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Delivering the promise of the Sendai Framework for Disaster Risk Reduction in fragile and conflict-affected contexts (FCAC): A case study of the NGO GOAL's response to the Syria conflict

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ABSTRACT

The Sendai Framework for Disaster Risk Reduction (SFDRR) has helped to reduce global disaster risk, but there has been a lack of progress in disaster risk reduction (DRR) for people living in fragile and conflict affected contexts (FCAC). Given the mounting evidence that DRR cannot be implemented through conventional approaches in FCAC, serious efforts must be made to understand how to meet SFDRR's goals. This paper offers a case study of international non-governmental organization GOAL's programming that responds to the protracted crisis in Syria, with a critical discussion on SFDRR and how to adapt humanitarian relief and disaster resilience.

1. Introduction

The Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR) is the global framework for disaster risk reduction (DRR), which has been adopted by 187 member states and is widely used by governments, donors, and non-governmental organizations (NGOs) to guide DRR programming. The framework sets out to substantially reduce disaster risk, with focused action under four priority areas: understanding risk; strengthening governance; investing in DRR for resilience; and enhancing preparedness, response, and recovery. The SFDRR specifies that such practices must be "inclusive and accessible" ([47], p. 10) to ensure that everyone receives the benefits of DRR.

The SFDRR frames the state as central for reducing disaster risk. It describes the state as the primary duty bearer to protect and support its citizens. State approaches to DRR, therefore, must be inclusive and engage with all of society, including marginalized groups such as women, children and youth, people with disabilities, elderly persons, and indigenous populations. Reducing risk is also predicated on a strong state that has the ability to enforce domestic laws, international obligations, and commitments and provide disaster governance [13,43,54].

People living in fragile and conflict-affected contexts (FCAC) may be a blind spot for the inclusivity of the SFDRR, given the centrality of the state for achieving the goals of the SFDRR. For this article, *conflict* refers to the use of armed force between two or more parties, and *conflict-affected contexts* as those in active or post-conflict stages. *Fragility* is often used interchangeably with conflict, but is conceptually distinct, referring to situations where official state governance and institutions are weak and the state lacks basic functional authority to provide basic security and/or secure social needs [10]. In FCAC, the state may be poorly poised to make meaningful headway on DRR due to their inability and/or unwillingness to reduce risks equitably for all of their citizens [36]. Where normative conceptions of and approaches to DRR can be made in most contexts that feature strong, stable, and central systems of governance, these same assumptions cannot always be made in FCAC. The SFDRR states that DRR

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must be adapted to local contexts, but it contains no mention of conflict or fragility or guidance for how to design DRR interventions in and specifically for FCAC [38].

To reduce disaster risk inclusively, it is crucial to ensure that no one is left behind when it comes to reducing risk – including people living in FCAC. The international humanitarian non-governmental organization GOAL has been working to provide support to reduce disaster risk for conflict-affected populations around the world, including in northwest Syria, a FCAC that has been experiencing conflict since 2011. The situation is increasingly dire: wracked by nearly a decade of conflict, the country also suffers from natural hazards like drought and severe winters, which frequently turn into disasters because of the high vulnerability and lack of institutional support for people living in the region. As a result, an estimated 13.4 million people were in need of humanitarian assistance as of January 2021 [30]. Through its programming, GOAL met the basic needs and helped reduce risk for over one million people living in the region in 2020 alone.

This article draws on GOAL's work in Syria as a case study to identify the practical ways that DRR can be effectively realized for people living in FCAC, and thereby contribute to the inclusive progress of the SFDRR goals. There are gaps in both disaster theory and guidance for the practical implementation of DRR in FCAC, but GOAL has navigated challenges associated with both violent conflict and fragile and limited state structures in providing support to people living in the region. To this end, the selection of GOAL's work in Syria provides a useful case to explore how to reduce disaster risk for people living in FCAC and understand how the goals of the SFDRR can be better realized in situations where the state is weak.

The development of this case takes the form of "co-creation" [26], a collaboration between practitioners at GOAL and academic researchers. Co-creation between researchers and practitioners is useful for developing forms of knowledge that are empirically rigorous but also contribute to solving key policy problems. For disaster research, co-creation often takes the form of collaboration between affected populations and researchers; however, this study's research team has used this approach previously for practical research [14]. To develop this case, the team drew on secondary data, including reports and studies provided by GOAL, and a series of discussions held between GOAL headquarters, GOAL field staff, and academic researchers. The full research team reviewed these data to determine the research framing, central research questions, and main results in an iterative process, and the full author team collaborated on writing and editing the findings and discussion. Through this process of co-creation, this article highlights the analytic and thematic learnings surrounding GOAL's programming, with the goal of contributing to the body of knowledge on approaches to DRR in FCAC.

