



# Assessing the Capacity of Responder Networks to Promote Resilience in Times of Natural Shocks and Stresses

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#### **Project Summary**

**Background:** Kassena Nankana West District in Ghana was badly hit by floods in 2012, prompting widespread humanitarian efforts by government, non-governmental organizations, and communities. This study assessed how organizations, institutions, humanitarian service providers, and communities valued and used networking for effective response during this disaster. The study was carried out in the four communities most affected by the floods in 2012 and earlier (Navio, Kajelo Nyangenia, and Nakong).

*Methods:* The Community Score Card methodology was used to help the communities define indicators to assess the effectiveness of networking among responder organizations during the floods. Each of the four communities formed a group comprising chiefs, elders, assembly members, farmers, and youth to define the indicators through interactive consensus. An interface meeting was then organized with the responder organizations and community representatives to provide feedback to both parties.

**Results:** All four community groups identified the National Disaster Management Organization (NADMO) as the main responder during floods in the district. Every group except the one from Nyangania reported receiving assistance from NADMO. The Navio community had also received support from other agencies and political party leaders. In Nakong, NADMO had worked with a community committee to identify and support affected households as a form of networking. The other three community groups did not report such networking in NADMO's response to the floods.

*Conclusions:* In most of the communities studied, there was little or no networking among NADMO, community members, and other collaborating institutions in managing the disasters and building community resilience.





# 1 Introduction

Most of Africa's 1 billion people depend heavily on rain-fed agriculture. Sub-Saharan Africa is considered to be the region most vulnerable to climate variability (Molua et al., 2010). The growing frequency and severity of extreme events such as droughts and floods, along with shifting rainfall patterns, threaten to overwhelm the natural resilience of African communities, risking livelihoods and food security (Yaro, 2010). Widespread poverty, fragile ecosystems, weak institutions, and uncoordinated disaster response among responding agencies exacerbate Africa's vulnerability to climate change (Chanakira et al., 2012; Yaro, 2010).

In times of disaster, bureaucratic systems often constrain the state's ability to respond in real time to disaster-stricken communities. By default, the efforts of intervening humanitarian agencies become the only hope that communities can count on. Humanitarian relief environments engage a large number and variety of actors, each with different missions, interests, capacity, and logistics expertise. Efficiency and targeting of humanitarian assistance are key issues under such circumstances (Demeke et al., 2004) In spite of the structural organization and reform of its humanitarian system over the past decade, even the United Nations has not been uniformly successful in ensuring delivery of an effective, reliable, and all-coordinated response to humanitarian emergencies and natural disasters (Hicks and Pappas, 2006). Governments lack capacity to coordinate the relief activities of these responding agencies, and some nongovernmental organizations (NGOs) do not willingly cooperate or show accountability (Balcik et al., 2010).

Coordination mechanisms in the domain of commercial supply chain management have been well studied, but coordination in humanitarian relief chains is still in its infancy (Majchrzak et al., 2007). Much remains to be learned about the internal dynamics of emergent response groups, whose representatives may include members of organizations with relief missions; private sector organizations offering resources; and private citizens.

In northern Ghana, the frequency and severity of floods have increased considerably over the last decade. In 2007, 2010, and 2012, torrential rains coupled with the spilling of the Bagre Dam in neighboring Burkina Faso spelled doom for the Upper East Region. According to the UN Office for the Coordination of Humanitarian Affairs (2007), the 2007 floods killed 22 people, damaged or destroyed 11,239 homes, washed away 12,220 hectares of farmland, and affected 275,000 people. Kassena Nankana West District was badly hit by this disaster, prompting a widespread humanitarian effort by the government and NGOs. The government provided relief supplies including 5,000 bags of cement, 500 bundles of roofing sheets, and 2,000 bags of rice. The Red Cross registered the displaced, distributed food, and provided education on the dangers of waterborne diseases, requesting funds from the International Federation of the Red Cross for relief items. At the same time, a coalition of NGOs called the





Inter-NGO Consortium met to coordinate aid. Members of Parliament also provided support to victims to the floods.

However, these efforts were not well coordinated. Allegations were rife of overconcentrating relief supplies on certain parts of northern Ghana that were not necessarily the hardest hit. This highlighted a major challenge in coordinating disaster relief. As many disasters cannot be prevented and humanitarian relief agencies are not in short supply in times of disaster, it is imperative to research mechanisms for coordinating their work to increase efficiency and avoid duplication of effort. Coordination also ensures that appropriate assistance gets to those most in need at the right time, at the right place, in the right way, and in the right quantities.

