FOLLOW THE FORECAST:

AN EVALUATION OF THE RAPID CONTINGENCY PLANNING APPROACH TO ANTICIPATORY ACTION THROUGH A CASE STUDY IN GUATEMALA

Authors
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Methodology

Data used in this paper comes from an internal evaluation, desk research, pre-project stakeholder interviews, and post-distribution monitoring surveys. The evaluation that took place in August to September 2024 sought to learn about how anticipatory cash supported the resilience of households involved in the project and how anticipatory action can be scaled up. Research methods included literature review; key informant interviews (KIIs) with various stakeholders internal and external to the IRC, including implementing staff, government agencies, and sector actors; and focus group discussions with a portion of clients who participated in the program in June 2024. Guiding themes included risk perception before and after cash assistance, use of forecasts and early warning systems, anticipatory action funding sources, and the potential role of remittances in AA.

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Common Acronym List

Acronym	Word
AA	Anticipatory action
AI	Artificial intelligence
ASP	Adaptive social protection
COCODEs	Los Consejos de Desarrollo Comunitario (Community Development Councils)
CONRED	Coordinadora Nacional para la Reducción de Desastres
CVA	Cash and voucher assistance
DRR	Disaster risk reduction
ENSO	El Niño–Southern Oscillation
EPP	Emergency preparedness planning
EW4All	Early Warnings for All
FCAS	Fragile and conflict-affected states
FGD	Focus group discussion
FSP	Financial service provider
GloFAS	Global Flood Awareness System
GTQ	Guatemalan Quetzal
I/NGOs	International / non-governmental organizations
INSIVUMEH	Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología (National Institute for Seismology, Vulcanology, Meteorology and Hydrology
IRI	Columbia University International Research Institute for Climate and Society
KII	Key informant interview
MEB	Minimum expenditure basket
PDM	Post-distribution monitoring
UNDRR	United Nations Office for Disaster Risk Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
WFP	World Food Programme

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Anticipatory Action's Growing Role in Meeting Humanitarian Needs

The scale and severity of humanitarian need is increasing year on year, driven by a combination of the climate crisis & conflict. However, global systems designed to address the intersecting crises of conflict, climate change, and extreme poverty are failing the very communities they are meant to protect and have systemic weaknesses preventing early response and long-term investments in resilience and adaptation. In conflict-affected regions — where these crises converge most severely — the current approach to climate resilience in fragile and conflict-affected states (FCAS) is fragmented and unable to meet the scale of the challenge. As IRC has advocated in COP29, these issues demonstrate the necessity of a shift from the "business-as-usual" approach to one that prioritizes local knowledge, conflict-sensitive delivery methods, and community engagement.[i] Anticipatory action (AA) is one such method that functions within a wider disaster risk reduction framework and is designed to trigger an early humanitarian response based on forecasts, rather than only have response after a shock, the latter of which is no longer a viable strategy for the future.[ii] AA has been piloted in diverse contexts around the world as a holistic approach combining resources and information, including by agencies like the IRC, showing promise to scale this response, better serve communities, and revolutionize the humanitarian and development sphere, which is often strapped by limited financing options. A pilot of "follow the forecast" as an anticipatory action approach the IRC conducted in Guatemala provides key insights into what AA design looks like and can grow into, how it can be funded, and how to deliver AA as one piece of the climate resiliency puzzle.

Anticipatory Action Approaches: "Build & Fuel" vs "Follow the Forecast"

The anticipatory action (AA) sector is growing, with up to $53.8 million in humanitarian funding going to anticipatory action in 2022.[iii] While funding has slowly increased, in 2023 AA funding still only represents 1% of the funding needs for humanitarian assistance[iv] and there are calls to begin scaling up coordinated anticipatory action programming. Currently, most AA programming is allocated to drought responses and to programs across Africa. The standard approach to Anticipatory Action is known as "build" & "fuel" where the "build" phase focuses on building comprehensive Anticipatory Action protocols / frameworks (i.e. predetermined response plans with activation triggers), while the "fuel" phase provides the response funding in the event of a trigger being active.[v]

IRC's Anticipatory Action uses a "Follow the Forecast" approach which uses rapid contingency planning where long-range seasonal forecasts indicate there is a high probability of floods or droughts. This approach is different from the standard "Build & Fuel" approach used by many agencies in the sector and addresses key limitations of the "Build & Fuel" approach:

- The separation of "Build" & "Fuel", especially for non-governmental organizations (NGOs), represents a critical barrier to scale-up of the approach since it requires investment of scare time & money when there is no guarantee that "Fuel" funding will be available when it is required.
- The focus on "Build" funding, especially for NGOs, results in protocols / frameworks being developed and potentially not being triggered which represents a critical opportunity cost.
- Without prioritizing "Build" investments in countries where forecasts indicate there is a high probability of a climate hazard in the short-term, the "build" approaches requires a large team & budget in order to develop protocols / frameworks in multiple locations to increase the probability they are triggered which is not feasible for many NGOs. "Follow the Forecast" enable a more efficient allocation of scare human & financial resources.

Rapid contingency planning and AA frameworks also differ from tradition "emergency preparedness planning" commonplace among humanitarian aid agencies. Prior to the flood response, IRC Guatemala had an emergency preparedness plan (EPP) in place, which was updated on an annual basis with scenarios for a range of potential hazards that could result in humanitarian needs that might require a scaled IRC response. Based on these scenarios, the EPP calculates risk levels, assumptions, and constraints common across hazards. This analysis is necessarily broad in scope, to support better prioritization of time and resources on preparedness activities that are most likely to support response capacity and decrease gaps across the widest number of hazards and their different scenarios.

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By comparison, the contingency planning conducted in advance of AA programming emphasizes specificity – detailing scenarios for a specific hazard when it is imminent – to elaborate a comprehensive response plan. However, given variable and often short lead times for AA responses, contingency planning, and subsequent AA response planning are most effective in contexts that already have elaborated preparedness frameworks. Contingency and preparedness planning are, therefore, distinct but complementary processes implemented at different stages of a crisis, with EPPs emphasizing organizational actions and activities that can be implemented over the medium term to strengthen response capacity to the widest range of anticipated hazards, while contingency planning emphasizes immediate-term actions and activities needed for an imminent hazard.

Exploring AA Pathways in Guatemala: Understanding the Context

Malacatán is a flood-prone region in southwestern Guatemala's San Marcos department. Malacatán lies in Zone 12 of Guatemala's Livelihoods Map, characterized as the zone for "Southern Agricultural Industry Labor and Food Crops and Milk", but is quite close to Zone 11 (coffee production). In Zone 12, local livelihoods depend on labor opportunities in sugarcane, palm oil, banana, rubber, and other cash crops. Household food production mostly depends on seasonal rainfall and there are seasonal price variations in food and non-food items, especially as many items are imported from Mexico and other areas of Guatemala. The main livelihoods threats are drought (which thus impacts labor demand and rural to urban migration patterns), flooding, crop pests and diseases, and supply and demand fluctuations in markets.

Access to credit and remittances is not easily accessible in Livelihoods Zone 12.[vi] Many communities in this area have experienced long periods of **economic instability, food insecurity, and hunger** and the area endures various **climate shocks** including floods, droughts, earthquakes, and wildfires. The impacts **of El Niño and La Niña** caused erratic weather patterns disrupting agriculture, a source of income for most community members in the area, to intense storms causing devastating floods. Clients who were part of this anticipatory action project live in 5 communities near Malacatán around the Cabuz and Petacalapa rivers, as well as other bodies of water, which cause the most damage during flooding. Rains often cause landslides and power outages that can take weeks, even months, to fully restore in the area.