2. Difficult implementations of SFDRR and overall challenges of DRR in FCAC

2.1. Challenges to implementing SFDRR priorities in FCAC

Conflict and fragility in many parts of the world create challenges in implementing SFDRR for each of the target priorities. In the Middle East and North Africa region, Eltinay and Harvey [16] found that DRR efforts at the local level seemed to be a necessity to build resilience and address the underlying risks of humanitarian crises and disasters, especially with "the lack of coping capacities across the disciplines of climate change, conflict and displacement" (p. 23). Likewise, the recent United Nations Secretary-General Report on the Implementation of the Sendai Framework (2020) evaluated the first five years of implementing the SFDRR's priorities and found that:

> *Reducing disaster risk in countries affected by conflict and protracted humanitarian crises is rendered difficult by weak governance, the limited availability of disaster risk data and the concentration of human and financial resources on crisis response. Without a disaster risk-informed approach, however, the impact of crises and humanitarian needs will only increase.* ([50], p. 14)

Many FCAC lack quality and timely disaster risk data at the appropriate level, which challenges the SFDRR's Priority 1 on understanding disaster risk. The emphasis in the SFDRR is to understand disaster risk in "all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and environment" ([47], p. 14) in order to take effective actions for the specific area. Understanding risk is critical "for prevention and mitigation and for the development and implementation of appropriate preparedness and effective response to disasters" ([47], p. 14). Yet, organizations working to reduce risk in FCAC may be too consumed by the acute crisis to adequately gather the necessary data to understand the full dimensions of disaster risks.

More importantly, as concluded in the UN Secretary General Report, "states are responsible overall for reducing disaster risk but participatory and inclusive approaches to disaster risk governance can facilitate the ownership and implementation of related strategies by all stakeholders" ([50], p. 17). However, according to the United Nations, DRR also requires an "all-of-society-approach" [48] that involves a multitude of organizations including nonstate organizations. This creates tensions for realizing SFDRR's Priority 2, SStrengthening disaster risk governance to manage disaster risk. The management of potential disaster risk largely relies on a central state body, and it assumes and involves the state's competence, guidance, and coordination of risk reduction activities along with strategic policies, planning, and vision for effective and efficient risk management. This priority highlights the importance of national and local frameworks of laws, regulations, and public policies to define roles and responsibilities to guide the public and private sectors to be actively involved and engaged in and supportive of DRR efforts. The SFDRR and many disaster management plans rely on a strong state in order to employ an effective and efficient management of disaster risk. However, in FCAC, the burden on the state is quite high and, in most cases, the central governance body is unable or unwilling to implement DRR because of the impact of the conflict on state structures.

It is also widely understood in practice that the current funding for DRR is "lagging behind the rapid rate of creation and increasing complexity of disaster risk" ([50], p. 8). The UN Secretary General report urgently highlights the dire need to re-think and create a new approach to financing. This complicates SFDRR's Priority 3 in FCAC as well, which calls for investing in DRR for resilience. This priority focuses on the need to have cost-effective and instrumental institutionalized measures to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation from a disaster. Yet, these are financial instruments and resources that are absent in FCAC, again consumed by acute crises rather than future risk. The financial systems that would normally address this challenge or provide innovative mechanisms and policies are not found in FCAC but in more stable contexts that can divert resources toward that end.

Finally, pointedly stated by the UN Secretary General Report (2020), "Preparation to build back better remains limited and is usually addressed as a post-disaster consideration, thereby limiting the potential for socioeconomic transformation" (p. 10). SFDRR's Priority 4 aims to change this paradigm among member states. Build back better in the recovery, rehabilitation, and reconstruction phases is a critical opportunity for states to be prepared ahead of a future disaster. Yet, this priority is rarely incorporated in the acute relief phase of humanitarian response, and actors may struggle to transition into recovery, rehabilitation, and reconstruction due to consecutive crises. Achieving the goal of building back better requires an investment in the systems that underlie the delivery of basic goods and services to build recovery, which may not even be identifiable in FCAC.

2.2. Challenges at the intersection of conflict and disaster risk reduction

There is limited research on how DRR in FCAC can be done, but much of it suggests that "standard" and non-conflict-specific approaches to DRR do not work. In a review by Peters et al. [36], the current measures for DRR in fragile states were found to come up short in achieving risk reduction, especially with ex-ante and long-term engagement. Mainstream DRR tools

and technical frameworks neglect to engage robustly with dynamics of fragility and conflict and explain how to integrate conflict analysis and conflict sensitivity into programming [38]. There is also a lack of global policy guidance on how to design and implement DRR in FCAC. The UN Global Assessment Report on Disaster Risk Reduction (2019) stated that the contexts in which DRR is implemented are more challenging and complex than global policy acknowledges or addresses, including in FCAC. Ms. Mami Mizutori, the Assistant Secretary-General and Special Representative of the Secretary-General for Disaster Risk Reduction in the UN Office for Disaster Risk Reduction wrote:

> *Supporting those most at risk of disasters and ensuring that 'no one is left behind' means striving to find ways to apply the ideas, knowledge and skills from the disaster risk reduction community to contexts where conflict may unfortunately be the norm. But this has been a challenging area of work for the disaster risk reduction community, and one that requires urgent redress if we are to achieve the commitments set out under the Sendai Framework* ([33], p. 5).

