

PARAMETRIC INSURANCE FOR EDUCATION IN KENYA PROCESS EVALUATION OF THE CLIMATE RESILIENT EDUCATION SYSTEMS TRIAL (CREST)



REPORT

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About the Centre for Disaster Protection

The Centre for Disaster Protection works to prevent disasters devastating lives, by helping people, countries and organisations change how they plan and pay for disasters. The Centre is funded with UK aid through the UK government.

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ACRONYMS

ARC	Africa Risk Capacity
ASAL(s)	Arid and Semi-Arid Lands
CREST	Climate Resilient Education Systems Trial
DREF	Disaster Response Emergency Fund
FCDO	Foreign, Commonwealth and Development Office
FIP	Final Implementation Plan
IFRC	International Federation of Red Cross and Red Crescent Societies
IRC	International Rescue Committee
IVR	Interactive Voice Recording
KICD	Kenya Institute of Curriculum Development
NDMA	National Drought Management Authority
NDVI	Normalized Difference Vegetation Index
PGI	Pastoralist Girls Initiative
RAG	Red-Amber-Green
RCT	Randomised Controlled Trial
SIEL	Strategic Impact Evaluation and Learning
SPI	Standard Precipitation Index
WFP	World Food Programme



EXECUTIVE SUMMARY

This report presents an independent process evaluation of the Climate Resilient Education Systems Trial (CREST). Funded by the UK's Foreign, Commonwealth and Development Office (FCDO), CREST is implemented by the International Rescue Committee (IRC) in drought-prone, pastoralist counties of Garissa and Tana River in Kenya, in partnership with Africa Risk Capacity (ARC) Ltd,¹ the Kenyan Ministry of Education, and a local partner, Pastoralist Girls Initiative (PGI).

CREST addresses a familiar problem – how to keep children learning when climate shocks disrupt schooling – through an unfamiliar set of tools: linking parametric drought insurance with delivery mechanisms that provide unconditional cash transfers and remote education to affected families that include learners. During the evaluation period, a payout was triggered and a response was mobilised under CREST. This offers a chance to see how CREST's novel approach worked in practice, and to learn lessons from this experience.

The evaluation draws out these insights through a qualitative exploration of four performance criteria: accuracy, timeliness, relevance, and cost versus benefit. The key findings against these criteria are as follows:

- **Accuracy: The trigger fired during a genuine drought event, but the disruption it meant to proxy (falls in school attendance) did not occur. On that measure, the payout outcome did not align fully with expectations.** A payout was triggered in January 2026, when drought was widely recognised and was causing real hardship. Yet there was little evidence that children were actually out of school, or that their learning was facing a disruption of the kind the trigger was designed to detect. This is a case of positive basis risk, although it is difficult to come to a clear conclusion on why it occurred. The interpretation most stakeholders favoured is that disruption never took hold because the wider government response stepped in to prevent it. Whatever the reality, the experience of basis risk reflects the sheer difficulty of designing triggers for complex realities: learning disruption is shaped by a web of factors that can resist prediction, not least when data is thin and the past may not always be a reliable guide to the future.

¹ African Risk Capacity (ARC) Ltd is a hybrid mutual insurer and a financial affiliate of the African Risk Capacity Group. It was originally conceived as a sovereign risk pool, designed to provide insurance coverage to governments in the event of climate shocks. ARC has since expanded its model to include UN agencies and humanitarian organisations. This began with ARC Replica in 2018, which enabled these actors to purchase policies that match sovereign policies. More recently, these actors have begun purchasing policies independently, outside the Replica framework. The CREST project is an example of such an approach.

- **Timeliness: The time between trigger and response was fast by sector standards, though the response still arrived later than the ideal moment for action.** The trigger-to-response process was relatively fast – 55 days from the end of the risk period to the start of the response – although it was about two weeks shy of the original target. For comparison, Oxford Policy Management’s 2024 impact evaluation of ARC found that across the 16 payouts analysed, payment alone took a median of 116 days to occur, so CREST was quick by comparison. Even so, despite concerted efforts to shift timelines earlier, the response still felt late to many, lagging behind the first signs of drought in October 2025 and occurring after the point in the school calendar seen as the ideal moment to act. However, with no clear evidence that school attendance actually fell, timeliness is hard to judge against when needs actually emerged.
- **Relevance: The response activities addressed a priority risk for communities and government, but since school attendance held steady during the drought, the case for a response was open to question.** During the design phase, the envisaged response activities appeared to be relevant, with indications that drought-related education disruption is a priority for communities, and that remote education and cash transfers are a plausible way to meet anticipated needs. However, as school attendance actually held steady during the shock, the relevance of the response activities, particularly remote education (intended as an alternative when children cannot attend formal schooling) was thrown into doubt. This raises questions about whether Kenya, which was selected based on a range of practical considerations, was the right setting for this intervention, as other actors stepped up to meet the need. At the same time, if the narrative that government action prevented a decline in attendance is true, this would be an encouraging sign of the Kenyan education system’s resilience and of what government action can achieve.
- **Cost versus benefit: While stakeholders felt parametric insurance offered real advantages over reactive, ex-post financing, its costs ran higher than expected, and the team ultimately conceded it was perhaps not the best instrument for the job.** As a pilot, CREST was designed to test whether using insurance to ensure continuity of education in the face of shocks was feasible, so value for money

was not the central issue – though it’s still worth examining. Stakeholders felt CREST delivered real benefits beyond what reactive approaches could offer, including greater preparedness, more money to respond and a shift in how the education sector plans and pays for climate-related shocks – even if CREST fell short on timeliness. Developing the product also proved harder, slower and more expensive than expected, and the IRC team came to realise that another form of pre-arranged finance might offer better value for money in the case of frequent, lower-severity drought. Such a transformation in thinking is a positive outcome for a pilot. This conclusion is something that should be noted by others who are considering applying a similar approach. It is already shaping IRC’s move towards an education risk financing platform that is designed to achieve scale and to make insurance one among several tools, rather than the sole instrument.

Overall, the evaluation findings present a mixed picture. There were encouraging signs that this kind of approach holds potential. An insurance product was developed to protect learning during times of drought, a payout of almost USD650,000 was made, and a response that had been prepared in advance was delivered. The Kenyan Government has also since begun to think differently about disaster risk in education, with a CREST-like model now written into Kenya’s Disaster Risk Financing Strategy 2026–2030. Moreover, the remote education materials co-developed with the Kenya Institute of Curriculum Development (KICD) under CREST are likely to outlast CREST itself. For a first-of-its-kind effort, this is a significant achievement.

However, a first attempt at something genuinely new rarely goes entirely to plan, and this was the case for CREST, as some of the findings above suggest. Nevertheless, it is helpful to remember that this was IRC’s first venture into parametric insurance of any kind, let alone in the education sector, and it was pursued under budgetary, time, technical and data constraints. There were no clear precedents to follow, few specialists to call on and little practical guidance to lean on. Learning therefore took place by doing, solutions were developed with technical partners, and new capabilities were built largely from scratch. That is precisely why the CREST pilot is so instructive; the hard-won lessons it surfaced (which this report sets out in full) will be an important part of its legacy.



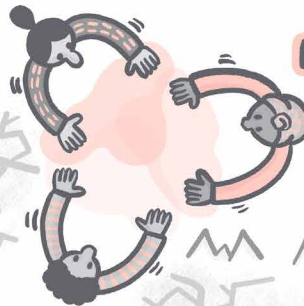
INSURING AGAINST DROUGHT: THE CREST JOURNEY

CREST* is a PARAMETRIC INSURANCE PILOT DESIGNED TO PROTECT CHILDREN'S EDUCATION FROM THE IMPACTS OF DROUGHT



EMBARK

IRC AND FCDO SET OUT TO TEST A NEW IDEA: COULD PARAMETRIC INSURANCE PROTECT CHILDREN'S LEARNING DURING DROUGHT IN KENYA?



DESIGN JOURNEY

THERE WAS NO BLUEPRINT FOR THIS TYPE OF INSURANCE — IT TOOK TIME, COLLABORATION AND LEARNING BY DOING.

RESPONSE LANDS TIMELINESS

FUNDS ARRIVED 6 WEEKS AFTER THE TRIGGER. FAST BY MOST STANDARDS, BUT LATER THAN WHEN MANY HAD SAID HELP WAS NEEDED MOST.



PAYOUT TRIGGERED ACCURACY

THE DROUGHT ARRIVED, AND THE POLICY PAID BUT SCHOOL ATTENDANCE HELD STEADY, LEAVING SOME WONDERING IF GOVERNMENT ACTION KEPT CHILDREN IN SCHOOL.



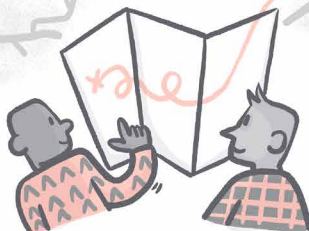
ON THE GROUND RELEVANCE

WITH CHILDREN STILL IN SCHOOL, THE RELEVANCE OF REMOTE EDUCATION AND CASH WAS LESS CERTAIN. STILL, FAMILIES WELCOMED CASH.



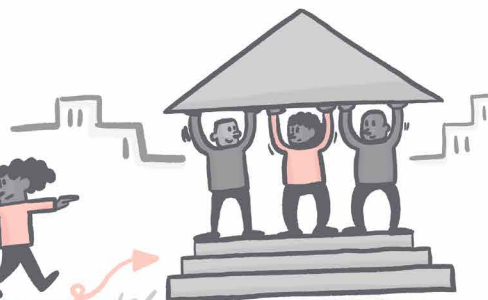
LOOKING BACK COST-BENEFIT

PARAMETRIC INSURANCE MAY NOT HAVE BEEN THE PERFECT TOOL. BUT THE CONCEPT IS VIABLE — AND EDUCATION HAS A ROLE IN PRE-ARRANGED FINANCE.



LOOKING AHEAD

CREST PHASE 2 IS ALREADY EVOLVING FROM THESE LESSONS, AND KENYA'S GOVERNMENT IS RETHINKING HOW IT FINANCES EDUCATION BEFORE DISASTER STRIKES.



*CLIMATE RESILIENT EDUCATION TRIAL



INTRODUCTION

1.1 Background

The concept for CREST emerged from concerns about the effects on children's education of increasingly frequent climate-related shocks, which can linger long after the crisis has passed. The response to such impacts consistently falls short: education receives only a small share of humanitarian financing, typically between 2% and 4% (Inter-agency Network for Education in Emergencies [n.d.](#)); and even when support does arrive, it often comes too late or does too little (Alexander [2025](#)).

Against this backdrop, IRC began looking for solutions. Drawing inspiration from the agriculture and livestock sectors, the idea emerged that funding arranged in advance could increase both the speed and the volume of disbursement for education response. At the same time, it was felt that it could also create space to prepare for shocks ahead of time, allowing learning materials to be developed and tested in the right language and at the right level, ready to be deployed the moment education systems are disrupted.

This idea eventually took shape as CREST, which adopts the novel approach (see Box 1) of using parametric insurance to support learning continuity and return to school following a climate-related shock. Parametric insurance is a type of insurance whereby premiums are paid upfront in exchange for a payout that is made when a pre-agreed trigger threshold (based on measures such as rainfall or wind speed) is reached.

CREST was made possible by the support of FCDO, which committed GBP3 million over 30 months. FCDO was an active partner in shaping the CREST concept and bringing it to life. In doing so, it supported an approach that had never been tried before. Nevertheless, the funding from FCDO was less than the GBP5 million over four years IRC had sought as a total envelope. Since the rest of the funding never materialised from other sources, IRC was faced with a tighter budget and timeline for testing the idea than had originally been envisaged.

With the funding in place, IRC and FCDO made the decision, based on a range of factors outlined in Section 5.2, to deliver CREST in two counties in Kenya's arid and semi-arid lands (ASALs): Garissa and Tana River. These are distinctive settings, being pastoralist regions where mobility, fragility and recurrent shocks shape everyday life. Chief among these shocks is drought, which was covered by the first two seasons of insurance IRC purchased from ARC Ltd, and which is the focus of this evaluation.

In Garissa and Tana River, drought undermines children's learning through several interacting pathways: household migration, deterioration of the school feeding programme, and mounting economic pressure on families. Together, these pathways drive absence – and ultimately dropout. Even children who stay in school can find it harder to learn, as hunger and household stress wear down their ability to engage. Section 5.1 sets out this process in more detail.

BOX 1: SITUATING CREST IN THE WIDER LANDSCAPE

For decades, the humanitarian system has followed a familiar pattern: a disaster strikes, appeals are launched, funds are raised, and responses take shape. That model still holds, but it is increasingly being complemented by a more forward-looking approach. More organisations are trying to proactively anticipate tomorrow's disasters and to pre-arrange money to meet future response costs.

CREST is part of this wider movement from reactive to proactive approaches. At the same time, it represents a notable departure from business as usual:

Pre-arranged finance focused on learning outcomes: The CREST project is breaking new ground as one of the first efforts – whether by humanitarian actors, governments or others – to pre-arrange finance in order to protect learning outcomes. Up to now, most applications of pre-arranged finance by aid agencies have remained relatively narrow, focusing on generic, multi-sectoral responses or on food security and agricultural livelihoods. Yet growing discussions are taking place around the potential for education-specific pre-arranged finance applications (Alexander [2025](#); Eleftheriades et al. [2025](#)). The CREST project is an early attempt to move this emerging agenda from discussion into practice.

