also cited the following challenges:

- The amount of aid delivered at the household level was insufficient and thus rationing was frequently practiced/needed.
- Duplication occurred among the CSA and other humanitarian actors due to poor coordination and communication.
- Inclusion of more response activities in the Operational Plan would allow the CSA to be more responsive to the unique contexts and needs among the vulnerable populations targeted. For example, the staple food item should be varied by need, geography, etc.
- Government representatives and other humanitarian actors argued for developing the competencies and infrastructure to implement cash transfers, particularly in more urban areas where functioning markets exist.

The Malawi payout was a different scenario because it came late—as outlined in Box 3, Malawi was originally not given a payout, but the situation was revised following further investigation and a payout was subsequently made. Rather than a payout being made directly following the end of the poor agricultural season in April/May, it was actually received in January 2017.

In both Mauritania and Malawi, we identified problems with the decision-making process for how funds get used and the subsequent changes made to the FIP. In Malawi, many stakeholders were positive about the process of updating the FIP given the late payout, so that a significant proportion could be used to fill gaps in the existing humanitarian response, including distribution of pulses and expanding an existing cash transfer programme administered by WFP. However, as confirmed by the FIP Amendment Application Form dated 6th March 2017, Malawi chose to use the remaining \$4 million to purchase maize in September 2017 to replenish the Strategic Grain Reserve. This has led to unanswered questions as to the timing of the maize purchase, and the reasons for waiting so long to replenish. According to multiple stakeholders from various ministries, the government should purchase maize in June, July or August, immediately following harvest when prices are lower. Interviews with stakeholders closely involved in decisions about how to use the funds have not provided a convincing reason for waiting until September to purchase, and on balance, the Evaluation Team does not feel that they received satisfactory justification. The maize situation in Malawi is complex, with a history of corrupt practices and recent scandals, thereby complicating market entry decisions, and casting doubt that replenishment would occur within the optimal timeframe for making most efficient use of the funds.

Similarly, in Mauritania, the process of agreeing changes to what was originally outlined in the FIP appeared to be very light touch (apparently a phone call to authorise) which is surprising as the choice to change the grain being used from wheat to local rice meant that 12,000 fewer households were able to receive support. Having reviewed the reasons given by stakeholders for this decision, there were clearly benefits and disadvantages to switching grains, but there did not appear to be a clearly defined and rigorously implemented process for considering trade-offs, other options or different perspectives during decision-making. This leaves the process open to error, bias or potentially to political influence.

In summary, Mauritania demonstrates that it is possible for ARC payouts to facilitate quick and effective emergency response but that weaknesses in the process and political constraints have undermined quick and effective implementation in different countries. These findings also imply that a key assumption that political incentives do not influence priority areas of response delivery has not held true. This element of the ToC has therefore been graded Amber to indicate mixed results.

4.2.5 Reducing loss of assets and livelihoods

Result	Vulnerable households covered by ARC insurance reduce loss of assets and livelihoods in event of disaster (INT_02)
Summary:	Too early for an overall assessment as not enough evidence at this point. This will be the focus of the impact phase of the evaluation.
Progress:	- The Mauritania payout audit demonstrates reduced loss of assets for a subset of beneficiaries during the period of disaster response implementation;
Challenges:	- ARC payouts may be too small to make meaningful longer term impact on a household's ability to reduce loss of assets and livelihoods; - Poor coverage of social assistance schemes in Africa could limit effective distribution of ARC payouts to households.

This intermediary change relates mainly to impact (see Table 5 of the Inception Report) and so will be the focus of consideration during the impact phase of this evaluation, starting in 2020. We were only able to draw on limited secondary data from the Formative Evaluation workstreams to support findings in this area, rather than primary data. This was because our case study visit to Mauritania occurred in March 2017, whereas the payout occurred much earlier, in January 2015. Our visit to Malawi was planned at a time when discussions around the use of the payout were still underway. Ultimately it was used to purchase complementary foods for an ongoing distribution programme, to reimburse WFP for emergency cash transfers, and to replenish the grain reserves. This means that interviews at the household level would not have resulted in useful data. As a result, our grading for this area is Grey, indicating that we do not yet have enough evidence to make an assessment.

The process audit and interviews with relevant stakeholders in Mauritania do suggest that payouts appear to have reduced the sale of assets for some households and protected livelihoods, at least temporarily. Similarly, in Senegal, 84 percent of households interviewed said that the food distributions prevented the sale of livestock or other possessions for food purchases (F Braidotti, et al, 2015). However, the sample used for the process audits were very small and so these findings cannot be relied upon to be representative of the overall experience. We did, however, find that because of decisions made in Mauritania regarding switching the grain type during implementation of the FIP, 12,000 fewer households received support (see Annex C). This more expensive procurement significantly affected the number of vulnerable households receiving support.

Although we are not, at this stage, making an assessment of the extent to which this element of the ToC has either been met or not met, three major challenges arose during the evaluation that would affect future success in this area:

- The percentage of risk covered by ARC is small. In most cases, the payout has been limited to \$30 million. In Malawi, for example, the overall costs of responding to the drought were estimated to be \$380 million. ARC is therefore not expected to cover all humanitarian costs associated with a drought, but is expected to be able to mobilise funds quickly in the crucial period before other emergency relief starts. Unfortunately, in all three case study countries, there appears to be a misunderstanding about the extent of the risk covered by ARC, leading to a perception that the payout was (or would be) inadequate. The ability of an ARC payout to prevent a reduction in the loss of assets or livelihoods therefore depends in part on alacrity, and in part on the overall amount, though relatively small, being significant enough to actually make a difference to household loss of assets or livelihoods. The idea that ARC payouts are large enough to make a difference to HH's ability to retain

assets and livelihoods in times of drought *at scale* is therefore an assumption that will need to be tested during the impact phase of the evaluation.

- We also found signs in Mauritania that ARC funding may have disincentivised efforts to secure additional disaster financing. Officials, aware that ARC insurance was in place, relied on that, along with existing donor programmes, rather than putting effort into securing additional resources from other organisations to cover the total need. This was not the case in Malawi, where the payout was marginal in comparison to the need, and additional donor funds were secured.
- In some CPs, ARC payouts are linked to specific social assistance programmes. Some stakeholders raised an expectation that this would be possible and preferable in many African countries to increase the speed of payouts reaching households. However, our Baseline Context Assessment shows that social assistance coverage is low across the sample of AU countries. Further, recent research supports this finding and shows that there are a number of hurdles to being able to use social protection programmes for emergency response²⁸. It should therefore not be assumed that this method of distribution of funds will help with effective and quick distribution of payouts to households.

