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The dynamics of coordination in humanitarian clusters in Indonesia: Evidence from the cash working group coordination system during the 2022 Cianjur earthquake

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ABSTRACT

Background: The increasing scale and complexity of disasters have intensified the need for effective coordination among multiple actors in humanitarian response systems. The growing use of cash-based assistance in Indonesia has introduced additional coordination challenges, particularly within the Humanitarian Cluster Coordination framework. While existing studies highlight issues such as fragmented coordination and unclear roles, how coordination dynamics are formed in practice has received limited attention. This study examine how coordination dynamics are shaped within the Cash Working Group (CWG) during the 2022 Cianjur earthquake response. The study's findings are expected to strengthen coordination, particularly in cash distribution during disaster emergency response. **Methods**: This qualitative case study was based on 26 interview sessions involving 29 participants: 14 representatives of government institutions at the national, district, and village levels and 15 representatives of NGOs, United Nations agencies, and other humanitarian organizations. The interviews were supplemented by document analysis. Data were analyzed thematically and interpreted using a coordination framework focusing on accountability, predictability, and common understanding. **Findings:** Three main findings emerged. First, the development of the CWG was shaped by both formal policy frameworks and cumulative learning across successive disaster responses. Second, during the Cianjur response, existing inter-organizational networks enabled rapid coordination, while response-specific routines, communication channels, and locally endorsed guidance developed progressively. Third, the multi-actor and multi-level structure of the CWG facilitated access to technical expertise and information but also generated persistent challenges in role clarity, alignment of priorities, and coordination across governance levels. **Conclusion:** Coordination in humanitarian cluster systems is adaptive and shaped by the interaction between formal structures and operational realities. The government should establish an operational protocol for CWG activation to improve coordination mechanism. For future research, it is recommended to investigate the CWG coordination in different type of disaster and to include the cash transfer's beneficiaries as research informant. **Novelty/Originality of this article**: This study provides empirical insights into the dynamic and hybrid nature of coordination in cash assistance within disaster response context.

KEYWORDS: cash assistance; coordination dynamics; humanitarian cluster coordination.

1. Introduction

Over the past two decades (2000–2019), the Centre for Research on the Epidemiology of Disasters (CRED) recorded 7,348 natural disaster events worldwide, affecting 4.03 billion people and resulting in economic losses of USD 2.97 trillion. This represents a nearly

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twofold increase compared to the previous two decades (1980–1999), which was 4,212 disasters with USD 1.63 trillion in economic losses (United Nations Office for Disaster Risk Reduction (UNDRR) & Centre for Research on the Epidemiology of Disasters (CRED), 2020). The report highlights a significant rise in climate-related disasters, particularly storm events (232.3%) and floods (134.3%), over this period. Indonesia is among the countries most vulnerable to disasters due to its geological location at the convergence of four major tectonic plates and its archipelagic and equatorial geography. These factors expose the country to both geological disasters—such as earthquakes, tsunamis, and volcanic eruptions—and hydrometeorological disasters, such as floods, droughts, and forest fires. Data from the Indonesian Meteorological, Climatological, and Geophysical Agency (BMKG) recorded 437 aftershocks as of 21:00 Western Indonesia Time (WIB) on 23 December 2022. The aftershocks ranged in magnitude from 1.0 to 4.3 and, despite fluctuations, showed an overall weakening trend (Cianjur Regency Government, 2023).

Disaster management strategies vary across countries and are influenced by government structures, institutional capacities, and policy frameworks. Countries with differing levels of resources and expertise adopt distinct approaches to disaster response, risk management, and mitigation efforts. Additional influencing factors include geographical conditions, socio-cultural aspects, infrastructure development, and technology and data access. These elements shape how nations address natural and human-induced disasters, influencing their ability to effectively prepare for and respond to crises (UNDRR, 2019). Institutions play a fundamental role in disaster governance, providing a structured framework for policy development, coordination, and response implementation. Handmer & Dovers (2012) defined institutions as formal and informal systems, laws, and processes that govern societal interactions in political, economic, legal, and administrative contexts. Institutions enable collective action by ensuring that expectations and roles remain stable while allowing for adaptation over time.

During emergency response operations, institutional structures and policies provide guidance for decision-making, resource allocation, and coordination among government agencies, non-governmental organizations (NGOs), and local communities. Previous studies indicate that clear regulatory frameworks, integrated institutional arrangements, and cross-sectoral coordination can support more effective and adaptive disaster response and strengthen institutional resilience (Wardhono et al., 2023; Margherita et al., 2024, Djalante et al., 2011; Woodall et al., 2024; Kapucu et al., 2024). Inter-organizational coordination is a key challenge in disaster response response because emergencies involve diverse organizations that must coordinate interdependent activities under conditions of uncertainty and rapidly changing information (Chen et al., 2008; Comes et al., 2020). Recognizing this challenge, the United Nations introduced the cluster system in 2005 to facilitate efficient communication, resource sharing, and coordination among humanitarian organizations (Ruesch et al., 2022). Effective coordination among stakeholders requires clear role definitions, structured communication, and well-established decision-making mechanisms.Assistance mobilized during disaster or emergency response phases may take the form of in-kind (goods), cash, or services. In-kind assistance refers to the distribution of physical items directly to affected communities. Food and non-food items, such as personal hygiene kits, blankets, tarpaulins, buckets, cooking utensils, educational supplies, rice, legumes, and other essentials, may be included. Cash assistance, on the other hand, is a form of monetary aid. Physical cash can be delivered through financial institutions or as electronic cash transfers (Cash Learning Partnership (CALP), 2023). In the last 30 years, cash assistance has been increasingly used as a form of humanitarian aid, including in Indonesia. For instance, following the 2018 disaster in Central Sulawesi, the government and international NGOs distributed approximately USD 25 million in cash assistance to the affected communities (Lassa et al., 2022). The increasing use of CVA also has organizational implications, requiring humanitarian organizations to adapt their capacities, data-management practices, and engagement with financial-service actors (Holm-Nielsen et al., 2022).

Formally established in 2017, the Cash Working Group (CWG) emerged from a series of collaborative discussions among humanitarian actors to address coordination gaps in the use of cash assistance. The origins of the CWG can be traced back to the Emergency Capacity Building (ECB) program, a collaborative initiative involving six international humanitarian organizations: CARE International, Catholic Relief Services, Mercy Corps, Oxfam GB, Save the Children, and World Vision. ECB program implemented in Indonesia from 2005 to 2013. The program aimed to strengthen the capacity of humanitarian response through improved speed, effectiveness, and coordination, including joint mechanisms such as rapid needs assessments within the first 72 hours after a disaster. Although the ECB program formally ended, its member organizations continued informal collaboration, particularly in exploring the use of cash assistance in disaster response. To support the effective coordination of cash assistance, the CWG was established under the Protection and Displacement Cluster, involving the Ministry of Social Affairs, local governments, and supporting partners (Ministry of Social Affairs of the Republic of Indonesia, 2022). Humanitarian Cluster Coordination (HCC) is a system introduced by the Inter-Agency Standing Committee (IASC) to enhance the effectiveness of humanitarian response. It operates by bringing together humanitarian actors working within the same sector to coordinate needs assessments, information sharing, response planning, resource mobilization, and the delivery of assistance. This helps to reduce duplication and identify gaps in humanitarian services.

