



Airbel Impact Lab

Innovation Report



IRC vehicles driving to the town of Kalemie, DRC to deliver community health programming and nutrition monitoring services.

Humanitarian Aid at the Cutting Edge

This year marks a turning point for the humanitarian system. In January, USAID—and donor governments that quickly followed—gutted the global aid system. USAID canceled 83% of all grants, and the cuts are now structural, not temporary. The impact is stark: millions of people will lose access to healthcare and millions of children may be pushed out of school as vital lifelines shut down—from stabilization centers for malnourished children to classrooms for children whose families fled from conflict.

Yet amid these shifts, we have more evidence than ever before on what works—and what it costs to deliver impact at scale. For more than a decade, Airbel Impact Lab, the IRC's research and innovation team, has been leading the charge to generate and apply this evidence: we've led 20% of all impact evaluations and 25% of all cost analyses in the sector. This gives us the evidence to refine and scale solutions that deliver better outcomes for every dollar spent. We are putting proven solutions into practice. This ranges from our Remote Early Learning Program (RELP) in Lebanon, which the Syrian government is now considering for scale, to our

simplified malnutrition protocol, which is gaining government adoption—in Somalia, implemented across 8–10 districts, and in Mali, formally incorporated into the national protocol. And we have the platform to do so: the IRC operates across 40 countries, reaching more than 35 million people.

But dollars must now go even farther. We must continue to push the sector forward through new innovation. The disruption of this year creates a rare opportunity to rebuild smarter—to design a humanitarian system that is stronger, more adaptive, and more resilient. That means identifying where we can break from the status quo, integrating the most effective innovations wherever they exist—from AI-driven tools to low-cost hardware—and unlocking new capabilities, new actors, and new financing models to accelerate impact.

This report highlights five ideas that are guiding what we're innovating and why. They are the signals in the noise—markers of where the future of humanitarian aid is heading, and how we can build a smarter, stronger, and more sustainable system together.



IDEA 1

Cost-effectiveness is having a moment, but it needs a movement.

Foreign aid cuts have left the humanitarian sector under intense pressure—stretching limited resources and forcing painful trade-offs. Too often, that translates into doing less with less. IRC takes a different approach: for more than a decade, we've shown that true cost-effectiveness means delivering better results for every dollar spent—not cheaper programs that sacrifice impact. By rigorously testing interventions, we put cost structures and program results under the microscope and identify efficiencies that preserve—and often enhance—impact.

This year, we saw powerful results. Our randomized controlled trial (RCT) with embedded cost-effectiveness analysis showed IRC's Learning through Play initiative for children in refugee settings in Ethiopia had significant effects compared to the average humanitarian education intervention – 4X social-emotional learning, 2X numeracy, and on-par reading improvements. By comparing these effects and its \$40 per child cost to other education interventions in our recent meta-analysis—first-of-its-kind on education in crisis settings—we believe this approach could allow us to reach up to 6X as many children as some other interventions, with more impactful programming per dollar spent.

The lesson is clear: all programs are not equal in terms of impacts and costs. But donors, governments, and implementers need to use evidence to prioritize programs that will have greater impact for more people. There are some

positive signs. The [UN OCHA 2025 Global Humanitarian Overview](#) notes that humanitarian appeals are increasingly incorporating cost evidence—a signal that the system is beginning to acknowledge what works at what cost. In addition, a few donors are creating upstream incentives for cost-effectiveness. Norway, for example, introduced a ministerial mandate to assess cost-effectiveness across its humanitarian portfolio and engaged the IRC to help translate that policy into practice. We've seen this momentum carrying through to direct implementation as well: Our team built the SCALE Nutrition Tool, which gives health ministries a fast, evidence-based way to use their own data to compare nutrition cost scenarios that will help them treat the most children, and it's currently being used in Kenya. Now is the moment to build a humanitarian system where every dollar delivers more impact, guided by evidence and shared accountability. With our long-standing commitment to cost evidence, and our work with partners in our [Dioptra](#) Consortium and key donors, we know it's possible.





IDEA 2

AI helps us find those that are left behind.