To date, there are mixed findings on whether, as a key assumption, the response through ARC pay out and any additional funds attracted is large enough to stem the loss of assets and support immediate response assistance. While there is some evidence of this in the countries that have received payouts, the timing of three out of four payouts, as well as the challenges highlighted above weaken this assumption.

4.3 EQ3: ARC’s influence on capacity to anticipate, plan, finance and respond to disasters

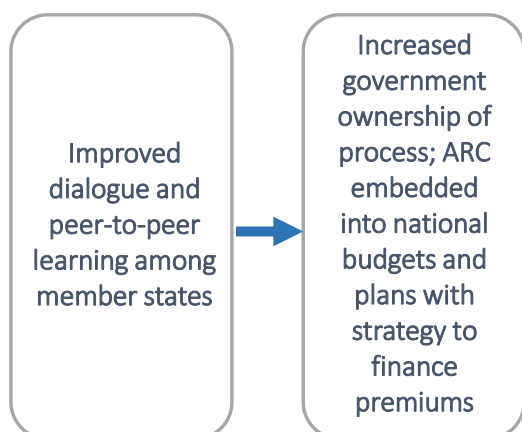
The full evaluation question reads:

“To what extent has ARC influenced AU Member States’ capacities to anticipate, plan, finance, and respond to climate related disasters generally, and more specifically in making the best use of ARC?”

This EQ is matched to Pathway 2 in the ToC on influencing the policy and practice of Member States. The ToC sets out two key steps along this pathway—see Figure 4 below:

²⁸ See relevant OPM research here: <http://www.opml.co.uk/projects/shock-responsive-social-protection-systems>

Figure 10: Steps in Pathway 2—Influencing the policy and practice of Member States



4.3.1 Inter-ministerial dialogue and communication on DRM

<p>Result:</p>	<p>Member States experience improved inter-ministerial dialogue and communication around disaster risk management and response</p> <p>Increased peer-to-peer learning across States (STC_03)</p>
<p>Summary:</p>	<p>There are some examples of dialogue, but limited in breadth and depth (i.e. not about broader DRM, more about ARC technical aspects); there is limited meaningful peer-to-peer learning to date, with few formal mechanisms and opportunities for this.</p>
<p>Progress:</p>	<ul style="list-style-type: none"> - Annual Conference of Parties (CoP) is regular occurrence; - Increased dialogue and coordination at national levels in Mauritania through inter-ministerial committee; - Collaboration amongst departments and ministries in Malawi through TWG;
<p>Challenges:</p>	<ul style="list-style-type: none"> - Few formal opportunities for meaningful peer-to-peer learning currently exist; - Countries are at very different levels of understanding and experience which creates challenges for peer-to-peer learning; - ARC has been able to leverage existing networks in West Africa, but these are not as readily available in other regions.

There is some evidence that ARC is contributing to improving dialogue amongst Member States. An annual CoP occurs, which is a forum to bring Member States together, although some concerns were raised by interviewees as to how participatory and engaging the CoPs have been historically. The Perceptions Survey found most respondents (80 percent) stated that ARC contributes to dialogue and coordination on DR finance across Africa; only 64 percent stated that ARC contributes to the same discussion within their own country. However, for this short-term change to be fully evidenced, there must be examples of changes in dialogue within the Member States, not just activities led by ARC. The case studies showed some evidence of increased dialogue and coordination at national levels in Mauritania, as they had set up an inter-ministerial committee to oversee ARC. Similarly, in Malawi, members from the TWG noted valuable collaboration with other departments and ministries working in the TWGs.

However, challenges were also noted in the data. The Organisational Review found evidence that the original idea of sharing amongst member countries through regional workshops has not materialised because countries are often at very different stages in learning, which creates challenges to collaborative experience sharing. Further, evidence from the Organisational Review also suggests that strong regional networks in West Africa have largely served to facilitate ARC engagement, rather than ARC creating such networks. If so, ARC may still be seen to be positively leveraging such mechanisms, if not necessarily creating them.

None of the three case study countries provided evidence of *meaningful* peer-to-peer learning amongst their respondents.²⁹ Whilst events clearly sometimes do occur, their orientation towards large-scale presentations or one-directional speaking often hinders actual engagement in a way that prevents meaningful impact. The varying levels of development that participating countries have in their own DRM frameworks, financing and institutional capabilities is itself a challenge to such an ‘instructive’—rather than constructive and participative—format for learning events.

The case study countries showed positive indications of inter-ministerial coordination and dialogue, though these also had certain limitations. For example, in Kenya and Malawi, while TWGs were noted for aiding coordination, their activity has also tapered off considerably after having started well. This may simply be a function of no longer being members of the risk pool, and therefore ARC-specific activities would be expected to be diminishing. Yet this would suggest that without ARC support, this coordination does not continue and therefore cannot be considered sustainable. The same countries also noted that a disconnect between the political and technical levels of the DRM infrastructure inhibit better communication and understanding across these levels, which the ARC mechanisms have not been able to improve. This evidence relates to the assumption that ‘ARC has the institutional capacity to bring the stakeholders together and to keep them in dialogue’. While positive examples are noted of ARC being able to bring stakeholders together, the stakeholders’ ability to engage is not always simply achieved, and the sustainability of these mechanisms—‘keeping them in dialogue’, as the assumption states—appears tenuous at this point.

Finally, the Context Assessment reveals a generally low level of DRM-readiness across Member States, in terms of having national DRM policies and strategies, supporting institutions and adequate financing. This limited institutional capability suggests that existing levels of inter-ministerial dialogue and communication on DRM begin at a very low level, and so it would be unrealistic to expect great progress in this area in just a few years. Additionally, the country case studies suggest that, even when broader DRM strategies are in place, it is not clear to what extent there has been deliberate and consistent coordination around how uptake of ARC products fit within the broader institutional framework or strategy. It may also be too soon to tell, given that such processes take considerable time to institutionalise.