Despite the formalization of coordination through the cluster system, a growing body of literature highlights persistent challenges in its practical implementation. One key limitation concerns the shallow nature of coordination, whereby interactions among actors often remain confined to information sharing rather than evolving into deeper collaboration and joint decision-making (Clarke & Campbell, 2015). Furthermore, conceptual and operational ambiguities frequently undermine coordination processes, particularly in distinguishing between coordination, cooperation, and collaboration. This ambiguity leads to misaligned expectations, duplication of efforts, and inefficiencies in program implementation (Adsanver et al., 2024). In addition, information system fragmentation remains a critical constraint, giving rise to what has been described as a coordination-information bubble, where large volumes of data exist but are insufficiently integrated to support timely and coherent decision-making (Comes et al., 2020).

The disparity between theoretical frameworks and practical implementation, particularly within the United Nation Office for the Coordination of Humanitarian Affairs (UN OCHA) cluster approach, is a significant challenge in this field. The effectiveness of cluster coordination varies according to organizational size and structure, necessitating further research on optimal applications. Additionally, the definition of coordination within clusters lacks universal clarity (Stumpenhorst et al., 2011). While formal guidelines advocate for a single, joint strategy, field experiences suggest that more flexible forms of coordination might yield better outcomes. Inter- and cross-cluster coordination is another critical issue, where maintaining accountability to beneficiaries and engaging national governments remain persistent challenges.

Coordination can be understood as the management of interdependencies among actors and activities directed toward shared goals (Malone & Crowston, 1990). In disaster response, where multiple organizations operate through interdependent tasks, coordination mechanisms are particularly important for establishing accountability, predictability, and common understanding among participating actors (Okhuysen & Bechky, 2009). In humanitarian settings, coordination refers to interdependence and interactions among diverse actors, such as international organizations, national governments, NGOs, the military, and private sector entities (Adsanver et al., 2024). Ergun et al. (2014) argued that coordination reduces duplication, broadens coverage, clarifies roles, and minimizes information distortion, thereby fostering efficient and effective logistics operations (Sopha, 2022).

Coordination in emergency response is a critical component in ensuring the efficiency and effectiveness of humanitarian operations. The complexity of emergency settings—characterized by high levels of uncertainty, diverse actors, limited resources, and rapidly

evolving needs—necessitates the implementation of adaptive and context-sensitive robust coordination mechanisms. However, institutional fragmentation, bureaucratic inefficiencies, and logistical constraints persist. To address these barriers, integrated governance frameworks, adaptive management strategies, and cross-sectoral collaboration are required to enhance communication and operational effectiveness (SIAP SIAGA, 2021). Technological capabilities and timely information sharing can support disaster response coordination by improving situational awareness, information exchange, and decision-making under rapidly changing conditions (Chen et al., 2008; Comes et al., 2020; Sopha, 2022). Leveraging international cooperation, multi-stakeholder engagement, and capacity-building initiatives can strengthen coordination mechanisms and ensure a more effective disaster management system in complex and uncertain environments.

Sopha (2022) conducted a case study in the Special Region of Yogyakarta, Indonesia, and identified a hybrid coordination mechanism that combines centralized structures with both vertical and horizontal collaboration. This model was particularly effective in managing relief operations in disaster-prone areas. The study also highlighted several challenges, including information uncertainty, lack of trust among organizations, limited technological capabilities for information sharing, and political and organizational diversity among stakeholders (Sopha, 2022). Building on a systems perspective, Margherita et al. (2024) introduced a Coordination Science Framework that emphasizes three core dependencies essential in crisis coordination: fit (alignment of tasks and roles), flow (synchronization of resources and activities), and share (information and knowledge dissemination). The framework conceptualizes emergency management as a life cycle comprising prevention, awareness, response, and recovery phases. Collaborative leadership and multi-stakeholder engagement are foundational to enabling coordinated decision-making and resilience across different types of crises (Margherita et al., 2024). On the other hand, Okhuysen & Bechky (2009) conceptualized coordination as a collective accomplishment produced through five mechanisms: plans and rules, roles, routines, objects and representations, and proximity. These mechanisms cause three integrating conditions. Accountability makes responsibilities and contributions visible; predictability enables actors to anticipate the timing, sequence, and consequences of interdependent work; and common understanding provides a shared interpretation of the task, actors' expertise, and how their activities fit together. In humanitarian coordination, these conditions are observable in terms of the clarity of leadership and referral pathways, the stability of activation and reporting procedures, and the alignment of beneficiary criteria, transfer values, geographic coverage, and shared data. These studies demonstrate that coordination arrangements vary across disaster contexts and institutional settings. This variation underscores the need to examine how an established coordination framework operates within the specific institutional and operational context of humanitarian cash coordination in Indonesia.

This study was conducted in Cianjur Regency, West Java, Indonesia, which was severely affected by a shallow magnitude 5.6 earthquake on 21 November 2022. The earthquake occurred at 13:21 Western Indonesian Time (WIB), at a depth of approximately 11 km. According to data compiled by the Cianjur Regency Disaster Management Agency in the Post-Disaster Rehabilitation and Reconstruction Plan (R3P), the earthquake affected 16 subdistricts and 182 villages. It resulted in 334 confirmed deaths, eight missing persons, 637 injuries—593 severe and 44 minor—and the displacement of 114,683 people. The earthquake also damaged 53,408 housing units and critical public infrastructure, including health facilities, educational institutions, places of worship, and government buildings (Cianjur Regency Government, 2023). The scale of the impacts and the involvement of multiple governmental and humanitarian actors made Cianjur a relevant setting for examining CWG coordination during the emergency response.

This study adopted the coordination framework developed by Okhuysen & Bechky (2009) as an analytical framework for examining humanitarian cluster coordination. The framework was operationalized by examining five coordination mechanisms in the empirical data. Formal guidance and activation procedures were examined as plans and

rules; the allocation of authority and focal-point responsibilities as roles; recurring meetings, reporting, monitoring, and review processes as routines; beneficiary lists, coordination reporting tools, market assessments, and transfer-value calculations as objects and representations; and relational and geographic closeness among actors as proximity. Evidence related to each mechanism was then examined in relation to three integrating conditions: accountability, predictability, and common understanding. This mechanism-to-condition linkage provided an analytical bridge between observed coordination practices and their implications for coordination across national, district, and village levels.

This study builds on three strands of prior research in three ways. Clarke & Campbell (2015) identified a persistent gap between the formal promise and practical depth of cluster coordination, while Comes et al. (2020) showed how a coordination-information bubble can be created by abundant but fragmented information. Sopha (2022) demonstrated a hybrid mechanism in Indonesia that combines centralized, vertical, and horizontal coordination. Building on these contributions, the present study traces how coordination changes over time and across national, district, and village levels, showing that government mandates and humanitarian network capacity combine in a multilevel hybrid coordination arrangement rather than in a single, stable organizational form.