Use of parametric insurance: There are different ways for humanitarian actors to pre-arrange money to meet the costs associated with responding to future crises, such as by creating contingency funds. The CREST project opts for a less well-charted option: purchasing an ARC parametric insurance policy. While humanitarian actors are increasingly experimenting with parametric insurance (Evans [2025](#); Mahila Housing Trust [2024](#); ARC n.d.; World Food Programme [2025](#)), it remains relatively novel (Meenan [2022](#)). It also involves important trade-offs in regard to when and how it is used (Poole [2022](#)).

1.2 Project description

To minimise learning disruption caused by drought, the CREST project prepared two lines of response in advance, cash and remote education, designed to activate when a drought insurance payout was triggered.² To this end, IRC purchased two policies from ARC Ltd over the evaluation period, tracking the region's bi-modal rainfall pattern: the Season 1 policy covered the long rains and the long dry season that followed them, from March to June 2025, and the Season 2 policy covered the short rains and subsequent short dry season, from November 2025 to January 2026. It was in Season 2 that a payout was triggered and a response activated, as summarised in Figure 1.

Figure 2 sets out the CREST project's key milestones.

The report begins with an overview of CREST, then turns to the methodology, the detailed findings against each criterion and, finally, the conclusions and recommendations, which are intended to inform best practice on the use of parametric insurance for humanitarian response and applications of pre-arranged financing in the education sector more widely.

² IRC also purchased a third policy from ARC, which insures against flood rather than drought risk. This was not covered by the process evaluation.

Figure 1: Summary of activation and response

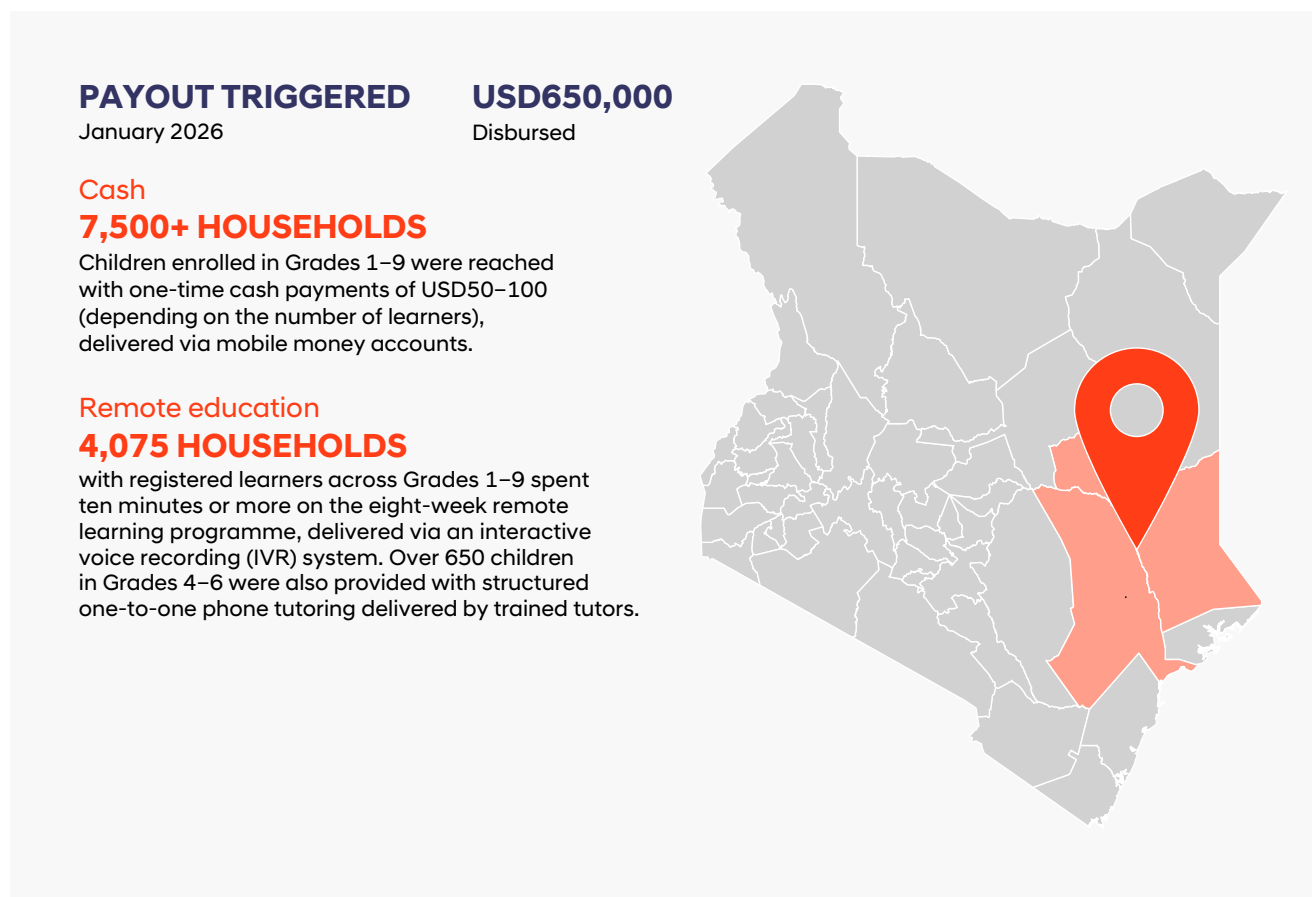
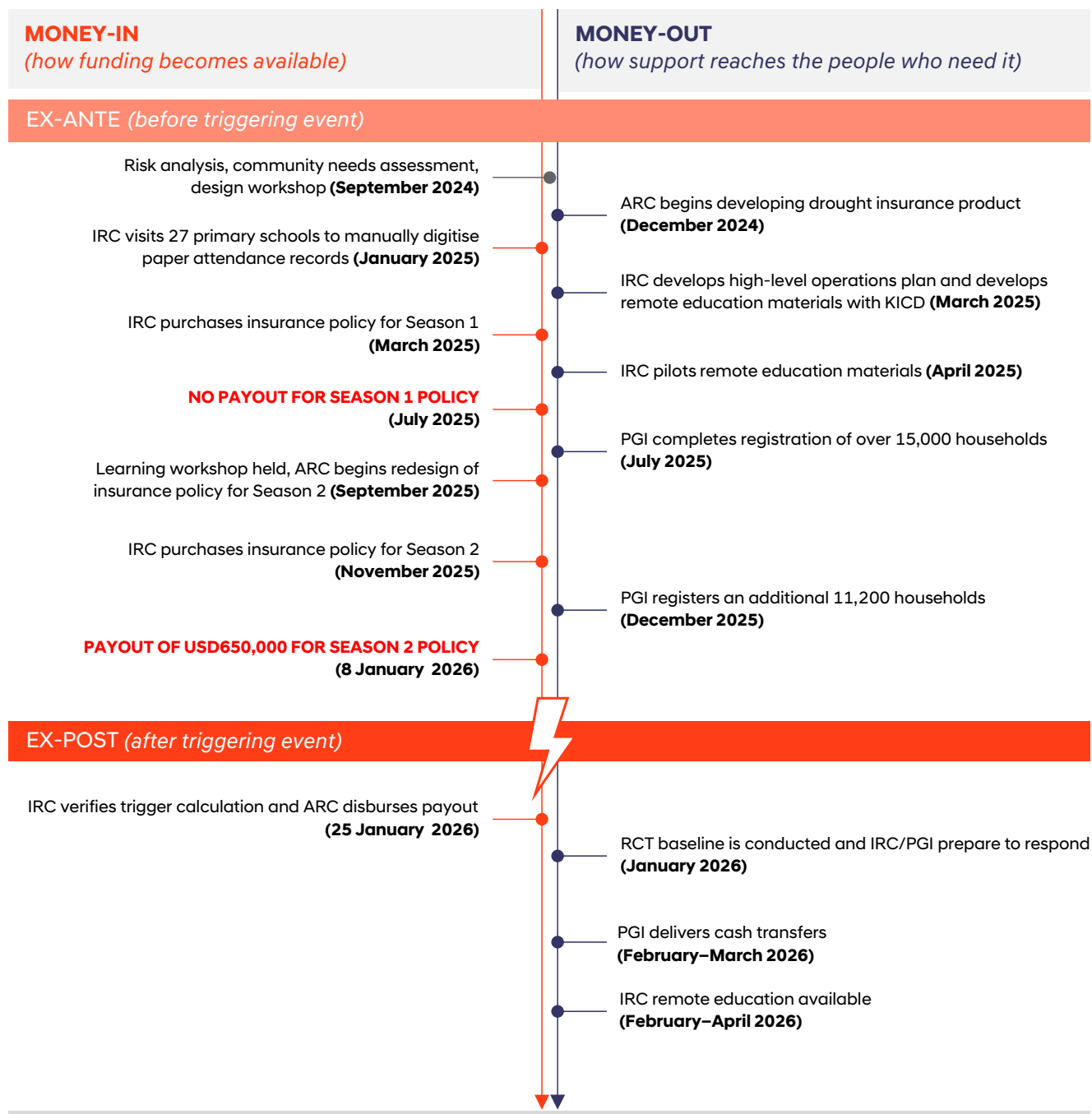


Figure 2: Key project milestones and timeline





METHODOLOGY

2.1 Objectives and scope

IRC commissioned the Centre for Disaster Protection to undertake an independent process evaluation of CREST, as part of a broader monitoring, evaluation, and learning package that is designed to capture learning from the project. This package also includes a randomised controlled trial (RCT) that is being implemented under the Strategic Impact Evaluation and Learning (SIEL) programme, in collaboration with the University of Oxford.³ This RCT is revisited several times throughout this report as both a supplementary source of insight and as a factor shaping CREST design and implementation decisions, particularly around targeting.

Beyond informing the project itself, the primary objective of the evaluation is to contribute to a wider body of learning. By documenting how CREST's education-focused parametric insurance model was

designed and implemented, and reflecting on what worked, what did not, and why, the evaluation seeks to generate practical insights for education practitioners exploring more proactive responses to climate shocks, humanitarian organisations testing insurance solutions, and disaster risk finance practitioners more broadly.

The evaluation focuses on the first two seasons of drought policy coverage. It does not cover the third policy IRC purchased from ARC, which insures against flood rather than drought risk. While the evaluation's main focus is on the parametric insurance, and on the response activities its payouts finance, it also gives attention to complementary components of CREST, such as efforts to mainstream child protection and to strengthen preparedness for climate-related shocks at school and local level.

2.2 Performance criteria

The evaluation is organised around four performance criteria, identified jointly with IRC as both priority areas for learning and as key assumptions underpinning CREST's theory of change:

- **Accuracy:** Payouts are triggered as expected, avoiding false positives and false negatives.
- **Timeliness:** Assistance reaches learners at the right time.

³ An impact evaluation was requested by FCDO.

- **Relevance:** Response activities align with needs and priorities.
- **Cost versus benefit:** The cost of insurance is justified by the benefits delivered.

The evaluation first seeks to assess each of these criteria directly, guided by the evaluation framework summarised in Table 1. The specific approach taken to assess each criterion is detailed further in its respective findings section. Secondly, for each criterion, the analysis aims to capture reflections and learnings based on the pilot team's experiences of trying to achieve that criterion.

Table 1: Summary of the evaluation framework

Criteria	Dimensions of analysis
Accuracy	● Did the payout outcome align with the reality on the ground? ● Did the payout outcome align with stakeholder expectations?
Timeliness	● Was the planned trigger-to-response timeline achieved in practice? ● How well did the timing of response align with the ideal window for action?
Relevance	● Is the risk drought poses to learning a priority for communities? ● Are remote education and cash a plausible way to address anticipated needs? ● Were remote education and cash responsive to the actual needs that emerged?
Cost versus benefit	● What additional benefits do stakeholders think parametric insurance delivered, and at what added cost? ● Do stakeholders see those costs as proportionate to the benefits, or do they think similar results could have been achieved through other arrangements?

2.3 Methods and limitations

The evaluation adopted a qualitative approach and was conducted alongside CREST, allowing insights to emerge throughout design and implementation, rather than solely through retrospective reflection. Evidence was triangulated from a variety of sources, including the following:

- **Interviews with key stakeholders:** Interviews were conducted with 23 key people involved in CREST's development, across different stages of implementation. These included IRC team members, alongside representatives from ARC Ltd, PGI, the Ministry of Education, and the National Drought Management Authority (NDMA). Interviews were conducted both remotely and in person.
- **Document and secondary data review:** The evaluation drew on a wide range of project documentation and secondary data sources. This included field-level data collected by IRC and

SIEL/the University of Oxford, as well as external sources such as NDMA drought early warning bulletins and assessments.

The evaluation has some limitations. For some of the performance criteria, particularly those around accuracy and cost versus benefit, the qualitative findings do not provide a definitive, technical answer as to whether these criteria were met. The evaluation approach did not involve original analysis of CREST's underlying models and datasets, or a formal comparison of the CREST approach to feasible alternatives. Instead, the aim was to draw on a variety of sources to arrive at a considered view, providing a structured basis for reflection and discussion. Moreover, CREST remains in its early stages, with the three-year pilot period still ongoing. The findings of this evaluation should therefore be read as part of a deliberate cycle of testing, learning and refining, rather than as a final verdict on CREST's success or failure.