One challenge with DRR in FCAC is that little is known about how disasters interact with conflict and fragility. This is a major missing piece of the puzzle in thinking about how to design and deliver local and national strategies for DRR [44]. It may be especially urgent to address this gap, because disasters are more prevalent and yield more devastating impacts in FCAC [25,34]. Fragility and conflict contribute to the creation and timing of disasters [32] through shared vulnerabilities [9,32] as well as by contributing to hazards, exposure, and a reduction in coping capacities [39] that are linked in nonlinear and dynamic processes [40].

Evidence also suggests that the impacts of DRR interventions on conflict should be considered when developing DRR interventions. Ignoring conflict does not translate into conflict-neutral DRR policies, and doing so can potentially lead to ineffective programming or even inadvertently harmful impacts [40], like reinforcing vulnerabilities to disaster and conflict [37]. Fragility and conflict act as barriers to disaster governance and undermine integrated approaches to disaster management that address both hazards and vulnerabilities [28]. Disaster-related activities in places affected by high-intensity conflict are thus often restricted to the realm of humanitarian response [28]. While immediate needs like the provision of basic services must be met, the international obligation for DRR may be neglected indefinitely in places experiencing protracted crisis [36,46], and purely reactive and short-term strategies do little to prevent and mitigate disaster risks and build societal resilience.

While DRR may be severely challenged in FCAC, there is clear evidence that reducing risk is both possible and necessary. Effective reduction of disaster risks in FCAC may need to adopt different approaches, like adapting to dynamic and rapidly changing conditions, engaging in long-term efforts across sectors at multiple scales, addressing a broad array of intersectional vulnerabilities, and focusing on providing support to particularly vulnerable people and groups [49]. DRR may also need to involve alternative actors, like certain rebel groups or strong informal institutions, to implement and catalyze actions [54]. In places where protracted conflict and fragility have severely affected systems of governance, it may be necessary to reconceptualize fundamental approaches to DRR, and instead pursue alternative pathways, such as community-based DRR, that are not as reliant on the state [35].

Organizations operating in FCAC have the additional burden of engaging with conflict conditions while at the same time reducing disaster risk. Organizations can engage in different forms of managing conflict risk. They can mitigate the impact of conflict on the organization and staff through managing security risks via security management; mitigate the impact of programming activities contributing to further conflict through conflict-sensitive programming and attempting to "do no harm"; or they can directly address conflict in programs through peacebuilding that aims to address and transform the root causes of conflict, moving from conflict to peace [4,53,56]. Limited work on conflict management and DRR suggests applying these principles can be beneficial in navigating conflict contexts to reduce disaster risk [19,29].

Given the dynamic nature of conflict, the multitude of potentially overlapping stakeholders and issues, and the fact that DRR interventions can impact conflict risk and vice versa, systems approaches might be particularly effective for mitigating conflict risk. Systems approaches operate from a perspective of complexity, acknowledging that there are interlinkages between seemingly disparate components [31,45]. Instead of reductionist approaches that reduce problems or issues to their components, systems approaches strive for holism, acknowledging that the interactions between components is what often shapes and creates issues [11].

Reducing risk from a systems perspective challenges several common practices in FCAC. First, the implementation demands each stakeholder involved in DRR to have a broad understanding of systems and their interactions in a region rather than a narrow focus on the immediate goal. Second, systems in FCAC are dynamic and emergent, meaning interventions cannot simply be planned ahead of time but require constant monitoring and contextual analysis. The increasing complexity of crises requires a systems approach that can take into account the wide variety of factors, processes, and social dynamics that deliver essential goods and services, given that a breakdown in multiple parts of a given system entrenches vulnerability [2]. In FCAC, the lack of a reliable state authority to drive DRR, including achieving the SFDRR, makes it incumbent upon responding organizations to compensate by focusing specifically on a systems approach [7]. Investment in structural and non-structural measures to stabilize critical systems which deliver lifesaving goods and services to vulnerable populations presents a path to DRR by strengthening the entire chain of processes reducing risk. Dependence on ad-hoc and siloed interventions are inadequate for addressing multi-hazard, prevention-oriented DRR strategies in FCAC. Appropriate for FCAC, complex systems in these contexts often lack any central control of the myriad components that make it up, and focusing on the range of factors at various scales is necessary to understand how they break down and can be redressed with targeted interventions [5]. Strengthening these systems in a way where its operation can transition back the established local actors to manage and coordinate will accelerate recovery and build a longer-term resilience for the locality in the absence of a central authority. Thus, a systems approach may be fundamental for DRR and disaster risk informed interventions as it can minimize harm to dynamic local systems, reduce the impact of the crisis and leverage local capacities to ensure continuity of basic services to strengthen longer term resilience can occur during and after a disaster. Yet, there is little research grounded in the practice of applying such approaches to DRR in FCAC.

