

Community and governmental perspectives on climate disaster risk finance instruments in Colombia

Perspectives
on climate
disaster risk
finance

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Received 29 November 2023
Revised 2 February 2024
Accepted 2 February 2024

Abstract

Purpose – At the global level, disaster risk finance (DRF) is playing an increasingly prominent role in the international agendas for climate change adaptation. However, before implementing such agendas, it is essential to understand the needs and limitations of DRF in the subnational context where they need to impact. This research aims to gain insights into the perspectives of community and governmental actors in Colombia regarding DRF. Its goal is to promote the specific design of collaborative educational and technical assistance processes that consider their interests in the subject and the cultural diversity of the territories.

Design/methodology/approach – To achieve this, semi-structured interviews were conducted, and the findings were organized to highlight key aspects that help to understand DRF perspectives in the Colombian context.

Findings – It was found that the most significant limitations of implementing DRF include a lack of knowledge on the topic, corruption that encourages a reactive approach and the absence of economic resources. Concerns have emerged regarding the possibility of climate risk insurance becoming a profit-driven enterprise and the potential development of dependency behaviors within community groups, leading to maladaptation and moral hazard. Similarly, the implementation of DRF through foreign funds has raised concerns about the loss of territorial sovereignty and autonomy.

Originality/value – This is one of the first studies that carry out this kind of research and contributes to the formulation of inclusive public policies for DRF in different contexts worldwide.

Keywords Climate risk transfer, Colombia, Community and governmental perspectives, Disaster risk financing, Disaster risk management

Paper type Research paper



The authors express their gratitude to the interviewees from the departments of Bolívar, Chocó, La Guajira, Magdalena, San Andrés-Providencia-Santa Catalina, Sucre, as well as from the municipalities of Cartagena, Riohacha, San Andrés, Santa Marta, El Banco and Sincelejo. This research was financed by national funds through FCT – the Portuguese Foundation for Science and Technology – under Grant number 2021.07982.BD.

1. Introduction

Disaster risk finance (DRF) is defined as the set of financial mechanisms and instruments for risk retention and transfer to access economic resources when an emergency or disaster occurs. This is done to ensure timely response and recovery (Marulanda *et al.*, 2014). DRF includes mitigation funds, credits, direct payments, reinsurance, catastrophic bonds, climate derivatives, contingency credits, reconstruction loans, and catastrophic insurance, funds and prevention loans (Cardona, 2009).

International initiatives, such as the Hyogo and Sendai Frameworks for Action, have incorporated DRF as a key component of disaster risk management (DRM) (DRFIP, 2020). Despite these efforts, the global community, especially in the Global South, still faces significant gaps in addressing DRF (Tang *et al.*, 2021). Authors like Akter *et al.* (2016) and Delavallade *et al.* (2015) emphasize certain limitations, such as the disparity between high-income and middle-/low-income countries, perpetuating inequities and intensifying economic vulnerability to disasters (Fisher *et al.*, 2018).

In the Latin American and Caribbean region, studies show that the academic sector, which is meant to support public policies in the disaster field, adopts a top-down approach (Trejo-Rangel *et al.*, 2022). This approach diminishes the autonomy of local territories to manage their risks in alignment with culturally accepted practices known to the communities. Public policies based on top-down approaches tend to limit the involvement of grassroots organizations, students, young professionals and researchers, among others (Gaillard *et al.*, 2019). The consequences of the top-down approach in DRF have been widely disseminated through regional and international development policies, often promoted by international development agencies. This approach creates a gap in its advancement at the local level, lacking differential approaches tailored to specific contexts (Fernández *et al.*, 2022). Furthermore, the implementation at the local level often takes place without consulting DRF beneficiaries to explore how it can effectively address their needs and concerns (Aheeyar, *et al.*, 2019).

In Colombia, DRF is addressed in legislative acts such as Act 1523/2012 and the DRF National Strategy (Mundial, 2014) and national/subnational DRM plans. However, a crucial gap exists in consulting key community and governmental actors to assess their perspectives on DRF, including potentialities, weaknesses and concerns. There is widespread discussion about DRF in Colombia, and Fernández *et al.* (2023a, b) report the limitations in comprehension and effective implementation due to vague guidelines and a lack of context-specific guidance. While governmental institutions, UN agencies and international development organizations endorse DRF to reduce economic vulnerability, the focus has often been on rapid implementation rather than on a comprehensive strategy that incorporates local perspectives, as highlighted by Delavallade *et al.* (2015).

This study aims to understand the perspectives on DRF held by community and governmental actors engaged in DRM in Colombia. The findings are expected to inform the development of regional public policies and practical initiatives within the Colombian context, aligning with national and international governmental strategies, private initiatives and community programs.

2. Methodology

To accomplish the objective of this research, semi-structured interviews were conducted between February and June 2023, with key actors from the public and community sectors in territorial units identified as highly susceptible to disasters. Then, insights about DRF within the context of climate change (CC) were collected. Interview as a research method is particularly well-suited for studies involving elite individuals within a community and those with time constraints (Bernard, 2006, p. 212). The interviews were conducted in Spanish, which is the local language, and online, with the top six out of the 12 territorial units selected

using the “prioritization of territorial areas for implementing inclusive climate risk transfer mechanisms” framework. This prioritization was based on CC conditions with a representative concentration pathway (RCP) of 6.0 for the period 2011–2040, as presented by [Fernández et al. \(2023a, b\)](#).