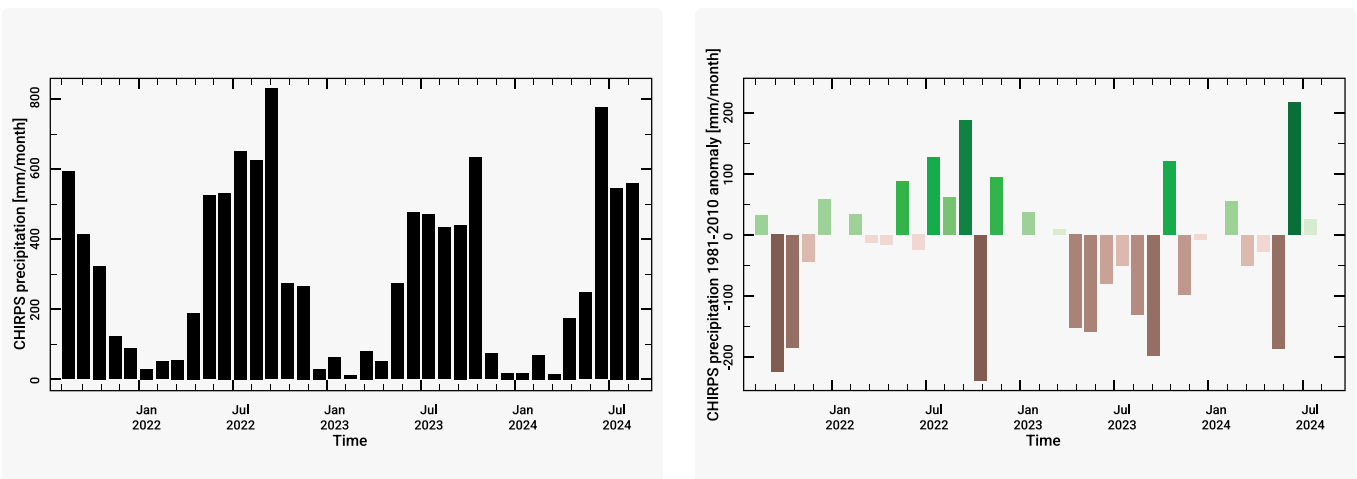


*Figure 1 Left: Monthly rainfall for the selected region over the last 3 years. Right: Monthly rainfall anomalies (from 1981-2010 mean) for the selected region over the last 3 years. Observations near **San Marcos, Guatemala** via Columbia University IRI. Data accessed October 9, 2024.*

Coordinadora Nacional para la Reducción de Desastres, or CONRED, is the government agency tasked with disaster prevention and response. Their national response plan establishes processes for information sharing, damage assessments, emergency declarations, and procedures for how different departments in and outside of CONRED such as Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología (National Institute for Seismology, Vulcanology, Meteorology and Hydrology - INSIVUMEH) respond and coordinate at different operational functions of emergency response.[vii] Greater investments have also been made into disaster risk reduction, but in general budgetary resources are lacking and early warning systems are not harmonized with monitoring alerts cohesively and evenly from national to local levels.[viii] Additionally, existing social protection schemes are not meeting their full reach potential and are not always continuous.[ix]

Emergency response firefighters are often on the scene during floods, but this area of Malacatán is typically underserved by humanitarian organizations, with IRC reportedly being the first non-governmental group to provide support in specific

communities within Malacatán. Furthermore, while some awareness-training and resource allocation with emergency response supplies are ongoing in Malacatán, authorities generally face massive resource constraints both in terms of physical resources and the lack of available data and early warning systems; there is a lack of rescue equipment, personnel capacity, and financial resources to respond with greater impact and scale. Flooding and landslides often cause road blockages to the city of Malacatán, the largest supplier of the local markets within the 5 communities, causing price increases for fuel and subsequently the price and supply of food and other items for basic needs.

Humanitarian aid agencies in Guatemala are already engaging in anticipatory action under the leadership of the UN Office for Disaster Risk Reduction (UNDRR), demonstrating the building momentum and improvements to anticipatory action programming. UNDRR has started the Early Warnings for All (EW4All) Initiative at a global level, started in 2022 with the aim to ensure that all people globally are protected by a multi-hazard early warning system by the year 2027.[x] In March 2024, Guatemala's national government launched their participation in the initiative to "consolidate multi-agency [INSIVUMEH, CONRED, and the Ministry of Environment and Natural Resources (MARN)] efforts to address existing gaps in risk knowledge, hazard monitoring and forecasting, warning dissemination and communication, and rapid response."[xi] In Guatemala, the most frequent planning for AA thus far has been through the framework approach, particularly for drought. United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) has a drought framework for Central America's Dry Corridor[xii] and IFRC has an early action protocol in place for drought for 5 years.[xiii] Framework creations and anticipatory action responses for flooding in Guatemala are not as common yet, and IRC's anticipatory action project is one of the first utilizing the "follow-the-forecast" approach in lieu of the standard framework approach.

Follow the Forecasts: Guatemala Floods 2024

The "follow the forecast" process in Guatemala can be split up into 4 key stages: long-range forecasting, rapid contingency planning, activation of cash distributions and early warning messages, and follow-up monitoring and evaluation. This process is summarized in the figure below.

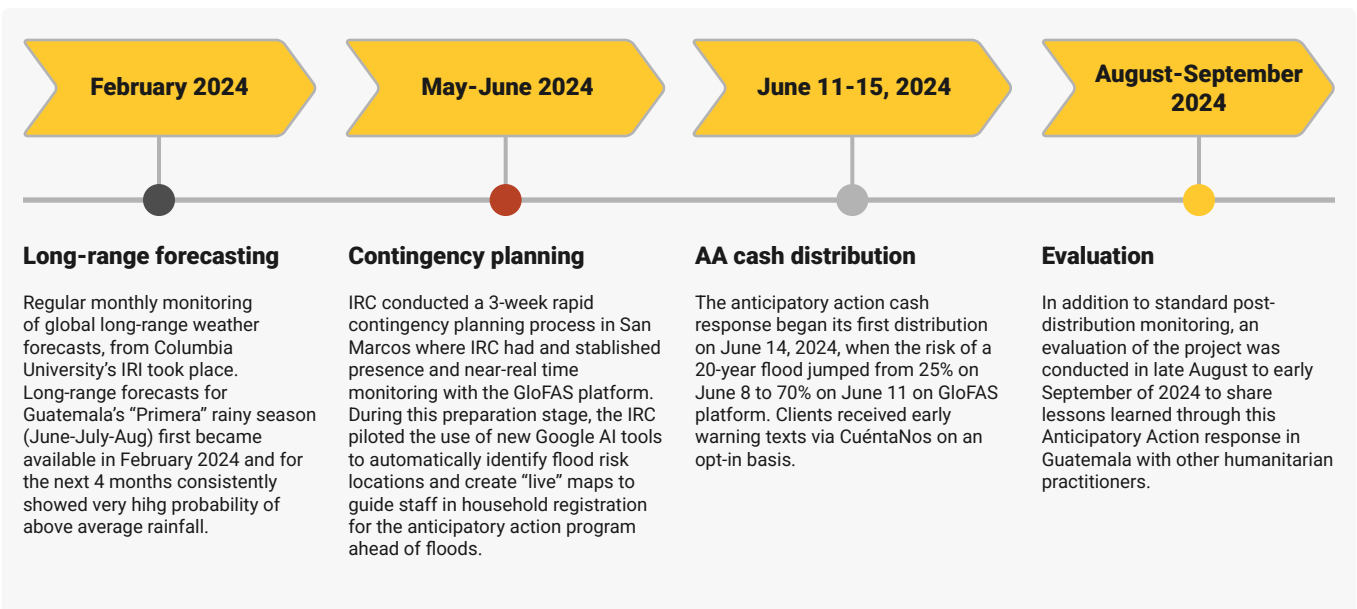


Figure 2: Timeline summary of the "follow the forecast" process used by the IRC in Guatemala.

Long-range Forecasting at the Global Level

IRC's Anticipatory Action process starts with the regular monthly monitoring of global long-range weather forecasts, from Columbia University International Research Institute for Climate and Society (IRI).[xiv] These forecasts are tracked globally and distributed internally to teams based in locations where forecasts show high probability of above or below average rainfall (and associated risks of floods or droughts). Long-range forecasts for Guatemala's "Primera" rainy season (June – July - Aug) first became available in February 2024 and for the next 4 months consistently showed very high

probability of above average rainfall (see Figure 3). Based on these long-range forecasts, IRC prioritized Guatemala as a location where rapid contingency planning would have been needed in the coming months for a potential AA response.