3. GOAL's disaster risk informed humanitarian response in northwest Syria

3.1. GOAL's response to the conflict in Syria

In Syria, GOAL provides humanitarian assistance to help local communities meet their basic needs in a way that minimizes contributing to conflict through "do no harm" practices and builds coping strategies to navigate future shocks related to both conflict and disaster. GOAL's programming focuses on providing immediate relief and basic humanitarian support to communities in Idleb and North Aleppo, including displaced populations, while the broader focus on stabilizing and strengthening local systems helps build longer term resilience. This case study highlights two specific examples of GOAL's work:

3.1.1. Bread market system

The program is designed to provide bread, a staple food in Syrian society, at a reduced price to communities. GOAL provides critical flour and yeast inputs to 34 bakeries that supply bread at agreed subsidized rates and agreed conditions to a network of 400 plus vendors across northwest Syria. Bread is purchased from GOAL-supported bakeries at a reduced price (38% reduction from the market price), in order to increase access to fresh bread to more than 560,000 people. GOAL works with a range of stakeholders in the market system to support its operation and monitor market prices.

3.1.2. Water supply system

The main purpose of the program is to provide sustainable access to clean, piped drinking water each day for more than 1 million people. When the conflict left no state institutions to manage the water system network in Idleb, GOAL stepped in to temporarily replace the state's function in four of the largest municipal water units. The program does this through 66 water pumping stations and four Water Units, the water supply coordination mechanism, mainly through investments in critical infrastructure and fuel provision for the operation of pump stations. The program provides capacity building to Water Units and salary support for the over 300 staff that operate these water systems. These activities support increased water needs due to the arrivals of displaced populations, and they also improve the governance and accountability of the water supply system in the long run.

3.2. Approaches for DRR in FCAC from GOAL's work

GOAL's work in northwest Syria highlights several approaches for successfully implementing DRR and support local systems in FCAC. As the SFDRR aims for both to occur in its framework, the lack of specificity leaves states, institutions, and organizations in FCAC without a road map. An examination of GOAL's programs in northwest Syria points to valuable insights and lessons for other humanitarian organizations working in FCAC, which includes four approaches: 1) applying systems thinking, 2) adaptive management, 3) localization, and 4) building trust through assurance frameworks.

3.2.1. Approach 1: applying systems thinking

Complex systems are characterized by high and sustained diversity of components (social and institutional, environmental, and infrastructural) that interact that produce emergent localized outcomes [23]. They include individuals or organizations that come together in an interrelated and interdependent way to shape other system components [24]. In FCAC, many local actors are displaced, and local systems are weakened or collapsed. In these contexts, systems thinking is not just about facilitating change with permanent actors, but it is also about understanding, stabilizing, and supporting the functioning of local systems so that people can continue to access essential lifesaving goods and services in the absence of permanent actors. Humanitarian actors may need to step in to temporarily carry out functions within local systems where the permanent actors (formal or informal) are displaced or not able to operate, new actors have yet to emerge or are in the early stages of development and in need of support to build capacity, and/or key relationships and linkages are interrupted. In addition, humanitarian actors may have to support informal systems that keep local systems functioning.

Typical of FCAC, there is a high level of uncertainty relating to the operating context for GOAL's program in northwest Syria. The evolution of the conflict or changes in geopolitics or local politics can result in dramatic and sudden changes in humanitarian needs and the operating context. In this uncertain context, GOAL has worked to avoid harming local systems and to stabilize critical systems that deliver lifesaving goods and services as part of its response, rather than inadvertently replacing existing systems with parallel services. This approach helps to mitigate the impact of the crisis and accelerate transition of these systems to local actors when conditions allow and in a way that contributes to increased resilience. Protecting and stabilizing existing local systems is a critical step not only to respond to conflict but also to reduce the impacts of disasters in northwest Syria.

GOAL's water intervention is an example of this systems approach on the ground. Through mapping and analysis of the water supply system in northwest Syria, GOAL designed its response to rehabilitate and stabilize the public water supply, protecting the livelihoods of public employees of the various water units. GOAL's WASH program has adopted a local system stabilization approach. This approach aims to work with the Water Units to support their capacity rather than set up parallel systems or replace local services; it is an approach that leverages and supports existing social and institutional structures to improve the broader water system, including its environmental and infrastructural components. To stabilize the system, GOAL supports the salary costs of water station operators, water unit staff, and technical staff, along with the provision of fuel for pumping stations. These pumps are powered entirely by diesel generators due to the lack of a local electrical network. Efforts are being made to supply cross-border electric power to essential services such as water pumping stations (and hospitals, etc.) as this would reduce service costs significantly. GOAL's focus on capacity building, maintaining the management and functionality of the water stations, upgrading water stations and networks, as well as continuing to support Water Unit complaints feedback mechanisms promotes resilience within institutions and communities. The continuous provision of running water to communities throughout the crisis has reduced the incidence of water-borne diseases and illnesses related to poor hygiene, while simultaneously freeing up household income that people would otherwise have spent on water for use on other critical expenses such as food, shelter, and clothing.