The ratings allocated to this short-term change are split, given different results. A grade of Red has been given for the lack of formal opportunities for meaningful cross-country learning. This is an area where respondents noted a desire for improvements, and a curiosity about best practices or other experiences in contexts similar to their own, reinforcing the need for this element of learning. A grade of Amber has been given for inter-ministerial dialogue and coordination as examples do exist but they are limited in breadth and depth, appearing to be largely ARC-specific and therefore not necessarily sustainable or influential, in relation to the broader DRM context.

²⁹ Respondents did not explicitly state that no peer-to-peer learning occurs, but rather no respondents across all three countries mentioned that it does occur, hence our use of the qualifier that *meaningful* engagement does not appear to occur.

4.3.2 Country ownership and management of risk management process

Result	Member States demonstrate increased ownership and leadership of the risk management process (INT_03)	
Summary:	In Mauritania, the government has shown some positive levels of ownership and institutionalisation, but this was not seen in the other case study countries, where there was no evidence of ARC being embedded in-country strategies. None of the case study countries had embedded ARC premiums in their national budgets.	
Progress:	<ul style="list-style-type: none"> - Inter-ministerial committee established to direct ARC-related DRM activities in Mauritania; - Policy preparations & contingency planning noted in Mauritania; 	
Challenges:	<ul style="list-style-type: none"> - No budgetary inclusion of ARC premiums in any case study country; - No embedding of ARC in national DRM strategies in 2 of 3 case study countries; - No evidence of ARC support to DRM institutions or mechanisms in 2 of 3 case study countries. 	

The greatest source of evidence we currently have that suggests progress in this area is the Mauritania case study, where the government showed some positive levels of ownership and institutionalisation, some of which were linked to ARC's support. These included an inter-ministerial committee to direct DRM coordination activities related to ARC, as well as indications that ARC's contribution on contingency planning had contributed to broader policy preparations (though these were not strictly resultant from ARC, but rather enhanced or supported by ARC).

Conversely, the other case study countries showed no embedding of ARC in national DRM strategies (perhaps unsurprising as both have dropped out of the risk pool), and none of the case study countries showed evidence of ARC's premiums being embedded in their national budgets. In contrast, ARC reports more success in other countries where premiums are included in national budgets, including in Mali, Senegal, Burkina Faso and the Gambia³⁰. Furthermore, neither Malawi nor Kenya showed any evidence of ARC contributing to increasing ownership or institutionalisation of ARC's supported mechanisms or capacities.

This very limited change at institutional and process levels across the three case study countries conflicts with the related ToC assumption that 'ARC and other actors can influence power dynamics with evidence and planning processes to improve early responses', as very little evidence of such shifts was noted. Furthermore, the lack of budget prioritisation of the premiums and the apparent dissolution of any coordinating mechanisms in ARC's absence (i.e. Kenya and Malawi) belie the other related assumption that 'political support for ARC at the county level is maintained/increased'.

While evidence may be somewhat limited at this point on intermediary changes, the indications from the data thus far point towards a limited progress along this pathway, hence the Amber / Red rating. Even in a country with a more positive story of its experience with an ARC payout (i.e.

³⁰ In Mali, in the budget of the Commissariat a la Securite Alimentaire, in Senegal, in the budget of the Ministry of the Interior, in Burkina Faso, in the budget of the Ministry of Agriculture and in Gambia, in the budget of the Ministry of Environment.

Mauritania), the lack of institutionalised mechanisms and processes derived from ARC’s support, particularly the lack of priority by the continued omission from the national budget, do not present positive trajectories along the causal pathway of increased ownership and capacity amongst AU member countries.

4.4 EQ 4: Governments and other stakeholders’ views of ARC

Evaluation question 4 in full is:

“Do participating governments and other stakeholders value ARC’s risk pool and technical assistance? Why?”

This EQ is matched to Pathway 3 in the ToC on creating increasing value and demand for ARC products and services. The ToC sets out two key steps along this pathway as shown in Figure 5 below:

Figure 11: Steps in Pathway 3—Creating an increase in value/demand for ARC products and services



4.4.1 Stakeholder awareness of ARC’s products and services

Result	ARC experiences improved dialogue and coordination with national, regional and international stakeholders and programmes, as these actors become increasingly aware of ARCs products and services (STC_04)
Summary:	There is awareness of ARC’s existence, but limited understanding of how it works—the reason is partly lack of information from/communication by ARC, and partly misinformation from other sources.
Progress:	<ul style="list-style-type: none"> - There is some understanding and awareness of ARC among a select group of government officials and organisations;
Challenges:	<ul style="list-style-type: none"> - Stakeholders are confused by the relationship between ARC Agency and Ltd and there is weak understanding generally of how insurance works; - ARC has not been transparent enough in their communications; - ARC mishandled communications around the Malawian payout increasing distrust in the country and globally.

As noted earlier in the analysis, all the respondents in the Perceptions Survey were aware that ARC is an AU initiative, contributing to the basic awareness levels of ARC's existence. However, in the same survey, only 56 percent report ARC as being influential across all of Africa with governments, policymakers and other decision-makers in relation to disaster planning and finance (54 percent when speaking about ARC's influence in their own country). This means that almost half of the respondents would judge ARC as not influential. The Perceptions Survey also found that 69 percent of respondents say that ARC is not well understood across Africa, while 60 percent that it is not well understood in their own country.

The data reflects frequent views across the workstreams that ARC is often seen to lack transparency and clarity in the way that it communicates how its products and services work. Evidence from the Global Review strongly indicates that ARC is not well known throughout Africa, and is only properly understood by a small group. At the national level, case studies suggest that ARC's early engagement has been effective in sensitising select higher-level government officials to ARC's innovative options for financing disaster risk. However, it appears to have been less effective for ensuring wider sensitisation and learning. This puts into question the assumption that ARC has the resources and capacity to engage in wide enough sensitisation and partnership development activities.

Across the case studies, particularly Malawi and Kenya, ARC's communication regarding its products and services was considered to be poor. There was a particular lack of clarity around ARC's perceived independence (or lack thereof), and its role in propagating its insurance product while simultaneously appearing to offer neutral advice regarding a countries' wider DRM system. This was also noted in the Global Review. Again, this is largely seen as a result of poor communication and messaging from ARC about the Agency's relation to Ltd.