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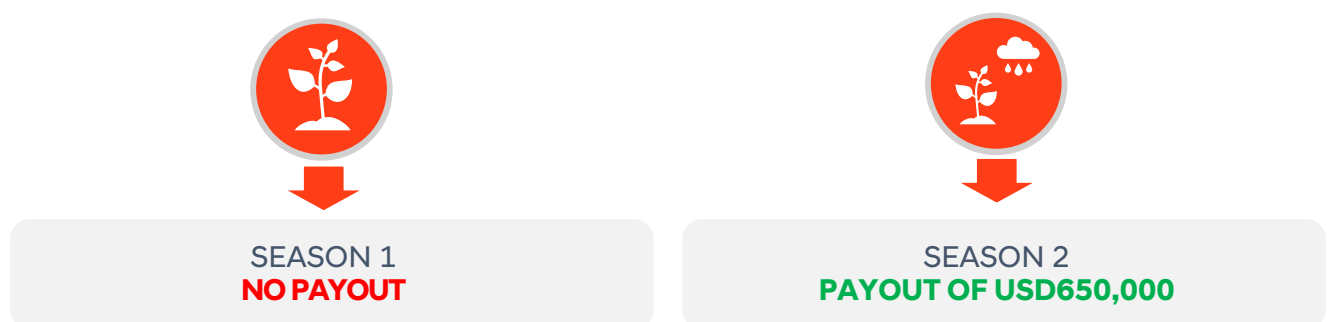
ACCURACY: WERE PAYOUTS TRIGGERED AS EXPECTED?

At the heart of any parametric insurance product is a trigger: a predefined threshold of an index underlying a risk finance mechanism; when that threshold is exceeded, a payout takes place (Centre for Disaster Protection [2026](#)). In principle, this makes payouts fast and objective, but it also carries an inherent risk that payouts might either exceed or fall short of what is actually needed. When that happens, this is called basis risk. Basis risk can be technical in origin, arising from a gap between the index and the real-world shock it is meant to proxy, or social, arising because stakeholders misunderstand or disagree about how the trigger is supposed to work (Centre for Disaster Protection [2026](#)).

For a mechanism like this to be useful, basis risk needs to be sufficiently small so that stakeholders can have confidence that the money will arrive when a crisis hits.

This section examines exactly that, asking whether CREST payouts were triggered as expected. Under CREST, triggers were designed to release payouts when drought drove disruption to learning, marked by high rates of absenteeism from school.⁴ This was attempted across two seasons of drought policy coverage, with the trigger design revised between seasons 1 and 2 in response to perceived limitations, discussed further below. The payout outcomes are summarised in Figure 3, and are further unpacked in Section 3.1, before turning to reflections and learning in Section 3.2.

Figure 3: Payout outcomes for Season 1 and Season 2



⁴ Note that the scale of absenteeism was never precisely defined.

3.1 Analysis

In this section, we assess the performance criterion, by addressing the two accuracy questions summarised in Table 1 (Did the payout outcome align with the reality on the ground? Did the payout outcome align with stakeholder expectations?). These two questions map on to the technical and social dimensions of basis risk introduced above. It is worth stressing that because this analysis only spans two seasons of drought cover, and does not review CREST's underlying data or models, it makes no claim to offer a statistical assessment of CREST's basis risk.

3.1.1 Season 1: drought insurance cover for long rains season

For Season 1, the trigger relied on satellite data recording vegetation health (Normalized Difference Vegetation Index (z-NDVI)) as a proxy for drought that disrupts learning. To calculate if a trigger threshold was passed, it aggregated NDVI readings across the policy risk period, from March to June 2025, and calculated deviations from historical data for the exact same dates at the end of the risk period. Payouts followed a sliding scale, being triggered if vegetation health fell below those expected for a moderate drought (a once-every-four-years event), and increasing linearly to a maximum of around USD1 million under severe conditions (a once in 40-year event), with no minimum payout. See Annex 1 for a fuller account of the trigger's design and rationale.

During Season 1, the trigger threshold was not passed and no payout was issued.

Did the payout outcome align with the reality on the ground?

As there is no concrete evidence that drought occurred in Season 1, or that learning was disrupted as a result, the no-payout outcome appears justified.

Table 2: Synthesis of ground truth data for Season 1

	RAG rating
Evidence of shock (drought conditions)	●
Evidence of impact (disruption to learning, marked by high rates of absenteeism)	●
Consistency with payout outcome	YES

For the risk period the policy was designed to cover and the two months that followed, there is no compelling evidence of either drought or disruption to learning.⁵ This warrants a rating of 'not met' for both indicators in Table 2. (How red-amber-green (RAG) ratings are defined and applied is detailed in Annex 2.) This is consistent with the no-payout outcome, suggesting that in this instance the trigger worked as intended.

Did the payout outcome align with stakeholder expectations?

Although the no-payout outcome was defensible, it was received poorly by many stakeholders and communities, indicating a lack of trust in the trigger-based approach, or in the trigger itself.

IRC and external stakeholders

Some of the IRC team, and government stakeholders in particular, felt the Season 1 policy should have paid out. Most pointed to indicators of drought and stress on livelihoods that emerged months after the end of the policy coverage period in September and October, concerns substantiated by NDMA drought early warning bulletins. While this reveals a degree of misunderstanding about the trigger design, more importantly, it surfaced a lack of trust and buy-in regarding the trigger.

⁵ During the risk period and the months that followed, both Garissa and Tana River were classified as 'normal' according to the NDMA drought classification system (NDMA [2025–2026](#)). No other secondary sources of data could be identified that suggested that drought conditions were emerging.

There was broad consensus that a decline in school attendance was an appropriate variable for the index to proxy. Less certain was whether the trigger, as specified, could detect this variable reliably. Several specific concerns voiced by stakeholders spoke to this:

- **Lack of trust in NDVI:** Stakeholders, including representatives from NDMA and IRC, ultimately questioned the wisdom of relying on NDVI alone, based on their past experience.⁶ Their key concern related to the fact that invasive, drought-resistant species can produce a ‘green’ signal even when usable pasture has largely disappeared. Others noted that in places like Tana River, irrigated or riverine vegetation can make conditions appear lush despite wider drought.⁷

Representatives from ARC acknowledged these concerns as a potential source of basis risk. That said, the way the index is measured went some way to addressing them.⁸ Furthermore, NDVI is widely used and regarded as a reliable indicator of pastureland conditions in Kenya’s ASAL regions (Bowell et al. [2021](#); Jensen et al. [2019](#)). The choice to use NDVI was also anchored in a plausible, evidence-based account of how pasture degradation drives learning disruption, supported by a statistical link to low attendance in historical drought years, though ARC’s analysis of the NDVI-attendance relationship was not made available for independent review as part of this evaluation.⁹ These limitations nonetheless fed a desire among IRC and government stakeholders to move beyond NDVI alone.¹⁰

- **Doubts that the risk period captured peak index severity:** After Season 1 produced no payout, IRC and other stakeholders suspected they had underestimated the lag between a poor rainy season and the point at which vegetation turns brown. This was reportedly partially supported by additional analysis, but this analysis was not made available for independent review as part of this evaluation.¹¹ These stakeholders reasoned further that they should have shifted the coverage period to later in the year. That said, the literature suggests there is no agreed best practice. Various risk periods have been used with NDVI in Kenya, from full-season cover (March to September) to windows that are pegged to the growth cycle for vegetation (typically coinciding with the rainy season), each trading trigger accuracy against timeliness (Jensen et al. [2019](#)).

Several of these concerns fed directly into the trigger modifications made for Season 2, described below. That doubts surfaced only after the season had played out suggests the initial design process moved too quickly, before key questions had been fully answered to the satisfaction of all parties, and with their full understanding. This is understandable, given how novel CREST was for all involved. The cumulative effect was that the trigger did not enjoy the trust and legitimacy it needed to withstand scrutiny. When payout outcomes disappointed, it was the design itself that was called into question, and was quickly subjected to a rethink – even though the evidence that a genuine basis risk event had occurred was thin.

- 6 This scepticism may have been reinforced by recent experience with Kenya’s Index-Based Livestock Insurance (IBLI), which exclusively relies on NDVI and which reportedly failed to pay out in Tana River, despite what some local stakeholders felt was visible hardship on the ground.
- 7 To ensure the trigger more accurately reflected the pasture quality relied upon by pastoralists, the team decided to ‘mask’ or remove the irrigated river lines from the satellite data for Season 2.
- 8 NDVI z-score, which was used under CREST, measures how much current vegetation greenness differs from the long-term average for that location and season, expressed in standard deviations, which helps account for naturally drought-resistant shrubs and other persistent vegetation by comparing conditions against their own historical baseline, rather than against absolute greenness levels.
- 9 Second-hand accounts characterised the strength of the relationship differently, with some describing it as strong and others as weak. The data itself was also far from perfect, marked by gaps, inconsistent formats, a relatively short historical window, and known incentives to inflate attendance figures, limiting the robustness of the results.
- 10 This ranged from calls to align the product with Kenya’s drought early warning system to suggestions to complement it with secondary indices such as Standard Precipitation Index (SPI) (used by the World Food Programme (WFP) for anticipatory action in Tana River), hydrological indicators (widely used by NDMA), impact-level data at the school and household level, or local and traditional drought indicators.
- 11 ARC reportedly found that a further 10 days would have brought NDVI z-scores close to the trigger point, though this could not be verified.

Communities

Finally, the no-payout outcome also fell short of community expectations, according to officials and the implementation team. Communities had interpreted the pre-registration exercise as a promise that cash would be provided, and were left frustrated when no payout followed, particularly in light of what they saw as visible stress emerging after the risk period had closed. This points to important lessons, which are explored in Section 3.2.

3.1.2 Season 2: drought insurance cover for short rains season

For Season 2, the trigger was redesigned based on the concerns from Season 1. The Season 2 policy used two indicators to proxy drought instead of one: vegetation health (NDVI) and rainfall levels (Standard Precipitation Index (SPI)), derived from satellite and ground-based station data. It also allowed for payouts to be calculated at two points during the season rather than one, splitting the coverage into two phases between November 2025 and January 2026. These changes were intended to address the accuracy concerns described above but were also driven by a desire to act earlier (explored further in Section 4). The payout structure remained similar but with the introduction of a minimum payout of 14% of the total sum insured if triggered (shaped by considerations around CREST's RCT design, implemented under the SIEL programme) and with an increase of the maximum payout to about USD1.2 million. For more details, see Annex 1.

For Season 2, there was a payout of approximately USD650,000, or 54% of the total sum insured.

Did the payout outcome align with the reality on the ground?

There is ample evidence of drought, but little evidence that drought disrupted school attendance. This complicates any straightforward assessment of whether the payout aligned with underlying need.

Table 3: Analysis of ground truth data for Season 2

	RAG rating
Evidence of shock (drought conditions)	
Evidence of impact (disruption to learning, marked by high rates of absenteeism)	
Consistency with payout outcome	UNCLEAR

On the presence of a shock, the evidence is strong. There is little dispute that drought occurred,¹² so a rating of 'met' is recorded in Table 3 above (see Annex 2 for detail regarding the RAG ratings). The drought was not catastrophic or on the scale of recent crises, but it was real, was widely recognised, and imposed tangible hardship on communities.¹³ Pasture conditions were poor and water sources dried up – both of which were drivers of learning disruption that were identified by the needs assessment conducted by IRC to inform CREST's design. By that measure, a partial payout appears to have been broadly proportionate.

- 12 A below-average rainy season, combined with high temperatures, was widely reported to have pushed much of Kenya's ASALs into drought, including Garissa and Tana River (Hussein 2026; Kenya Red Cross Society 2026; Parliament of Kenya 2026; NDMA 2026). At the same time, it was not characterised as a drought on the scale of the 2021–2022 drought, which was often described as one of the most severe in 40 years (Wainwright et al. 2025). No national state of emergency was declared, but local officials publicly sounded the alarm and the NDMA's Drought Early Warning System moved both Garissa and Tana River into the 'alert' phase in October 2025, where they remained through early 2026. While conditions did not escalate into higher severity classifications, they did deteriorate progressively over this period before beginning to ease with the onset of the long rains in March (NDMA 2025–2026). Note that the NDMA's drought classification system includes five phases: normal – environmental indicators show no unusual fluctuation; alert – environmental indicators fluctuate outside expected seasonal range; alarm – environmental and production indicators fluctuate outside seasonal range; emergency – all indicators are outside normal range; recovery – environmental indicators return to seasonal norms.
- 13 Quantitative data from NDMA's drought early warning system, media reporting, and the testimony of local stakeholders, all paint a consistent picture. Many of the stressors the project identified as drivers of learning disruption were present. Pasture conditions were poor and water sources dried up, with a high proportion of open sources depleted and some boreholes no longer functional. Distances from grazing area to livestock water sources exceeded long-term averages, while pastoralist migration patterns shifted in ways not typical for the season (although outmigration to other counties was limited). Livestock conditions deteriorated, resulting in reduced milk production. These pressures fed into broader livelihood strain, food consumption scores that were below long-term averages, and heightened risks of malnutrition among children (NDMA 2025–2026; KNA 2026; Kulan Post 2026).

The difficulty lies with the evidence of impact. There is no compelling evidence that what the index was ultimately trying to proxy – disruption to attendance and other signs of learning disruption – actually materialised on the ground,¹⁴ giving rise to a rating of ‘not met’ in Table 3. This points to a case of positive basis risk: a payout was made even though the disruption to education it was meant to respond to was not observed. What is less clear is why this happened. The two possible explanations each have different implications.

The first explanation is that disruption was never likely, which would point to a problem with the accuracy of the trigger itself. It may be that the threshold at which drought begins to affect school attendance is higher than the design assumed, that attendance was never the right thing to proxy in the first place, or that NDVI and SPI are not appropriate proxies of drought-related education disruption. If so, this would not necessarily signal major flaws in the trigger design process. Reasonable efforts were made to understand the relationship between the selected indices and the outcomes, but trigger design is inherently challenging. The available data were limited, and indices can struggle to approximate a complex world in which something like disruption to learning is shaped by many variables.