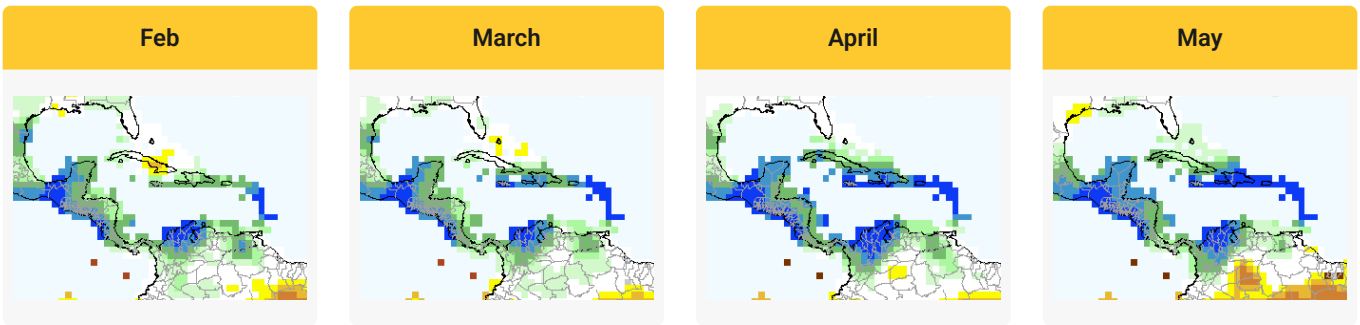


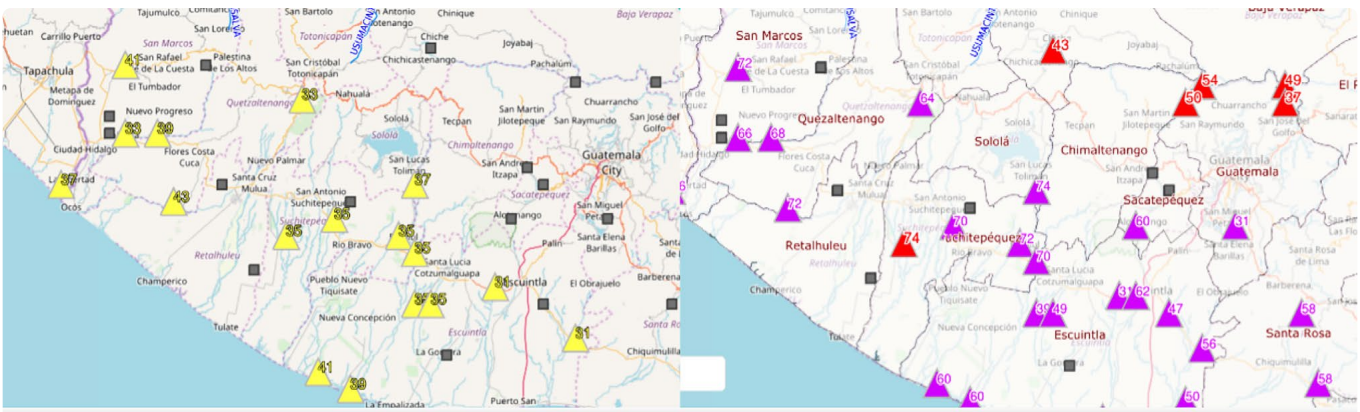
Figure 3: Long-range forecasting from Columbia IRI that IRC used to begin rapid contingency planning. Source link: https://iri.columbia.edu/our-expertise/climate/forecasts/seasonal-climate-forecasts/

Rapid Contingency Planning in Guatemala

IRC's rapid contingency planning typically takes 3 weeks: with one week focused on coordination with the government and other operational agencies, one week for data collection and one week focused on a 3-day contingency planning workshop. Coordination work highlighted that many agencies were focused on preparations for the later cyclone season, but fewer were tracking long range forecasts and preparing for potential flooding in June. The IRC conducted pre-emptive market and context assessments to better inform rapid response planning, to coordinate with government and other non-government agencies, to identify key challenges, and to ensure high impact work that is relevant to the location's social, economic, and environmental context. The IRC coordinated with the local government and Los Consejos de Desarrollo Comunitario (Community Development Councils - COCODEs) community leaders to identify at-risk households and to support travel logistics to the cash distribution site.

Flood Forecasting & Flood Risk Mapping During Rapid Contingency Planning

The short lead-times associated with flood Anticipatory Action require near real-time monitoring of rainfall and river levels. As the flood risk season (July) in Guatemala approached, IRC began to monitor short-term rainfall forecasts in late May. Global flood forecasting tools, such as the Global Flood Awareness System (GloFAS), provide the foundation for flood contingency planning. GloFAS is an open-source flood forecasting platform, with global coverage, that provides flood risk data for 30 days and detailed forecasts for 10 days. When the short-term rainfall forecasts started to indicate increased risk of above average rains, IRC scaled up from weekly to daily monitoring of GloFAS.



Sunday 9th June *40% probability of 1 in 2-year flood.*

Friday 14th June *72% probability of 1 in 20-year flood.*

Figure 4: GloFAS started to show flood risk from June 8, rapidly growing by the 11th when IRC triggered an AA response. The risk continued to increase, with the severity of the forecasted flood increasing from a 1-in-2 year flood on the 8th to a 1-in-20 year flood on the 14th of June, which represents the highest magnitude event in GloFAS (indicated by purple triangles in the map).

The detailed 10-day GloFAS forecasts are most effective where there are static reporting points. There were 7 GloFAS reporting points in San Marcos department in mid-2024, but only 3 provided detailed 10-day forecasts: Malacatán, Coatepeque, and Pajapita. IRC prioritized these locations and conducted a mapping of historical flood events using satellite imagery to identify flood risk locations. New Google artificial intelligence (AI) tools were used to automatically identify and extract buildings in these flood risk locations; 'live' maps were created to guide field staff when registering households which greatly increased the speed at which registration could be conducted.

In line with these forecasts, intense rainfall and widespread flooding and landslides affected many areas of southern Guatemala starting from June 18th, 2024.

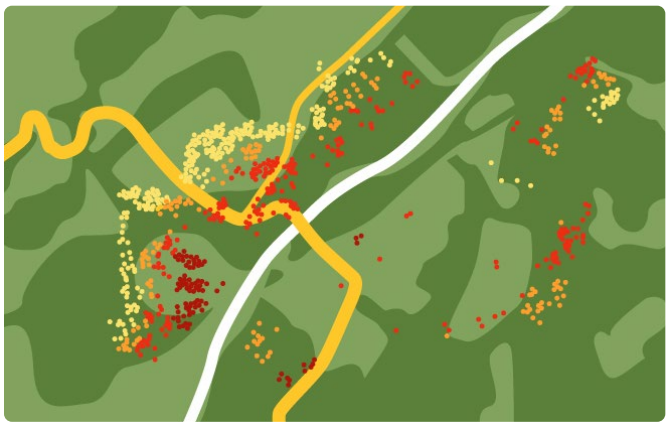


Figure 5: Mock-up of what information the Google AI satellite image provided the IRC, particularly households at risk of flood. Photo changed and developed by IRC to protect client identification while conveying the information provided by the AI tool.

Anticipatory Cash Response

IRC distributed unconditional, multi-purpose anticipatory cash transfers ahead of the flooding, giving families sufficient time to secure their homes with additional construction materials, protect livestock and purchase emergency supplies, including stocking up on groceries. The transfers were 1,000 quetzales (GTQ) which was delivered to approximately 290 households in Malacatán, San Marcos. The transfer value was aligned with government safety net transfer values, rather than the minimum expenditure basket (MEB) transfer value typically used by cash actors like IRC, to support potential adoption and replication by government agencies. Cash transfers were provided through the local branches of Banrural, which IRC had pre-existing work with.

BOX 1:

Operational learnings from Contingency Planning and AA Cash Design

Internal operational support must be closely linked with programmatic design for AA, particularly with a cash-based approach. Due to restrictions on the number of households that could collect their cash each day, combined with the short lead time for the flood forecast, multiple branches of the same financial service provider (FSP) serviced households. It would therefore have been difficult for IRC to target additional households in Malacatán – unless additional FSPs were used. Investments in future AA designs should be made to assess the feasibility of using multiple FSPs in an AA project for scaling.

Early Warning Messaging Response

BOX 2:

CuéntaNos

CuentaNos.org is an interactive platform and network of foundations, civil society organizations (CSOs), international organizations, and government institutions that provide services to people across Guatemala, Honduras, and El Salvador. This information platform is linked to IRC's wider Signpost initiative that has similar platforms across the world.

Signpost is an interagency project led by IRC that creates digital help centers such as CuéntaNos to allow clients to receive critical information, access essential services, have two-way communication, and make informed decisions on the issues that matter most to them. During this Anticipatory Action pilot, CuéntaNos expanded beyond its usual information sharing routes via website and social media channels to, for the first time, initialize a texting campaign and send clients direct SMS early warning messages as rains drew nearer and flood risks increased. Households that were registered for cash transfers also received early warning messages via SMS, these messages included:

- Information about the cash transfers themselves (cash transfer value, transfer modality).
- "Nudges" about how cash might be spent.
- Rainfall and Flood forecasts.
- Public Health information with guidance from IRC's global Communicable Diseases Advisor.
- How to contact CuéntaNos for further support

Key Findings for Design & Implementation of IRC's AA program in Guatemala

The IRC response in southern Guatemala was the first in the organization to utilize the "follow the forecast" approach, and there was proof of concept in the feasibility, effectiveness, and scalability. There are some key learnings from this particular program on how the design was both responsive with room for growth.