Accordingly, this study examines how coordination dynamics were formed within Indonesia's Humanitarian Cluster Coordination system during the 2022 Cianjur earthquake response through the Cash Working Group. This study focuses on how governmental institutions, NGOs, and international agencies designed, implemented, and monitored cash assistance, and how formal structures and informal practices jointly shaped accountability, predictability, and common understanding. The results of this study are expected to strengthen coordination within the CWG and related institutions, particularly in cash assistance during the emergency response.

2. Methods

This study employed a qualitative case-study approach to analyze the CWG coordination during the 2022 Cianjur earthquake response. Coordination was treated ontologically as a context-dependent interactional process and examined through interpretative epistemology. The case was geographically bounded to Cianjur District, with fieldwork conducted in Gasol and Benjot villages in Cugenang Sub-district, Ciputri Village in Pacet Sub-district, and Rancagoong Village in Cilaku Sub-district. The analysis nevertheless incorporated perspectives from actors operating at the national, district, and village levels to examine how coordination was organized across levels of governance. Purposive sampling was used to select key informants, using an eligibility parameter of having direct involvement in the coordination processes of the CWG, both prior to and following the 2022 Cianjur earthquake. The selection was not based on formal institutional positions, but rather on substantive experience in multi-actor coordination practices. This approach was intended to generate in-depth insights into coordination dynamics, consistent with Okhuysen & Bechky (2009). The coordination of cash assistance during the Cianjur earthquake response involved actors from the central government, the Cianjur Regency government, and non-governmental organizations.

Data were collected through 26 semi-structured interview sessions involving 29 participants. Twenty-four sessions were conducted as individual interviews, while two sessions were conducted with village government representatives. Two of the village-level sessions involved one representative each, whereas the interviews in Benjot and Rancagoong were attended by three and two village officials, respectively. As all attendees actively participated in answering the interview questions and their responses were included in the analysis, each attendee was counted as a research participant. Overall, the study involved 14 representatives of government institutions at the national, district, and village levels and 15 representatives of NGOs, United Nations agencies, and other

humanitarian organizations. A total of 29 informants participated in this research, as summarized in Table 1.

Table 1. List of informants

Participant no	Interview session	Initial	Institution
Informant from the National Government			
1	S01	N1	Coordinating Ministry of Human Development and Cultural Affairs
2	S02	N2	Ministry of Social Affairs
3	S03	N3	The National Disaster Management Agency
4	S04	N4	The National Disaster Management Agency
Informant from the District Government			
5	S05	D1	Disaster Management Agency of the Cianjur District
6	S06	D2	Former – Cianjur District Social Office (now in Cianjur District Archives and Library Office)
7	S07	D3	Cianjur District Social Office
Informant from the Village Level			
8	S08	V1	Benjot Village government representative -1
9	S08	V2	Benjot Village government representative -2
10	S08	V3	Benjot Village government representative -3
11	S09	V4	Ciputri Village government representative
12	S10	V5	Gasol Village government representative
13	S11	V6	Rancagoong Village government representative -1
14	S11	V7	Rancagoong Village government representative -2
Informant from Non-Government at National Level			
15	S12	X1	United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) - Co-Lead of the National CWG
16	S13	X2	Catholic Relief Service – CWG Advocacy team
17	S14	X3	Wahana Visi Indonesia - Co-Lead of the National CWG
18	S15	X4	Indonesian Society for Disaster Management (MPBI/ Masyarakat Penanggulangan Bencana Indonesia)
19	S16	X5	Indonesian Red Cross - CWG Advocacy team
20	S17	X6	Save the Children - CWG Advocacy team
21	S18	X7	Yayasan Plan International Indonesia – YPII
22	S19	X8	Save the Children Indonesia
Informant from Non-Government Organization at the District Level			
23	S20	Y1	Former CWG Co-lead for Cianjur Emergency Response/ Wahana Visi Indonesia
24	S21	Y2	*Co-Lead* for Protection and Displacement Cluster/ IOM
25	S22	Y3	Indonesian Red Cross – Cianjur office
26	S23	Y4	Former Cianjur Emergency Response Team – Yayasan Plan International Indonesia
27	S24	Y5	Pulih Foundation
28	S25	Y6	Indonesian Red Cross – Cianjur Office
29	S26	Y7	Former Cianjur Emergency Response Team - Human Initiative (HI)

The four villages were purposively selected based on their documented involvement in cash-assistance implementation and direct engagement with governmental or humanitarian coordination actors. The selected sites also reflected variation across affected subdistricts and local coordination arrangements during the Cianjur earthquake response. The sampling strategy was intended to support in-depth, cross-level analysis rather than statistical representation of all 182 affected villages. Consequently, the findings should not be interpreted as capturing the full range of damage, accessibility, or assistance experiences across Cianjur. Nevertheless, the selected cases provide empirical evidence of how CWG coordination arrangements were enacted and adapted at the district and village levels, enabling the study to identify recurring coordination mechanisms and operational constraints across the sites examined. The study therefore supports analytical, rather than

statistical, generalization regarding the institutional and operational dynamics of humanitarian cash coordination.

Data were collected from mid-September to late October 2025 through field observation, document review, and in-depth interviews conducted in person or online. Each interview session lasted approximately 40–60 minutes. The documents analysed included regulations on disaster management and humanitarian coordination, CWG operational records—such as meeting minutes, 4W matrices, market assessments, and cash-assistance guidelines—and implementation reports from organizations delivering cash assistance. Collectively, these documents enabled the study to compare formal arrangements with their operational application and to triangulate accounts obtained through interviews.

The interview design sought to maintain comparability across participants while accommodating differences in institutional roles and levels of governance. Each interview began with an explanation of the study procedures, followed by the informed-consent process. Six actor-specific interview guides were developed for national government actors, district government actors, village government representatives, non-governmental members of the national CWG, non-governmental members of the Cianjur CWG, and CWG facilitators at the national level and Cianjur district. Each guide contained approximately 10–11 core open-ended questions organized into three thematic sections: regulatory and policy frameworks; coordination arrangements and decision-making processes; and coordination challenges and priorities for strengthening the system. Although the guides followed this common structure, the wording and follow-up probes were adapted to participants' institutional roles, enabling comparison across actor groups while capturing role-specific perspectives. Through these questions, the interviews traced the development of CWG coordination before the Cianjur earthquake and examined how coordination arrangements were activated, implemented, and adapted during the emergency response. All interviews were transcribed verbatim for thematic analysis. Table 1 lists the informants included in the study.

Of the 29 respondents interviewed in this study, two were no longer affiliated with their original institutions at the time of data collection. These included informant D2, who served as the Head of the Cianjur Social District Office during the emergency response, and informant Y1, who previously acted as the co-lead of the CWG- in Cianjur, worked for 1 NGO. Both informants had assumed new positions in different institutions by the time the data collection was conducted. In addition, two informants representing national-level government institutions (ministries) were reassigned to different divisions within the same institutions. Similarly, two informants from non-governmental organizations had taken on new roles, although they remained within their respective organizations.