The second reading, and the one that all interviewed stakeholders favoured, is that disruption to education did not materialise precisely because it was prevented. One government stakeholder suggested that rumours of CREST cash being conditional on school attendance may have prompted parents to keep children in school. More commonly, they pointed to concurrent government action, including the effective implementation of the school feeding programme and political directives encouraging Grade 10 attendance, as having sustained attendance through the period. This underscores how modelling human behaviour can be far harder than

modelling the natural world, and how the past is not always a good guide to the future. At the same time, it invites scrutiny of the CREST response’s relevance in a landscape in which others are already stepping in, as discussed in more detail in Section 5.

Unfortunately, the available evidence does not allow us to adjudicate between these two explanations, or to draw any definitive conclusion. The design team took a commendable step in trying to proxy for the impact of drought on education. That is harder than measuring the impact of the shock itself, and it was one of the first times this has been attempted.

Did the payout outcome align with stakeholder expectations?

While the payout made sense to IRC and government stakeholders, some households were expecting cash and did not receive it. This highlights the difficulty of managing expectations when payouts are uncertain and when benefits are unevenly distributed due to CREST’s RCT design.

IRC and external stakeholders

In contrast to Season 1, IRC and government stakeholders broadly agreed that the payout outcome for Season 2 made sense, despite limited evidence of actual disruption to learning. This view rested on the visible suffering in communities and a shared belief, right or wrong, that such disruption would surely have followed without the wider drought response. IRC remains unsure whether the redesign genuinely improved accuracy (NDVI carried a 20% weight and accounted for roughly 20% of the payout), but the trigger enjoyed greater legitimacy, with several of the original sources of mistrust better addressed in Season 2, through improved understanding, more deliberate weighing of options, and greater consultation with local technical experts and stakeholders.

14 According to the findings of SIEL/Oxford University’s RCT baseline survey conducted in January 2026, 7–10% of parents reported that their children were absent from school at least one day in the last five days, which is a lower level of absenteeism compared to normal ranges. = . This is consistent with other sources of information. The 2025 Tana River Short Rains Food Security Assessment Report reported stable enrolment between Term 3 in 2025 and Term 1 in 2026 and consistently high attendance into January 2026 among Grades 1–9 (Kenya Food Security Steering Group and Tana River County Steering Group, 2026). The equivalent report for Garissa County does not capture data on learning continuity. By late February 2026, field visits conducted by IRC staff to schools in Garissa and Tana River found absenteeism estimates reported by school officials in the range of 5–10%. Interviews with local officials in both Garissa and Tana River similarly pointed to minimal disruption to attendance during this period. While there was some evidence to the contrary, it was anecdotal or difficult to independently verify. Secondary reports suggested that the Ministry of Education cited absenteeism rates of around 30% at the start of the January term in Mandera County and neighbouring regions, which would mean rates of absenteeism higher than normal patterns. However, the basis for this figure is unclear and could not be independently verified by interviewed Ministry of Education representatives. A news report from Garissa County also indicated that over 100 students at a single primary school were not attending due to drought, despite schools being open, although such occurrences were not reported more widely (People Daily 2025).

Communities

However, the response that followed ran into the messier reality of community expectations. The project's RCT meant that schools were partitioned into 'arms', leaving many families in the control or 'remote learning-only' groups. To a parent in Garissa or Tana River, watching

a neighbouring school receive cash while their own received only a pre-recorded phone lesson was confusing and sometimes felt unfair. This friction was the result of the communication missteps described earlier, which were exacerbated by a mid-project pivot to accommodate the RCT design.¹⁵

3.2 Discussion and key learnings

This section turns to the broader lessons that can be drawn from the process of designing triggers that stakeholders trust and that meaningfully approximate the drought conditions likely to disrupt learning.

Grounding trigger design in a precise, observable definition of what the index is trying to proxy, rather than a general notion of 'learning disruption', helps anchor the choices that follow

Climate shocks can disrupt learning in multiple ways. On the supply side, they can cause schools to close. On the demand side, they can cause families to withdraw children from school (Eleftheriades et al. 2025). Often, several of these forces are at play at once.

In designing CREST, it was necessary to work through this complexity to reach a precise, observable definition of learning disruption that fit the context. The team chose a decline in school attendance, since this offered a concrete target the index could proxy. Arriving at this definition of learning disruption was harder than it might seem. The team first considered school closures, but set this possibility aside early on after learning that schools rarely officially close. They then turned to measures like enrolment and dropout, but found these too blunt and slow to reflect climate shocks. Ultimately, they settled on slumps in attendance, as a more granular and responsive signal. Getting to this decision took time, consultation, and a willingness to accept a simplified proxy for a messier truth.

This decision guided other design choices. For example, it led the team to digitise paper attendance records, to allow ARC to validate the relationship between the indices and what they were meant to proxy. This was an important confidence-building step.¹⁶

Understanding what education-related data is needed, and whether it can realistically be obtained, should be an early priority.

Data is fundamental to how accurate a trigger is. By tracing how pastureland degradation and depleted water sources push children out of school, the needs assessment pointed to which indices might work, while historical attendance data lent the selected indices further credibility. More and higher quality education data could have helped further. For instance, evidence on how severe a shock needs to be to disrupt learning could have informed where to set the trigger threshold, while reliable real-time attendance data could have enabled an index that factored attendance dips directly into payouts.

The catch is that it takes time and resources to gather such data, and this data may simply not exist. After false starts trying to obtain data from government and other actors, and with no digital records to draw on, IRC undertook the time- and resource-intensive exercise of visiting 27 primary schools to manually digitise paper attendance registers, only to find that the resulting data was considered poor quality and only covered five years. Other actors, often working in even more data-poor settings, should expect to encounter similar challenges. As one member of the design team put it: *"You can't do an effective trigger design without effective data, and much of that data doesn't exist. If it doesn't exist in Kenya, it really doesn't exist elsewhere."*

Thin data can be a legitimate reason for caution – and may even lead to a decision not to proceed. At the very least, it may mean accepting a degree of basis risk, or getting creative about how data is sourced. The real lesson, however, is that data requirements should be scoped from the outset, and must be weighed honestly before committing to parametric insurance.

15 When households from the first 125 schools were registered, PGI's initial sensitisation was unable to account for control and treatment groups, since these were not yet planned at that point in time. While the team shifted their approach for the second batch of registered households to better manage expectations, the 'luck of the draw' logic remained a difficult sell.

16 No analysis was made available to the evaluation team to allow the team to verify this finding.

Trigger design requires navigating trade-offs between accuracy, timeliness, cost and technical feasibility.

Trigger design is often described as a balancing act. It involves a lot of judgement, and efforts to achieve one objective may undercut efforts to achieve another. CREST experienced this tension, with the team balancing the competing objectives of accuracy and timeliness. This lay behind the decision to make SPI the main index for Season 2.

SPI was seen as being a weaker indicator of the reality on the ground than NDVI, for several reasons. ARC's analysis reportedly found that SPI correlates less strongly with attendance drops, that it sits further from the behavioural tipping points that drive families to pull children out of school, that it has some known limitations,¹⁷ and that is generally considered to be a less reliable proxy for drought in Kenya (Bowell et al. 2021). Some stakeholders suggested SPI's index design does not account for the way disruption to education builds through the cumulative impact of consecutive failed rainy seasons.

Phase 2 of the Season 2 policy¹⁸ also missed the rainy season almost entirely, falling mainly in the dry season. Below-normal rainfall in a period that receives little rain to begin with is arguably a shaky signal of drought (Svoboda et al. 2012). This appears to have been a byproduct of aligning the NDVI and SPI risk periods. In hindsight, the team could, alternatively, have linked each index to its own window.

The design team accepted these limitations because SPI was seen to offer one decisive advantage: timeliness; it provides an earlier indication of emerging drought, compared to NDVI (this is explored further in Section 4). The lesson from this experience is not that this was the wrong decision, but that such trade-offs need to be made deliberately and early, and must be weighed openly with both the insurance provider and the purchaser, so that everyone understands what is being gained and given up, and agrees that the balance is right.

Where a buyer lacks insurance literacy, off-the-shelf products become the path of least resistance. A longer timeline for trigger development, and early investment in consulting local and independent experts, keeps options open and builds trust.

As noted above, doubts about the trigger surfaced only after Season 1, a sign that the choices that were made were not sufficiently scrutinised or understood by all parties. This was driven in part by the asymmetry between IRC and ARC in regard to knowledge about insurance. With no prior experience of insurance, IRC felt 'in the dark' during the early phases and largely deferred to ARC. The resulting Season 1 trigger was not seen as bespoke: it relied on ARC's existing agricultural products, rather than a 'blank-slate' assessment of education risk.¹⁹ Once premiums were committed, IRC felt it had little leverage to revisit them. This underscores the value of budgeting for independent, third-party advice.

Local expertise was also late in becoming involved. The Kenya Meteorological Department and NDMA held strong, relevant views but felt sidelined during Season 1. Both entities can draw on Kenya's long track record of developing triggers and applying indices like those applied under CREST, depth IRC lacked and that ARC, with its limited recent engagement in the country, could not readily supply. If they had been brought in sooner, these entities could have surfaced blind spots and built the buy-in the product lacked in Season 1.

Underlying both of these findings is a broader point: a novel parametric product needs real investment in the 'soft infrastructure' of engagement. That means a long timeline for partners to build a shared understanding and make genuine co-design possible, training for staff and stakeholders, and bringing in both independent and local expertise, to level the playing field and bring contextual insight to bear. Without this, the temptation is to reach for a familiar solution, rather than waiting to arrive at one that is understood and trusted – as the CREST experience illustrates. At the same time, if the education sector genuinely wants pre-arranged financing

17 For instance, it does not account for high temperature, which can cause pastures to remain sparse and water balances to be low, even when rainfall figures are higher. Because the index aggregates rainfall data over the risk period, erratic rainfall can inflate precipitation totals without meaningfully restoring pasture or water levels.

18 As described earlier, the Season 2 coverage was split into two phases.

19 This echoes findings from Oxford Policy Management's 2024 impact evaluation of ARC (Ward et al. 2024), which identified challenges with risk modelling through AfricaRiskView, ARC's proprietary software, including its customisation to local realities and the level of confidence in its performance among stakeholders.

to move beyond being a niche area and to become a mainstream tool, there is a need to invest in increased organisational and institutional capability.

Instead of being helpful, attempts to communicate complex insurance mechanics to communities may actually create confusion.

IRC began with the reasonable assumption that communities should understand how the parametric insurance mechanism worked before implementation, and so it focused its early sensitisation efforts on this goal. In practice, this was not the right choice. The nuance of the trigger was never fully understood, and when Season 1 produced no payout, communities were left disappointed, which eroded trust and fed pre-existing scepticism about insurance linked to past experiences. There were also signs that the sensitisation itself distorted behaviour, as one member of the design team described: *“When we were doing the registration, some people came and enrolled their children in school so they could qualify for the project, because they think there is money coming.”*

Taken together, this prompted a useful internal reflection on whether the benefits of communicating in advance outweighed the risks. The conclusion, ultimately, was that they did not. As a further 12,000 households were registered ahead of Season 2, the team framed registration in newly added schools as part of a ‘research and disaster risk reduction (DRR)’ initiative, rather than a cash assistance programme linked to parametric insurance.

At the same time, a broader lesson emerged that the framing of communication should follow the logic of the intervention. Where the aim is to prevent a behaviour, advance understanding matters. Where it is about response (in CREST’s case, restoring school attendance after the shock, that rationale weakens, and explaining the mechanism risks raising expectations and sowing confusion, for no behavioural gain. Because CREST straddled both aims (see Section 5.1), decisions like this were harder than they needed to be.

4

TIMELINESS: DID ASSISTANCE REACH LEARNERS AT THE RIGHT TIME?

Timeliness is one of the key benefits of parametric insurance, and of pre-arranged financing more generally. The logic goes that by having financing and plans in place before a crisis hits, a response can be mobilised rapidly, reaching affected communities faster than would be possible through traditional channels, and ultimately leading to better outcomes. However, arriving quickly is not the same as arriving at the right time. For example, delivering remote education support too early may have little value if children are still in school. If it is delivered too late, it risks reaching children who have already

disengaged, suffered critical learning loss, or found their own way back to school.

This section considers CREST's timeliness, asking whether assistance reached learners at the right time following the Season 2 payout. In doing so, it weighs both the speed of the response from the moment the trigger occurred, and whether the response was provided when it mattered. These issues are explored in Section 4.1, with the resulting lessons drawn together in Section 4.2.

4.1 Analysis

To assess this criterion, we explore the two timeliness questions presented in Table 1, which focus on the dimensions of speed and appropriateness of timing.