The water system is also being developed as an adaptive system that can identify and respond to the changing needs generated by the crisis. For instance, in addition to infrastructure rehabilitation and maintenance, the program implements a capacity building plan for the targeted Water Units and subordinated Water Stations and associated networks to strengthen operation and address risks. GOAL is also continuing to strengthen the capacity of the Water Units in water system management. Within its larger WASH program, GOAL is supporting the Water Units in establishing a safeguarding and accountability reporting mechanism at the Water Unit level, accessible to the served communities. GOAL has supported the establishment of a community feedback mechanism at the Water Unit level, where a dedicated Water Unit employee is always available to receive community's requests, feedback, and complaints, as well as a WhatsApp channel per Water Unit to enable easier communication with the Water Unit. GOAL also implements an infrastructure stabilization fund, which aims to encourage local water agents to develop their own needs-informed infrastructure improvement projects and apply for funding to GOAL to support these projects. The main purpose of the fund is to mitigate further deterioration of the infrastructure and to extend access to non-connected residents to the water network in GOAL's areas of operation.

3.2.2. Approach 2: adaptive management

Adaptive management is “an intentional approach to making decisions and adjustments in response to new information and changes in context” [52]. For successful adaptive management and rapid response to shocks in FCAC, GOAL has found that building in flexibility in operational arrangements and funding agreements was required for sustained positive outcomes. For example, multi-annual funding with strategic partnerships helped to facilitate adaptive management and rapid response, which includes securing safe access for conflict-affected areas. Another lesson is having continuous risk analyses and contingency planning in conflict-affected areas to inform the intervention frameworks so it could acclimate to regional changes that occur on a day-to-day basis. By using data management and technology, such as digital data collection systems like CommCare and rapid analytics like PowerBi, the latest evidence gathered by on-the-ground teams can be used to help shape rapid operational decisions. It also improves the quality of communication among local partners and management teams by having frequent and clear digital communication channels. For example, understanding the local context and identifying emerging challenges can now be expedited in assessment and decision-making once the on-the-ground team confers with local leaders. The built-in flexibility and adaptations ensure that potential and actual risks are adequately planned for and allow adapted operational models, program modalities, and monitoring and evaluation efforts for the ever-changing situations on the ground.

GOAL's bread market system interventions are an example of adaptive management. The bread market system is crucial to food security in northwest Syria [1]. GOAL's intervention has been to provide supplies of flour and yeast, which have been critical to preventing the collapse of the bread market system and continued access to bread for food security in targeted areas. While these supplies were generally produced locally prior

to the conflict, the local production has since been severely disrupted, which threatened to create a dramatic spike in bread prices due to sudden change in supply. GOAL recognized the need to temporarily support this particular aspect of the market function to ensure the continuity of the bread market. Since 2014, GOAL's Bakery Stabilization program has been supporting up to 52 key bakeries strategically located across northwest Syria with flour and yeast inputs. As a result, an estimated 567,498 conflict-affected people are able to access bread at a stabilized, reduced price every day in war-torn northwest Syria. The plan was to reach 300,000 people, but due to the increasing displacement within Idleb province from the areas of Khan Sheikhoun, Maarat al-Numan, and Saraqib, the need for bread increased, and, in turn, GOAL responded by increasing capacity of the supported bakeries to scale up the bread distribution.

Critically, the major conflict escalation at the start of 2020 did not cause any interruption to the bread supply in the areas not directly impacted by the conflict. Following airstrikes in Maaret Tamsrin in February 2020, GOAL worked with stakeholders to ensure bread production continued in the five supported bakeries in that particular area through the establishment of a remote management mechanism. The conflict escalation and the ensuing massive wave of displacement into the bakeries' catchment area generated significant additional need for subsidized bread. To improve efficiencies within bakeries, such as obtaining accurate information rapidly and undertaking closer monitoring of bread production throughout the week (which helps to adjust the bread quantities if needed), GOAL supported the establishment of a process of digitization, utilizing the mobile digital data gathering tool Commcare for the bakery market data collection. Some measures introduced to reduce the risk of collapse of the Bread Market System during the crisis to date are also relevant to informing interventions to strengthen the capacity of the bread market systems to withstand future shocks and stresses.

3.2.3. Approach 3: localization

The term *localization* used in this article does not refer to the localization agenda of the global policy movement to reallocate funding and power away from international organizations typically located in the global North and toward smaller community-based organizations and NGOs found primarily in the global South. Instead, we take a functional definition of *localization*, using it to refer to strengthening and engaging in local systems, the amalgamation of formal and informal stakeholders that together provide the core sets of services that local populations rely on for their basic needs. Localization focusing on the full makeup of stakeholders who have long term and permanent presence is crucial in Syria, because the state is not the sole provider of services. Therefore, it is imperative to support other local systems.

The localization that GOAL engages with is centered on the humanitarian principles of humanity, impartiality, neutrality, and independence and can be seen in various interventions. For the water supply system, GOAL engages with Water Units, materials and equipment suppliers, fuel suppliers, transport companies, and local councils. In this instance, governance is about supporting local actors and their connections with state and international actors to ensure delivery of DRR resources. For example, as part of the stabilization of the water supply system, GOAL collaborates with local actors to incorporate DRR into management of water pumping stations in particular, and elements of the contingency plan include putting in place advanced payments for Water Unit staff should the threat of loss of operational area arise, moving all documents from Water Units and water stations before changing control on the ground, and conducting assessments of new water stations in northern Idleb and Aleppo in case access to some of the current water stations is lost.