In focus group discussions, clients expressed that cash was preferred over in-kind as the modality for anticipatory action support. From post-distribution monitoring (PDM) and focus group discussions (FGDs), we learned that cash assistance was used on a range of items that households could decide on their own was most important for their specific situation, which was cited as a major reason for the preference and in line with existing evidence surrounding cash and voucher assistance (CVA) and the IRC's "Cash First" approach.[xv] Uses of the cash included food and other groceries (including to stock up in advance of flooding), roofing materials and other repairs to protect households and assets from flood damage, medical and childcare costs, savings, and more. 90% of clients who were interviewed in PDMs after the transfers reported that the cash assistance allowed them to prepare for the rainy season.

Most clients in FGDs expressed a preference for receiving cash assistance before, rather than after, rains, or paired anticipatory cash with emergency cash assistance after a flood. Anticipatory cash was seen as valuable to prepare the household, avoid potential post-storm price increases, and have items in case rain made movement less accessible. A smaller proportion of clients in these groups expressed preferences to receive cash after flooding, either paired with anticipatory cash or (less frequently noted) as a standalone response, to repair damages and to have resources available in case people become ill after rains. Interestingly, this establishes a new finding in the existing anticipatory action evidence base, wherein IRC noted in an evidence review that there was "limited evidence on acceptability of ex-ante climate risk payments."[xvi]

CuéntaNos early warning messaging was seen as a key tool for risk assessment and action planning in project locations where information can often be a scarce resource. Over half of surveyed clients after the cash distribution reported that the CuéntaNos messages were used to make decisions, in line with existing evidence of similar platforms[xvii]; focus group discussions found that the text messages supported in awareness raising on impending flooding risks. Interviews before and after the project with various stakeholders indicated many potential barriers for communities to receive timely weather information, which would then allow people to better assess risk and plan, include:

- Internet access and cell phone service
- Lack of physical presence of groups who monitor and share real-time weather information to observe and validate current local conditions and forecasts
- Perceptions of corruption and discrimination leading to community exclusion from information and other support
- Timing of notices (often too late to act, sometimes even receiving weather reports a day before or the same day)
- Lack of capacity of government and community leaders to receive and cascade information (time/staffing/distance). There are ongoing efforts for better early warning coordination at the municipal level in progress.
- Lack of physical resources to act with more lead time such as building materials.

While successful, the CuéntaNos early warning messaging initiative has room for growth and innovation to improve capacity and reach, thus demonstrating how the sector can make better use of global data, AI, and early warning in similar designs. Internal consultations and discussions with clients and other external stakeholders exhibit how the CuéntaNos early warning text messages can adapt for future AA projects for a more streamlined, cost-effective, and high-quality process. As a direct learning from this project, the IRC is moving forward with incorporating Signpost platforms into all AA responses, wherein information sharing will be tailored to the context and hazard. Recommendations on the CuéntaNos texting campaign may apply to other systemic gaps in the use of forecasting data and early warning systems and can also be implemented by other actors looking to set up digital early warning systems within AA (See Table 1).

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Table 1:

Recommendations for digital push-notification early warning systems

Issues identified in IRC's Guatemala AA Pilot	Potential adaptations of EWS for future AA programming
Low literacy levels amongst some community members can limit who can read early warning texts.	Attempt different mediums of messaging with the platform. For example, create images, short videos, and/or short voice messages. Clients suggested direct phone calls as well.
Messages were too long / too many were sent at once, which can impact readability.	Shorten messages to key points only and attempt multiple mediums as described above. Try a different digital mode rather than individual text messages, such as a WhatsApp Channel or social media, or even physical (such as brochures) or in-person messaging, in line with other IRC evidence-based recommendations on cost-effective measures to scale up the work of Signpost.[xviii]
Some people did not receive text messages, or only partially received the set of text messages.	Shorten message content and frequency as recommended above, as sometimes cell phone providers have character limits on SMS and/or people may have monthly text limits. In addition, ensure that the tech platform used by the sender can withstand the volume of text messages being sent and has experience with low-bandwidth contexts. Sometimes, the issue at hand is the service coverage of the geographic area.
SMS had only included IRC data and not additional local and national resources.	When setting up information sharing platforms, use the opportunity strategically to emphasize a systems strengthening approach. Incorporate not only global level data, but also available resources and forecasts from national actors to support uptake of these tools. CuéntaNos's website and social media platforms typically include information resources from across various stakeholders, and this same methodology should apply to SMS early warnings. Examples for the context of Guatemala include **INSIVUMEH's forecast releases**, **CONRED's national level bulletins**, and **CONRED flood and landslide risk maps**. The CuéntaNos link should continue to be shared in texts. Other humanitarian organizations have data agreements with INSIVUMEH, and INGO networks should promote information sharing of meteorological forecasts to share.
Staff and technology capacity of the SMS platform was limited during implementation.	Scope out other potential platforms to contract with for future projects. Inform all key team members during long-range forecasting to plan coverage. Explore how artificial intelligence can be used to support teams with limited staff to achieve early warning alert project components.

Recommendations for Anticipatory Action Programming in Guatemala and beyond

Explore and Increase New and Ongoing Anticipatory Action Response Models

Anticipatory action remains a relevant and vital program model to adopt in humanitarian programming in Guatemala as global studies indicate trends of increased climate variability and hazard severity in the country. Climate models indicate increased variability and severity of rainfall weather events but also predict general trends of decreased precipitation in Guatemala for the rest of the 21st century due to climate change.[xix] Thus **donors, governments, and humanitarian practitioners should continue exploring anticipatory action in Guatemala for both drought and flooding, amongst other hazards.** Practitioners should also consider the risk of increased El Niño–Southern Oscillation (ENSO) cycle frequencies in AA frameworks and "follow the forecast" methods due to climate change;[xx] currently, Guatemala and may other countries around the world have been experiencing the widely variable effects of El Niño (2023-2024)[xxi] and La Niña (2024-2025).[xxii]

Furthermore, this project provided proof of concept of the "follow the forecast approach" in a non-tropical storm flooding situation, making this a relevant programmatic approach in Guatemala that can potentially be replicated in other high flood-risk zones. **Table 2** below lists additional hazards in Guatemala wherein AA response mechanisms can be explored, or is already being explored, as an option in the country, based on key themes from evaluation meetings. Exploring how "follow the forecast" can potentially be applied to these scenarios, or what other to-be-made innovations may be possible, can be of interest to humanitarian organizations working within Guatemala. These may also be applied in other regional or global contexts where appropriate.

Table 2:

Additional potential hazards where AA may be appropriate

Response Type	Rationale	Global Examples
AA for tropical cyclones including tropical storms, typhoons, cyclones, and hurricanes	Tropical storms and hurricanes were identified as a main climatological threat across many discussions during the evaluation. Like riverine floods, flooding associated with these storms impact people's safety and livelihoods. In Guatemala, intensity of these types of storms is expected to increase in the future[xxiii]. Heavy rainfall can cause detrimental landslides[xxiv], elevating risk for communities in flood zones. Nationally, Guatemala has medium and high-risk susceptibility to landslides.[xxv]	In 2023, anticipatory action frameworks for tropical storms and hurricanes were activated in a few locations globally, including, for example, in Bangladesh, Costa Rica, Honduras, and the Philippines, with frameworks for tropical storms being developed in Bangladesh, Fiji, Guatemala, Madagascar, Mozambique, Myanmar, Pakistan, the Philippines, Vanuatu, Venezuela, and Yemen.[xxvi]
AA for wildfire prevention and response	In focus group discussions with clients and interviews with government and humanitarian aid agencies in Guatemala, fires emerged as one of the top climate hazards for which anticipatory action would be appropriate. With weather pattern changes because of climate change (i.e. prolonged droughts and higher temperatures), the **risk of wildfire in Guatemala is increasing**. AA activities to support physical safety, livelihoods protection, accessing fire control resources, and disaster risk reduction can reduce the potential severity of fires.	START Network and a consortium of local and international actors **implemented an anticipatory action program to address wildfires** in El Salvador in early 2023. The focus was on disaster risk reduction activities such as fire control trainings, provision of fire control resources, and the establishment of a team of fire control trainers.
AA for shelter/in-kind for people on the move	People on the move who are fleeing for safety considerations, and increasingly due to climate change, face high-risk challenges in an increasingly mobile context in Central America. With climate hazards set as thresholds, in times of flood and other activations, the provision of AA for shelter, and other in-kind needs, for people on the move can be lifesaving and protect from the elements.	The **Red Cross** is implementing AA programming to support migrants in transit or returning in Costa Rica, Guatemala, Honduras, Mexico, El Salvador, and Panamá.[xxvii]