During the Organisational Review, members within ARC itself—staff and board members—indicated that ARC should improve its communication and messaging across all stakeholders. Some respondents suggested that ARC could better leverage the AU in its messaging and engagement with countries, as an avenue for potential improvements in clarity and legitimacy. Global Review interviewees were particularly outspoken about ARC's reluctance to share information, for example the process audits and ARV. Much of the negative media and in-country suspicion around the Malawian payout could potentially have been avoided if ARC had made the CARD report public and engaged more openly in discussion about possible causes of the problems with ARV (see Box 3).

Aside from the situation in Malawi, ARC needs to be particularly good at communication, given the lack of general awareness of insurance across Africa and a pervading scepticism and distrust of insurance companies. This was witnessed in the case studies, particularly Kenya and Malawi. Respondents appeared to understand insurance more as a savings scheme, and expected to 'get out more than they put in'. In fact, some interviewees felt that ARC's representatives in their country demonstrated the value of joining the risk pool by suggesting there would be a high likelihood of payout in the near future, and that a country was likely to get back what they had put in. Distrust subsequently developed, as a result of payouts not occurring in line with expectations.

This element of the ToC has therefore been graded Red, as no clear evidence emerged across the workstreams of a wide set of African stakeholders having an adequate grasp on ARC's products and services for them to want to engage. While there is some increased awareness of ARC's existence, understanding of how ARC actually works is limited, due to a lack of information, inadequate communication and transparency from ARC, and possibly aspects of misinformation from other sources.

4.4.2 Demand for ARC's products and services

Result	ARC sees a significant and growing demand for its products and services (INT_04)	
Summary:	Despite ARC's desire to grow the risk pool, current demand is small and reducing (see 4.2.2).	
Progress:	- Positive <i>perception</i> of growing demand for ARC products and services among country representatives;	
Challenges:	- Premiums appear too expensive in relation to ARC's perceived value; - Past risk pool members have withdrawn due to loss of trust in ARV, political sensitivities around paying.	

The Perceptions Survey showed a positive *perception* amongst respondents that there is growing demand for ARC's products and services across Africa (68 percent) or within their own country (62 percent). However, the reality is that the risk pool is currently shrinking, suggesting a difference between actual uptake of products and perceived demand. The Context Assessment shows that only one in the 20 sampled countries is currently a member of the risk pool (one other was a previous member). This would not constitute *significant* nor *growing* demand. The separation between the reality of the risk pool and perception of demand may relate to a perceived *need for* and *relevance* of ARC's products, but these do not yet match with the experiences and understandings of ARC that appear to be underlying the shrinking risk pool.

Several reasons emerge from the evaluation as to why the risk pool is shrinking. These are elaborated in greater detail in Section 4.2.2 and in Box 2.

Not all African countries are affected by major droughts, and so there is an expectation, articulated by some Global Review interviewees, that increasing the number of products to include flood and epidemics would increase interest in ARC. However, there are still a number of African countries who do have major issues with drought and are still not risk pool members, evidenced in the Context Assessment (see Annex A), and by the fact that the risk pool is currently only five countries, not all of whom had paid their premium at the time of writing. Additionally, it is not clear that ARC products and services remain competitive in the broadening areas of DRM finance on the continent, given the recent availability of new options (particularly for larger countries with more sophisticated DRM infrastructure). Significant demand has been demonstrated over the past four years, and ARC policies have been sold in sixteen different African nations. However, this uptake is not sustained or growing, which raises questions for ARC's ToC—that the growing demand for its products and services will allow it to expand and become sustainable—and so this element has been graded Amber / Red.

4.5 Long-term changes and impacts

ARC's ToC identifies the following long-term changes:

- AU Member States are better able to anticipate, plan for, finance and respond to weather-related disasters in a more timely and effective manner
- ARC becomes self-sustaining and pays capital back to donors

4.5.1 Countries' ability to anticipate, plan for, finance and respond to weather related disasters

Result	AU Member States are better able to anticipate, plan for, finance and respond to weather-related disasters in a more timely and effective manner (LTC_01)
Summary:	Limited and varied evidence: some positive but limited evidence where timely payout and support has occurred (Mauritania); negligible or negative evidence where this has not occurred (Kenya, Malawi).
Progress towards achieving the result	<ul style="list-style-type: none"> - Largely successful payout and response preparation in Mauritania; - Reinsurers consistently state that ARC enables more risk to be transferred at scale than was previously possible;
Challenges towards achieving the result:	<ul style="list-style-type: none"> - Improvements in DRM capacity appear to be coming from other sources; - In Malawi, ARC insurance did not serve intended purpose.

The Mauritania case study provides the most notable evidence in favour of ARC's contribution towards this long-term change. The country experienced a broadly successful payout and implementation of their FIP. Evidence from the case study in Mauritania was overwhelmingly consistent in stating that ARC's contributions in terms of both payout and response preparation allowed the state to respond faster and more extensively than it had been able to previously. This response was also noted for including a more comprehensive food distribution achievement as a result of the contingency plan that ARC supported.

On the supply-side, insurers and reinsurers also consistently stated that ARC is a 'revolutionary' product, in having enabled more risk to be transferred at scale than was previously possible.

However, the two other case study countries have differing experiences with ARC. In Kenya, results are more tenuous. There is strong evidence of ongoing and positive developments in new financing and response mechanisms for weather-related disasters. The research team concluded that ARC may have contributed towards some of this interest in innovative tools and finance mechanisms, particularly in supporting cross-agency technical capacity in early warning systems. However, Kenya already has relatively sophisticated DRM infrastructure and ongoing initiatives, with few respondents attributing any major gains to ARC's support.

As detailed in Box 3 under EQ2, Malawi's experience was generally not positive in showing the value of ARC's products and financing mechanisms to help anticipate, plan and finance the response to weather-related disasters. Despite ARC's decision to eventually provide a payout, stakeholders consistently expressed the view that the experience with ARC did not encourage Malawi in exploring new ways of financing disaster risk and response. Some were more amenable than others to the idea that, if ARC's product evolves, it could still be of value. However, the sentiment was generally that the insurance had not served its intended purpose and that Malawi had suffered a dramatically bad year, with little to show for the country's ongoing engagement with ARC. In fact, Malawi relied during the disaster (and continues to rely) primarily on emergency donor funds to cover its response to drought.