International and local NGOs are also important players in Syria, and GOAL works with these NGOs to provide services. It works to strengthen coordination, partnership, and advocacy through the Syria NGO Forum, whose mandate is to facilitate and contribute to a coordinated, appropriate, accountable, and principled response to the humanitarian crisis in Syria and to ensure that the perspectives of affected populations and humanitarian operational actors are factored into decision-making at all levels. GOAL works in partnership with Hand in Hand for Aid and Development, a UK-registered Syrian NGO, to strengthen the capacity of the NGO Forum in Syria and to engage with the Turkish authorities for a more coordinated and effective humanitarian response in northern Syria.

3.2.4. Approach 4: building trust through assurance frameworks

FCAC are often characterized by mistrust. For successful programming in such contexts, humanitarian and development actors must build trust between the affected population, local actors, and the organization and its programs. Trust building is specifically important with non-state actors and taking community-based approaches as described above in the localization approach [6,17].

GOAL has found an assurance framework a critical mechanism for systemically and openly building trust and ensuring compliance with humanitarian principles. Its assurance framework consists of minimum standards for employed teams and an independent quality-control levels of conflict sensitivity, audit, compliance, accountability, safeguarding, investigations, communication and visibility, monitoring and evaluation, learning, and technical quality assurance, which are separate to the evaluation of operations and program implementation. This separation functions as much as feasible given the FCAC situation.

To enhance accountability and governance of the water system, GOAL supported the establishment of a community feedback mechanism at the Water Unit level, where dedicated Water Unit employees are available to receive community requests, feedback, and complaints. Moreover, a dedicated WhatsApp communication channel has been established per Water Unit to enable easier communication with the Water Unit. GOAL continues to support Water Units in maintaining and strengthening these mechanisms.

Overall, the complaints response and whistleblowing mechanisms are integrated into GOAL's assurance framework. This integration allows community members to alert the organization when the program delivery is not in line with their needs and expectations. The feedback mechanism allows open initiation of investigations to discover findings on complaints and requests for support. These findings are reviewed and help to ensure consistent and principled action that shape the continuing development and execution of GOAL's Standardized Operational Protocols in FCAC. GOAL's Ethics and Compliance, Internal Audit and Investigations function as a main focus on strengthening policies and procedures, taking into account new national legislation and best practice in anti-fraud, whistleblowing, and safeguarding. It is essential that the impact of the programming is monitored effectively at outcome and objective levels, including the impact on behaviors of the target group. This monitoring is core for ensuring learning and guiding innovation to strengthen areas of weakness.

4. Discussion

In this article, we used the international NGO GOAL's disaster risk informed humanitarian response in northwest Syria as a case study to understand how to reduce disaster risk in FCAC. We found that responding to immediate humanitarian needs should engage local systems to minimize doing harm and maximize contextual opportunities to build longer term resilience in FCAC. Strategic programming that integrates immediate and long-term needs has the potential to effectively respond to crisis conditions triggered by conflict while also reducing disaster risks over the long term. A systems approach can also build resilience where opportunities exist. From the strategies, activities, and lessons described above, there are clear opportunities to strengthen basic service provision in water and sanitation as well as food security with bread markets by leveraging, building and supplementing local capacity throughout the supply and service chain in a protracted conflict area.

Four approaches were described in the case study, which were found to collectively address the needs of the populations within this local system: a systems approach; adaptive management; localization; and an assurance framework to build trust. Systems approach allows a holistic way of addressing the various parts that deliver an output together rather than

focusing on piecemeal interventions. Adaptive management allows flexibility in programming that is adjustable as the conflict changes. Providing more ownership of relief and recovery into the hands of local actors who set the priorities and lead the process captures local knowledge and improves the sustainability of programs. Finally, an assurance framework provides a method of accountability and builds trust in the processes that are implemented.

The four identified approaches may also be broadly relevant in other, non-FCAC contexts, but the way that they are implemented and leveraged may be different than in FCAC. For instance, disaster management frequently involves a mixture of formal and informal local, national, and international stakeholders working together collectively [13], and, as such, systems approaches and localization may be significant in these contexts. However, the specific considerations in FCAC may be different, not to mention that the systems themselves may not be recognizable through a conventional lens. Systems in Syria are highly dynamic and uncertain, and gaps within specific components may need to be backstopped in order to keep the system as a whole running. Beyond this, the consequences of not applying systems thinking may be more catastrophic in FCAC, because there are generally less redundancy and safety nets built into the system. Likewise, there may also be contexts in non-FCAC where trust between actors associated with different specific components is poor, but lack of trust in FCAC may be extreme, manifesting in extreme non-cooperation and even acts of violence, making trust building both more crucial and more challenging.