Response Type	Rationale	Global Examples
Multi-sector approach to AA	Organizations interested in AA should encourage a multi-sector approach, such as cash for health, education in emergencies, and protection support. Climate hazards can increase disease outbreaks, reduce access to education, and cause or escalate safety risks. Cash as a multi-sector AA mechanism can complement other outcomes through the reduction of financial barriers for goods and services.	START Network **has activated funding alerts** for dengue risks in parts of Central America, and the IFRC Climate Centre has **compiled recommendations for AA** in relation to disease outbreaks across Latin America. The IRC is piloting the Climate Resilient Education Systems Trial (CREST) project with FCDO and ARC in Kenya to apply AA for education, addressing school closures due to climate hazards with cash and voucher assistance and remote child protection and education services.
AA Cash to Vendors	In focus group discussions with clients, it became quite apparent that price increases for food items such as corn grew due to flooding damage. Vendors themselves experienced flood and water damage that damaged agricultural goods they would typically sell. With a lower supply, prices routinely increase during the rainy seasons in Guatemala. Scoping studies on how AA could help vendors prepare for floods and protect their assets, and how this would then impact market prices, can be explored.	The IRC has conducted exploratory and pilot studies in **Chad, Colombia**, and **Somalia**. These were conducted after shocks, rather than before, and sought to understand how CVA and access to loans impact vendors and markets. The IRC's climate-smart agriculture portfolio also includes **post-harvest storage trainings** and warrantage initiatives with inputs to reduce loss.
AA via Remittances	While remittances did not emerge as a prevalent theme in this evaluation, there is a growing exploration around the role of remittances in humanitarian aid, considered one potential sustainable approach to leverage for aid and development.	**Mercy Corps** has been conducting exploratory studies in Central America, including Guatemala, on remittances for AA during the last few hurricane seasons.

Pursue Regional and Global Approaches to Anticipatory Action

When relevant, organizations with regional reach who are interested in starting or scaling anticipatory action may have avenues to implement anticipatory action in cross-border programming. Box 3 examines global precedents.[xxviii] A **regional anticipatory action approach to flooding across Mexico and Central America** should be explored for organizations working across various countries and for governmental and non-governmental organizations with collaborators across the region. Stakeholder interviews highlighted that, in the context of flooding, there are under-utilized opportunities and needs for improved cross-border programming. Most of the countries across northern Central America (Guatemala, El Salvador, and Honduras) face similar climate hazards for flooding and drought, yet much of the AA programming is implemented by individual agencies focusing on one country. For example, IRC operates in Chiapas, Mexico, and in nearby San Marcos, Guatemala; both locations face similar climatological threats simultaneously and have existing referral systems between projects in the two locations. To better respond to regional needs, anticipatory action programming would be more efficient and effective if scaled to and coordinated at a regional level.

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BOX 3:

Regional AA Precedence

Anticipatory action programs are already being coordinated regionally in locations around the world, establishing a precedence for IRC and other organizations to explore this methodology for flooding. In Central America's Dry Corridor, UN OCHA and IFRC have established anticipatory action frameworks for drought. Meanwhile, in the Horn of Africa, the Intergovernmental Authority on Development (IGAD) has developed a "roadmap" to coordinate anticipatory action responses between countries in national and regional policy, early warning systems, partnerships, resource mobilization, and scaling.

Prioritize Variety in Forecast Sourcing and Data Sharing, with Discretion

Humanitarian agencies, like IRC, who use global monitoring systems for AA should engage with local and national agencies earlier in design processes to improve knowledge and use of existing information sources, and more promptly identify and reduce gaps in global monitoring. The IRC focused solely on global-level monitoring, a different approach to the organization's first pilot in Northeast Nigeria, which partnered with various government hydrometeorological agencies to establish monitoring platforms using indigenous knowledge, hydrological data, meteorological data, and satellite information.[xxix] In Guatemala's case, the GloFAS system used by the IRC had 7 reporting points in San Marcos, but only 3 were active with 10-day forecasts. Sole reliance on these river reporting points limited IRC's visibility into other flood-prone areas and whether anticipatory action would be appropriate and feasible in additional locations. While GloFAS is a tool often used by other humanitarian agencies and in general has a high global rate of accuracy,[xxx] in interviews it appeared that GloFAS is not significantly seen as being as effective on more granular levels, particularly in Guatemala. There is value in using global-level tools like GloFAS to support general location scoping, timing, and risk assessment, but this global-level data must be co-validated with national and local resources, like INSIVUMEH's dashboards[xxxi] and CONRED's bulletins[xxxii] in Guatemala. Use of diverse forecasting sources from INSIVUMEH and CONRED at earlier stages of the design, as a reference or via data sharing agreement, or even in joint preparatory activites, could have potentially added cause to expand the AA response to other locations depending on differential forecasts or begin contingency planning earlier. The use of national and local sources is also in line with existing practices of other organizations implementing AA.

Additionally, as artificial intelligence is growing in use for flood forecasting especially in hard-to-reach areas without reporting points, combinations of global and national datasets increase the salience of input data to more effectively train and innovate predictive technologies. This type of collaboration not only supports more comprehensive imminent responses, but also opens pathways to improve timeliness, accuracy, and lead times of future responses. However, humanitarian agencies should use discretion to not over-rely on artificial intelligence, particularly due to its impact on climate change, waste production, and water usage.[xxxiii] The recommended timing for agencies like IRC to engage with external stakeholders to begin more detailed monitoring is when global long-range forecasts first become available, to enable data analysis sharing and rapid technical interpretations across multiple level data sources.

One example of pairing global tools with national weather forecasting occurred in a UNOCHA, IFRC, and Bangladesh Red Crescent Society AA pilot in Bangladesh, wherein the pre-activation trigger was based on the GloFAS forecast, and then the second activation trigger was based on national government weather forecasts.[xxxiv] In Guatemala, phased activations combining GloFAS monitoring with INSIVUMEH data could be explored with local government and NGO service providers and to share more tailored early warning messages. This approach of pairing GloFAS with national tools has also been explored by the Red Cross of Guatemala, which incorporates INSIVUMEH forecasts alongside GloFAS to trigger the early action protocol for floods associated with tropical cyclones.[xxxv] A similar approach could be taken for community AA activities.

Build Networks to Ensure a Systems Strengthening Approach

BOX 4:

START Network in Guatemala

START Network's Guatemala Hub focuses on localization and capacity sharing, with Asociación de Servicios Comunitarios de Salud (ASECSA) as the Secretariat for 12 community-based organizations. Consortium models are common for START Network funding and organizations not in START Network but with AA experience are encouraged to co-apply with Hub members. START Network is one of the most prevalent AA funders in the country and works with rapid cycles, raising alerts based on models developed specifically for the country. Applicants have 24 hours to submit concept notes to the START committee after they raise an alert. Once approved, there is a 36-hour setup period and then organizations have 45 days to implement the project with an additional 15 days of evaluation work. Anticipatory action programs can be a few days or up to a month before a projected hazard, and there is no penalization if the projected hazard does not occur as anticipated; donor flexibility allows for adaptations in the implementation period.

For international humanitarian organizations interested in anticipatory action programming, the IRC recommends the formation of partnerships at local and national levels, with more pre-emptive donor engagement. Existing evidence demonstrates the advantages of partnerships for advocacy, scale, integration of programs within national and local frameworks, and accessibility.[xxxvi] These partnerships can take the form of consultative networks, monitoring agreements, and/or service delivery partnerships. Key to this is for INGOs to assess their value-add in AA to be client-centered and not circumvent existing systems, for example analyzing if it is feasible or contextually appropriate to determine the cash transfer values aligned with nationally established Minimum Expenditure Basket value (as opposed to values defined by Household Economy Analyses), determining potential linkages with social protection systems, or designing AA activations in consideration of system and community capacities and specialties. In Guatemala, the national Red Cross has formed a Technical Working Group in late 2024 of various international, national, and local agencies and community groups to share resources on anticipatory action, coordinate to ensure greater client reach, establish standard anticipatory action qualities, and to leverage the strengths of all system players to create a more impactful and sustainable AA approach.

This approach can allow for a **fit-for-purpose disaster risk management design.** Community based organizations and local governance structures are typically more familiar with the area they work in, can advise on relevant adaptations of formal national and global monitoring and early warning systems, and can generally mobilize faster than an INGO like IRC[xxxvii]. Meanwhile, INGOs may not be as agile in resource mobilization or ingrained in local contexts but may have global technical AA experience and potentially higher access to global AA networks to share with local partners. INGOs and local organizations could co-innovate on how to sustainably adapt global practices, establishing a win-win scenario. Moreover, INGOs should attempt to formalize government partnerships to be more long-term, equal, capacity-sharing agreements rather than based on political administration or opportunity-based. These partnership opportunities with multilateral actors can also open a breadth of funding opportunities as donors increasingly turn to a localization approach in aid. One such funder is START Network, which focuses on proactive, localized funding to ensure that programmatic decisions are de-centralized and relevant to communities.