The interview transcripts, field notes, and documents were managed and coded in NVivo. The first author conducted the primary coding through an iterative process based on Braun & Clarke's (2006) six phases: familiarization, initial coding, searching for themes, reviewing themes, defining and naming themes, and reporting. Initial codes were generated inductively from the data and deductively from Okhuysen & Bechky's five coordination mechanisms and three integrating conditions. Codes were progressively grouped into categories and higher-order themes, while matrices linked quotations, initial codes, analytical themes, interpretations, and documentary evidence. Theme credibility was checked by repeatedly comparing themes with complete transcripts, examining divergent evidence, triangulating interviews across national, district, village, NGO, and UN actors with policy and response documents, and discussing the thematic structure and interpretations among all three authors. The data condensation, display, and conclusion verification followed the iterative logic of Miles et al. (2014). This approach allowed interpretations to be repeatedly examined against the interview data which strengthen the credibility and consistency of the findings.

3. Results and Discussion

3.1 Development of the Cash Working Group (CWG) in Indonesia

The development and strengthening of the CWG-in Indonesia did not follow a linear trajectory, nor was it solely driven by top-down formal policy processes. Evidence from interviews with three non-governmental informants, each with extensive involvement in humanitarian cash assistance dating back to the Aceh emergency response in 2005, indicates that the development of the CWG was neither linear nor driven exclusively by formal institutional change. Instead, their accounts collectively suggest that coordination capacity accumulated through successive disaster responses. Following the CWG's formal establishment in 2017, its coordination mechanism was first operationally tested during the 2018 Central Sulawesi earthquake, tsunami, and liquefaction response, when actors began refining shared practices related to the Minimum Expenditure Basket, transfer-value determination, and common monitoring indicators. Lessons from this experience were subsequently adapted during the 2021 West Sulawesi earthquake and Cyclone Seroja emergency responses and later informed the 2022 national cash-assistance guidelines and coordination during the Cianjur earthquake response. These findings demonstrate that the CWG evolved through an iterative process in which operational experience from successive responses was progressively translated into coordination practices and institutional development.

At the global level, the cluster approach was introduced in 2005 as part of humanitarian reform efforts to improve coordination, accountability, and effectiveness in disaster response. This approach began to gain traction in Indonesia following the 2006 Yogyakarta earthquake, which served as an early entry point for testing cluster-based coordination mechanisms. Under this mechanism, humanitarian actors are organized into sector-specific clusters, each with a designated lead responsible for coordinating participating organizations and ensuring clear leadership and accountability within the sector (International Council of Voluntary Agencies (ICVA), 2017). The national framework was subsequently formalized through the Decree of the Head of National Agency for Disaster Management/*Badan Nasional Penanggulangan Bencana* (BNPB) No. 173 of 2014, which established the national disaster management cluster system consisting of eight main clusters. Further efforts to strengthen coordination were reinforced through the issuance of the Minister of Social Affairs Regulation No. 26 of 2015, which provided operational guidance for the Displacement and Protection Cluster.

The establishment of the CWG-in Indonesia can be understood as an institutional response to the growing need for more structured coordination in the implementation of cash assistance in the emergency context. Between 2015 and 2016, discussions on cash assistance intensified among non-governmental actors, including NGOs and United Nations agencies but remained within a relatively closed network, with limited formal participation from government institutions. This condition reflects a coordination dynamic characterized by limited accountability and predictability, as interactions remain confined within a relatively closed network of actors without clear institutional mandates. An informant from a United Nations agency who participated in these early discussions recalled proposing the involvement of the Ministry of Social Affairs because its participation could extend advocacy beyond the existing NGO–UN network. According to her account, the annual review of the Protection and Displacement Cluster in late 2016 was subsequently used to introduce cash assistance within a formal government-led coordination platform. The institutional significance of this shift was reinforced by three other informants: an international NGO informant emphasized the importance of ministerial ownership and leadership for sustaining coordination, while government informants from Coordinating Ministry for Human Development and Cultural Affairs and the Ministry of Social Affairs highlighted the dynamics associated with personnel turnover and the need for clear institutional authority. Taken together, these accounts indicate that embedding cash-assistance coordination within formal government structures was essential for strengthening advocacy and

legitimacy, sustaining leadership, preserving institutional knowledge, and clarifying authority across participating institutions. The formal establishment of the CWG in 2017 was driven by the need to create a more inclusive and structured coordination mechanism. The initiative also aimed to address the limitations of the ECB consortium, which were perceived as relatively exclusive and not fully integrated with government-led coordination systems. As reflected by an informant:

> *"…ECB was quite exclusive… if we wanted to develop guidelines and broader coordination, we needed a working group that could involve more actors" (X1, UN OCHA).*

The CWG was institutionalized within the national humanitarian cluster system, as part of the Protection and Displacement Cluster, where the Ministry of Social Affairs coordinates. Interview accounts from government and non-government actors indicated that placing the CWG within a government-led cluster provided an institutional basis for clarifying leadership, authority, and responsibility. However, this formal placement did not immediately ensure predictable coordination because the operational procedures and routines required to activate and manage the mechanism had not yet been fully established.

From an analytical perspective, based on the information gather in the interview process, that the formation of the CWG was shaped by three key drivers. *First*, there was a strategic need to expand advocacy for cash assistance beyond non-governmental actors and into formal government policy arenas. *Second*, existing coordination platforms' limitations, particularly their exclusivity and lack of formal authority, necessitated the creation of a more inclusive and legitimate coordination mechanism. Third, deliberate efforts were made to institutionalize technical discussions on cash assistance within the national cluster system, thereby embedding coordination practices within a formal governance structure. However, the institutionalization of the CWG did not immediately translate into fully operational coordination practices. This limitation was also identified by a BNPB representative, who emphasized that clusters needed to develop standard operating procedures and concepts of operations during the preparedness phase so that their integration with the emergency command post would already be clear when a disaster occurred.

> "*During the preparedness phase, each cluster should develop standard operating procedures and a concept of operation. They should determine in advance how the coordination mechanism will be integrated into the emergency command post when a disaster occurs" (N4, BNPB).*

The substantive development of the CWG occurred through its application in real disaster contexts, particularly during the 2018 Central Sulawesi earthquake, tsunami, and liquefaction response. The CWG was activated at the provincial level under the coordination of the Provincial Social Affairs Office, reflecting the governance structure adopted during the emergency response, which integrated coordination across the affected districts of Palu, Sigi, and Donggala. This phase represents a critical turning point in the evolution of the CWG, as coordination mechanisms were tested and refined under real-time operational pressures. As described by the informant:

> *"…2018 was essentially a space for experimentation… experimentation with the cluster system and with the CWG… it was fertile ground to see how the CWG could actually function at the local level" (X1, UN OCHA).*

Thus, the Central Sulawesi response functioned as a formative moment in strengthening coordination practices, enabling actors to develop shared expectations, test operational procedures, and align coordination mechanisms. In terms of coordination theory, this process contributed to the strengthening of predictability and common understanding among actors, as coordination moved beyond conceptual discussions into

practical implementation. Lessons accumulated through the Central Sulawesi response subsequently informed the CWG's development as a more structured and operational coordination mechanism. Evidence from the Cianjur response illustrates this development: an NGO implementer reported that coordination through the CWG enabled organizations operating in overlapping locations to agree on their respective geographical coverage, in some cases down to the community-unit level, thereby reducing potential duplication. Within this broader coordination arrangement, state actors included the National Disaster Management Agency (BNPB), the Ministry of Social Affairs (MoSA) as the cluster lead, and the Coordinating Ministry for Human Development and Cultural Affairs which facilitates inter-ministerial coordination. At the sub-national level, local governments, including district authorities, social affairs offices, and village administrations, play operational roles in managing aid delivery, beneficiary identification, and coordination at the community level.