This element of the ToC was rated Amber, given the limited and varied evidence that currently allows for analysis on this point. Mauritania shows that progress can be made as a result of ARC's

involvement, but this is far from assured, and growth in DRM capacity may actually be more likely to come from sources other than ARC.

4.5.2 ARC's plans to become self-sustaining and pay capital back

Result	LTC_02: ARC Agency becomes self-sustaining (LTC_02); ARC Ltd becomes self-sustaining and pays back capital to donors (LTC_03)
Summary:	ARC is paying attention to this, but there is strong scepticism from external parties as to the feasibility—there is no evidence of ARC Agency becoming self-sustaining. No evidence to suggest viable track towards ARC's overall sustainability that would include capital pay-back.
Progress:	- ARC considering alternative revenue streams to fund ARC Agency's activities;
Challenges:	- Given the lack of growth in the risk pool, ARC does not have a clear strategy to self-sustainability.

Amongst the Global Review respondents, most could not see a viable path to ARC Agency becoming self-sustaining, and felt it would continue to need donor investment. The case studies found fairly widespread scepticism that ARC will be able to bring enough countries into the risk pool to become financially viable and, perhaps more importantly, both Kenya and Malawi respondents expressed hesitation about whether those countries would sign another policy and remain within the risk pool. Pathway 3 requires ARC to expand and grow its risk pool in order for it become viable and sustainable. If countries already within the risk pool are appearing unlikely to remain, and the rate of adding countries is not clearly exceeding this attrition, that raises considerable concern about progress towards sustainability. Additionally, countries within the risk pool appear to need ongoing special support and assistance, contrary to initial assumptions, meaning that ARC Agency remains heavily engaged in in-country work, taking considerable resources and time.

The Organisational Review offered a more in-depth look at some of ARC's efforts in addressing its own sustainability concerns. ARC is currently considering several alternative revenue streams to help fund the Agency's activities, but each stream has limitations. The first option is continued donor support, which goes against its ideal of autonomy and sustainability objectives; the second is brokerage fees on the premiums, which ARC Agency favours, but ARC Ltd has concerns about the possible implications of this on premium prices, which may further disincentivise clients. ARC Ltd believes that until the risk pool reaches a critical mass—at which point premiums may presumably go down—it will be difficult to charge a brokerage fee.

A third option is innovative finance. Licensing for Development (L4D) is an option of monetising ARC's information (e.g. ARV vulnerability and drought profiles). However, there are confidentiality issues with this, as many countries only provide ARC with data on the condition that it is not shared. A final option is membership fees, as a way of capturing costs for countries that use ARC services for multiple years but never take out a policy. However, the treaty states that it is the responsibility of the CoP to set fees. The Board are in favour of ARC proposing that the CoP

consider a small membership fee payable until a country takes out an insurance policy. ARC's concern with this option is that such fees may prevent countries from ratifying the treaty.

While we acknowledge that it may be early in the evaluation process to authoritatively rate the long-term changes in the ToC, our evidence does provide early indicators of progress—or the lack thereof—along the ToC's causal pathways. Early reflection on these may allow for pre-emptive adjustments that may prove beneficial in the long-run and contribute to greater impact.

It is positive to note ARC's consideration of alternative funding streams to contribute towards its sustainability, and increasing discussion amongst the ARC Group internally and externally about premium financing. However, before pursuing alternative funding options as panaceas, it would be worth ARC first focusing on the performance of its own products and services, given that they are the foundation of its existence as an organisation.

In terms of ARC Ltd's ability to pay back capital, this is clearly linked to ARC Agency's sustainability and the overall performance of the risk pool, which has already been noted to be shrinking. Evidence from the Organisation Review and the Global Review found that the first four risk pools were largely oversubscribed by reinsurers—a positive indication of interest in the commercial aspect of ARC's product and of likely long-term viability of ARC's reinsurance.

As a public/private partnership, ARC holds capital provided by donors that it must repay in 20 years. ARC has received approximately 50 percent of this capital to fund the insurance pool, and believes that if it was able to manage the additional capital and invest it, the interest would allow it to fund administrative costs. ARC Ltd would also like the loan to be more concessional (a 40- rather than 20-year pay-back term), allowing ARC a longer period to account for state-level behaviour change towards an innovative insurance option such as ARC's.

One respondent also noted that the global shift in the West towards nationalism may have negative impact on ARC's sustainability, as donor countries are under pressure to reduce aid. This is seen as a potential threat to ARC's sustainability, if aid is withdrawn before ARC is allowed sufficient time to mature and become sustainable alongside the gradual behavioural change needed amongst its clientele (AU Member States).

This element of the ToC has therefore been graded Red, given the strong lack of supporting evidence across workstreams.

4.5.3 Impacts

The ARC ToC culminates in the following impacts:

- **AU Countries continue to grow in spite of shocks and stresses by transforming the way they manage risk and disaster risk financing in order to respond in a timely and efficient manner**
- **A functional and vibrant pan-African response system that enables African governments to meet the needs of people at risk of natural disaster”**

This first formative evaluation report comes early in the life of ARC and that of a 10-year evaluation. We do not expect to see the impacts of ARC to manifest this early in the process; nor have we methodically collected evidence to evaluate this portion of the ToC, as this effort is reserved for the two-stage impact evaluation. As such, this component of the ToC remains Grey.

5 Conclusions and Recommendations

5.1 Conclusions and lessons learned

The report is structured around four evaluation questions³¹. Although it is too early to definitively answer these, we can assess ARC's progress in these areas to date and tentatively summarise our findings and lessons learned:

EQ 1: To what extent do ARC's institutional setup and outputs lead to the adoption and effective use of ARC insurance products? Can this be improved?