The main objective of this study was to assess how organizations, institutions, humanitarian service providers, and communities valued and used networking for effective response during disaster situations. The research focused on the value and utilization of networking among organizations, institutions, humanitarian service providers, and communities in response to disaster situations in Kassena Nankana West District over the previous 3 years. The study aimed to shed light on the state of networking among disaster responders and to recommend measures for leveraging and integrating the diverse array of responding agencies into a concerted and effective response as an essential element of resilience in disaster management.

# 2 Project Outputs and Outcomes

During an interface meeting, community members provided feedback to responder institutions and agencies on how they had fared in previous disasters. The main responder agency, NADMO, had an opportunity to explain its operations to community members. A copy of this report will be shared with NADMO to enhance its activities, especially in the field of disaster networking.

## 3 How Did You Go about Achieving Your Outputs/Outcomes?

The study adopted the Community Score Card (CSC) methodology as its data gathering strategy. The CSC is a public and social accountability tool that allows community groups to define indicators through interactive consensus to assess the effectiveness of a particular disaster response situation. Community Score Cards were developed for each of the communities of Kajelo, Nakong, Navio, and Nyangenia to score how organizations, institutions, humanitarian service providers, assistance bodies, and development actors responded to specific community disasters.

• **Nyangania** is located in the western part of the district. The community group included 12 members, comprising the chief and elders of the community, Assembly members, farmers, and youth group representatives.





- **Nakong** is further west, close to the Sisili River, and shares a border with Sisala District. The community group included 11 members, comprised of shea butter producers, farmers, youth group members, and community elders.
- **Kajelo** is located in the northwestern part of the district. The community group included 11members, comprising elders, farmers, and Assembly members.
- **Navio** is located in the eastern part of the district. Farmers, youth leaders, Assembly members, and shea butter makers constituted the group that engaged in the Community Score Card process.

With facilitation by the research team, community groups selected indicators by consensus and determined sets of criteria for scoring. For each indicator/criterion, groups settled on a scoring measure or rating. A circle was drawn on the ground and divided by one of the participants. The groups cast items such as sticks, sandals, and stones into each division of the circle, according to the determined scale to measure that indicator. This scoring process was then summarized into a score card and presented in the form of tables (see appendices). Finally, an interface meeting was organized, involving NADMO, the Red Cross Society, the District Assembly, and community representatives. Participants in this interactive meeting shared what they felt stakeholders should do to strengthen collaboration and networking for an effective response to disaster situations.



A focus group participant holding stick to draw a circle to represent a score card







Grading/scoring by participants using the community score card

# 4 What Did You Learn?

All four community groups identified NADMO as the main organization that responded to floods, while others acted as supporting or collaborative agencies. However, every community group except Nyangania reported receiving no assistance from NADMO. The Navio community group reported receiving support from other agencies and political party leaders. The Nakong community group indicated that NADMO worked with a community committee to identify and support affected households as a form of networking. The other three community groups did not identify networking among community or other stakeholders in NADMO's response to the floods.

#### 5 Immediate Impact

The key stakeholders in disaster situations—the District Assembly, community leaders, NADMO, the National Red Cross Society, and other agencies—resolved to work together through more collaborative and effective networking in future disasters. The National Red Cross Society also expressed its willingness to partner with the University for Development Studies in conducting more research in the area of disaster resilience. Community members now better understand the operations of NADMO and are willing to support this organization in its activities at the grassroots level during future disasters.





# 6 Future Impact

The project strengthened communication and networking among all stakeholders involved in disaster management. Dialogue provided an opportunity and platform to present community-generated indicator-based scores to responder and humanitarian assistance organizations. It is hoped that this process will inspire dialogue that will result in an agreed reform agenda. Stakeholders expressed interest in engaging the research team to use the same methodology as a monitoring and evaluation tool in future disasters.

# 7 Conclusions

NADMO is the main responder organization during disaster situations, but networking among NADMO, community members, and other collaborating institutions in managing disasters and resilience is poor in most communities. Networking among all agencies involved in disaster management is crucial to manage disasters, especially to make an impact at the grassroots level.

## 8 Implications for the Future

Stakeholders in the interface meeting discussed the need to institutionalize the suggestions raised during the discussion and recommended that the research team make another case to the sponsor of this study to support development of a framework to improve networking among key players in disaster management, especially at the grassroots level. The National Red Cross Society expressed its willingness to partner with the University for Development Studies to conduct further research in disaster resilience. The University for Development Studies will soon launch a graduate program in community disaster studies. This will serve as a good platform to increase the skills and knowledge of people involved in disaster management.