2.1 Selection of participants

The semi-structured interviews were conducted with ten key actors from governmental institutions and community leaders involved with DRM. The governmental interviewees included individuals from both departmental and municipal DRM offices, ranging from directive positions to team leads. Among the community actors, participants were selected for their extensive experience in DRM within their respective territories.

The group of interviewees comprises four females and six males, with an average age of 45 years. All ten interviewees had professional academic degrees, with two holding master’s degrees and two holding Ph.D. degrees. Among them, three interviewees were officials in the departmental DRM offices of La Guajira, Bolívar and Chocó, while two were affiliated with the municipal DRM offices of San Andrés and Cartagena. Additionally, five interviewees were community leaders from the municipalities of San Andrés, Riohacha, El Banco, Santa Marta and Sincelejo ([Figure 1](#)). The inclusion of municipalities varying in size, institutional capacities, economic income and location in this research aims to broaden the perspectives of local stakeholders. By uniting small and medium-sized municipalities, the goal is to enhance discussions on DRF. [Figure 1](#) presents the location for conducting semi-structured interviews in the three regions.

The selected departments and municipalities are characterized by low socioeconomic indicators, significant gender inequality, the presence of ethnic groups, frequent and impactful climate-related hazards and institutional capacities in DRM. These conditions indicate that the prioritized territorial areas are well-suited for the implementation of inclusive DRF mechanisms (*Ibid.*). The top three regions chosen for this study are the Insular, Caribbean and Pacific regions. The three regions highlighted in [Figure 1](#) delimited the departments of La Guajira, Bolívar, Chocó, Magdalena, San Andrés y Providencia and Sucre.

Interviewees were selected conveniently based on their relevant experience, ensuring a gender-balanced representation. On average, each participant took 60 min. Governmental actors were contacted through official channels provided by the National Unit for Disaster Risk Management of Colombia (UNGRD), while the “snowball” methodology facilitated contact with community actors ([Oregon State University, 2023](#)).

2.2 Ethical standards and procedures

The study adhered to ethical research criteria outlined in the informed consent, specifically designed for this research. The questions and consent forms were approved by the ethical commission of the Centre for Social Studies (CES) at the University of Coimbra. The data storage policy ensured the anonymity of the interviewees. Audio recordings and transcriptions of the interviews were stored without any reference to the interviewees’ names or functions; instead, reference codes were used. At the beginning of each interview, interviewees were asked for permission to record the session. To safeguard the interviewees’ identities, their names were not included in the transcriptions.

2.3 Data transcription

The interviews were transcribed into the original language using the “F4transkript” software. Following the recommendations presented by [Reuber and Gebhardt \(2013\)](#), specific reactions (e.g. long pauses or profanity) were highlighted and commented upon during the transcription process, emphasizing certain words or phrases.