Non-government actors play a critical role in supporting coordination processes. There are 2 organizations who act as CWG co-facilitators: UN OCHA and Wahana Visi Indonesia. The co-facilitator' role is to support the MoSA in managing coordination among non-government organizations involved in the CWG. Furthermore, a broader group of humanitarian organizations contributes through technical expertise, program implementation, and policy advocacy. The CWG is supported by an advocacy group consisting of key international and national organizations, and approximately 60–70 organizations are involved in CWG-related coordination activities. The CWG advocacy group is think-tank that serves as a technical and strategic platform for knowledge development and policy input. The advocacy group comprising nine non-governmental organizations that serve as a technical and strategic platform for knowledge development and policy input. These organizations include Catholic Relief Services (CRS), Save the Children Indonesia, World Vision Indonesia (WVI), Oxfam, Yayasan Plan International Indonesia (YPII), the Indonesian Red Cross (PMI) and the International Federation of Red Cross and Red Crescent Societies (IFRC Indonesia), the World Food Programme (WFP), UNICEF, and UN OCHA.

These findings suggest that the establishment of the CWG was not merely an administrative process, but rather a dynamic institutional evolution shaped by the interaction between informal collaboration and formal governance structures. In line with coordination theory, this process illustrates how the integration of informal networks into formal institutional arrangements can gradually lead to improvements in accountability, predictability, and common understanding. At the same time, it highlights the importance of bridging relational coordination practices with formal governance mechanisms to achieve more effective and sustainable coordination outcomes in humanitarian settings. The evolution of the CWG demonstrates that coordination dynamics within humanitarian cluster systems are shaped by the interplay between formal institutionalization and practice-based adaptation. This finding reinforces the argument that effective coordination cannot be achieved solely through regulatory design, but requires continuous refinement through implementation, interaction, and learning across actors.

Figure 1 illustrates the institutional trajectory and progressive strengthening of cash coordination mechanisms within Indonesia's Humanitarian Cluster Coordination framework. Overall, the development of the Cash Working Group (CWG) reflects a gradual and adaptive process, shaped by operational experience in disaster response and efforts to formalize coordination within national governance structures. The initial implementation of the CWG coordination mechanism in 2018 marked a critical phase in the adoption of a more structured and coordinated approach to cash assistance delivery. This period can be understood as an early operationalization phase, in which coordination mechanisms were tested in real disaster contexts. The continuity of this practice is reflected in the subsequent CWG activation during the 2021 West Sulawesi earthquake response and the Cyclone Seroja response in East Nusa Tenggara (NTT) in the same year. Interview accounts from two national-level humanitarian actors, one representing a United Nations agency and the other an international NGO, together with documentary evidence of subsequent CWG activations,

suggest that the Central Sulawesi, West Sulawesi, and Cyclone Seroja responses formed part of a cumulative learning process through which coordination practices were tested, adapted, and carried forward across successive emergencies.

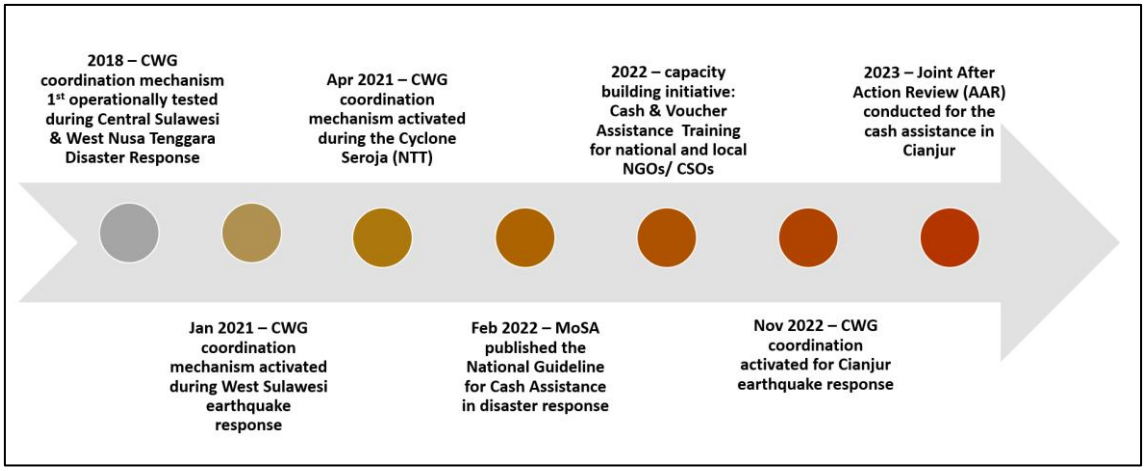

Fig. 1. Key milestones in the development of the cash working group in Indonesia

Building on these operational experiences, 2022 represents a pivotal period in the normative and operational institutional strengthening of cash coordination. This phase was characterized by the formulation and publication of national cash assistance guidelines by the Ministry of Social Affairs in collaboration with the CWG, the implementation of capacity-building initiatives, including training on cash distribution mechanisms for national and local non-governmental organizations, and the application of coordination mechanisms during the Cianjur earthquake response. Together, these developments marked a shift toward a more institutionalized coordination framework, although its operationalization remained incomplete. The guidelines were informed by accumulated lessons learned and good practices derived from implementing cash coordination mechanisms in previous disaster responses across Indonesia. Broadly, the document outlines standards, principles, and operational procedures for the implementation of cash assistance in disaster contexts, involving both governmental and non-governmental stakeholders. Document review indicates that the guidelines established a formal national reference intended to strengthen multi-stakeholder coordination and improve the effectiveness and accountability of cash-assistance delivery (Ministry of Social Affairs of the Republic of Indonesia, 2022). Nevertheless, interviews with national and subnational government representatives and an international NGO informant indicated that this normative development had not yet been fully translated into standardized activation procedures and routine coordination arrangements at the subnational level.

Within this framework, the CWG plays a central role in facilitating policy alignment, information sharing, and collective decision-making processes to ensure effective, efficient, and accountable delivery of cash assistance. This mechanism is replicated at the sub-national level through the establishment of sub-national CWGs, coordinated by district/ provincial Social Affairs Offices, and integrated into the Disaster Emergency Command System (*Sistem Komando Penanganan Darurat Bencana,* SKPDB) (Ministry of Social Affairs of the Republic of Indonesia, 2022). The coordination mechanism extends beyond a communication forum and encompasses technical processes across the full program cycle of cash assistance. This includes joint market assessments, feasibility analysis, program design, implementation, and evaluation. Through this coordinated approach, actors are encouraged to minimize duplication of interventions, harmonize transfer values, align delivery mechanisms, and ensure coherence with existing social protection systems. In addition, the CWG supports the establishment of regular reporting systems, joint monitoring practices, and accountability mechanisms for the affected populations and other stakeholders.