## 9 Publications

A manuscript is under preparation for publication.

#### References

- Balcik, B., Beamon, B. M., Krejci, C. C., Muramatsu, K. M., & Ramirez, M. (2010). Coordination in humanitarian relief chains: Practices, challenges and opportunities. *International Journal of Production Economics*, *126*(1): 22–34.
- Chanakira, R. R., Chatiza, K., Dhliwayo, M., & Dodman, D. (2012). Climate change impacts, vulnerability and adaptation in Zimbabwe. Climate Change Working Paper No. 3. London: International Institute for Environment and Development (IIED).





- Demeke M., Guta, F., & Federe, T. (2004). Agricultural development in Ethiopia: Are there alternatives to food aid? Addis Ababa: Department of Economics, Addis Ababa University.
- Hicks, E. K., & Pappas, G. (2006). Coordinating disaster relief after the South Asia earthquake. *Society*, *43*(5): 42–50.
- Majchrzak, A., Jarvenpaa, S. L., & Hollingshead, A. B. (2007). Coordinating expertise among emergent groups responding to disasters. *Organization Science*, *18*(1), 147–161.
- Molua, E. L., Benhin, J., Kabubo-Mariara, J., Ouedraogo, M., & El-Marsafawy, S. (2010). Global climate change and vulnerability of African agriculture: implications for resilience and sustained productive capacity. *Quarterly Journal of International Agriculture*, 49(3): 183–211.
- UN Office for the Coordination of Humanitarian Affairs. <u>http://www.irinnews.org/printreport.aspx?reportid=74278.</u>
- Yaro, J. A. (2010). The social dimensions of adaptation to climate change in Ghana. Economics of Adaptation to Climate Change. Discussion Paper 15, 88. Washington, DC: The World Bank.





# Appendix 1. Summary of Community Score Cards

#### NAVIO COMMUNITY SCORE CARD

INDICATOR	<b>MEASUREMENT/SCALE</b>	SCORES/RESPONSES
	Media/radio	
Education/awareness	Community durbars	
	No education	
	Good	
Selection process of	Poor	
beneficiaries	Very poor	
	No investigation	
	Involves a committee	
Net all'es	External distributors	
Networking	Within NADMO officials	
	Party leaders	
	Timely	
Timing	Late/average	
	Very late	
	Never came	
	Adequate	
	Inadequate	
Quantity of relief items	Woefully inadequate	
	Not at all/Absent	
Appropriateness	Appropriate	
	Average	
	Somehow	
	Not at all	
	Good	
Overall performance	Average	
	Poor	

## NAKONG COMMUNITY SCORECARD

	INDICATOR MEAS	UREMENT/SCALE	SCORES/RESPONSES	
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	Media/radio	
Education/awareness	Community durbars	
	No education	
	Excellent	
Selection process of beneficiaries	Good	
beneneraries	Poor	
Mada of distribution	Satisfactory	
Mode of distribution	Not satisfactory	
	Timely	
Timing	Late/average	
	Very late	
	Never came	
	Adequate	
Quantity of relief items	Inadequate	
	Woefully inadequate	
	Not at all/Absent	
	Appropriate	
Appropriateness	Average/inappropriate	
	Woefully inappropriate	
	Satisfactory	
Overall performance	Average	

#### NYANGANIA COMMUNITY SCORE CARD

INDICATOR	<b>MEASUREMENT/SCALE</b>	SCORES/RESPONSES
	Media/radio	
Education/awareness	Community durbars	
	No education	
Timing	Timely/appropriate	
	Inappropriate	





	Somehow	
	Not at all	
Quantity of relief items	Adequate	
	Inadequate	
	Woefully inadequate	
	Not at all/Absent	
Overall performance	Good	
	Average	
	Poor	

## **KAJELO COMMUNITY SCORE CARD**

INDICATOR	MEASUREMENT/SCALE	SCORES/RESPONSES
	Regular education	
Education/awareness	No education	
	Somehow	
	Very good	
Selection process of beneficiaries	Good	
benenetaries	Poor/selective	
Investigation	Proper	
	Poor	
	Not at all	
	Timely	
Timing	Late/average	
	Very late	
	Adequate	
Quantity of relief items	Inadequate	
	Woefully inadequate	
Appropriateness	Appropriate	





Inappropriate	
Somehow	