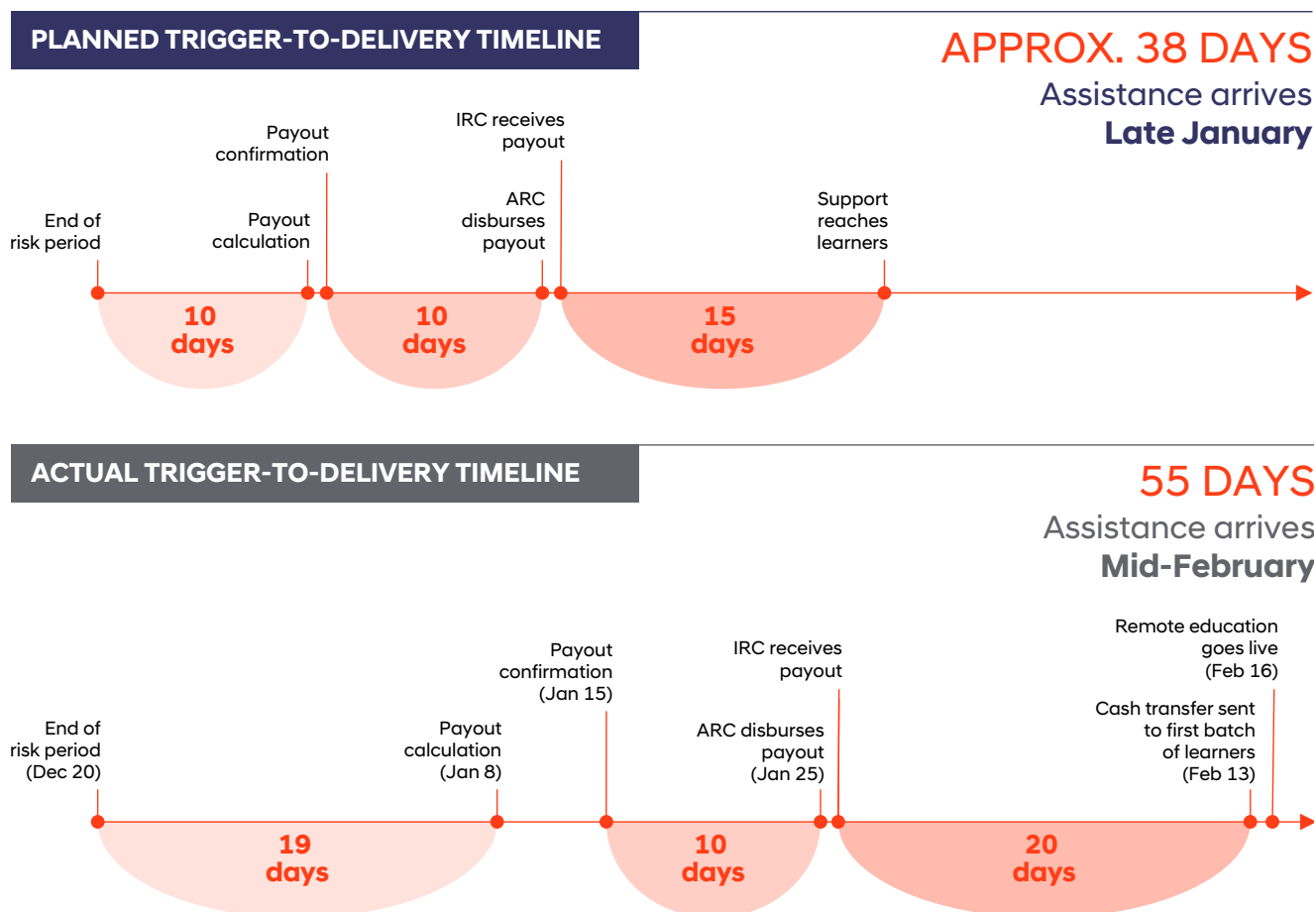
Was the planned timeline for rapid response achieved in practice?

The time between the end of the risk period²⁰ and the beginning of the response was 55 days. This was relatively quick, though it was still two weeks slower than the timeline originally envisioned.

Figure 4 presents a comparison of the planned trigger-to-response timeline with what was delivered in practice. Cash transfers and remote education activities both began in mid-February 2026, approximately two weeks later than the planned timeline scenario envisioned ex-ante. While this was not as rapid as was hoped, this timeline was similar to other humanitarian response timelines linked to ARC insurance payouts, and much faster than equivalent government timelines (see Box 2 below).

²⁰ The end of the risk period is the appropriate starting point for judging the timeliness of the response since it is the first moment at which the trigger calculation becomes possible. Measuring from the calculation itself would obscure any delay ARC incurred in accessing the necessary data and producing the calculation report.

Figure 4: Planned versus actual trigger-to-delivery timelines²¹



Two factors contributed to the overall slippage in the timeline. The first was that the timeline was overly optimistic from the start. The second was that delays arose that could in theory have been resolved beforehand, even if they were difficult to anticipate

ARC's commitment to calculating a payout within 10 days of the risk period's end did not account for the time needed for the satellite data to become available or for its own internal sign-off processes. IRC's payout verification also ran long. IRC did not factor in the need to wait for the RCT baseline survey to finish before

starting activities; in practice, that time was taken up by efforts to resolve other problems: the interactive voice recording (IVR) vendor agreement proved a sticking point;²² initial registration failed to link caregivers with specific learners and required manual verification; and for roughly 30% of the targeted households, 'know your client' verification for mobile money transfer ran into issues such as changed phone numbers. As a result, some households did not receive cash until March, and some did not receive it at all. This underscores a key drawback of advance registration and prepositioned response: information goes out of date, and updating it takes time.

21 The trigger-to-delivery timelines presented here reflect the total number of days between the end of the risk period – the point at which sufficient data exists to calculate the trigger – and the first day on which assistance is delivered. It should be noted that ARC/IRC did not map the full cumulative timeline, but rather individual segments of it, without assigning specific targets to processes such as payout verification or the transfer of funds between ARC, Canon Insurance, and IRC. The planned trigger-to-delivery estimate therefore incorporates approximately three additional days, providing some leeway. For simplicity, the actual trigger-to-delivery timeline reflects only the payout associated with Phase 1.

22 In hindsight, the team reflected that it was “naïve to assume existing framework agreements would support a rapid emergency rollout”. The vendors' standard terms were geared towards postpaid, and they did not have the “details” or “clauses” in the framework to pivot to a high-volume prepaid model quickly.

BOX 2: HOW DO CREST TIMELINES COMPARE TO OTHER ARC POLICIES?

While CREST's trigger-to-response timelines fell short of their targets, they were much faster than those referred to in Oxford Policy Management's 2024 impact evaluation of ARC, where the median time from trigger calculation to disbursement was 116 days across 16 drought payouts (comprising 10 sovereign and six Replica policies, which are purchased by humanitarian actors to match government coverage). Beyond basis risk disputes, a major factor influencing these timelines was the mandatory Final Implementation Plan (FIP), which policyholders must develop and ARC must approve before releasing funds (Ward et al. 2024). CREST avoided this bottleneck, as FIPs are not required for bilateral humanitarian policies outside the Replica framework, which suggests that ARC is exploring ways to increase speed across its portfolio. In regard to the interval between disbursement and assistance actually reaching beneficiaries, CREST's timelines matched the fastest cases in the Oxford Policy Management study and far outpaced several government responses, which took up to nine or 10 months due to bureaucratic and administrative hurdles.

How well did the timing align with the ideal window for action?

Because there is no solid evidence that school attendance actually ever fell, the question of whether the timing aligned with the ideal window for action is largely unanswerable, and somewhat moot. However, based on the available markers, the school calendar and the drought's trajectory, assistance was generally felt to have arrived later than would have been ideal, despite concerted efforts from the team to move timelines earlier.

To answer this question, we considered stakeholder perceptions and tested the timing of delivery against the design team's own description of an 'ideal window for action', as synthesised from our interviews and as presented in Table 4. We rated each element of the ideal window for action using a RAG rating system (green = 'met', amber = 'partially met', red = 'not met'), with 'not rated' (grey) used where no evidence was available. More details on how ratings were applied are provided in Annex 2.

Table 4: Extent to which the IRC-defined ideal window for action was met in practice²³

Overall timing objective	RAG rating
Assistance reaches at-risk households before or at the start of drought-related learning disruption, marked by declines in school attendance ²⁴	
Specific operational timing requirements	
At the start of school terms – The assumption was that cash assistance delivered at key schooling decision points, when education-related expenses are highest, could help sustain enrolment and attendance.	
While schools are in session – Avoiding the main holiday periods in April, August and November/December, as remote education is intended to substitute for missed formal instruction and therefore has less obvious value during scheduled breaks.	
Early in the drought lifecycle – While never precisely defined, this was based on the assumption that disruptions to learning occur at the first signs of drought stress.	

²³ IRC's understanding of the ideal window for action was not explicitly articulated in the way that it is presented here, nor was it static. It evolved and came into focus gradually over the course of the intervention. What follows is a synthesis based on interviews with the design team conducted as part of this evaluation, reflecting the current state of thinking at the evaluation's conclusion.

²⁴ The hypothesis was that reaching households at this stage could either avert withdrawal from school altogether or facilitate children's return to school before temporary disengagement hardened into permanent dropout.

Importantly, the single most meaningful test – that assistance arrived shortly before or at the start of drought-related declines in school attendance (the overall timing objective) – is also the one we cannot carry out. As described in Section 3.1, there is little compelling evidence that any such decline in attendance occurred, meaning there is no timestamp we can use to position the timing of the response. This is why this metric is not rated in Table 4.

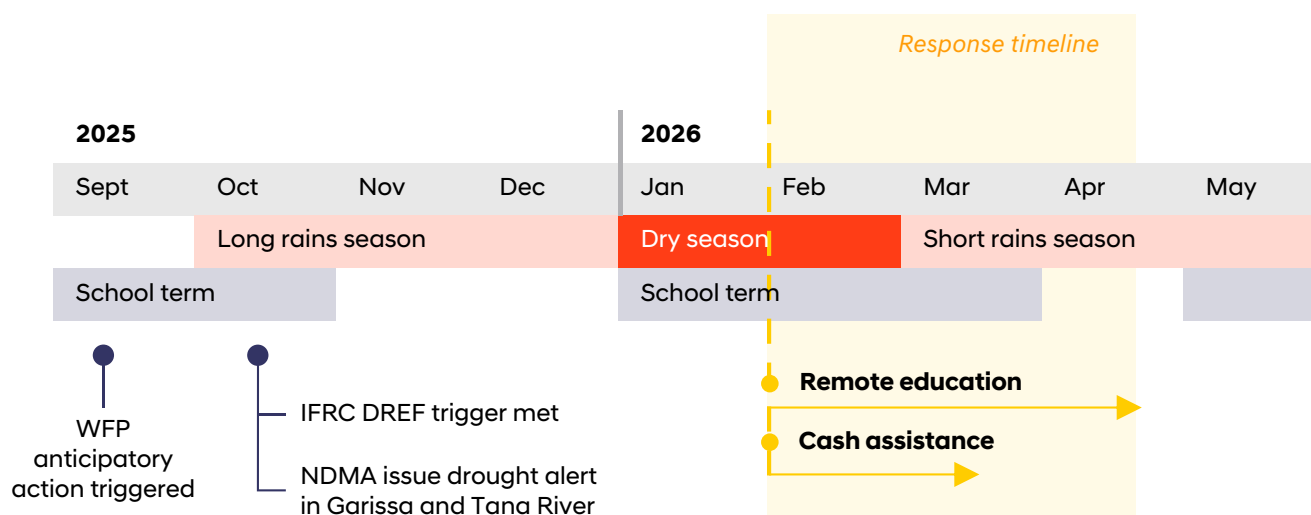
If we accept the narrative put forward by several stakeholders, that attendance would have declined in January absent any wider government intervention, the response still appears to have missed the ideal window. Objective analysis of whether the specific operational timing requirements were met (outlined in Table 4) converge with what stakeholders felt – that assistance came a bit too late. This did not come as a surprise to IRC, who were conscious that the response risked missing the ideal window and took a number of steps (explored in Section 4.2) to try to ensure it arrived earlier. Nevertheless, as discussed in Section 3.2, timeliness and trigger accuracy are often in tension, and there is not always an easy solution to this problem.

On the one hand, as illustrated in Figure 5, the timing sat awkwardly against the school calendar, a point the interviewees themselves raised. Cash was not provided

at the start of term, earning a rating of ‘not met’ for that operational timing requirement: the first batch of learners were not paid until mid-February, more than a month after term began at the start of January. The remote education activity fared better, but its final weeks slipped into the holidays, earning a ‘partially met’ rating. As one stakeholder put it, by that point *“it felt more like supplementary tutoring than emergency support”*. Delays to the planned timelines were partly to blame, though even had they held, cash would still have reached children nearly a month after the term started.

On the other hand, the response arguably came slightly late in the broader arc of drought in Garissa and Tana River, earning a rating of ‘partially met’ for the ‘early in the drought lifecycle’ dimension. While it was delivered at a time when communities were still under drought stress, it could not be called early. Signs of drought began to surface before the CREST response started to be delivered in mid-February, with NDMA elevating both counties to ‘alert’ phase in their drought classification system in October 2025, and other trigger-based financing mechanisms activating around that same time. Drought conditions then reportedly peaked over January and February 2026, before stabilising with the onset of the long rains in March.

Figure 5: Response timelines relative to school calendar, seasonal calendar, and activations of other mechanisms



4.2 Discussion and key learnings

Start by deciding when assistance should arrive, then design triggers accordingly.

For Season 1, IRC let the trigger design dictate the moment of response, rather than the other way around. At the time, thinking around the right moment to respond was not fully formed, and IRC had not yet realised how different trigger design choices could be used to achieve different timing objectives. As a result, had timelines materialised according to plan, assistance would have reached learners outside of IRC's ideal window for action (i.e. days before the three-week August school break and well into the dry season).

This prompted a change of approach for Season 2. This time, the goal of reaching households in early January guided trigger design from the start. As indicated earlier, alongside NDVI, the team introduced SPI, which they saw as providing a quicker signal of a failing season, since rainfall deficits show up before vegetation stress (while accepting the trade-offs with accuracy this involved – see Section 3.1). They also moved from calculating the trigger only at the end of the season to assessing it at both the midpoint and endpoint, opening up the possibility of an earlier payout. These changes were not perfect, but they brought IRC closer to its intended timing. The wider lesson is that it is necessary to articulate the ideal on-the-ground timing of the response from the outset, and to set triggers in reference to it.