ARC has established a set of products and services, including an extensive capacity-building programme and a tested drought insurance product. ARC has also engaged with a wide range of different stakeholders (both within and outside Member States) to encourage the use of ARC products and services. However, the organisational setup has some structural issues that must be addressed if ARC wants to achieve its longer-term outcomes and impacts. The governance structure and relationship between ARC Agency and ARC Ltd is unclear, both internally and externally. Without clarification, ARC will be unable to push forward with its innovative and ambitious agenda. As is common with a transitioning startup, ARC's operational policies and processes lag behind learning and growth. For example, there is a lack of staff training and induction for new employees. More critical, however, are some of the client-facing operational weaknesses, such as the process of ARV customisation and signoff, and the FIP approval process. Finally, this review exposed a critical weakness in both internal and external communications. Poor communications with key stakeholder groups such as donors and civil society only serve to limit ARC's opportunities for success.

EQ2: To what extent has ARC contributed to in-country timely and effective responses that protect affected households' livelihoods and prevent asset loss and food insecurity?

The evidence suggests that ARC's capacity-building activities have led to some capacity being built, but this is limited in breadth, depth and sustainability. The low starting capacity of many African governments and frequent turnover have been major challenges, and countries who have completed the official capacity-building programme still require on-going support and assistance from ARC. The capacity-building programme has not led to the expected increase in countries signing ARC policies and paying premiums. This is a critical step in the causal pathway which is missing for most African countries—if an insurance policy is not in place in a country, then ARC cannot contribute to timely and effective response through the provision of early finance. Further, basis risk and concerns over the accuracy of ARV customisation call into question the assumption that ARV will trigger following a drought, with Malawi being a high-profile example where this did not occur as expected. Evidence from Mauritania shows that it is possible for ARC payouts to facilitate quick emergency response, but in other cases there are substantial political and procedural barriers to be overcome that have undermined timely and effective responses. The Evaluation Team did not collect data directly from households on asset loss and livelihoods (this will occur later in the evaluation), but note that it will also be important to assess whether payouts are large enough to make a significant difference, and whether they create disincentives for countries to secure the additional emergency funds that will be required.

³¹ Please see Annex G for a table showing how the EQs map to each step in the ToC.

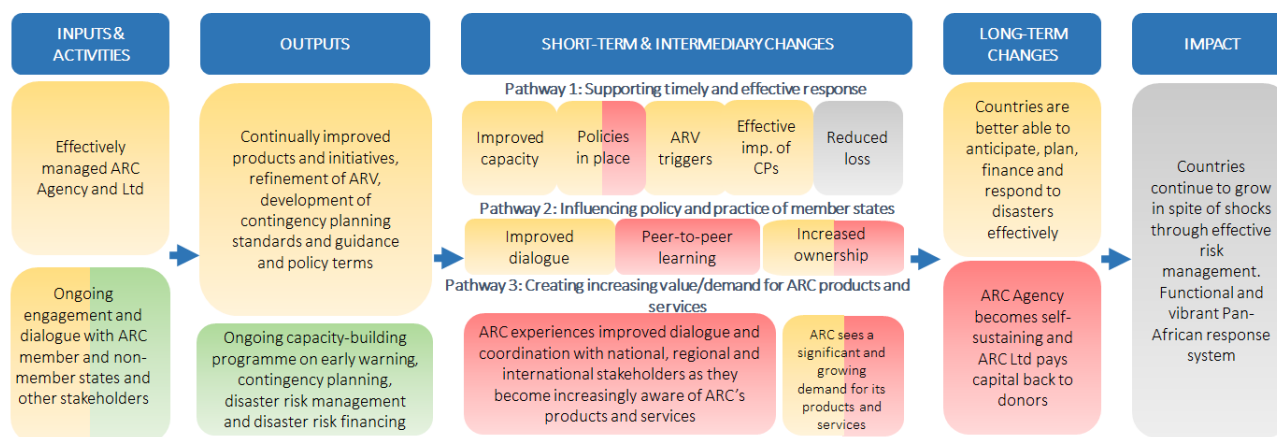
EQ3: To what extent has ARC influenced AU Member States' capacity to anticipate, plan, finance and respond to climate-related disasters generally, and more specifically in making best use of ARC?

The evidence at this point suggests very little progress, in that this is only happening to a very limited extent across Member States. Peer-to-peer learning and cross-country dialogue is minimal, and limited by formats that do not encourage genuine learning and sharing. Partial progress is noted on sustained capacity development in Mauritania, where there is evidence of improved coordination amongst ministries and departments, but there is still no budgetary commitment to paying the ARC premiums amongst any of the three case study countries (including Mauritania), and virtually no trace of institutionalisation of ARC products or services in Kenya or Malawi. The Mauritania case study provides the strongest evidence that ARC can assist a Member State in improving their overall DRM and emergency response, as the country experienced a broadly successful payout, and several stakeholders highlighted ARC's contribution to managing the drought. However, other country experiences do not provide strong evidence of ARC's contribution to sustained capacity development and suggest (for example, in Kenya) that progress in relation to DRM is more likely to have resulted from initiatives other than ARC. The experience in Malawi was generally not positive in showing the value of ARC's products and financing mechanisms to help anticipate, plan and finance responses to weather-related disasters.

EQ4: Do participating governments and other stakeholders value ARC's risk pool and technical assistance? Why?

There is evidence that components of ARC's technical assistance, such as the capacity-building around EW, CP, DRM, and DRMF, are valued and, with some adjustment, can support broader learning and institutionalisation of these concepts among Member States. However, the lack of sustained growth in the risk pool highlights that ARC's existing set of products and services do not lead to sustained engagement in most countries. Evidence from across the workstreams suggests that external communication has been a problem area for ARC, and that high-profile issues (particularly the late payout in Malawi) has negatively impacted the growth of the risk pool.

The diagram below summarises the RAG ratings showing ARC's progress against the ToC. Given that ARC is a young organisation, it is not surprising that there are areas for development, and it is too early to expect to see significant progress in relation to long-term changes and impact. However, as the majority of boxes and text are coloured Amber or Red, it shows that there are considerable problems with implementing ARC's current business model and ToC.

Figure 12: ARC simplified Theory of Change with ratings

Without significant changes to ARC's current model and business practices, it seems unlikely that the impact suggested in the ToC will be achieved. Activities are being undertaken broadly as originally envisioned, and the evidence suggests that ARC is contributing in some ways to awareness raising and capacity building in relation to DRM, risk modelling and risk financing, across a range of African countries. However, in several key areas, progress falls far short of what is required for ARC to be on track, based on the current causal logic for achieving the results outlined in the ToC. Indeed, the findings suggest that the ToC needs revision, and without significant changes to the current model and business practices, ARC will not achieve its desired long-term changes and impact.