LOCATION FOR CONDUCTING SEMI-STRUCTURED INTERVIEWS IN COLOMBIA

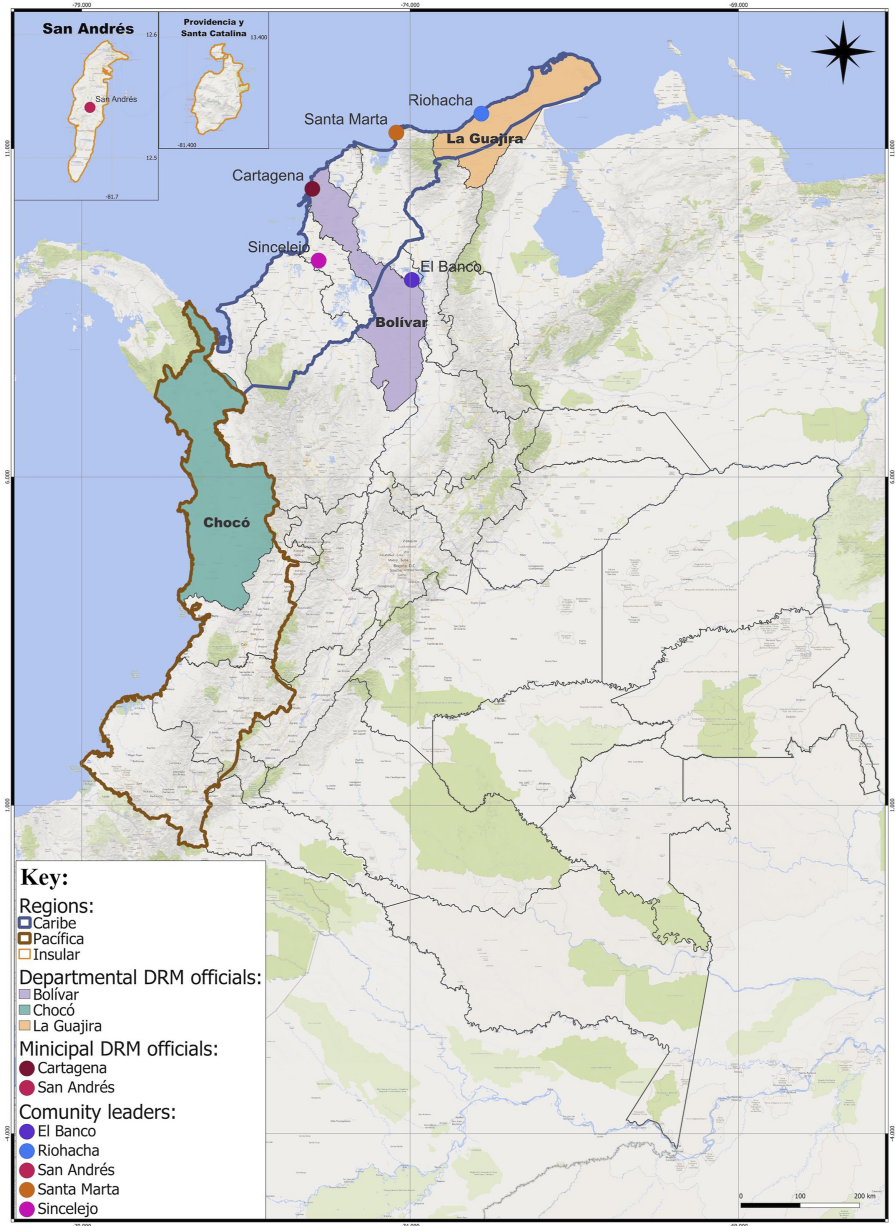


Figure 1.
Location of the three prioritized regions and interviewees' location

Source(s): Authors

2.4 Data analysis

According to Kelle and Kluge (2010), categories were developed to describe empirical phenomena (abduction) based on the data produced through the interviews. These categories were analyzed through the codification of the information, with codes grouped into categories. Consequently, the data were analyzed through a phenomenological reduction process, which included (1) coding based on the information to reduce bias from preconceived ideas, (2) identification of relevant statements in the text, (3) creation of significance units through aggregation, (4) textural description and (5) structural description (Moustakas, 1999). This analysis concluded with the integration of results and the formulation of conclusions.

According to the created code system, the interviews were uploaded to MAXQDA – a specialized software – for content analysis. The previously defined categories were further subdivided into codes, and these codes were systematically applied and identified within each of the interviews.

The interviews were guided by 14 questions designed to address the relevant aspects for each type of actor. These questions encompassed various perspectives, which are as follows: the main barriers constraining the implementation of DRF, responsibility for bearing the associated costs, the dynamics of relationships among DRM actors, the role of the international community in CC adaptation and DRF, the effectiveness of risk transfer for their territory, priority areas and groups to benefit from DRF and the significance of (inter)national institutions.

3. Results and discussion

In this section, the codes and categories defined after screening the collected data are presented. Subsequently, the findings are organized to discuss perspectives on DRF.

3.1 Codes and categories

The data collected were organized considering 21 codes that resulted from coding data, which were grouped into five categories and ranked by level of relevance (Table 1). In this context, relevance corresponds to how critical each category is based on the interviewees' perspective regarding DRF. Five categories contribute to the objective of this research: (1) barriers to implementing inclusive DRF instruments, (2) willingness for DRF implementation, (3) key stakeholders, (4) roles in DRM to emphasize the primary roles that territorial units play in DRM and (5) DRM actions to map general actions undertaken by territorial units. The ranking of categories reflects potential challenges in future DRF implementations and the corresponding capacities to address them.

3.2 Local perspectives on DRF in Colombia

Data triangulation in this study primarily relied on information derived from semi-structured interviews. A notable limitation is that interviewees may have incomplete information or political biases affecting their responses. While participant selection criteria helped mitigate these limitations, the information still relies on self-reporting and subjectivity. Despite including territories with diverse risk contexts, interviewees agreed on key issues. The quantitative analysis highlighted the consistent emphasis on words such as “risk,” “response,” “community” and “vulnerability” (Figure 2).

3.3 Findings by categories

The following paragraphs present a structural description of DRF perspectives in Colombia, achieved through a reflexive analysis of the five categories and their respective 21 codes.

DPM	Relevance	Category	Codes	Description/Noema
	1	<i>Barriers for implementing inclusive DRF instruments</i>	Limitations Lack of knowledge Economic resources	Factors that hinder, delay or make the advance of DRF unsustainable Lack of knowledge about the pros and cons of DRF, the legal framework and references Lack of economic resources for implementation
	2	<i>Attitude toward disaster risk finance (DRF)</i>	Openness to DRF Cooperation Type of compensation Territorial capacities	Positive perception of DRF implementation in their territories Collaboration with other DRM actors and international organizations to promote DRF The indemnification will be paid in either money or in kind, depending on local needs Highlight the technical capacities, coordination, management, public policy and equipment, among other factors, that the territorial unit possesses to enhance DRM
	3	<i>Key actors</i>	Academia International cooperation Communities Age Gender Private sector Public sector	Highlight the academic and research institutions within the territory Highlight international cooperation agencies that are relevant for supporting local DRM Identify key community actors for the design and implementation of DRF processes This information relates to the influence of age on positive or negative perspectives toward DRF This allows us to investigate whether the openness (or lack thereof) to risk transfer is related to the gender of participants Key private sector actors for DRF implementation Key public sector actors for DRF implementation at the (sub)national levels
	4	<i>Roles in DRM</i>	Preventive approach Reactive approach Responsibility Vulnerability	It refers to whether activities focus on preventive actions that include risk knowledge and reduction It refers to whether resources are allocated to emergency response rather than prevention Who is responsible for promoting and developing DRM that includes DRF? Highlight global vulnerability conditions (Wilches-Chaux, 1989) at the subnational level. Vulnerability by exposure encompasses natural phenomena, socio-natural factors and both unintentional and intentional anthropogenic hazards
	5	<i>DRM actions</i>	Corrective actions Prospective actions Public policy	It includes the construction of gray and green infrastructure for risk mitigation It includes planning instruments, simulations, education and communication for DRM A set of acts, plans and programs that guide the development of DRF