A precise theory of change and an empirical understanding of the crisis timeline can help in deciding when is the right moment to respond

The design team engaged with the question of timing and, over time, developed a broadly sensible working logic for when assistance should ideally reach learners (presented in Table 4). However, deciding the right moment to respond proved challenging, and it was difficult to arrive at neat or confident conclusions.

Part of the difficulty lay in how the cash was expected to contribute to learning and child protection outcomes; this logic was left open (see Figure 6). Entertaining multiple pathways at once is arguably consistent with

the logic of unconditional cash, which does not prescribe specific usages of the cash. This, however, complicates the question of timing, as each pathway points to a different moment for action.

The other challenge was pinpointing the crisis timeline, i.e. when drought-related declines in attendance tend to unfold relative to drought indicators, the seasonal calendar, and the school calendar. Understanding this could offer valuable clues about when support makes the most difference, and by extension when to set the trigger. To IRC's credit, the team worked from the plausible assumptions that disruptions emerge early in the drought cycle and peak as new terms begin, when costs are highest. But this was directional rather than precise, and the assumptions could have been tested empirically: for instance, by taking advantage of the needs assessment or historical attendance data to explore temporal trends. Even so, there are good reasons to be cautious about expecting a neat timeline: data limitations, the complex nature of the risk (drought affects learning through multiple pathways that unfold on different timescales), and a backdrop of overlapping shocks and chronic fragility all work against clean sequencing.

Build realistic response timelines through detailed mapping of timelines and mock activations.

The response was delivered two weeks later than the original target, which had implications for meeting the IRC-defined ideal window for action. This underscores the importance of obtaining realistic estimates from the outset, since these feed into when the triggers are set. Considering this point, the team reflected that breaking the response into its sequential steps and checking that these aligned with the intended payout and response window could have surfaced overlooked constraints, such as the timing of when ARC can access satellite data or the need for baseline data collection. Likewise, mock activations to stress-test the plans could have exposed hidden bottlenecks before a real trigger occurred, including issues with the IVR vendor contracts and linking caregiver and learner registration data.

5

RELEVANCE: DID RESPONSE ACTIVITIES ALIGN WITH NEEDS AND PRIORITIES?

While every programme must consider whether its activities are relevant (in other words, ‘do they do the right things?’), for pre-arranged responses this question carries a distinctive tension. On the one hand, the margin for error is arguably wider, since activities are designed ahead of a future event whose precise impacts cannot be known, to be delivered in a dynamic context in which others may also be acting. On the other hand, planning in advance for a predictable, recurring shock like drought provides time to study how needs unfold, weigh the options, and design

something more carefully calibrated than a reactive scramble would allow.

This section looks at how well CREST’s two response activities (remote education and cash transfers) fit both the problem anticipated at design and the situation that actually emerged once the payout was triggered. The two need not coincide, and the possible gap between them is the thread running through this section. Section 5.1 assesses CREST’s relevance against the evidence, while Section 5.2 draws out the resulting reflections and learning.

5.1 Analysis

To assess CREST’s relevance, we consider the three relevance questions outlined in Table 1, which correspond to the dimensions of relevance as outlined by the OECD Development Assistance Committee as part of its evaluation criteria.

Is the risk of drought-related education disruption prioritised by stakeholders?

Overall, the evidence indicates that the disruption that drought causes to children’s learning is considered a priority risk by both communities and government officials, and thus was a reasonable thing for the project to try to address.

Drought is the defining hazard of Kenya’s ASALs, a point well established nationally (National Disaster Operations Centre [2025](#)) and echoed locally by the officials interviewed. Its toll on education – in particular, the fact that it causes families to withdraw children from school – is also historically documented (Nübler et al. [2021](#); CARE International [2022](#)) and was corroborated in interviews with representatives from the Ministry of Education and NDMA. It was also confirmed by the IRC needs assessment, in which 87% of surveyed parents in Tana River and Garissa reported that drought had disrupted their children’s education over the past five years, a higher rate than for any other shock.

Drought-related education disruption is also acknowledged in national frameworks (Government of Kenya 2016; Ministry of Education 2018) and, more concretely, is taken into consideration by officials at the county level.²⁵ It is less clear, however, how communities themselves rank drought's threat to education against competing needs, such as water, food, or health, since the needs assessment did not probe this directly. On balance, though, the evidence supports the conclusion that the problem the intervention addresses is a real and recognised need.

Are remote education and cash a plausible way to address anticipated needs?

On paper, the design was reasonably well-grounded in the evidence base and was validated together with stakeholders, though it rested on untested assumptions.

CREST did not originate from the Kenyan context. It began as the generic concept of using parametric insurance to mitigate disruptions to education driven by climate shocks, with no country or hazard yet fixed. Remote education and cash were already part of this global design. When drought in northern Kenya was selected as the case to be addressed, the activities largely carried over.

To the project's credit, steps were taken to sense-check and refine that inherited logic against the Kenyan context,²⁶ and the resulting design was plausible. As Figure 6 shows, the pathways by which drought disrupts education (top) are consistent with how the intervention's activities are meant to intervene (bottom). Nevertheless, as a pilot, the project rested on untested assumptions.

The core activities were also endorsed by stakeholders, though some favoured alternative activities. The 'ideas for action' collected from parents and teachers in the needs assessment aligned with the choice of activities, though remote education was not specifically requested. Government officials saw both activities as appropriate, and the co-development of remote materials with KICD, along with their wish to expand their use beyond the project, signalled institutional endorsement. That said, the rationale for remote education would have been more compelling had the original 'school closure' assumption held in this context.

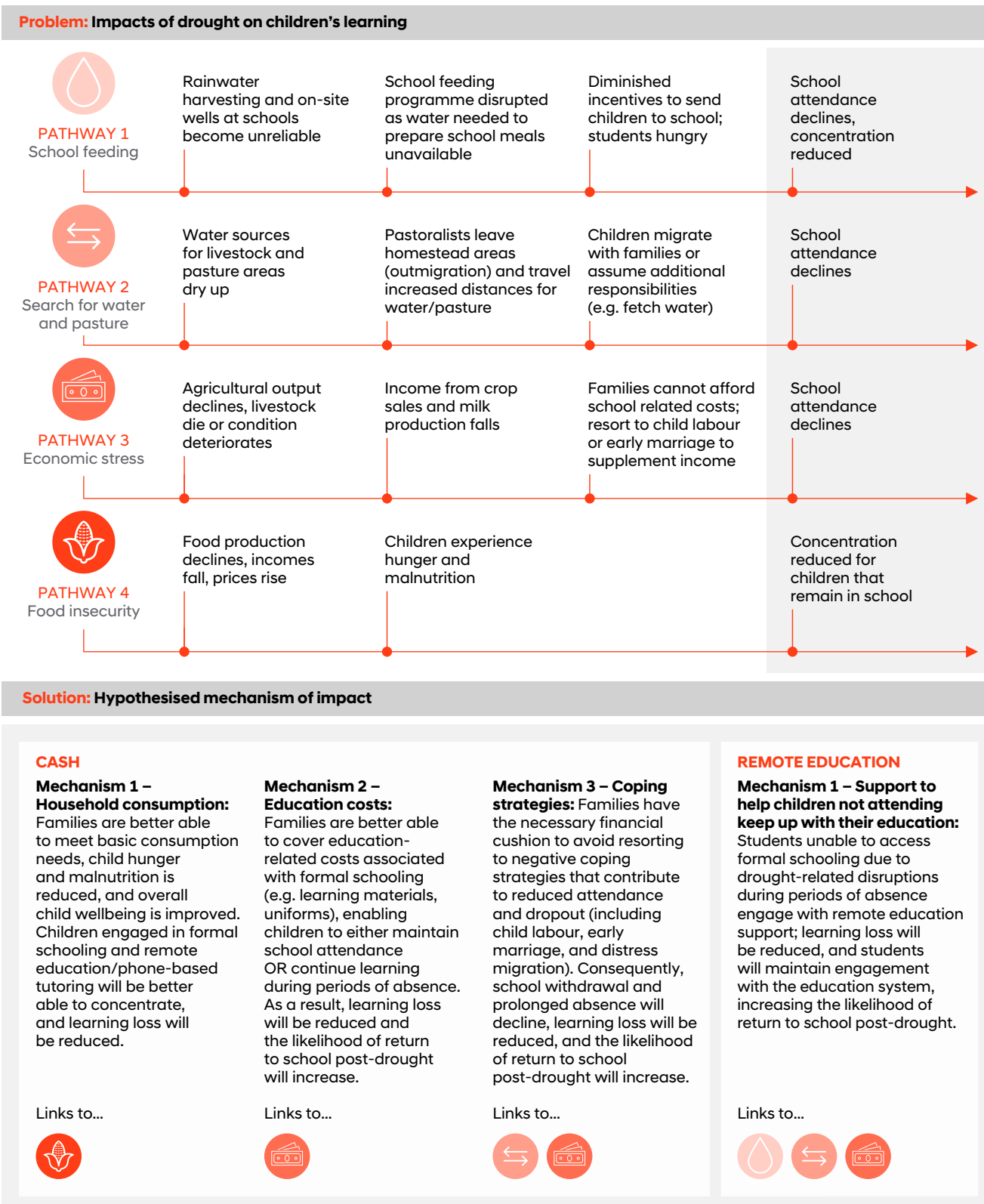
Importantly, several stakeholders felt that school-level support would offer a more direct route to keeping children in school, in the form of school feeding and water trucking, or, as a more sustainable fix, reducing drought risk through measures like water storage tanks for schools.²⁷ These alternatives were also grounded in the evidence. By the same token, there were valid reasons for why these options were not considered. The design team saw such measures as core state responsibilities rather than humanitarian ones, although not all team members agreed, and the team deliberately sought to complement, rather than substitute, government action. Moreover, since CREST was funded by FCDO's education portfolio, there were also considerations around what activities fell within the project's scope. On the whole, this was not a fatal flaw, as cash transfers and remote education remained reasonable choices. The aim in setting out these alternative views is not to suggest the chosen activities were misaligned with needs, but to surface the spectrum of options that others tackling the same problem might have to weigh. CREST's experience underlines the need to interrogate the full range of options from the outset, and to start with a contextualised understanding of the problem.

25 Education-related indicators are captured by the County Steering Group (CSG) during the biannual long-rains and short-rains assessments; and it underpins the long-standing School Feeding Programme in the ASALs – a non-emergency measure, but one consistently justified in drought and food-security terms.

26 IRC's community needs assessment, alongside government officials' involvement in early design workshops, gave a reasonably clear picture of the problem and community and stakeholder priorities.

27 This last option did ultimately drive a mid-project pivot, with additional resources directed towards building school resilience, though some felt it could have gone further.

Figure 6: Drought's impact pathways versus CREST's hypothesised mechanism of impact



Were activities responsive to the actual needs that emerged post payout?

With school attendance holding steady, the case for a response was weak, raising questions about whether Kenya was the right setting for this intervention – although the choice made sense for a pilot.

Once the payout was triggered, the activities were implemented largely as planned: more than 7,500 households across 70 schools received a one-off cash transfer averaging USD56, and remote learning reached over 30,000 learners across 140 schools. But the core need anticipated at the design stage, that children would be out of school, did not materialise. This undercut the case for intervention, particularly remote education. Cash transfers were easier to defend, less as a route to getting children back into school than as a way to ease food insecurity and protect wellbeing amid clear signs of hunger and drought stress (NDMA 2025–2026).

As discussed in Section 3.1, the absence of declines in school attendance points to positive basis risk: either a problem with trigger accuracy, or simply that others were already meeting the need. Most interviewees preferred the latter explanation, which tells a positive story about government response and the resilience of the education system, suggesting that the government themselves might benefit from sovereign pre-arranged financing to support education-focused responses to future shocks. It also raises another question: whether IRC should have anticipated that government would step in and support continued attendance.

There are reasons to think this would have been hard to foresee. Local officials were engaged ahead of time and judged the activities additive; some government actions, such as mandates,²⁸ were not planned in advance; and the past was a potentially misleading guide, since the school feeding programme, seen as the most important measure keeping children in school, did not falter during the drought as it sometimes had before.²⁹

However, stakeholders also disagreed about how exceptional the government response was. Some called its scale “unprecedented”, others considered it close to business as usual, noting no drought-specific feeding top-ups and school attendance holding up through routine provision and thanks to NDMA water trucking to some locations. This disagreement matters, because it bears on whether government action was a predictable feature of the context.

In hindsight, IRC could maybe have probed harder, interrogating the government’s capacity to sustain school feeding, given its empirical link to attendance (Office of the Auditor-General 2023; Omwami et al. 2011), and giving it greater weight in its analysis of past drought and learning – though this is easier said than done in data-scarce environments like Kenya.

More importantly, CREST’s experience underscores how planning ex-ante in a dynamic response environment carries an inherent risk of misalignment, and suggests that resources for this type of programming might be best placed in contexts where the government is less positioned to act. However, the selection of Kenya as the location for the pilot was made for a number of practical reasons, including donor preference (explored below).

Notwithstanding the foregoing, local officials judged the activities as needed, and the cash transfers arguably offered a broad welfare benefit. While children may have been in school, families were still suffering.

Finally, it is worth noting that the design logic itself was never really tested, because the results chain broke at its first link. Box 3 presents initial findings from the RCT (conducted by SIEL and Oxford University) and IRC-led monitoring on whether the underlying activity logic held up in practice.