Furthermore, enabling partnerships across stakeholders from multiple sectors can improve the effectiveness of AA. For example, as discussed with START Network via interview, a cash-focused organization can pair with an organization with more technical experience in health programming to work across outcomes in an AA program. Thus, **pre-positioned consortia models** can promote technical resource sharing, bridge information gaps, allow for more rapid funding application turnarounds and operational readiness, and enable phased approaches or linkages to longer-term resilience building.

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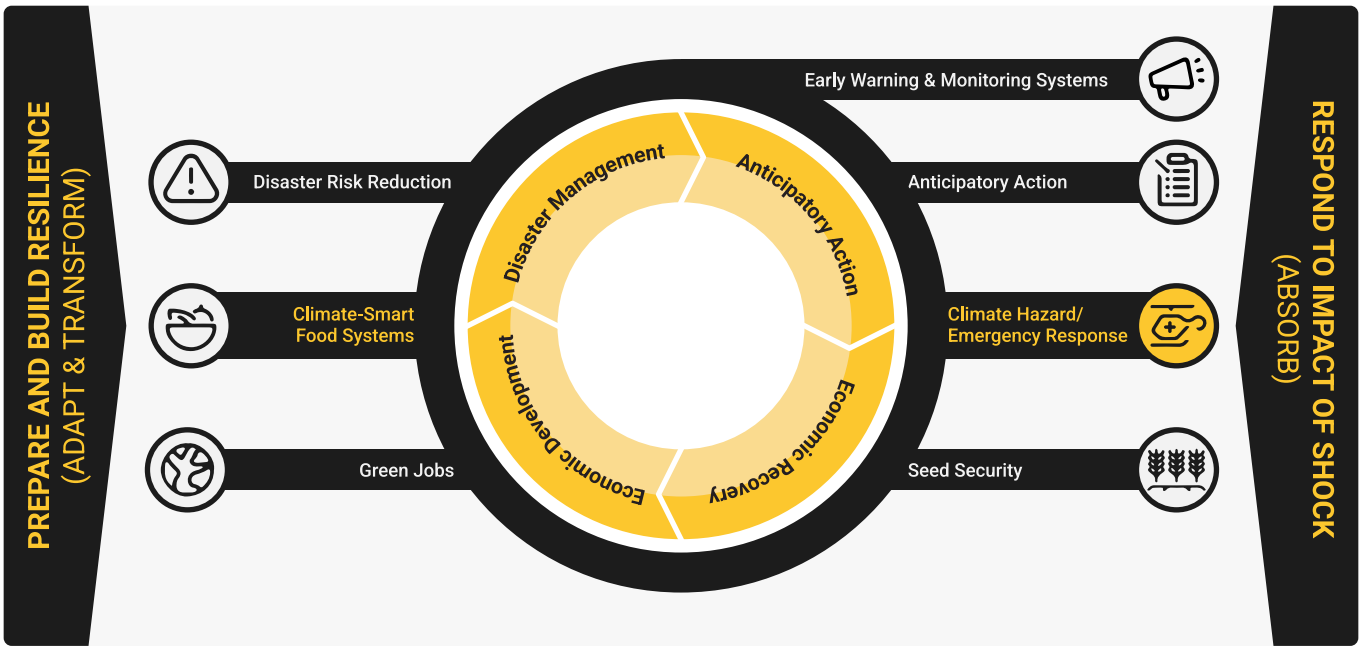

Figure 6: IRC's Climate Resiliency Framework indicating the different areas of work to protect and promote lives and livelihoods, in the context of climate change, ranging from climate risk mitigation and adaption to forecast-based anticipatory actions and emergency response.

Build Anticipatory Action into Disaster Risk Reduction (DRR) and Social Protection Systems

Anticipatory Action is only one component of the broader disaster risk management programming cycle which can help to plug the gap in the transition from long-term disaster risk reduction/emergency preparedness to a humanitarian response within various governmental and non-governmental systems. Anticipatory Action on its own will not be effective: it is essential that AA is one of the solutions at the center of the humanitarian-development nexus to reduce humanitarian needs while protecting development gains and mitigating the impact of disaster risks when embedded in broader disaster risk management strategies. Learnings from the AA project in Guatemala such as areas of strengths and missed opportunities indicate possible entryways to better harmonize AA with other components of disaster risk management systems, maximizing the positive impact on people's lives and livelihoods.

Greater investments into DRR and emergency preparedness, including humanitarian actors' cash preparedness, can better support the establishment of **increasingly robust monitoring mechanisms, early warning systems, and operational readiness** for anticipatory action and emergency response implementation, while meeting longer-term climate resiliency and sustainable development goals.

In the areas within and surrounding Malacatán, awareness-raising and training activities are carried out in the community led by government and local organizations, creating entry points for increased partnership-based DRR programming and growth of AA capacity. In general, communities reported in interviews of being aware of what to do when flooding or other disasters occur, such as having a backpack with 72 hours' worth of essentials and knowing evacuation routes and meeting points. In some communities, households have been provided with emergency response supplies and schools are given talks on earthquakes and evacuations. Some community members in interviews said they knew the phone number of the fire department to call for help when water begins to reach houses. However, these actions are geared towards reactivity, rather than proactivity such as through anticipatory action. There have also been gaps in ensuring that these early action and disaster risk reduction activities are conducted at scale and with regularity. While Guatemala's early warning systems are quite developed *de jure* with clear pathways for interactions between INSIVUMEH, CONRED, and local leaders, coordination is *de facto* currently underutilized in dissemination to hard-to-reach areas and to reach local leaders in COCODEs.[xxxviii] In interviews, we learned that CONRED is often tasked with cascading information to COCODE leaders and community members to prepare for an emergency and take early action, but limited human and financial resources diminish the capacity of knowledge and resource sharing activities. Furthermore, a lack of proper equipment for preparation and rescue, or outdated equipment, affects the potential positive impact that capacity sharing sessions could have. This situation was also explored through an analysis by Refugees International of remaining needs two years after Hurricanes Eta and Iota[xxxix]. **Communities in FGDs during this study expressed that sometimes, even if they felt at a high level of risk for flooding or other climate hazards like drought, there is not enough information on what preparatory actions to take and, if the**

information is available, the resources to take these actions are not. Therefore, an AA/DRR approach that focuses on a combination of awareness raising of historical and future climate risks, community-led planning for tailored actions before and during a hazard, and the provision of resources and/or planning on how to long-term accrue such resources to achieve these plans is critical. Potential programming examples include supporting existing systems responsible for early warning and disaster risk reduction in Guatemala through the creation of flood prevention infrastructure plans, uptake of climate-smart agricultural practices that are drought resistant, and development of more widespread information sharing platforms.

Moreover, Adaptive Social Protection (ASP) can be one pathway for humanitarian actors like IRC to link up social protection, disaster risk management, and climate change mitigation and adaptation through a systems strengthening and partnership approach. An external consultative exercise conducted for the IRC, leading to an internal paper titled "The International Rescue Committee's Contributions to Social Protection in Fragility and Conflict-Affected States" found that "the focus of ASP is not centered solely on devising social protection systems that can quickly respond to shocks, but rather expands the scope of social protection to ex ante resilience-building (anticipatory action) and contributing to longer-term climate change adaptation efforts.[1]"[xl] There are options for humanitarian agencies to complement or support the strengthening of existing social protection schemes based on the level of maturity of the social protection system. Examples include the integration of social protection as a core programmatic area and advocacy for equitable targeting strategies in nascent and latent systems,[xli] establishing a graduation lens and referral pathways in mature systems. Humanitarian actors such as the IRC already conduct some activities, such as emergency cash assistance and digital early warning systems, that can be built into existing government and community structures and initiatives such as insurance mechanisms and technical standards for infrastructure, agriculture, etc.[xlii] In the case of Guatemala, an analysis by Oxford Policy Management and World Food Programme (WFP) explored how existing social protection programs such as the Ministerio De Desarollo Social's (MIDES) "Bono Seguro" program or "Transferencias Monetarias Condicionadas para Alimentos" are sometimes limited in scope for implementation, often delayed, may not reach those not linked up with formal financial institutions, and may require national emergency declarations to deploy additional support (via "Bono de Calidad" that tops up Bono Seguro during emergencies). Organizations such as WFP have historically supported Guatemala's social protection systems during shock through various strategies, in particular "piggybacking", with government administrative support during an emergency, and "shadow alignment", wherein "WFP's emergency response [ran] parallel to the social protection system, with the government eventually taking over or replicating some aspects of the support".[xliii]