4.1. Implications for achieving the goals of SFDRR and other global mechanisms

Achieving the goals of the SFDRR is chiefly predicated on a strong state, yet FCAC present a two-fold dilemma in state-centric approaches to reducing disaster risk: governments often lack authority in regions affected by conflict given capacity and access constraints; and/or governments may be an actor in the conflict. As a result, global DRR efforts built on normative state-centric approaches are not inclusive, with the most at-risk locations often being FCAC. The lack of approaches tailored specifically for FCAC contribute to the potential to leave people affected by conflict and fragility behind, leaving them more at risk of disaster and crisis.

This case study points to the significance of alternative systems of DRR provision in the absence of a recognized state that is able to provide DRR services for its population. To progress in DRR in FCAC, especially with the SFDRR's targets, there is an even greater need to engage with stakeholders on the ground in local systems, such as small businesses, intermediaries, and operator crews. As an approach, the two programs described in the case study – the bread market system and the water supply system – exemplify how the impact of conflict and protracted crisis does not render the goals of the SFDRR moot but only necessitates a greater emphasis on important facets of successful and disaster risk informed humanitarian programming – something that the SFDRR needs to better incorporate into its guidance to member states. GOAL's disaster risk informed interventions in northwest Syria provides evidence that DRR can be used to reduce risk in FCAC.

To ensure equity and inclusion, policy frameworks need to be relevant and implementable in all contexts, not just areas where the state is strong. The point by Wisner [55] of getting beyond frameworks should also be noted, as these types of global frameworks fail to take into account for what is often a lack the ability of states (regardless of their strength) to address the root causes of a hazard and especially those coping with the severe impacts and systemic issues that may be preexisting or can emerge after a hazard. However, if frameworks are still the future of DRR at the global level, guidance for various contexts may be necessary. As seen in the case of northwest Syria, going beyond a framework into more of a systems approach helped overcome challenges traditionally faced by DRR. When shocks or stresses hit, their impacts will depend on the functionality of these systems. This creates feedback loops that affect these now-established systems in northwest Syria and will increase or decrease vulnerability and resilience in the area.

The systems orientation of this study also points to another potentially crucial issue affecting the reduction of disaster risk and the realization of the SFDRR: the significance of the state vis-à-vis more localized and more internationalized mechanisms for addressing risk. In the context of a protracted crisis, risks were managed with a combination of local level stakeholders – including households and small-scale community organizations – and supported by international organizations, in this case GOAL. Households and communities also did not just work within physical boundaries of the state, but they engaged in activities beyond state borders, working jobs and traveling across national and international borders. Thus, risks and risk reduction solutions were both localized and internationalized, but crucially not nationalized within the confines of Syria. This has important implications for global frameworks, suggesting that the state may not be the most effective scale of engagement for supporting DRR in FCAC. Other forms of governance that combine localized and planetary structures may instead be more effective [8].

GOAL's disaster risk informed humanitarian response in Syria also has implications for other global policy processes, many of which do not account for FCAC. In humanitarian contexts, supporting local systems has implications for the localization agenda that has been gaining momentum and is embodied in the Grand Bargain emphasized at the World Humanitarian Summit. The Bargain commits 25% of global humanitarian aid to national and local actors with fewer restrictions [15]. The Bargain does not specifically identify FCAC as an area of concern or exclude them from the commitment, nor does it stipulate that these actors represent state governments. GOAL's approach, working with key local systems and stakeholders shows how this global commitment might be realized in FCAC. Similarly, the systems approach and integration of relief and DRR in a conflict context aligns with the goals of the triple nexus, where humanitarian, development, and peacebuilding practices intersect, and demands an approach that can transition from immediate relief to investing in DRR in these contexts as a means toward preserving development gains [21]. Last, the case study shows that risk reduction was achieved via stakeholders and interventions not necessarily formally described as DRR. It therefore supports ongoing calls to "mainstream" DRR [12,22], integrating risk reduction across broader development and humanitarian processes and frameworks.

With the ongoing global problem with fragmentation of inter-related global processes, GOAL's model may provide potential solutions for achieving the goals of an inclusive DRR process in FCAC. These approaches identify local actors beyond formal government partners with the aim of ensuring a lasting recovery from disasters and conflicts. Indeed, area-based approaches partly evolved in development practice to address the need for investing in long-term gains in the absence of a reliable government actor especially in conflict or post-conflict situations as pioneered by USAID in places such as Afghanistan and the former Yugoslavia. Given these complementary approaches, GOAL's ability to build resilience in challenging contexts is well placed to push boundaries and provide key insights into applying the SFDRR and future DRR frameworks. Very importantly, it also allows donors and NGOs an avenue toward ensuring efforts in such contexts are not wasted but invested pragmatically.

Although GOAL was successful in implementing a disaster risk informed approach in part through these four approaches, it faced certain challenges in actually implementing these approaches. For instance, localization must be done carefully with deep contextual understanding. There are significant challenges in identifying and coming to a full understanding of critical local systems and targeting interventions that can support the continuity of access to lifesaving goods and services, particularly when these systems are exposed to significant and frequent disruptions due to the ongoing conflict. One of the key challenges faced by GOAL in northwest Syria is the fact that some local actors are sanctioned, and GOAL cannot engage with these actors. The constantly changing nature of the conflict requires GOAL to operate a highly adaptive operational model that can shift quickly with the changing context. GOAL has had to develop strong operational and remote management systems to ensure the continuity of its program.