We believe 2026 could be the year that AI radically improves our ability to address the needs of populations that have long been termed “hard to reach.” One of the key barriers to this has been data. 75% of countries with a humanitarian appeal have not conducted a census in over a decade, even as migration, conflict, and climate change reshape populations. This can mean humanitarians don’t have reliable data to deliver effectively to the most vulnerable groups.



Under the REACH project, epidemiology expert Mebratu Gebreselassie travels to communities in Ethiopia for vaccination outreach 5–6 times a month. Of the 40 children he vaccinates on average, he estimates that nearly 20 are zero-dose children and 5–7 are under-immunized.



One clear example is children’s health. In some of the world’s toughest places, the IRC delivers vaccines to communities far beyond the reach of national systems largely due to conflict. In the space of 20 months, **REACH**, an IRC-led consortium to vaccinate children in humanitarian settings, has supported delivery of over 20 million doses, and over 2 million children receiving their first doses in Nigeria, Chad, Sudan, South Sudan, Somalia and Ethiopia—a significant milestone in protecting children who might otherwise be left behind.

Our frontline staff know that to reach every child, we must set precise targets by geography so that funding, vaccines, and operations align. Yet this work is complex: population data is often outdated, access can be blocked by rebel groups in conflict, and teams are forced to rely on cumbersome, manual methods and incomplete data to find those most in need.

To solve this, we’re partnering to develop a tool called “VaxMap”, which combines high-resolution satellite imagery with AI-powered route planning in a single platform, enabling precise population estimates, dynamic operational plans, and more efficient vaccine delivery. By aligning doses to actual need, we believe VaxMap can surface 10–20% more overlooked children and deliver at 15–25% lower cost per child.



IDEA 3

With flexible capital, we can move from reactive to proactive.

Advances in AI are enabling the sector to be more predictive. But while prediction is necessary, we know it is not sufficient. Humanitarians have long struggled to turn data and forecasts into high-impact assistance that reaches people before disaster strikes. That's what the Anticipatory Action team at IRC is changing. We've built an approach called "Follow the Forecast" that brings together hazard prediction, like weather forecasts, with vulnerability data, like household economic data, to more accurately predict where crises will hit, and what the impact on humanitarian need will be.

We match prediction with action, with no requirement for lengthy processes to develop frameworks and plans in advance. When long range forecasts predict a hazard, we conduct on-the-ground, rapid contingency planning to analyze the impact on humanitarian needs and prepare a response that can then be delivered to clients before the disaster. When the triggers are met and the response activated, clients can take action to protect their families, mitigating the potential impact from the hazard. This enables not only us as IRC, but our clients themselves, to move beyond reacting to crises and get ahead of them.

This approach is more agile and proactive than the status quo. Today, most actors set disaster response plans and anticipatory action frameworks long before there is a specific hazard in the forecasts. As a result, weather events often unfold in places that fall outside those plans, and opportunities for impact are missed. In Guatemala, for example, the UN triggered a \$4 million response in Chiquimula based on forecast droughts, yet rainfall there remained normal while western areas like Totonicapán saw 30% deficits in rain. Funds were earmarked to a crisis that never materialized, while real needs went unaddressed. In Afghanistan, \$20 million was released for four northern provinces with pre-existing frameworks, even though four western provinces were hit just as hard but excluded. In contrast, we do not rely on pre-set plans. Our team analyzes monthly long range weather forecasts, looking four months ahead, and moves rapidly once the data gives high-confidence signals of an emerging crisis, ultimately giving communities a chance to protect lives and livelihoods.

We don't want to keep this more agile Follow the Forecast approach to ourselves at IRC. We want to take this to scale across the sector, democratizing access to powerful predictive data analysis, and identify key partners, like pooled fund managers, that can replicate our approach leveraging that analysis. We are building a Follow-the-Forecast data platform that integrates and makes public the weather forecast and vulnerability data we're using, and the recommended anticipatory responses to meet the identified needs. And the partners we're working with - from implementers to funders - are demonstrating real interest in a more coordinated approach that leverages predictive data to act: at the right time, in the right place, with the right kind and amount of aid. In a year where 40% of aid has disappeared, we need to have an answer about where and how to prioritize the 60% that remains.