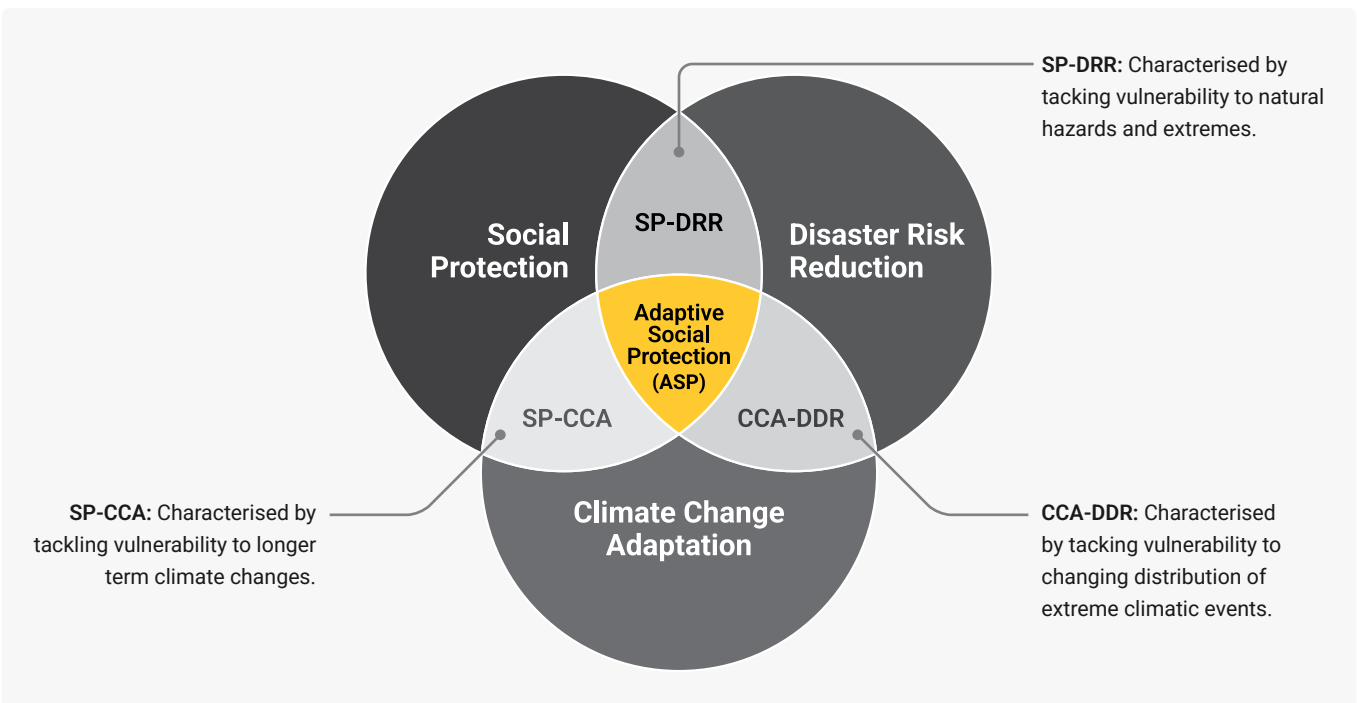

Figure 7: ASP at the intersection of various disciplines (Source: Davies, Mark et al., 2011) [2]

[1] Bowen, Thomas et al. (2020). *Op. cit.*
[2] Davies, Mark et al. (2011). *Promoting Climate-Resilient Livelihoods through Adaptive Social Protection: The Case of the Agricultural Sector in South Asia.*

Sequencing Anticipatory Action with Emergency Response: Existing Challenges and Possible Approaches

In PDMs, FGDs, and KIIs, a common theme that arose was that IRC's AA program did not manage to reach the most flood-impacted communities and households within San Marcos. Clients mentioned that some neighbors were not successfully contacted in the registration phase, either because they were not home or because there was a lack of trust in sharing information with IRC. Clients noted that there had been instances where groups not associated with IRC had met with the community in the past, and reportedly asked for personal information, but did not return as expected, increasing distrust of similar agencies.

Additionally, the evaluation found examples of how **both government and non-governmental aid agencies are often restricted in their capacity to mobilize resources and proactively respond to climate emergencies with AA due to damage assessment data requirements or need for IPC or other emergency classifications within organizational response activation mandates.** For example, in Guatemala, regional CONRED teams must have damage assessments quantifying severity of loss (including loss of life, infrastructure, etc.) to justify and receive resources from the national government to respond longer-term to an emergency such as a flood. Some humanitarian aid agencies may also need to secure emergency classifications and damage reports to deploy resources, depending on the funding source and donor flexibility. Anticipatory action thus remains a barrier for agencies with these requirements for response as, to budget holders in governments and donor agencies, there is less quantifiable "certainty" over how AA will directly preserve and protect livelihoods and assets, creating a reluctance to fund such programming.

BOX 5:

Humanitarian CVA Readiness

For humanitarian agencies like IRC, anticipatory action can support emergency preparedness and thus lead to shorter response times in an emergency. Much of the operational cash preparedness work that goes into anticipatory action, such as context and market analyses, financial service provider diversification, procurement of cash and other program materials, partnership agreement setup, registration of households, and development of standard operating procedures, can be utilized by humanitarian emergency response teams such as IRC in their national preparedness plans to sequence activities and pre-position emergency operations teams.

One way to effectively navigate this challenge beyond just a change in aid funding structures is through a sequenced approach **in coordination and consultation with local emergency agencies, government, local CSOs, and international aid agencies.** This work is already starting in Guatemala through UNDRR's coordination under EW4All initiative. Additionally, on a project-level response, a consortia partnership model should be considered. Stakeholders may potentially be better positioned at different times to lead and respond to a crisis, or share distinct responsibilities in AA, early action, and longer-term emergency response based on local expertise, speed, and capacity, sharing tips with one another to holistically improve. In this AA project, the IRC had a flexible funding mechanism to implement AA with Trafigura Foundation funding, which could have been leveraged with other aid and government agencies to coordinate geographic coverage for emergency response. In Ethiopia, a "phased activation" approach was used for drought to implement earlier, across sectors,[xliv] and with a clear transition to emergency response.[xlv] One additional benefit of this approach was a proactive procurement and logistics process for response supplies, which can build into general emergency preparedness capacity for agencies and speed up response times when an AA threshold is met.[xlvi] Similar approaches for flooding should be explored within a DRR framework to see how phasing can be effective and appropriate in a rapid-onset hazard, for example by capitalizing on the availability of long-range forecasts and begin to phase in anticipatory and early action activities earlier for early warning mechanisms, agricultural trainings, and CVA.

BOX 6:

AA with Emergency Response in Guatemala

Precedence for pairing AA with emergency response has already been set by the Guatemalan Red Cross, which, along with the Honduran Red Cross, **activated a joint early action protocol** in 2022 as Hurricane Julia was set to impact the countries. The Guatemalan Red Cross then established an **operational emergency response plan** to assist impacted households after Hurricane Julia hit.

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Designing projects that sequence AA and emergency response can potentially have a few impacts based on the design that are worth exploring. An approach where additional households are targeted after a hazard may reduce community tensions and "de-risk" AA to donors by ensuring that there is a supplementary response to reach additional households more impacted by floods. In an AA/emergency response approach that deploys cash to the same households, this can meet client preferences to receive cash both before and after a hazard to conduct repairs, and cost-effectiveness studies may be helpful to understand how recovery can be a less resource-intensive process when an initial AA tranche of CVA is deployed. The nuanced design of an AA & ER sequencing, whether it be providing cash or other goods and services to the same clients both before and after an event, reaching additional locations after damage assessments, or both, should be determined in consultation with community leaders and other emergency responders in the area to harmonize this work and cover a greater geographic reach.