GOAL's systems approach also highlights some of the challenges of implementing DRR that are specific to FCAC. Ideally, systems would have

high levels of cooperation toward a common objective, but in FCAC, actors may be at odds with each other and some may lack strong legitimacy. In this instance, systems approaches were employed as a method for understanding the contours of a system and identifying where and how to intervene to strengthen risk reduction, including through supporting cooperation to achieve mutual gains. Indeed, there are other examples of cooperation occurring during conflict through polycentric management systems rather than state-centric systems (see e.g. [3,18]). This kind of cooperation may not extend to the broader warming of relations or peacebuilding, but it could potentially be leveraged to make progress in DRR in FCAC.

Compounding crises such as the COVID-19 pandemic has required GOAL to adapt new ways of working to mitigate the threat of this pandemic on an already very vulnerable population and at the same time ensure continuity of lifesaving aid. To this end, for populations affected by the Syria crisis, GOAL adapts its current programs to respond to emergencies as they emerge, and GOAL is currently providing COVID-19 related support. It rapidly adapted to implement and improve the COVID-19 awareness and prevention information campaigns in northwest Syria to help reduce the spread of COVID-19, while also providing livelihood and food support to mitigate some of the economic impacts associated with the pandemic.

4.2. Recommendations, limitations, and future directions

This study represents one of the first steps toward understanding how to achieve the goals of the SFDRR in FCAC. However, it faces several limitations that need addressing in future research. First, the case focuses on a specific context, and the findings may not have the same relevance in other FCAC. Further research should collect evidence on these approaches and how to implement them in diverse FCAC.

Second, systems thinking has been gaining traction in international aid and is operationally associated with a suite of ideas including resilience, the triple nexus, and localization [11,20]. We documented that systems dynamics were at play, but systems and complexity approaches are difficult to explain in their entirety. The potential of applying systems thinking to FCAC is still to be fully explored, and there is a need to have analytical tools that can guide efforts to better understand local systems and how they have been impacted by protracted crisis. Better understanding of local systems in protracted crises will improve interventions so as to minimize harm, stabilize, and eventually build longer term resilience of these systems. For instance, GOAL's Resilience for Social Systems Approach [27] sets out a step-by-step process for prioritizing, mapping and analyzing systems, and adaptively managing interventions to increase their resilience. Its application in FCAC could provide further insights on applying systems thinking to progressing the aims of the SFDRR in these contexts. Further research may also address how more discrete systems, such as the bread market system and water supply system, may be linked together in a supersystem.

FCAC patterns can also be found elsewhere outside fragile and conflict settings, suggesting the problems of inclusivity of FCAC might be widespread. Most states also “contain significant areas of limited statehood” ([41], p. 406), such as informal urban settlements or areas where services are not being provided. These areas can be in developing and developed contexts. For instance, the US Government was overwhelmed following Hurricane Katrina, a failure of response that resulted in almost 2000 deaths. Now, it is currently struggling with the COVID-19 response, with many citizens self-organizing to support each other and provide basic services, which is similar to survival strategies communities undertake in FCAC where the state is weak. Likewise, there are many places where the state or branches of the state are not trusted outside of conflict areas. The ongoing protests against structural racism and police violence in the US are case in point: in these situations, supporting or relying on a state actor like the police might engender mistrust and inhibit or exacerbate risk. Similarly, states are ill equipped to provide for mobile populations whose social and economic structures span multiple bounds outside the jurisdiction of a state. From this expanded perspective, the "ideal state" necessary for the SFDRR might exist in only a very select few contexts.

Finally, localization could also use area-based programming and shelter and settlements approaches, which provide multi-sectoral support and work with multiple stakeholders [51]. These approaches have been advocated in urban humanitarian practice and emphasize locally driven, multi-sectoral programming and focus on the relevant actors specific to a neighborhood or community [42]. A possible shift to a multi-sectoral approach of the current humanitarian cluster mechanism which was not reflective from the current case study in northwest Syria which is still based on sector clusters. However, further research in these approaches are needed and could find efficiency and effectiveness in linking and/or blending systems and area-based approaches in the process. Such research could inform a way forward by describing a number of systems critical to a specific location as part of a larger design of the area.

5. Conclusions

The SFDRR has evolved from prior international disaster risk reduction agreements with improved focus on fundamental priorities while noting the need to build resilience. While FCAC may be viewed as minor and marginal in the global scope of DRR, two growing concerns necessitate a concerted effort to adapt approaches to address disaster risks more effectively in these situations. The first need is to develop targeted approaches beyond the SFDRR that are specific for FCAC to avoid leaving so many people behind in the global effort to reduce disaster risks. The second need is to address the mutually reinforcing relationship between conflict and disasters and the compounding vulnerability of populations situated in these contexts through strategic programming, such as adaptive management, systems thinking, localization, and assurance frameworks.

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Declaration of Competing Interest

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