IDEA 4

Scale will be marked by the shortest distance.

Getting services closer to clients is critical—but complex. Many live miles from the nearest health facility, navigating conflict, harsh weather, and long distances just to reach basic care. Research from our Nutrition team shows how much distance matters: children living farther from treatment centers arrive sicker and are 49% more likely to default on treatment, even when a proven cure is available. While decentralization is often emphasized—such as in WHO guidelines—models that move products and services closer to clients still lag behind the scale of need.

New private sector models hold promise to close the gap. We're partnering with CMS, a Uganda-based distributor that uses smart logistics to eliminate middlemen, shorten supply chains, and deliver commodities at the lowest cost.

We're testing whether they can expand coverage for contraceptives to our clients who live in 'peripheral zones,' many kilometers (hours of walking) from health facilities. We know that women often forgo critical care when it's inaccessible, and we believe that CMS can sustainably extend services to refugee-hosting districts underserved by the public system.

By optimizing routes that link established urban pharmacies with newly licensed rural drug shops that serve our clients, CMS could shorten the distance to care while possibly increasing the delivery volumes that sustain their model. This dual-market approach has the potential to shift refugee family planning from a donor-dependent exception to a sustainable part of Uganda's private health system.



The IRC serves clients in even the most remote places. This photo depicts the village of Daye, Mali, roughly 25 km from the nearest town.



IDEA 5

The next humanitarian breakthrough might come from a company.

While aid funding contracts, private capital is expanding rapidly: impact investing has grown at a **21% compound annual growth rate** over the past decade, reaching \$1.5T in global assets. This capital is powering a growing market of companies developing scalable solutions, from early trailblazers like M-Pesa, which redefined mobile finance, to new entrants like **Ignitia**, bringing high-precision weather forecasting to smallholder farmers.

Against this backdrop, the IRC launched Airbel Ventures—a humanitarian venture fund created to accelerate the entry of breakthrough products into crisis settings, powered by new forms of impact capital. Airbel Ventures makes equity investments in companies developing high potential products and services that can directly benefit crisis-affected populations. Our goal is to help these solutions prove their viability and impact in humanitarian markets and scale sustainably. We focus on finding and funding entrepreneurs from the countries in which we work who combine market insight with social purpose.

Unlike traditional grant mechanisms, the fund provides risk-tolerant, catalytic capital—the kind that can bet on potential rather than only proven results. It operates as an evergreen model, recycling returns into future investments to create multiple cycles of impact per dollar. Most critically, Airbel Ventures supplies the capital companies need to adapt and test their solutions in complex humanitarian settings, generating the early evidence and proof points that open the glidepath to scale.

Our first investment is into a company called **Signalytic**: It provides low-cost solar devices that deliver continuous connectivity 97% of the time in health facilities, at just \$3,000 per clinic—a huge improvement considering 60% of the health facilities in Africa struggle with unreliable power. That reliability is transformative—clinics can manage supplies in real time, keep medical records electronically, and move beyond the fragmentation that has long defined primary healthcare delivery.





A New Humanitarian Future

These ideas will animate our work in the years ahead. These examples represent just a fraction of how IRC is building towards a new humanitarian future. We're field-testing an AI-powered Mpox diagnostic app in the Democratic Republic of Congo and Burundi that puts disease detection directly in the hands of frontline health workers, enabling faster, cheaper outbreak response in low-connectivity settings. We're driving new innovations on how parenting tools can prevent recruitment of children into armed groups. We're exploring promising models emerging in the market—like **Keep It Cool** (recent Earthshot Prize winner) and **Zebra Cropbank**—that have the potential to transform how aid is delivered.

There are more proven solutions and more evidence than ever before, yet the world they must serve is more fragile. From research teams in Ethiopia to program teams in Syria, we see every day that the old ways of working can't meet the pace or scale of today's crises. These five ideas show what it means to innovate, test and scale—anchored not in novelty, but in the urgent needs of communities to survive and recover. This year has brought immense loss and upheaval, yet also extraordinary perseverance from frontline workers and those who support them, who continue to serve against all odds. To partners within and beyond the sector: join us in building what comes next.