28 President William Ruto issued a directive mandating a 100% transition for all learners moving to Grade 10 under the Competency-Based Curriculum (CBC) on 22 January 2026. This policy ensures that all students are admitted to senior school regardless of whether they have paid school fees or possess the correct uniform. The directive was precipitated by a widespread hue and cry across the country regarding extremely poor transition rates to senior school during the drought. While this was not targeted at Grades 1–9, some stakeholders speculated that it had the effect of encouraging attendance overall. Local administrations were also reportedly tasked with identifying out-of-school learners in their areas and ensuring they returned to the classroom (although this could not be verified).

29 The school feeding budget has been erratic and chronically underfunded according to some reports. Allocations were Sh2.3 billion (2021/22), Sh1.9 billion (2022/23) – a key drought year, Sh4.9 billion (2023/24), Sh3.6 billion (2024/25), and Sh3.6 billion (2025/26) (Daily Nation 2026a; Daily Nation 2026b; Muchunguh 2024).

BOX 3: WHAT COMPLEMENTARY MONITORING, EVALUATION AND LEARNING ACTIVITIES REVEAL ABOUT THE RESPONSE LOGIC

How the cash was used: It is worth stressing that the cash transfers were unconditional, and that there are different pathways through which cash can positively influence children's learning and wellbeing, beyond direct expenditure on education. That said, it is interesting to note that 77% of households reported spending cash on education-related expenses and, on average, households directed around 44% of the transfer to education (IRC 2026b). Some caution is warranted in interpreting these findings, since spending was self-reported and respondents knew this was an education-focused programme, which may bias results. However, if taken at face value, this reaffirms that education is a priority for households experiencing drought.

User engagement with remote education: Of the 16,000+ unique caregiver phone numbers, the IVR analytics data revealed that 24% clocked up 10 minutes or more of cumulative remote education activity (IRC 2026a). The number of households that engaged appears relatively high given that most learners were in school throughout the period analysed. At the same time, the design team identified challenges around the depth of engagement, with most learners not engaging for long periods. In response, CREST's second phase, focused on flood risk, is adding alternative modalities alongside IVR, such as temporary learning spaces and in-person group tutoring.

RCT findings: The forthcoming RCT found no statistically significant findings on child learning or welfare outcomes. A fuller account of the RCT findings and their interpretation will be made available by Oxford University later this year. However, given that the underlying need, a fall in school attendance, had not materialised at the point of payout, a null result was not altogether surprising. This raises the question of whether an RCT was the most useful place to invest scarce time and resources at this stage, or whether learning could have been surfaced through a less costly evaluation approach. Arguably, questions of impact are often better tested after an initial phase of piloting, learning, and improving. Even so, the RCT contains very valuable insights, which will help shape future decisions about where to direct resources and how to refine the design as important choices about scaling and adaptation get under way, for both IRC and the government of Kenya.

5.2 Discussion and key learnings

Drought-related education risk is complex, so it is important to have a good understanding of what an intervention is trying to achieve and how it can deliver benefits.

One idiosyncrasy of the CREST pilot is the complex causal relationship between drought and education disruption in the pastoralist communities of northern Kenya. There are multiple pathways of disruption, most of which are indirect. This contrasts with, for example, how drought disrupts agricultural livelihoods, where the relationship is more straightforward and the logic of the associated interventions is therefore somewhat more obvious.

The design team reflected that investing up front in unpacking how and why drought disrupts education, through the needs assessment and conversations with local stakeholders, was highly beneficial. Some of the assumptions they entered the project with, such as the expectation that schools would close, proved out of step with reality.

Understanding the problem is only half the task. The other half is outlining how and what an intervention is trying to achieve. The logic for the cash activity evolved over time, and several theorised causal mechanisms were entertained at once. Because each pathway could imply different parameters, this introduces complexity when making decisions on cash amount,³⁰ targeting, timing, and what the index should proxy.

30 This is not intended to imply that the transfer value was arbitrary. It drew on the Minimum Expenditure Basket and was grounded in an analysis of existing safety nets and extensive discussion. The point is that the intended mechanism of impact may have implications for the cash transfer value.

If, for instance, the cash is hypothesised to protect nutrition so children can concentrate at school, it might be tied to the Minimum Expenditure Basket and timed to the point in the drought cycle when hunger sets in, with a trigger calibrated to that, rather than dips in attendance. A different intent would point elsewhere.

There is an argument for zeroing in early on the most promising pathways. The aim of this would not be to prescribe how families should spend the cash, nor to suggest the intervention should be judged on whether a particular causal pathway holds, but rather to cut through complexity when answering design questions. IRC has pushed back against this suggestion from this evaluation, taking the defensible view that it sits at odds with the logic of unconditional cash, which is precisely not to envisage specific uses. This points to an interesting tension around what it means to use an unconditional transfer within a sector-specific intervention with sector-specific objectives.

Additionality is an important factor when considering where to intervene

IRC, in close consultation with FCDO, selected Kenya as the pilot country location due to its risk profile,³¹ IRC's operational capacity to deliver within a short period, the country's relative stability and favourable institutional environment, and, importantly, FCDO's interest in targeting Kenya specifically. What seems to have been less of a focus was the issue of additionality: asking not just where hazards occur but where a response is least likely to be crowded out. If we accept the interpretation that school attendance held because others stepped in (and this remains only one possible interpretation), it points to a context where a response of this kind needed little reinforcement, at least for a drought of this magnitude. That is a reasonable trade-off for a pilot, whose aim is partly to demonstrate the model, but for any future scale-up, additionality should be given greater weight in deciding where to deploy.

31 The timing also aligned with an El Niño cycle, offering a window to test the model under heightened risk. In practice, however, the preparation phase took longer than expected and the policy was not in place in time to take advantage of El Niño. Further, drought and flood are Kenya's main climate-related hazards and are both known drivers of education disruption (United Nations Office for Disaster Risk Reduction [2026](#); Republic of Kenya [2017](#); Ministry of Education [2018](#)).



COST VERSUS BENEFIT: WAS THE COST OF INSURANCE JUSTIFIED BY THE POTENTIAL BENEFITS DELIVERED?

The decision to use parametric insurance rests on the premise that it will deliver certain benefits that traditional reactive humanitarian response would not. Parametric insurance implies certain additional upfront costs, and it is one of several options for arranging finance in advance that could theoretically yield similar benefits.

The pilot's primary aim was to test the new concept of using parametric insurance for education, not to maximise the impact of every dollar spent, so it would be premature to hold it to a strict value-for-money standard. By their nature, pilots front-load fixed costs and deliver

only part of their eventual benefit, since the wrinkles in design and implementation have yet to be smoothed out. Even so, the issue of cost versus benefit warrants preliminary exploration, because it provides insights into whether and how CREST should be scaled or replicated. This section takes a first look at this issue, asking how the design team weighed the costs and benefits of the parametric approach, and whether they think similar or better outcomes might have been achieved through simpler, more cost-effective alternatives. This is examined in Section 6.1, with the resulting reflections and lessons drawn together in Section 6.2.

6.1 Analysis

The analysis draws primarily on stakeholder perceptions, and is structured around the two questions on cost versus benefit outlined in Table 1.

What additional benefits do stakeholders think parametric insurance delivered, and at what added cost?

Stakeholders credited the use of parametric insurance with bringing about clear gains in preparedness, a shift in government towards proactive planning, and funding that would otherwise not have existed, even if its timeliness was below expectations. These benefits, however, came at the cost of expenditures on premiums and on developing models, alongside time and transaction costs that ran beyond what IRC had initially expected.

6.1.1 Benefits

IRC hoped parametric insurance could increase the speed and volume of funding for an education response to climate-related shocks, while creating space to better prepare in advance. IRC also hoped CREST would help shift the sector from reactive to proactive approaches to planning and paying for education responses to such shocks. The discussion below considers how stakeholders saw the project delivering against the following: volume of financing; timeliness; preparedness; and mindset shift.

Volume of financing

For IRC, CREST began with the diagnosis that education is chronically underfunded in humanitarian response, losing out to more immediate priorities like health and food, and that it is unlikely that the amount of funding it needs can be obtained through appeals. Parametric insurance was seen as one way to channel more money towards the sector. The argument was not that insurance pays out more than it costs in premiums, which is generally untrue over time (Meenan 2022), but more that pre-arranged finance, particularly in innovative forms, could unlock pots of funding beyond the usual appeals. By the end of the evaluation period, IRC still held this to be true, noting that in the case of CREST, *“the counterfactual would have been nothing”*. In other words, without the pre-arranged financing angle, money for this response in Kenya would have been difficult to secure through other means. This is plausible but has not yet been tested over time, and carries a risk that should be monitored: that approaches to pre-arranged financing end up being shaped by what attracts funding, rather than what delivers best value.

Timeliness

Another argument in favour of parametric insurance was speed of response. Section 4 examines this in detail, with the core finding that the February 2026 response was considered to have arrived later than was ideal. It also lagged behind the timelines achieved by other responses: NDMA’s cash transfers under the Hunger Safety Net Programme in January 2026 (NDMA 2026b); the International Federation of Red Cross and Red Crescent Societies’ (IFRC’s) drought activities funded by the Disaster Response Emergency Fund (DREF) in late 2025 (IFRC 2026), and the World Food

Programme’s (WFP’s) anticipatory action response in October 2025 (WFP 2025b). As these were themselves financed in advance, this comparison shows only that CREST was slower than other pre-arranged mechanisms, not how it would fare against reactive, ex-post financing. Nonetheless, stakeholders close to the intervention felt the response did not quite live up to its promise as regards timeliness.

Preparedness

This is where the intervention delivered most clearly. For cash transfers, advance preparation translated into faster disbursement, though some payment details went out of date before they could be used. A further opportunity was missed in not developing scenario-based budgets and operational plans for different payout levels, which would have aligned better with the policies’ linear payout structure. However, the clearest evidence regarding the CREST pilot’s positive impact on preparedness is the remote education materials: developing them took months of coordination with KICD, including piloting, testing, translation and calibration to the right grade level. That work would not have happened under ex-post financing and only took place because CREST created the space to prepare in advance. The rapid, curriculum-aligned co-development with KICD and the Ministry of Education was itself a notable achievement: it involved an unusual degree of government ownership within such a short timeframe that has left in place a lasting public good – one that can continue to be adapted and used beyond CREST’s lifetime.

Mindset shift

IRC worked closely with the Ministry of Education throughout the intervention, aiming not just to keep the response relevant but to influence how government itself approaches planning and paying for disasters in the education sector. The clearest evidence that this shift in approach is taking hold is the government’s plan to scale the CREST model to ASAL counties by 2029 using government resources, a direction now reflected in the newly released Disaster Risk Financing Strategy 2026–2030 (National Treasury 2026). This suggests that the proactive logic CREST was built to demonstrate has been absorbed into government planning, thus extending beyond the life of the pilot itself.

6.1.2 Costs

Table 5 sets out the costs associated with product development.

Table 5: Costs associated with the parametric drought insurance policies

Premiums	USD393,000 (Season 1) USD400,000 (Season 2)
Risk modelling and product development fees	Approximately USD240,000
Other time and transaction costs	Setup took 9–12 months, as against the six months that were planned for. Product development demanded more time and effort than IRC anticipated, including workshops with ARC and external stakeholders, additional school-level data collection, and considerable staff time, much of it spent building understanding of an unfamiliar, technically complex concept. A further delay was caused by the late discovery that ARC was not licensed to insure directly in Kenya, requiring the contract to be restructured around a local partner, which led to a months-long legal and due diligence bottleneck.

Do stakeholders see those costs as proportionate to the benefits, or do they think similar results could have been achieved through other arrangements?

Bearing in mind that CREST was primarily concerned with testing the mechanism rather than minimising cost, the design team's overall assessment was nonetheless that parametric insurance was not the most cost-effective solution.

First, potential payouts fell short of original expectations. Going in, IRC had anticipated payouts equal to four to six times the premium; in practice, the maximum payout value was 2.5 to three times the premium. On top of that, IRC initially understood that exceeding the trigger threshold would mean receiving the full sum insured, whereas, in reality, a narrowly crossed trigger threshold might return only a small fraction of that. This came as a shock to IRC, and it emerged fairly late, once premiums had already been committed.

That said, expensive premiums are expected, given the policies' design. To give the concept the best chance of paying out, the team had set a low trigger threshold, calibrated to a relatively frequent once-every-four-years event. Conventional wisdom holds that insurance is best suited to rarer, high-severity events, while other instruments tend to work better for the more frequent, lower-severity

shocks CREST aimed to cover. The design team came to embrace this view, and on reflection largely concluded that alternative approaches would have served the intended purpose better. This underlines the need to carefully weigh the different options before selecting parametric insurance as the appropriate solution (as explored in the learning section below). As several stakeholders reflected:

"Parametric insurance could work in theory... but only when you are dealing with very, very big kind of catastrophic events. For frequent, lower-severity shocks, anticipatory action or contingency funds may be more cost-effective ... much of the value came from having money set aside, not from risk transfer itself."

"Maybe insurance is one tool in the overall toolkit, but you have to think about ... disaster risk reduction ... and probably a whole combination of things. In this case, maybe reducing risk in the first place would have been an easier place to start for what we were trying to achieve."

This insight has fed directly into the new direction IRC is now pursuing. Rather than replicating CREST, they are developing a concept for an education risk financing platform, deliberately built around risk layering and economies of scale. This marks a move away from single-instrument pilots and towards a more systemic model, one in which parametric insurance is held in reserve for the rare, catastrophic end of the risk spectrum.