Table 1.
Categories and codes description according to their relevance

Source(s): Authors

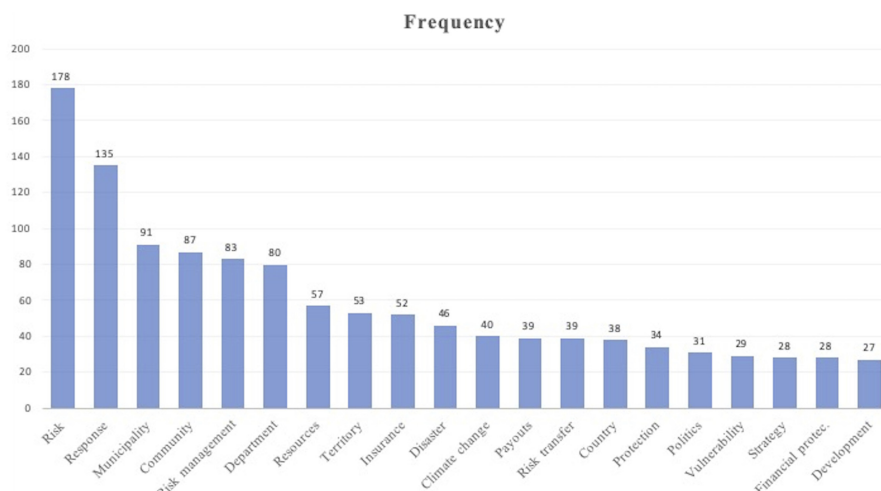


Figure 2.
Word frequency in the
ten semi-structured
interviews

Source(s): Authors

3.3.1 Barriers. Interviewees emphasized obstacles hindering DRF development in their territories, with a primary focus on implementation limitations, as shown in Figure 3. This refers to barriers potentially preventing the implementation of a DRF mechanism in a given context. Notably, interviewees highlighted constraints related to climate risk transfers, particularly in the realm of parametric insurance. These implementation challenges include:

- (1) **Culture.** This includes the culture of the territory, both from the public and private sectors and the community, shaped by individual interests and short-term rather than long-term actions. According to interviewees, this cultural aspect limits the development of DRM plans and DRF and hinders the rigorous monitoring and evaluation of plans and projects. This situation leads to budget allocation focusing on reactive approaches and immediate disaster response. The interviewees' reactive perception aligns with the findings of Gallego *et al.* (2020), who presented the results of national investments in DRM processes in the period 2011–2019, indicating that 92% of the total budget was allocated to the disaster management process. Consequently, culturally ingrained practices of waiting for disasters and bureaucratic hurdles hinder the transition to a preventive approach, thereby limiting the potential of DRF instruments.

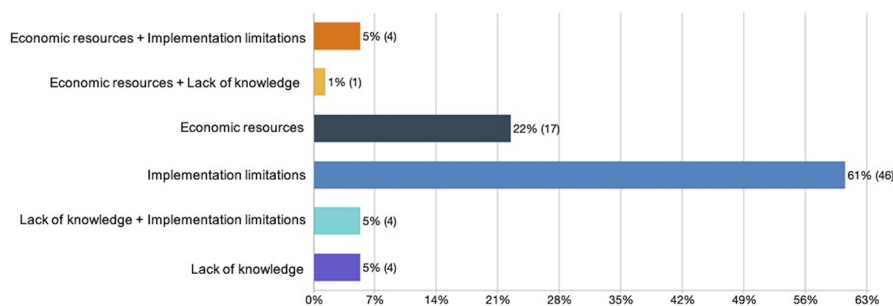


Figure 3.
Codes configuration for
the category “barriers
for implementing DRF
instruments”

Source(s): Authors

The culture of the people here doesn't tend to focus on the future. Many things that happen are often considered normal (. . .). To fall into such normalization, in everyday life, paying for insurance doesn't make sense. (A 37-year-old public servant from the department of Chocó).

The cultural element described here was previously reported by [Alarcon *et al.* \(2009\)](#) and [Camargo *et al.* \(2014\)](#) who researched challenges and potentialities of risk transfer in Colombia. These findings also correspond with those found in Mexico and Peru by [Fernández \(2020\)](#), where the short-term approach limits the development of DRF. On the other hand, multiple case studies worldwide, including Colombia ([Marulanda *et al.*, 2014](#); [Narasimhan *et al.*, 2023](#)), have demonstrated that progressive processes of education and multisectoral collaboration work to increase the preventive culture. For instance, [Tang *et al.* \(2021\)](#) demonstrated that higher education levels are associated with greater openness to incorporating DRF into DRM.