This process was further reinforced in 2023 through the implementation of an After Action Review (AAR) on cash assistance distribution during the response to the Cianjur earthquake. The AAR reflects an increasing emphasis on institutional learning, performance evaluation, and the refinement of coordination practices, suggesting a more systematic approach to strengthening governance across stakeholders. Importantly, the trajectory presented in Figure 1 indicates that CWG activation varied across disaster events and was contingent on context-specific coordination needs. Interview accounts associated these needs with disaster scale and the relative response capacities of participating actors. An informant from an international NGO reported that mobilizing external funding, and, consequently, non-governmental intervention, was difficult unless a disaster reached an exceptional scale. A government informant from Coordinating Ministry for Human Development and Cultural Affairs further explained that joint assessments were used to compare local needs with government response capacity and identify unmet needs that could be addressed through the CWG. Taken together, these accounts suggest that structured CWG coordination becomes particularly important when the scale of unmet needs exceeds government response capacity and greater involvement by non-governmental actors requires contributions to be aligned.

Taken together, these dynamics indicate that the development of cash coordination mechanisms in Indonesia is not solely driven by formal institutional mandates, but also shaped by contextual demands and adaptive responses to operational realities. This underscores the importance of viewing coordination as a dynamic and contingent process, in which institutional arrangements and practical needs continuously interact to shape coordination outcomes. This trajectory is comparable to that of the Philippines, where the cluster approach became more effective when it was adapted to national institutions and local operating conditions rather than applied as a uniform international template (Abaya et al., 2020). The Indonesian case similarly demonstrates the importance of national ownership, but it extends that comparison by showing how a government-led cluster can depend simultaneously on formal public authority and the technical, relational, and facilitative capacity of humanitarian networks across multiple administrative levels.

3.2 Evidence from the cash working group during the emergency response to the Cianjur earthquake

Following the earthquake, CWG coordination developed through a sequence of informal, organizational, and formal arrangements. Interview accounts and document review show that initial communication began through the national CWG WhatsApp group one day after the earthquake, whereas more structured arrangements—including an online coordination meeting, a dedicated Cianjur CWG communication group, and locally issued guidance—emerged progressively over the subsequent weeks and months. This temporal gap between rapid relational mobilization and slower operational formalization provides the central empirical context for examining how the CWG operated during the response. These coordination processes unfolded within a broader institutional framework established through a series of government decrees defining the disaster status and response governance arrangements, as summarized in the table below.

Table 2 illustrates the evolving dynamics of disaster status determination in the 2022 Cianjur earthquake response, which unfolded in a phased and continuous manner, transitioning from the emergency response phase to rehabilitation and reconstruction. In the initial phase, policy measures primarily focused on life-saving efforts, evacuation, and the provision of basic needs. This phase was subsequently extended multiple times to accommodate the complexity of managing displaced populations and addressing the broader impacts of the disaster. A policy shift occurred toward the end of December 2022 with the transition from the emergency response phase to the emergency-to-recovery phase. This transition marked a reorientation from immediate response efforts toward early recovery activities, including the construction of temporary shelters and the stabilization of social conditions among affected communities. Through subsequent

extensions of the transition phase, the government placed greater emphasis on accelerating socio-economic recovery and developing permanent housing. This process eventually led to the rehabilitation and reconstruction phase, which is characterized as a long-term recovery stage without a specific emergency status designation, focusing on permanent reconstruction, livelihood restoration, and community resilience.

Table 2. Government decrees for the response to the Cianjur earthquake

No	Disaster phase	Emergency status decree	Period	Remarks
1	Emergency Response (initial)	360/Kep.658-BPBD/2022	21 Nov – 4 Dec 2022	Initial declaration; focus on evacuation, SAR, and basic needs
2	Emergency Response (Extension I)	360/Kep.681-BPBD/2022	4 Dec – 20 Dec 2022	Management of affected communities and shelter management
3	Emergency Response (Extension II)	360/Kep.707-BPBD/2022	20 Dec – 31 Dec 2022	Preparation to Transition Phase – development of temporary shelter
4	Transition Phase (Emergency to Recovery) – Initial	360/KEP.420-BPBD/2022	late Dec 2022 – early 2023	Transition to the Recovery Phase
5	Transition Extension I	360/KEP.110-BPBD/2023	± Mar – Jun 2023	Early rehabilitation and stabilization of the IDP
6	Transition Extension II	360/KEP.205-BPBD/2023	21 Jun – 18 Sep 2023	Acceleration of permanent housing & social-economic recovery
7	Rehabilitation & Reconstruction (RR)	No separate emergency-status decree identified	Sep 2023 onwards	Recovery activities were guided by the R3P and related technical policies, focusing on permanent housing, livelihood restoration, and resilience building.

The coordination priorities of the CWG evolved over the course of the Cianjur earthquake response. In the immediate aftermath of the earthquake, coordination focused on initiating inter-organizational communication, identifying organizational response intentions, and gathering initial information relevant to assessing the feasibility of cash assistance. As the response progressed, attention shifted toward more structured information exchange and operational coordination, including 4W data sharing, market monitoring, and discussion of the joint market assessment findings. During the subsequent transition period, coordination increasingly focused on formalizing local arrangements, harmonizing monitoring approaches, and reviewing implementation experiences. Figure 2 summarizes this progression from early communication and assessment to operational coordination, formalization, and subsequent reflection and learning.

Figure 2 also highlights an important distinction between the rapid activation of existing coordination networks and the more gradual development of response-specific coordination arrangements. Communication among CWG co-facilitators and members began on 22 November 2022, one day after the earthquake, through the existing Pokja BaNTu WhatsApp Group (WAG), where initial information and organizational response intentions were exchanged. In parallel, assessment-related coordination was undertaken through the Cianjur Joint Needs Assessment (JNA) WAG, which brought together actors across sectors, clusters, and organizations and included coordination of the market assessment used to assess the feasibility of cash assistance. The first online CWG coordination meeting was held on 30 November (D+9), followed by the establishment of a

dedicated Cianjur CWG WAG on 5 December (D+14). The latter therefore represented a transition toward a more response-specific coordination channel rather than the initiation of coordination itself. Formalization continued progressively thereafter, culminating in the issuance of locally endorsed technical guidance for cash assistance on 30 March 2023, approximately four months after the earthquake. Taken together, this sequence suggests that coordination was activated rapidly through existing relational and inter-organizational networks, while dedicated and locally formalized coordination arrangements developed more gradually over the course of the response.