6.2 Discussion and key learnings

Remote education's front-loaded cost structure is arguably misaligned with the underlying rationale for using insurance

Only 5% of the overall payout value (approximately USD30,000) was allocated to remote education, which largely reflects the fact that the most significant costs had already been incurred before the trigger occurred. These included the costs of developing learning materials with KICD, setting up technology and piloting it, sensitising schools and teachers, and registering households. By contrast, the payout itself covered relatively modest costs, such as bulk messaging fees and the costs of engaging tutors and of airtime. This raises an important question about whether remote education is a good fit for instruments like insurance, which are designed to provide rapid liquidity for activities that require substantial funding after a shock. Alternative ways of financing the implementation of these activities, such as through contingency funds or budget reallocations, may ultimately be more cost-effective.

Weigh options before choosing parametric insurance

IRC's choice of parametric insurance over other instruments and solutions was driven by its fundraising appeal, its ability to generate stakeholder interest and, most importantly, a desire to learn and test something new. Specifically, IRC sought to explore whether a risk like this is insurable, and whether education-linked triggers can withstand commercial scrutiny. On that front, the pilot succeeded; and it has generated valuable learning along the way. So, while in retrospect parametric insurance was not considered the most cost-effective choice, this outcome is a reasonable one for a pilot.

Still, CREST's experience provides an important lesson for others. It is tempting to try out scientific or financial innovations, but the pilot experience underlines the need to always weigh the alternatives (in this case, contingency funds or risk reduction at the school level), which may deliver similar benefits at less cost.

This weighing process would ideally take the form of a formal value-for-money analysis or, at the very least, more deliberate scrutiny, informed by existing guidance and the experience of others.³²

A similar lesson applies to the choice of provider. CREST committed to partnering with ARC before the pilot country had even been selected, and without scoping other options. This decision was later called into question by the discovery that ARC was not licensed to operate in Kenya. Again, this points to the importance of critically weighing up providers from the outset, through deliberate market research – though it is worth acknowledging that in many contexts the pool of providers offering parametric insurance to humanitarians remains small.

Preparation is not marginal, it is a core driver of costs and timelines

Looking back, several members of the design team felt they had simply *“not set up the budget correctly”*. With the bulk of the budget locked into premiums and product design (approximately 70%–80%), many reflected that they had underestimated the time and resources needed to implement a novel intervention and an unfamiliar financing instrument, to address a complex risk. This was compounded by a funding envelope that narrowed from the original concept of around GBP5 million over four years to approximately GBP3 million over 30 months, compressing both budget and timeline while still requiring the team to demonstrate whether the concept was viable. Some felt a larger, more specialised core team than the two people leading the work would have helped, alongside greater upfront investment in preparation, including in the technology platform behind the remote education component. The original six-month setup also proved optimistic: several staff suggested nine to 12 months would have been more realistic to put the necessary soft infrastructure in place and to accommodate the repeated engagement and data collection the insurance and money-out activities required.

32 In this context, a value for money analysis would focus on whether the impact of each dollar spent responding to disasters is maximised. Used early in the design process, it can help decision makers compare different financing options and assess which is likely to deliver the greatest value. For example, it could be used to weigh the costs and benefits of parametric insurance against alternatives such as contingency funds, greater investment in reducing risk at the school level, or more traditional methods of financing disaster response, before committing to a particular approach. The Centre for Disaster Protection has developed practical guidance on conducting such value for money analyses, alongside broader guidance for humanitarians considering whether insurance is the right tool for the problem they are trying to solve (Scott et al. [2025](#); Meenan [2022](#)).



CONCLUSION

With the support of FCDO, CREST set out to test an unfamiliar idea: that finance arranged in advance, and released automatically by a parametric insurance trigger, could protect children's learning when drought disrupts schooling. As one of the first attempts to pre-arrange finance explicitly for education outcomes, it was genuinely experimental. In its central aim – showing that the education sector can participate credibly in pre-arranged financing – the pilot has largely succeeded. An insurance product designed to reduce learning disruption was developed, a payout was calculated and released, a prepared response was mobilised, and the concept has begun to shift how the Kenyan Government approaches disaster risk in the education sector, with a CREST-like model now reflected in Kenya's Disaster Risk Financing Strategy 2026–2030. The learning materials developed with KICD point the same way, with strong government ownership and an intention to take them up for wider use. For a first-of-its-kind pilot, this is a very meaningful and positive result.

The findings of this evaluation are nonetheless mixed. The central difficulty the pilot faced is that the intervention's logic was never fully tested, because the results chain broke at its first link. The Season 2 payout arrived during a real and widely recognised drought, yet there was little evidence that learning was actually disrupted or that school attendance fell. Whether this suggests that disruption was never likely, or, as most stakeholders believed, that it did not materialise

precisely because it was prevented, the practical consequence is the same: with no clear gap to fill, the timeliness and relevance of the response could not be judged cleanly, and the additionality of acting in this particular setting is therefore not clear. Above all, the pilot's experience highlights how hard it is to develop an accurate trigger that captures something as complex as disruption to learning, which is driven by a tangle of forces spanning the natural world and human and institutional behaviour.

Developing the parametric product also proved harder, slower and more expensive than anticipated, a reminder of the technical capacity and upfront investment it takes to develop an approach like this from the ground up, under various constraints. The exercise nevertheless yielded invaluable learning and has helped show that pre-arranging finance for education is a viable concept. Even so, the design team acknowledged that for the frequent, lower-severity drought CREST was trying to cover, insurance was probably not the most cost-effective choice. This outcome is a reasonable one for a pilot seeking to test this concept, but the team's conclusion is something others weighing a similar approach should keep in mind. That reflection is already shaping a shift towards risk-layered approaches for IRC, in which insurance is reserved for the rare, severe end of the risk spectrum while other instruments are used to address more frequent shocks. The fact that the pilot has led IRC to this shift is a positive result in itself.

Main takeaways

The points below draw together the lessons from the experience of the CREST pilot that are most likely to be useful to others, with particular attention to what is distinctive about applying this model to education.

- **Trigger-based finance can be linked to education, but only once 'learning disruption' is turned into something precise and observable.** Unlike agriculture, where drought damages crops directly, drought affects education through many indirect, demand-side pathways. CREST's main contribution was that it converted a broad ambition into a concrete, measurable proxy – a decline in school attendance – that a trigger could plausibly proxy. Others should expect this translation step to be difficult, and to sit at the centre of the design process.
- **Education data is the binding constraint and should be scoped first.** Digital attendance records often do not exist. Here, they had to be created through a manual process – and still proved to have limitations. Because data of this kind is needed to improve trigger design, its availability should be established at the outset, and should be used to identify what type of trigger is viable.
- **When designing triggers, first identify the ideal timing for response, factoring in the school calendar.** On top of the seasonal and drought cycles, education introduces the additional consideration of term dates and holidays, which assistance must respect. Triggers should be set in reference to when support needs to land, not the other way round.
- **Additionality should guide where to intervene.** Because governments and others already act to keep children in school, through school feeding, water trucking and enrolment directives, the marginal gap that education finance fills may be small, depending on the context and the severity of the shock. Site selection for any similar initiatives should weigh where a response is least likely to be crowded out.
- **Not every risk needs insurance, and it is not suitable for funding every activity.** Insurance is best suited to rare, severe shocks. Some activities also sit awkwardly with it: the costs of remote learning content, for instance, are front-loaded in the preparation stage, rather than triggered by a shock, which is a poor fit for an instrument designed to release liquidity after an event.
- **Invest in the soft infrastructure and match communication to purpose.** Where a buyer lacks insurance expertise, a longer setup timeline, budget for independent advice and early involvement of local technical experts can all help keep options open and build trust. Communication with communities should also follow the logic of the intervention: where the aim is prevention, the mechanism should be explained; where the aim is response, communication should avoid raising expectations.
- **Scaling this work will require investment in capability.** This was IRC's first venture into insurance of any kind, so there was no clear, established path to follow. Getting a mechanism like this off the ground demands real organisational investment, much of which goes unseen. If approaches like this are to become more than a niche pursuit, the education sector will need to build that capability more deliberately, through shared guidance, technical support and opportunities for actors to learn by doing.

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ANNEX 1: TRIGGER DESIGN DETAILS AND RATIONALE

Table A1: Rationale for trigger design decisions in Seasons 1 and 2

Trigger design feature	Season 1	Season 2
Data source and indices	NDVI (source: eVIIRS)	NDVI (source: eVIIRS) and SPI (source: CHIPRS) ³³
<i>Rationale</i>	Widely used by ARC in East Africa context as a proxy for drought; data considered reliably available and resistant to manipulation; statistically significant relationship between historical NDVI data and dips in school attendance during known drought years; historical back testing against known drought years; consistent with impact pathway for how pasture degradation drives learning disruption. Rainfall indices were considered but not formally explored, on the basis that they can be more misleading, depending on temperatures, and are less closely linked to the impact pathways by which drought disrupts learning.	Concerns around using only NDVI: invasive, drought-resistant species, such as <i>Prosopis</i> (mathenge), can produce a 'green' signal even when usable pasture has largely disappeared; and dry grass forage, which remains viable for livestock, may not register strongly in satellite imagery. SPI was added because it was seen as a 'quicker' indicator of a failing season (rains need to fail before vegetation suffers), and was thought to create the possibility of triggering payouts early enough for support to reach households before the January school enrolment period (explored further in Section 4 on timeliness). Trade-off as there are several reasons to believe SPI was a weaker indicator of on-the-ground realities (SPI is correlated less strongly with drops in school attendance than NDVI, and is further removed from the behavioural tipping points that lead families to pull children out of school).
Risk period	March 21 – June 20, 2025 Trigger calculation date: June 30, 2025	Phase 1: November 1 – December 20, 2025 Trigger calculation date: December 30, 2025 Phase 2: December 21, 2025 – January 31, 2026 Trigger calculation date: February 10, 2026
<i>Rationale</i>	The original intention was to align coverage with the long rains season (March to May), consistent with ARC's standard drought approach. This timing was also intended to allow assistance to reach children before the August school recess. Delays in finalising the insurance agreements shifted the risk period forward by three weeks. A single end-of-season calculation is consistent with ARC's standard approach to drought insurance; was selected for simplicity.	Based around short rains season (October to December). Split in two to accommodate timing considerations (wanted opportunity to receive payout ahead of January enrolment in new school year).

continued >

33 20% of the total premium amount went to NDVI and 80% went to SPI.

Table A1: Rationale for trigger design decisions in Seasons 1 and 2 (continued)

Trigger design feature	Season 1	Season 2
Spatial resolution of index	Individual sub-county.	All five sub-counties combined.
<i>Rationale</i>	To increase the likelihood of a payout and create an opportunity to test the concept, accepting the associated trade-off of higher premiums.	Needed for RCT design.
Trigger thresholds	Trigger point: once-every-four-years event Exit point: once-every-40-years event	No change.
<i>Rationale</i>	The decision to trigger payouts once vegetation health falls below the expected level for a moderate drought (a once-every-four-years event) was made to balance IRC's priority of maximising payout likelihood (to test the pilot concept) with the absolute lowest threshold ARC was willing to offer. ARC argued that more frequent triggers would lead to prohibitively high premiums. Further, the threshold aligned with IRC's working assumption that lower-severity events will result in disruptions to learning. While some secondary evidence supports this assumption,³⁴ the evidence base is somewhat limited. IRC did not directly examine this question in the needs assessment and ARC did not use historical school attendance data collected by IRC from 27 primary schools for 2019–2024 to calibrate the trigger thresholds.	
Payout structure	Sliding scale (no minimum payout).	Sliding scale (minimum payout = 14% of total sum insured).
<i>Rationale</i>	ARC considered this easier to calculate and explain.	Needed for RCT design (although also has benefits for response planning; original payout structure, once understood, came as surprise to IRC).

34 An endline report by Mercy Corps for an anticipatory cash transfer programme in Kenya found that, during dry spells, expenditure on children's schooling was among the first areas households reduced in order to prioritise food. While this does not directly demonstrate that moderate drought events lead to disruptions in learning, it implies a certain sensitivity to drought stress (Mercy Corps 2024). Additional evidence from other contexts and hazards also suggests that lower-severity events can disrupt education outcomes. For example, a separate review found cross-country evidence that, in the context of heatwaves, impacts on learning can begin to emerge at relatively moderate temperatures (Eleftheriades et al. 2025).

ANNEX 2: RED-AMBER-GREEN RATING APPROACH

Table A2: How the red-amber-green (RAG) rating is applied (used in Tables 2, 3, and 4 in the report)

	 Met	 Partially met	 Not met
Accuracy			
Evidence of shock	The sources broadly converge on strong, corroborated evidence that drought occurred over the risk period	Evidence mixed, or pointing only to mild or localised conditions	No compelling evidence that drought occurred
Evidence of impact	Credible, corroborated evidence that attendance fell or learning was disrupted during the period	Signs suggestive but thin or contested across sources	No compelling evidence of disruption
Timeliness			
At the start of school term	Cash reaches households at or before the start of term	Cash arrives soon after term begins (within two weeks)	Cash arrives significantly later (more than two weeks after term begins)
While schools are in session	Remote education falls wholly within teaching weeks	Part of the remote education slips into scheduled holidays	The majority of the remote education falls within holiday periods
Early in the drought lifecycle	Support arrives within the first two months of drought stress, according to NDMA early warning and other sources	Support lands after the initial two months of the first signs of drought, while communities are still under stress	Support arrives after the drought's main impact has passed

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Cover photo: A woman makes notes
at a desk in classroom in Thika, Kenya.
(Getty / Esther Sweeney)