- (1) Political and institutional corruption hinder DRF due to the emphasis on reactive development programs and the lack of planning and coordination within the DRM policy framework. This limitation arises as corruption prioritizes economic gains and corrupt political elections over coordinated DRM efforts. Political corruption utilizes disasters and emergencies as tools for political campaigns, a phenomenon called “disaster capitalism,” particularly studied in the Global South ([Sandoval *et al.*, 2022](#)).
- (2) Lack of continuity and capacities of the technical staff. Interviewees pointed out that the majority of DRM technical staff in municipalities and departments are dependent on their political orientation, and the permanence of their work position depends on their political party remaining in power. This limitation is related to political corruption, which negatively impacts the territorial capacities described later in the paper. It is a limitation because during a government period (4 years), the built technical capacities are not sustained, and institutional memory and ongoing projects are significantly affected.

After one year, some of the DRM staff are replaced due to prearranged political compromises, and we consider that this is one of the most significant weaknesses in our department. (A 50-year-old official from La Guajira department).

- (1) Armed conflict associated with drug trafficking considerably hinders a territory's development, increasing insecurity, social inequality, spatial segregation and vulnerability to disasters. Armed conflict also restricts the autonomy of public and community institutions in implementing DRF actions. According to [Casas \(2022\)](#), drug trafficking in departments like Sucre and Bolívar determines the allocation of public budgets. It limits social mobilization and has cost the lives of environmental leaders who have advocated for DRM in their territories.
- (2) Large spatial dispersion of the vulnerable rural population was mentioned by seven out of the ten interviewees. They argued that this factor can increase the complexity of communication and the implementation of DRF instruments with indigenous populations, particularly in departments such as La Guajira and Chocó.
- (3) Interviewees emphasized a lack of coordination among stakeholders, citing the predominant interaction between the community and DRM institutions, primarily centered on logistical aspects of humanitarian aid. Academia was noted to be disconnected from community realities and misaligned with public sector needs. The private sector expressed reservations and perceived itself as not actively engaged in DRM activities.

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- (4) Lack of credibility in insurance companies was noted by the interviewees. They cited that these companies do not enjoy a good reputation in their territories. This perception is often linked to complex claims processes and unclear terms/conditions. The issue of credibility in insurance companies in China, as discussed by [Tang et al. \(2021\)](#), is often rooted in preconceived and speculative beliefs. It is worth mentioning that low credibility in insurance companies is not confined to Colombia or China; it is also prevalent in the United States and Europe. In 2017, 44% of consumers in the United States of America ([Statista, 2018](#)), and in 2014, 42% in Europe ([Statista, 2015](#)) expressed a negative perception of insurance companies.
 - (5) The economic resources barrier was the second most frequently mentioned barrier ([Figure 3](#)). DRM actions rely to a significant extent on donations from the national government, resulting in a noticeable dependence on resources provided by the UNGRD. Interviewees emphasized that one way to overcome this barrier is the establishment of an interinstitutional committee for DRF projects, where the territories can contribute according to their capacities.
 - (6) Lack of knowledge about DRF represents a limitation for its implementation. Although participants acknowledged the existence of DRF in Act 1523/2012 and its significance for comprehensive DRM, eight out of ten interviewees identified a significant gap in technical capabilities between the subnational and national levels when it comes to DRF. Local authorities cannot often independently implement climate DRF schemes.

3.3.2 Attitude toward DRF. Nine out of ten interviewees expressed openness to the implementation of DRF mechanisms in their territories. Participants viewed DRF and climate risk insurance as viable alternatives to reduce economic vulnerability to disasters. Interviewees emphasized that DRF should not overshadow highly relevant DRM processes such as risk analysis, evaluation, monitoring, communication and planning. In the departments of Bolívar, Magdalena, San Andrés and Chocó, interviewees mentioned knowing post-disaster subsidy payments, which could be framed and transitioned into a DRF strategy.

Interviewees expressed optimism about implementing a pilot project in their areas, focusing on parametric insurance for hydrometeorological events tailored to vulnerable groups. The proposed initial sectors for the pilot include farmers' associations, groups led by female-headed households and ethnic communities. Emphasis was placed on formulating concrete DRF strategies. As of June 2023, Colombia has seven DRF departmental strategies out of 32 ([Fernández et al., 2023a, b](#)).

As mentioned in other categories, the openness toward implementation included a suggestion about creating departmental risk pools –which refer to the equitable distribution of financial risk among a large number of contributors ([Tarazona, 2020](#)) – to enhance regional strengthening and coordination in DRM. This suggestion is consistent with the current state of DRF, which recommends risk pools as a measure to facilitate the viability of risk transfer projects. Various authors ([Dorbor, 2020](#); [Martinez-Diaz et al., 2019](#)) have reported a significant increase in the number of risk pools in Africa, South Asia and the Caribbean.

In the Colombian context, risk pools would bring together various departments with similar characteristics, such as La Guajira, Magdalena and Cesar. This would diversify the risk and enhance their financial capacity for climate-related impacts. Another noteworthy suggestion made by the interviewees was the recognition of local wisdom as an integral part of the technical structure of DRF instruments. Similarly, they recommended acknowledging differential vulnerability and incorporating it into the design of climate risk transfer mechanisms. This suggestion aligns with the theoretical and methodological framework of “differential risk transfer” presented by [Fernández et al. \(2022\)](#).