Advocate for and Promote Flexible Funding with a "No Regrets" approach

As anticipatory action is by design responsive and adaptable to climate forecasts, **it is important for donors to be open to more flexible funding modalities in the same manner.** Flexible funding has supported humanitarian agencies to respond faster, pre-position partnerships and supplies, scale up services, and pivot programming to urgently meet clients' needs in the most-affected areas before and after a crisis.[xlvii] IRC evidence shows that flexible funding, especially in a multi-year capacity (which could be within the wider DRR framework), can reduce administrative and cost burdens for implementing agencies and donors, creating a win-win situation.[xlviii] In AA and within the wider DRR framework, this could look like openness to modifying geographic locations within a country based on updated forecasts, acceptance of estimates of risk rather than waiting for damage assessments post-hazard, adjusting transfer values for client reach, shifting time frames based on forecast changes, and more. Additionally, longer-term disaster risk reduction and emergency preparedness planning can be combined with anticipatory action components to proactively establish mechanisms to mitigate the impacts of potential crises, rather than disrupt ongoing programming. **This can function similarly to a typical "Crisis Modifier" that is a growing component of humanitarian-development programming.**[xlix]

UNOCHA's "no regrets" perspective to drought AA recognized that realized benefits for clients still exist and needs are met even if AA activations have not gone exactly to plan.[l] There is often a perception of risk that if there is a false or less severe than anticipated AA activation, the whole project is rendered unsuccessful. In the experience of IRC's AA programming in Guatemala, this was not the case. The area of intervention did indeed experience flooding, but not to the expected severity. However, the project still proved effective as people were able to meet their basic needs and prepare for bad weather, sometimes using the cash to prevent future flood damage even. With clients' increased capacity to meet basic needs in a humanitarian context vulnerable to climate change, the donor was still satisfied with the response and use of funding despite differential flooding outcomes from contingency planning. While flexible funding helps agencies like the IRC be more agile, the "no regrets" mindset with flexible funding supports iterative learning and continuous service to clients who remain at risk of climate hazards, supporting clients to make decisions around daily needs and make investments toward future climate resiliency fortifications. Some funders such as START Network, a leading AA donor especially in Guatemala, are already adopting this "no regrets" outlook.

Conclusion – What did we learn?

In general, the relevance of AA in Guatemala and other parts of the world feeling the impacts of climate change is increasing as multiple, often predictable, climate hazards continue to threaten livelihoods. In this evaluation of IRC's AA programming to address June 2024 flooding in San Marcos, Guatemala, and through subsequent learnings of how our approach can improve, it became apparent that a **community-informed, cash-first, partnership-based approach to anticipatory action can support in longer-term resilience and coalition building to take early action before a climate threat.**

In summary, beyond project-specific learnings, this evaluation has found that **the follow-the-forecast method for anticipatory action works, and that a few key things are needed to ensure its success:**

1. **It is possible to leverage long-range forecasts to identify where there are specific forecasted hazards.** The use of long-range rainfall forecasts to prioritize global IRC resources to support contingency planning in Guatemala proved effective. Long-range forecasts were able to provide foresight of the flood risk and the consistently high probability of above average rains in the four long-range forecasts before the start of the 'primera' season were reflected in widespread and exceptional flooding across a large area of southern Guatemala.

2. **There is open-source data available to support Anticipatory Action, and data validation is encouraged:** All the data that IRC used to design and plan the Guatemala AA response were free, open-source, and globally available. There is already significant information available to support Anticipatory Action and supplement local hydrometeorological data. While it is ideal to pair global tools with national and local monitoring methodologies, the existence of various global tools can allow groups interested in anticipatory action to kick off their work or to continue global-level monitoring, especially if other multi-faceted monitoring methods are not feasible due to time. New Google AI tools proved invaluable in supporting the rapid contingency planning and their utility is likely to increase exponentially in the coming months but should be used with discretion.

3. **Leveraging platforms like IRC's Signpost enables early warning messages to be set up and delivered rapidly, supporting communities with information access:** The combination of anticipatory cash & early warning messages proved to be a powerful combination in the Guatemala Anticipatory Action response. Information was seen as a critical gap, in addition to physical resources, by communities who were part of the project. Platforms such as CuéntaNos should be leveraged whenever possible and work in harmony with existing information access pathways. Learnings exist on how to improve early warning messaging, and Signpost's involvement with AA has become a regular part of follow the forecast design in IRC as a result of this project.

4. **Rapid contingency planning, rather than building protocols in advance, is feasible and effective:** With a small team and limited financial resources, IRC was able to conduct a rapid contingency planning process in the 4-month window provided by the long-range forecasts and distribute cash to households before flooding occurred. Other agencies can replicate this approach for flooding, and IRC and other organizations can also explore this for hazards with longer lead times, such as drought. Further exploration should be conducted on how the follow the forecast approach can manifest in regional approaches to AA.

5. **Untapped opportunities to link AA to the disaster risk management cycle:** AA cannot be the only intervention taken to address a particular climate risk. AA must continue to be part of a wider disaster risk management framework, especially in the wake of recurrent climate shocks and stressors. The disaster risk management cycle includes long-term disaster risk reduction planning, access to social protection systems, emergency response, and early recovery.

6. **Flexible and diverse funding mechanisms are essential:** IRC's Anticipatory Action response would not have been possible without the flexible, global funding provided by the Trafigura Foundation. The ability to quickly allocate funding where forecasts indicated there was most risk of a climate hazard permitted a contextually appropriate, agile response where funding was needed most.

Anticipatory action has multiple potential pathways worth exploring in Guatemala, both based on hazard type and based on design with other types of economic and emergency programming. Beyond these learnings, the IRC sees additional pathways for global research and advocacy in anticipatory action, specifically within the "follow the forecast" approach.

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The IRC recommends further exploration of the cost-effectiveness of anticipatory action, particularly between the follow-the-forecast and framework approaches.

BOX 7:

Cost-effectiveness of AA

FAO global level analyses demonstrate that in many locations, the amount spent on AA is considerably less than the calculated number of avoided losses, with clients also having the added benefit of meeting food security needs, being able to protect livelihoods assets such as livestock and crops, and/or avoiding debt accumulation. While the benefit-cost ratio in the FAO analysis was higher for drought, there was still a positive impact for rapid-onset disaster situations in the study and has potentially longer-term positive impacts for future rapid-onset disasters.

Greater advocacy is needed to create a more permissible policy, funding, and operational environment to promote anticipatory action not only for INGOs but also for government and local organizations. Strengthening and harmonizing existing monitoring and early warning tools whilst promoting information accessibility can generate greater trust and confidence in anticipatory action, ensuring that it can become a key, even both life- and cost-saving (see Box 7 for findings from the Food and Agricultural Organization (FAO))[li], measure part of a wider disaster risk reduction framework across Guatemala and in other locations where anticipatory action is relevant. START Network has found that "around 55% of humanitarian funding goes to crises like these that are somewhat predictable, and yet only 1% of funding"[lii] is deployed in advance of a climate hazard; necessary, up-front investments are needed in anticipatory action to break through the status quo of short-term project and response planning that is one-off and aid-dependent, and rather promote more flexible, long-term approaches to climate resiliency programming.

Annex

List of interviews and questions asked during August and September 2024 evaluation

Interview	Number of meetings	Topic of conversation
Focus group discussions with clients and community leaders	**4** (different clients/ communities each meeting)	Feedback and questions on the anticipatory action cash process, CuentaNos text messages, prevalent climate threats, preparatory actions, and support systems for climate risk.
IRC ERD team	**1**	Feedback on project processes and the future role of IRC in anticipatory action, particularly in Central America.
IRC Deputy Director of Programs, Guatemala	**1**	Project design aspects and implementation process, past programmatic experience, how to measure success, feedback for future of AA in IRC.
IRC MEAL Team	**1**	Feedback on project processes and the future role of IRC in anticipatory action, particularly in Central America.
IRC Emergency Coordinator, NCA	**2**	How AA and emergency preparedness relate; forecasting; context analysis in Guatemala/Central America; IRC processes.
IRC Signpost/ CuéntaNos	**2**	Explanation of the role of Signpost in this project and feedback on processes; challenges; potential use of AI; partnership opportunities.
START Network	**1**	START Network's scope of work, explanation of how the alerts systems work, key parts of AA project design, challenges in the sector, role of INGOs in AA in Guatemala.
Red Cross, San Marcos	**1**	Coordination with the national Red Cross, communities, local organizations, and government; ongoing work in AA and forecasting; processes; and perceived challenges.
Red Cross, National (Guatemala)	**1**	Areas of work with regional entities, Red Cross's experience with AA, monitoring, experience sharing, financing, growth of AA.
CONRED, San Marcos	**1**	Coordination with other entities; information sharing processes with CONRED; understanding of preparation and response processes; climate risks in San Marcos; appropriateness of AA; challenges for CONRED; IRC's value add.
Guatemala Cash Working Group Representative	**1**	Information sharing on how the Cash Working Group functions in Guatemala, the landscape of AA in Guatemala, and experiences on working with various stakeholders in the sector.

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Endnotes

[i] International Rescue Committee. Turning Words Into Action: COP29 and the Test of Climate-Conflict Vulnerability. November 2024. **https://www.rescue.org/sites/default/files/2024-11/Turning%20Words%20Into%20Action_IRC%20COP29.pdf.**

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