Coordination was further strengthened through a series of formal meetings. The second coordination meeting, held virtually on December 7, 2022, with the Ministry of Social Affairs and the Social Affairs Office of Cianjur District, focused on data reporting and market monitoring. This was followed by a third meeting on 22 December, 2022, during which findings from the Joint Market Assessment were discussed to inform subsequent cash-assistance planning. The fourth meeting, conducted on January 18, 2023, addressed follow-up data reporting, the drafting of a cash assistance decree, and discussions on the proposed transfer value.

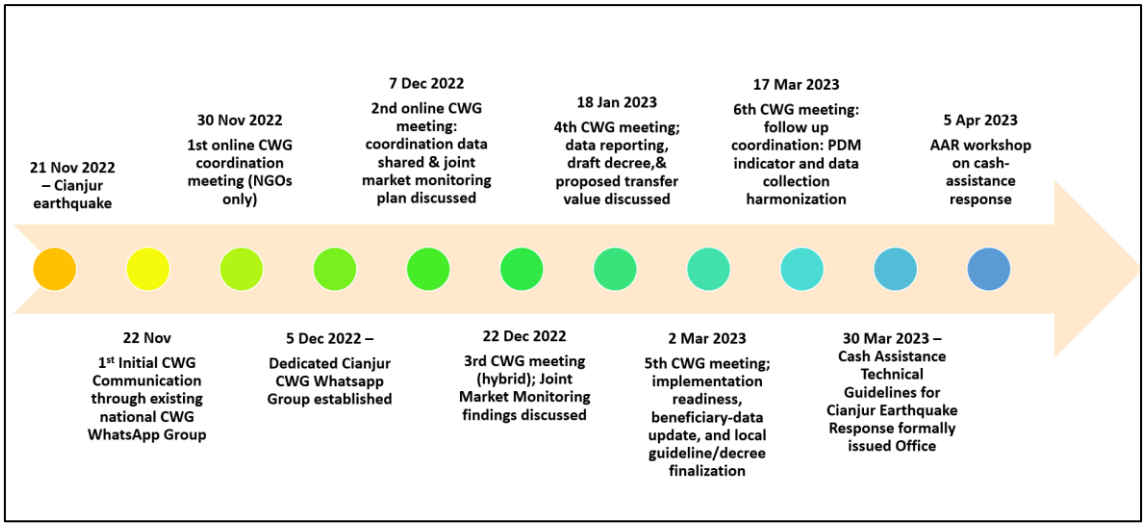

Fig. 2. CWG coordination timeline during the Cianjur earthquake response

By March 2023, coordination efforts had increasingly shifted toward operational and institutional aspects. The fifth meeting, held on March 2, 2023, focused on implementation readiness, updating beneficiary data, and finalizing the cash assistance decree. On March 17, 2023, this was followed by further discussions with local government authorities, particularly regarding the harmonization of indicators and data collection mechanisms. The Minister of Social Affairs Regulation No. 4 of 2015, which specifically governs direct cash assistance for disaster-affected populations, is one of the key national regulations underpinning cash assistance in disaster response (Ministry of Social Affairs of the Republic of Indonesia, 2015). These processes culminated in the issuance of the General Guidelines for Cash Assistance by the Cianjur District Social Affairs Office through Decree No. 460/KEP.119-DINSOS/2023 on March 30, 2023. The decree served as a key operational reference for humanitarian organizations during the Cianjur emergency response in implementing cash assistance. It was developed on the basis of a range of regulatory frameworks, including national laws, government regulations, ministerial regulations, regional regulations, and local decrees.

Beyond the formalization of the regulatory framework, the Cianjur response also illustrates how repeated interaction, shared tools, and locally developed arrangements created conditions that could support accountability, predictability, and common understanding. Meetings, exchanges through digital communication platforms, and engagement with government actors helped clarify responsibilities and facilitate information sharing, while locally endorsed guidance provided a more consistent

operational reference for participating organizations. The After Action Review conducted in April 2023 further provided a mechanism for reflecting on implementation experience and identifying areas for improvement. Taken together, these developments indicate that formalization and sustained interaction did not strengthen the three integrating conditions uniformly across actors and levels of governance. The extent to which these mechanisms contributed to accountability, predictability, and common understanding depended on whether formal mandates, routines, shared tools, and locally endorsed arrangements were translated into operational practice. The following section examines these variations across the three integrating conditions.

3.3 From the coordination mechanisms to the integrating conditions

The development of CWG coordination over time suggests that the three integrating conditions—accountability, predictability, and common understanding—did not improve automatically as coordination arrangements became increasingly formalized. Accountability strengthened where formal mandates were translated into designated focal points, operational responsibilities, beneficiary-list validation, and follow-up mechanisms, but remained uneven where these arrangements were incomplete. Predictability was the most vulnerable condition, as activation procedures, recurring coordination routines, shared tools, and locally endorsed guidance were progressively established during the response rather than being fully in place beforehand. Common understanding improved through joint assessments, recurring coordination meetings, and shared operational guidance, but remained partial because beneficiary data, selection criteria, transfer-value calculations, and interpretations of field conditions were not consistently aligned. Across all three conditions, the contribution of the five coordination mechanisms depended not only on their formal presence, but also on whether they were translated into usable and consistently applied operational arrangements across national, district, and village levels..

Accountability, formal placement under the Ministry of Social Affairs made government leadership more visible, while the locally endorsed cash-assistance guidelines clarified operational standards. Nevertheless, accountability remained incomplete when national mandates were not translated into named focal points, a detailed division of tasks, consistent village engagement, and functioning complaint and feedback mechanism/ pathways. The evidence therefore supports accountability only conditionally: formal roles strengthened accountability when responsibilities could be traced through operational actions, validated beneficiary lists, public communication, monitoring, and follow-up; otherwise, actors continued to rely on personal relationships and informal facilitation.

Predictability emerged as the most vulnerable integrative condition. It strengthened when activation procedures, designated focal points, recurring meeting schedules, shared coordination and reporting tools, market-assessment procedures, and agreed transfer-value guidance provided a more stable sequence for interdependent tasks. In Cianjur, coordination was activated rapidly through existing arrangements: communication among CWG members began on 22 November 2022 through the main Pokja BaNTu WhatsApp Group, while assessment-related coordination, including the market assessment, was undertaken in parallel through the Cianjur Joint Needs Assessment (JNA) WAG. More response-specific arrangements were established progressively, with the first online CWG coordination meeting held on 30 November (D+9) and a dedicated Cianjur CWG WAG created on 5 December (D+14). The locally endorsed humanitarian cash-assistance guideline was issued on 30 March 2023, approximately four months after the earthquake. These developments indicate that predictability did not depend on the initial activation of communication alone, but on the progressive establishment of recurring routines, shared tools, designated coordination channels, and locally endorsed operational guidance. Limited preparedness meetings and activation simulations prior to the disaster further constrained the extent to which actors could anticipate coordination procedures in advance. The national guideline provided an important institutional foundation, but was insufficient on its own to ensure predictable activation and operational workflows at the local level.