Interviewees repeatedly expressed concerns related to the risk transfer for vulnerable population groups becoming a profit-driven endeavor for foreign interests. This concern, known as “disaster capitalism,” is well-documented in international literature and has spread globally, often under the guise of disaster risk insurance (Sandoval *et al.*, 2022). Conversely, there is also concern about creating community dependency on risk transfer/insurance, which can lead to maladaptation (Schäfer *et al.*, 2019), and moral hazard (Raschky and Weck-Hannemann, 2007). It is important to note that all these concerns voiced by interviewees are valid and plausible, as they have the potential to exacerbate risk conditions in the long term. As such, these concerns should be taken into consideration when designing a DRF project in the study area.

Some local governments may mistakenly perceive DRF instruments as a reason to shirk responsibility. This belief might lead to neglecting crucial processes such as risk knowledge and communication, negatively affecting municipalities in the long run. Similarly, individuals might cease risk reduction efforts due to insurance coverage. It is imperative that control authorities oversee implementation of DRM, and ensure that communities are well-informed about their responsibilities. (A 45-year-old community leader from El Banco).

Cooperation’s crucial role in the success of DRF is clear, especially in establishing risk pools. The imperative for collaboration extends to fostering closer ties in DRM with neighboring countries like Venezuela, Panama, Costa Rica, Nicaragua and Caribbean nations. Such cooperation enhances information exchange for the development of effective DRF instruments.

The cooperation approach underscores the importance of initially uniting the community and the public sector, followed by international cooperation and, lastly, academia. This prioritization seems to exclude the private sector from the national system for DRM. This exclusion is attributed to the unclear role of the private sector, with interviewees not perceiving it as an accessible source of technical resources.

According to Hagenlocher *et al.* (2020), the viability of risk transfer mechanisms is not solely based on the high level of risk but depends on multiple factors such as hazards, vulnerability and governance/capacities. Consequently, interviewees recognized the existence and operability of DRM offices at the departmental and municipal levels in their territories. They also acknowledged both their relevance and their functions. Both institutional and community interviewees recognized in community organizations a solid capacity that can be harnessed for the implementation of risk transfer actions. Cases such as the “Community Cooking Pots” and “Neighborhood Committees” (COMBAS) in the Caribbean region were cited by interviewees. In the case of San Andrés and Chocó, interviewees indicated that their local universities represent potential resources for DRM, but that solid integration will take time.

According to interviewees, the traditional compensation scheme that comes from risk transfer through cash or money transfer may not work in all parts of the municipalities. They suggested a pre-assessment of the population’s needs that correspond to sociodemographic features and location/spatial distribution. Nine out of 10 participants indicated that the kind of compensation could be diversified by creating/strengthening community projects directed toward risk reduction. Other suggested compensation options included addressing the economic debt of farmers who cannot meet their financial obligations due to unexpected climate-related shocks. Some of the recommendations provided by the interviewees mentioned before have been implemented in Africa (Beck *et al.*, 2019) and Asia (Akter *et al.*, 2017; United Nations, 2017) and can serve as viable references for implementation in addressing the issues faced in dispersed rural areas in Colombia.

Farmers often resort to loans for planting expenses, and when extreme weather events occur, they face the double challenge of losing their entire crop and accumulating debt with the potential risk of asset seizure, particularly problematic for non-landowning renters. Therefore, debt forgiveness and

the provision of new seeds are crucial measures to alleviate their plight. (A 47-year-old community leader from Santa Marta).

The alternatives suggested earlier are novel for DRF, especially for risk transfer concerning CC in Colombia. These actions enhance the preventive approach of DRM, weakening the reactive approach traditionally adopted by governments. In the same way, such alternatives contribute to conceptualize compensations from DRF, as a mechanism to address the disaster cycle and promote other risk governance models, such as the “DRM helix” (Bosher *et al.*, 2021). The interviewees’ proposals represent a significant contribution to the design and implementation of DRF instruments throughout the region.

3.3.3 Key stakeholders. International cooperation is highly recognized among the interviewees and is perceived as a viable option for implementing risk transfer actions. The international cooperation agencies mentioned most frequently were the United Nations, the International Federation of Red Cross, the United States of America (USAID), Germany (GIZ), Spain (AECID) and Norway (NORAD). Interviewees emphasized the relevance of international cooperation, provided it operates within strict territorial sovereignty criteria. This aspect will be explored in greater detail within the “Roles in DRM” category.

Despite communities not having a concrete role within Act 1523/2012, they are considered very relevant actors by the interviewees. Participants indicated that community leaders are typically very participative and that the design and implementation of a risk transfer scheme should incorporate the knowledge and needs of the local communities.