The key problem area in the ToC is the lack of growth in the risk pool. This issue essentially undermines progress across all three pathways. Without an increase in the number of countries taking out policies, ARC will not be able to facilitate improved early response, improve countries' disaster financing or achieve self-sustainability and pay capital back to donors. This is therefore a priority area for ARC to address. The preceding pages set out a number of reasons for the lack of growth in the risk pool, but a key problem appears to be a lack of political appetite and resources in African governments for insurance policies with higher than 1 in 5 year attachment points. The lower the attachment point, the higher the premium, and so this leads to a scenario where premium prices are judged to be unaffordable, and joining the risk pool becomes an unappealing option for African governments in light of other alternatives. Against this backdrop, well-publicised problems with ARV have eroded trust in the reliability of the model. High premium costs, matched with uncertainty of getting a payout (capped at \$30 million, and thus unlikely to be able to meet all emergency response needs anyway), appears to be a proposition that most African governments are not willing to accept.

However, despite the decreasing size of the risk pool, ARC is providing some value through its contribution to slow institutional awareness raising and capacity building in relation to key elements of DRM across a range of African countries. This is a potential contribution that should not be overlooked in superficial comparisons of the costs of ARC versus the amounts being received in payouts in each country. The Evaluation Team notes that the ideal arrangement would be an independent capacity-building entity, able to link countries with the most appropriate financing tools for their country, although we note that similar initiatives are already underway elsewhere. If ARC's major contribution currently lies in capacity building, this area warrants much more attention to improve effectiveness.

5.2 Recommendations

At this early stage in ARC’s development we suggest a number of steps should be taken to make ARC’s model more workable and effective, which together are tantamount to a complete strategic review of the business model, ToC and operations. Much international attention has been on the value of disaster insurance as opposed to other ways that the money could be used, for example, contingency funds. Our attention here is less on debating the pros and cons of sovereign level risk insurance, and more on exploring ways of making ARC work more effectively, given the infancy of the organisation and the dynamically changing DRM landscape across Africa. To support this approach, the international community should continue to invest in building up the evidence base for sovereign risk pools, in particular through rigorous cost-benefit analysis.

The strategic review should focus on the following priority areas:

1. **Stimulating the risk pool via fundamental changes to ARC’s approach** (e.g. premium financing, changes to ARV, improved transparency and communications, and greater willingness to integrate work with other organisations)
2. **Improving the capacity-building offering** (as this is the key area of benefit at the moment in ARC’s activities, it would be beneficial to improve the effectiveness of the capacity-building programme through a review of current approaches)
3. **Improving organisational effectiveness within ARC Agency and Ltd** (through a restructuring of the governance arrangements and a reconsideration of scope, mission and subsequent staffing)

5.2.1 Stimulating the risk pool via fundamental changes to ARC’s approach

Consider the implications of premium financing and use it to shift to insuring more infrequent events as part of an overall risk management package

As noted above, the risk pool is shrinking, and this is a major blockage for the ToC. ARC has been publicly calling for support in the form of premium financing with the expectation that this will stimulate the risk pool. In our view, premium financing has the potential to be a ‘game-changer’ for ARC, as it could grow the risk pool by removing countries’ concerns about affordability. It may also be possible to use it to incentivise raising attachment points, which would in turn lower annual premium costs and ensure better alignment with the longer-term value proposition of insurance. However, the decision to finance ARC premiums will have consequences for ARC’s ToC and long-term sustainability. In particular, premium financing may reduce countries’ sense of ownership over the process, and so ARC will need to consider alternative ways of engendering ownership of risk management. Premium financing should therefore not be viewed as a ‘get-out-of-jail-free’ card, and the design of premium financing needs to be carefully considered.

Premium financing could shift countries to start using insurance for more infrequent events, but they would still be concerned about the more frequent risks that they face. A neutral technical advice facility, such as the new Centre on Global Disaster Protection, may be able to help countries situate ARC insurance within a suite of overall risk transfer initiatives. Ideally, it may also be possible to link ARC’s outputs more closely with these other opportunities, thereby leveraging greater benefit from ARC’s capacity building. For example, linking CPs or ARV to other sources of finance, or using Certificates of Good Standing to qualify for access to particular funds. This would

help countries to have a more holistic risk financing package, and would also create more incentives for countries to engage meaningfully in ARC's capacity-building programme.

Using this approach, it is possible to conceive of a scenario where the risk pool grows and countries are still incentivised to engage and take ownership of their risk management. Premium financing could also have a staggered exit for some countries with more resources at their disposal, as their understanding of the value of insurance and the way it can best be used would grow, and, hopefully, they would become more willing and able to invest their own resources. This approach has been used for CCRIF.

Improve communications

ARC needs to invest in communications to better explain their approach, aims and objectives to interested stakeholders and to combat misinformation about who they are and what they do. We believe this would also be a step in stimulating the risk pool. Generally being more transparent would help to build trust amongst various stakeholders, particularly following high profile events and negative media reports. More ARC reports should be made public at the point of finalisation, for example process audits and other reviews, such as the report into events in Malawi. Where ARC has made mistakes or discovered areas for improvement, they should be willing to accept fault and instead focus on publicising the strategic changes that they will make to improve performance.

Improvements need to be made to the types of communications activities undertaken, channels of communication, processes for approval of those channels of communications, and standard operating procedures around these processes. An improved communications strategy with clear separation of duties is critical to Pathway 3, as it will help improve understanding about ARC and also mitigate any misunderstandings or misinformation regarding ARC Agency's objectives and responsibilities. In so doing, ARC Agency will be able to strengthen its relationship with in-country stakeholders, and with international stakeholders (i.e. including governments in non-Member States, global NGO networks and other donor agencies).

Improve coordination with external organisations

Associated with the recommendation above to improve communications, we also believe that ARC needs to pay greater attention to working with other actors as part of an overall strategy to stimulate the risk pool. Some examples have been given above about linking ARC activities and policies to wider DRM initiatives to create incentives to join the risk pool. The Disaster Risk Financing and Insurance (DRFI) landscape across Africa is changing rapidly, and ARC needs to ensure that its product offering remains relevant and appealing. At the moment, there seems to be a tendency to complain about 'competition', rather than seeking to work with other organisations to ensure the relevance and attractiveness of ARC's activities and product offering. In particular, ARC should identify options for better engagement with civil society and INGOS.