Common understanding. Barriers to common understanding among humanitarian organizations, including international NGOs, local government and village actors arose not only from insufficient information, but also from differences in institutional mandates, technical language, data formats, beneficiary criteria, transfer-value calculations, preferred geographic coverage, and awareness of field conditions. A Ministry of Social Affairs informant emphasized that the most sensitive issue was often not the amount transferred, but the coverage of beneficiaries, as communities might prefer smaller transfers if assistance were perceived as being distributed more equitably. Joint market assessments, recurring hybrid meetings, locally endorsed guidance, public validation of beneficiary lists, and the exchange of field information and local accounts helped actors negotiate a more shared interpretation of needs and operational priorities. Nevertheless, fragmented beneficiary data, inconsistent decision-making criteria, and uneven local capacity meant that common understanding remained partial and continuously negotiated rather than fully established.

These findings reinforce and extend the literature on humanitarian coordination. This finding supports Clarke & Campbell's (2015) observation that cluster coordination often operates through alignment and harmonization rather than a single strategy that binds all participating organizations. It also reflect the coordination-information bubble identified by Comes et al. (2020), demonstrating that the availability of more reports and datasets does not necessarily produce a common operational picture when beneficiary categories, data formats, transfer-value calculations, and decision-making criteria remain fragmented. Consistent with evidence from the Philippines presented by Abaya et al. (2020), the Cianjur case further shows that the cluster approach cannot be uniformly applied but must be adapted to domestic institutional arrangements, local capacities, and operational realities. This study extends these insights through the concept of multilevel hybrid coordination, in which government authority provides formal mandates and legitimacy, while NGOs and UN networks contribute technical facilitation, field information, institutional memory, and cross-level connections. However, only when formal mandates were translated into clear roles, recurring routines, shared coordination tools, and locally endorsed operational guidance did this arrangement strengthen accountability, predictability, and common understanding.

Policy implications. The findings point to differentiated but complementary actions across levels of governance. At the national level, the Ministry of Social Affairs should clarify the CWG mandate within the national disaster-management cluster system and establish an operational activation protocol specifying activation criteria, designated focal points, divisions of responsibility, beneficiary-data management and validation procedures, transfer-value parameters, reporting requirements, and feedback and complaint-handling mechanisms. BNPB should integrate CWG activation and cash-assistance scenarios into disaster emergency command arrangements and relevant contingency-planning processes, while the Coordinating Ministry for Human Development and Cultural Affairs should support policy alignment among the ministries and agencies involved in humanitarian cash assistance.

Preparedness and subnational operationalization are equally important. CWG co-facilitators and supporting NGO and UN actors can support regular preparedness meetings, activation simulations, updated partner and focal-point mapping, shared coordination and reporting tools, and the preservation of institutional memory, while progressively strengthening facilitation capacity among local actors. At the subnational level, District Disaster Management Agencies and District Social Affairs Offices should operationalize and adapt national arrangements to local conditions, including contexts characterized by limited institutional capacity, restricted geographic access, or communication constraints. Village governments should be involved from the outset in beneficiary-data verification, public communication, and grievance referral and follow-up. Collectively, these measures would help translate formal mandates into operational practice and strengthen accountability, predictability, and common understanding across levels of governance.

The same architecture also offers an entry point for adaptive social protection. Linking humanitarian cash coordination with shock-responsive social protection requires pre-agreed activation triggers, interoperable beneficiary and social-registry data, scalable delivery and grievance systems, and clear institutional partnerships, which are the core building blocks of adaptive social protection (Bowen et al., 2020). Such linkage should preserve the CWG's rapid and flexible coordination function while strengthening continuity from emergency assistance to nationally led recovery and resilience systems.

3.4 Study limitations

This study has four limitations. First, it examines one disaster and supports analytical rather than statistical generalization. Second, the four villages were purposively selected and cannot represent all 182 affected villages or the full range of geographic access, damage, and assistance conditions. Third, the interviews were conducted retrospectively in 2025, and several informants had changed positions, creating a risk of recall and institutional-memory bias. Fourth, the analysis emphasizes coordination actors and does not systematically capture the perspectives of recipients. Cross-level informant diversity and triangulation with decrees, guidelines, meeting records, and the After Action Review reduced, but did not eliminate, these limitations.

4. Conclusions

Three main findings emerge from this study. First, the development of the CWG in Indonesia was shaped not only by formal policy frameworks but also by iterative learning across successive disaster responses, through which coordination practices were tested and refined. Second, coordination priorities evolved over the course of the Cianjur earthquake response: existing inter-organizational networks enabled rapid communication and information exchange, while more response-specific coordination arrangements, operational routines, and locally endorsed guidance were established progressively as the response developed. Third, CWG coordination was inherently multi-actor and multi-level, involving government institutions, non-governmental organizations, and international agencies with different mandates, capacities, and operational priorities. This diversity facilitated access to technical expertise, information, and organizational networks, but also generated persistent challenges in role clarity, alignment of priorities, and coordination across national, district, and village levels.

This study contributes to the literature by providing an integrative account of humanitarian coordination that connects formal governance arrangements with relational and operational practices The findings support the coordination framework proposed by Okhuysen & Bechky (2009), while showing that accountability, predictability, and common understanding do not arise automatically from the presence or increasing formalization of coordination mechanisms. Rather, these integratingeac conditions are strengthened to varying degrees when formal mandates are translated into clear responsibilities, recurring routines, shared coordination tools, and operational arrangements that are usable across organizational and administrative levels. The study further highlights the value of multilevel hybrid coordination, in which government authority provides formal mandate and legitimacy while humanitarian networks contribute technical facilitation, field information, institutional memory, and connections across levels. The findings highlight the need to translate the CWG's formal mandate into clearer operational arrangements. This would entail a more explicit activation protocol, stronger integration with disaster emergency command and contingency-planning mechanisms, and earlier involvement of subnational and village actors in operational coordination processes. Such measures could strengthen accountability, predictability, and common understanding across levels of governance.

Future research should prioritize the following three areas. First, comparative multiple-case studies are needed to examine CWG coordination across disasters with different geographic conditions, impact scales, local government capacities, and market

functionality , allowing context-specific arrangements to be distinguished from mechanisms that may be transferable across emergency settings. Second, recipient-centred research should examine affected communities ' experiences of targeting, transfer values, public communication, perceived fairness, and complaint-handling mechanisms. Third, prospective rapid research conducted during future emergency responses would enable direct observation of how coordination mechanisms shape accountability, predictability, and common understanding, while reducing the retrospective bias associated with post-response interviews.

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Author Contribution
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The study was approved by the Research Ethics Committee of the School of Environmental Science, Universitas Indonesia (KET-069/UN2.F13.D1.KE1/PPM.00/2025; 19 September 2025).

Informed Consent Statement
Written informed consent has been obtained from the participants to publish this paper.

Data Availability Statement
The qualitative data are not publicly available because they contain information that could compromise participant confidentiality. De-identified supporting materials may be made available by the corresponding author upon reasonable request and subject to ethical approval.

Conflicts of Interest
The authors declare no conflict of interest.

Declaration of Generative AI Use
During the preparation of this work, the author(s) used Chat GPT to assist in improving grammar, clarity, and academic tone of the manuscript. After using this tool, the author(s) reviewed and edited the content as needed and took full responsibility for the content of the publication.

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