Among community stakeholders, ethnic groups were emphasized due to their knowledge, historical memory and their high vulnerability to CC. The ethnic communities recognized by the interviewees included the Wayuu in the La Guajira and the Raizal community in San Andrés. In the Caribbean region of Colombia, the four Indigenous groups of the Sierra Nevada in Santa Marta – the Kogui, Arhuaco, Wiwa and the Kankuamos – were highlighted. In the Pacific region, the Indigenous groups of Embera Chamí, Katío and Tule were mentioned. In terms of disaster risk, special concerns were expressed about the Wayuu due to their high susceptibility to floods, droughts and tropical cyclones.

Relevant experiences of collaborative and coordinated efforts between the public sector and the community in the department of Bolívar, particularly in the urban areas of Cartagena, were highlighted. In this context, the “COMBAS” (community groups aiming to develop environmental and DRM projects) were mentioned. Additionally, in various municipalities of the Magdalena department, the “Neighborhood Committees” were cited. Interviewees emphasized that both “COMBAS” and “Neighborhood Committees” could serve as effective means to engage community actors in the implementation of the DRF.

Communities are key repositories of unique knowledge, possessing information exclusive to their context. They play a pivotal role as both the primary source of information and a conduit for spreading risk transfer mechanisms. Community leaders serve as vital intermediaries, bridging the gap between community needs and technical solutions, ensuring a tailored approach. (a 63-year-old official from Sincelejo).

Regarding the public sector, interviewees acknowledged the national system of DRM as highly centralized at the national level. They argued that most of the guidelines coming from the national government are often distant from municipal realities. The interviewees’ perception of the dominant top-down approach corresponds with the prevailing approach in the Latin American and Caribbean regions (Trejo-Rangel *et al.*, 2022).

It is necessary to emphasize the need, as expressed by the interviewees, for decentralizing DRM by creating “regional units for DRM.” These units would be integrated by different departments, clustered according to the characteristics of the risks, and in coordination with the UNGRD. Concerning DRF, such a proposal can have a positive effect on the viability of the

mechanisms that would be implemented, for instance, through risk pools. The formation of such pools should take into consideration the experience of the [CCRIF \(2023\)](#) in the Caribbean region.

Interviewees acknowledge academia as a pivotal sector in DRF development, emphasizing the significance of having research institutes and universities in the regions. These institutions are seen as crucial for making substantial contributions to DRM and facilitating collaboration between the public sector and the community through academic spaces. In contrast, interviewees noted that the private sector has only been involved in DRM during emergency response, with a primary association with insurance companies that do not enjoy a favorable reputation among respondents.

3.3.4 Roles in DRM. In this category, interviewees emphasized the importance of recognizing, disseminating, allocating and controlling the actors' responsibilities within the DRM system at both the national and departmental/municipal levels. Participants highlighted a close relationship between responsibilities in DRF and vulnerability.

The responsibility of the public and private sectors and their relationship with disaster vulnerability have been discussed by various authors worldwide ([Bosher et al., 2021](#); [Chisty et al., 2021](#)), aligning with the perspectives of the interviewees. These authors argue that historical disaster risk conditions have largely been exacerbated by a lack of understanding of the actual needs and capacities of communities, coupled with short-term planning that favors corruptive extractive models, rooted in colonial times.

Responsibility was the most frequently mentioned code ([Figure 4](#)). It was primarily associated with the responsibility of industrialized and high-income countries to compensate for the negative impacts of CC, particularly concerning the exacerbation of hydrometeorological hazards that disproportionately affect non-industrialized and low-income countries, resulting in higher-level losses. There was a consensus among interviewees that the responsibility for subsidizing the loss and damages related to CC in non-industrialized countries should fall upon the industrialized nations. That finding aligns with the approaches related to the global policy of "Loss and Damage" ([LSE, 2023](#)).

Interviewees mentioned that if compensations from industrialized countries were to be implemented in their territories through DRF, such implementations should be a shared responsibility with national and subnational governments, aiming to preserve territorial autonomy in decision-making. Such a shared responsibility –according to participants– will prevent topics around sustainable development (as DRM) from remaining in the power of foreign interests. Interviews showed that territorial sovereignty and autonomy are highly relevant subjects and that DRF, entirely subsidized by foreign capital, is perceived as a threat to sovereignty.

DRF could be funded by industrialized countries, but decisions must be made at the local level. I believe that the funds should be divided equally, with 50% coming from the industrialized country –

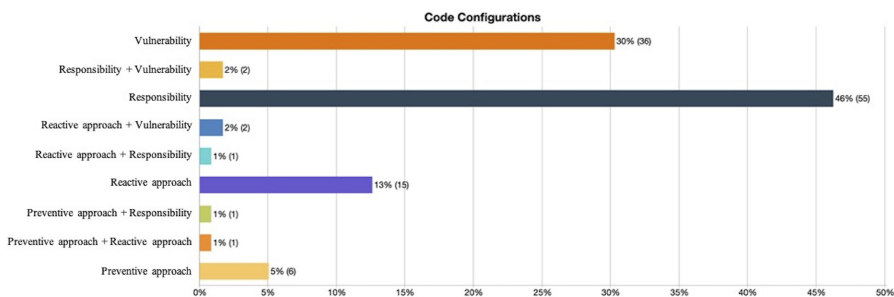


Figure 4. Codes configuration for the category "Roles in DRM"

Source(s): Authors

which is responsible for causing the climate crisis – and the remaining 50% from national and local governments. - (A 39-year-old community leader from La Guajira).