Review Africa RiskView (ARV) and improve ARV's transparency

Concern around ARV is another major reason for countries dropping out of, or not joining the risk pool. The software is considered to be a 'black box'. ARC would therefore be well advised to continue with the programme of ARV improvements set out in the donors' Performance Improvement Plan, including making the model publicly accessible. Limitations, as well as mitigating steps and a plan of action for improving the software should be available online and updated regularly, to generate more trust. ARC should also consider making the software open source, in order to benefit from a broader community of expertise.

5.2.2 Improving the capacity-building offering

The Evaluation Team judges ARC's contributions in terms of capacity building as being key to their 'value added' over other options for financing disaster response. However, the evidence suggested that the capacity-building approach needs to be strengthened to ensure adequate breadth and depth.

Redesign capacity-building approach

ARC has encountered typical challenges with capacity building, for example, high turnover of government staff and the wrong people participating in training courses. ARC should conduct a rigorous and realistic assessment of its whole capacity-building approach in light of the challenges it has encountered, including reviewing the effectiveness of GCs, regional workshops, in-country technical workshops etc. ARC supervisors and GCs, who are ARC's key champions, are subject to time constraints between time spent in their existing government roles and time spent on ARC activities. ARC therefore needs to reassess the appropriateness of its expectations of these key champions. ARC staff should receive training in how to design and deliver capacity-building interventions and, where possible, more innovative or alternative options should be considered (e.g. online courses, mentoring, secondments, etc.). ARC also needs to think more innovatively about how it can encourage peer-to-peer learning for its Member States, such as fostering online discussion platforms between GCs and/or TWGs or twinning Member States.

Consider the capacity of political stakeholders and their coordination with technical experts

We advise that ARC should support better coordination between technical experts, in particular those in the TWG who customise the ARV model, and political decision-makers who take out an ARC insurance policy. It seems that there is often a mismatch between the understanding and capacity of technical and political stakeholders. In particular, ARC should ensure it allows sufficient time between the TWG's completion of ARV customisation and submission of technical reports to decision-makers before it approaches those higher-level decision-makers. Moreover, ARC should continue to encourage and support inter-ministerial dialogue. Taken together, these efforts will help ARC to mitigate the risk of misalignment between technical and political perspectives.

Accept longer timeframes for capacity building

ARC should also reconsider the timing of its capacity-building activities, with an awareness that longer lead times will be necessary between initial country engagement and signing the insurance policy. ARC needs to ensure continuity in the capacity building which it provides. It should ensure that the appropriate individuals attend technical training workshops and TWGs consistently. In so doing, TWG members will be better placed to disseminate knowledge and information gained through ARC's capacity-building initiatives and ARC, in turn, will be able to capture the value of knowledge and perspectives from these key stakeholders to ensure increased breadth and depth of understanding.

5.2.3 Improving organisational effectiveness within ARC Agency and Ltd

Review the MoU between ARC Agency and Ltd to discuss the scope, missions and interaction between the two entities

We recommend that ARC Agency performs a comprehensive review of its scope and mission, and its interactions with ARC Ltd. There is widespread confusion about the relationship between the two organisations, and this breeds concern about the neutrality of information countries receive

from ARC Agency, and a perception that capacity building is rushed to ‘close the deal’ on ARC policies. A simpler arrangement would be preferable, even if that means clearly linking ARC Agency’s services to ARC Ltd’s products. It would also be beneficial to have a high-level discussion about mission creep, and whether the organisation is spreading itself too thinly.

Review and strengthen SOPs and decision-making processes in critical areas

We recommend that ARC Agency reviews its SOPs in critical areas. In particular, there needs to be standardisation regarding how ARC Agency conducts its initial country engagements, how it works with ARC Ltd to develop insurance policy terms, and how it conducts and revises the FIP in conjunction with the country after a payout is triggered. Providing policies and statements in plain English—for example, on basis risk and agreed policy terms (signed by ARC and countries)—would further aid understanding.

Contingency planning is an essential disaster risk management tool for Member States, but discussions around the granularity of the process are heavily politicised, and ARC Agency therefore needs to focus on increasing transparency around CP negotiations and on mitigating the risk of political interference.

Review and tighten deadline policies for premium payments

Reviewing and tightening deadline policies for premium payments would prevent unnecessary premium price increases and would signal to reinsurers a degree of professionalism on the part of ARC and its Member States. It would also alleviate tension between ARC Agency and ARC Ltd on contact with countries.

Review staffing requirements to ensure capacity for high-level political engagement

As part of ARC Agency’s review of its scope and mission, we recommend a review of the number of senior-level staff members which it employs in order to facilitate greater levels of engagement with high-level decisions-makers in countries. ARC would then potentially be able to generate more political buy-in at higher levels.

5.3 Final comment

The dynamic nature of ARC, the region, countries, partners and donors and the complex, innovative and largely untested concept of sovereign risk insurance make it difficult to provide a set of granular, enduring recommendations. Many of the issues identified in this report are interconnected, and changes in one area would likely impact other areas in different ways. This means that the recommendations set out above should be the subject of further, ongoing discussion.

As ARC is a relatively new initiative focused on an innovative area, it is not necessarily surprising that significant changes are now required to the model and to operations. Once decisions have been made as to how to move forward, it would be advisable for the ToC to be updated, to reflect revised thinking, and subsequent changes will then need to be made to the evaluation methodology. As it currently stands, this is a baseline formative evaluation report and so the Evaluation Team hopes to see significant progress in the areas identified above by the next phase of the formative evaluation, which will be conducted in 2019.

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List of Annexes

Annexes are provided in separate documents:

- Annex A – Global Review: Baseline Context Assessment
- Annex B – ARC Organisational Review
- Annex C – Case Study Comparative Analysis
- Annex D – Global Review: Key Informant Interviews
- Annex E – Global Review: Perceptions Survey
- Annex F – Inception Report
- Annex G – Further information on methods, tools and data analysis