This result represents a significant contribution to the discussion on territorial sovereignty both before and during the implementation of DRF instruments through foreign capital from multi-donor funds. A notable example is the collaborative partnership established by the Group of Seven (G7) and The Vulnerable Twenty (V20), known as the “Global Shield against Climate Risk,” launched in November 2022 during COP 27. This collaborative effort aims to expand actions and support to meet the urgent needs of vulnerable individuals and countries facing an increased disaster risk associated with CC (BMZ, 2023).

Colombia, as one of the V20 members, has made significant progress in DRM and DRF, as evidenced by its robust public policy, regulatory framework and a well-established (sub) national DRM system (Fernández, 2020; Fernández *et al.*, 2023a, b). Then, its contributions should be included throughout the process to establish the “Global Shield” and include the interviewees’ perspectives. It involves the implementation of DRF instruments and its relationship with international and national implementing organizations.

Interviewees identify social, economic, cultural and political vulnerability as the foundation of all risk scenarios, displaying awareness of multiple vulnerabilities in their territories and understanding the underlying root causes. This signifies progress in territorial capacities, with vulnerabilities already identified and prioritized in the study area. Interviewee statements align with the conceptual characteristics of global vulnerability in Colombia, as outlined by Wilches-Chaux in 1989, indicating that disaster vulnerability conditions have persisted in Colombia for at least 34 years. Despite 11 years of implementing the National DRM policy (Act 1523/12), interviewees’ views on current institutional vulnerability align with the findings of Campos *et al.* (2012), indicating insufficient DRM technical capacities in Colombia.

In particular, rural areas were identified as the most vulnerable. These are the regions where there are vulnerable population groups, including female-headed households, ethnic communities and farmers. In addition, in the departments of La Guajira, Magdalena and Sucre, Venezuelan migrants were also highlighted among these vulnerable groups. Migrants are recognized as the most vulnerable to CC (Briguglio *et al.*, 2008; Chisty *et al.*, 2021).

Interviewees express positive views on DRF against climate-related events, highlighting the effectiveness of combining risk transfer mechanisms, such as parametric insurance, with other risk reduction measures to lessen the socioeconomic impact of climate-related phenomena. This approach aims to minimize adverse effects on the quality of life for the most vulnerable. The interviewees stress the importance of implementing a targeted differential risk transfer approach, as suggested by Fernández *et al.* (2022), by identifying the intersectionality of high-risk-prone areas.

Corruption is the primary driver behind the prevailing reactive approach in DRM. Emergency response is often exploited as a populist political strategy, gaining prominence during elections and justifying impromptu expenses and strategies that serve political interests. This pattern is observed not only in Colombia (Fernández, 2019) but also globally (Sandoval *et al.*, 2022).

The preventive approach, constituting only 5% of codified frequencies, primarily focused on risk reduction actions. These actions included the execution of DRM plans, disaster management strategies and departmental strategies for DRF, with knowledge limited to the interviewee from La Guajira.

3.3.5 DRM actions. The most frequently mentioned risk reduction actions center around prospective risk management, emphasizing the formulation and updating of DRM plans and emergency response strategies. Corrective risk management involves the development of infrastructure for risk mitigation. Relevant actions include formulating municipal DRF

strategies aligned with DRM plans and territorial development plans. The objective is to improve coherence among planning instruments.

4. Conclusions

In this research, the perspective of community and governmental actors about DRF instruments that could be implemented to face the impacts of disasters was investigated. This is a topic that has already been raised in different international frameworks such as Hyogo and Sendai, and it is quite relevant to discover how it is understood at more local levels where these instruments are meant to have an impact. The inputs of ten key actors, from the top six territorial units identified by the “prioritization of territorial areas for implementing inclusive risk transfer mechanisms” framework, were fundamental to understanding what the challenges and opportunities are to implement DRF instruments.

Few challenges identified are culture, corruption, lack of capacity building, drug trafficking, dispersion of vulnerable populations, lack of coordination among stakeholders and credibility in insurance companies, dependence on economic resources and lack of knowledge about DRF positive impacts. They also describe some of the root causes that contribute to disaster construction. Therefore, paying attention to them is fundamental, as it contributes to developing DRF and reducing disaster impacts.

Interviewees emphasized some favorable aspects, noting that receptiveness to DRF instruments could aid in alleviating the economic impact of disasters, especially for the most vulnerable communities facing prolonged recovery periods. It is essential to highlight that these instruments should not be viewed as substitutes for preventive measures but rather as supportive tools for the recovery phase after potential disaster impacts. Some interviewees expressed concerns about the use of DRF instruments, cautioning against potential maladaptation issues.

DRF instrument development involves collaboration among diverse stakeholders from civil society, academia, private sector and government, spanning various levels within national and municipal DRM offices. Effective DRF should be underpinned by proactive public policies to prevent disaster impacts, emphasizing a preventive rather than reactive approach.

This study focused on three specific regions in Colombia, and its findings may not be necessarily applicable to all regions of the country. The results are expected to guide regional public policy and practical initiatives within the Colombian context, aiding ongoing efforts until nationwide coverage is attained. While the methodology is tailored to Colombia, it can be replicated in other countries and regions to examine stakeholders’ views on DRF and inform its implementation in diverse contexts.

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