

# Reflecting on the Complexity of Disaster Management in Indonesia

*SIAP SIAGA's Knowledge Performance and Learning Advisor, Denika Blacklock, reflects on the process of putting politically driven iterative analysis (PDIA) into practice to map the complex system of disaster management in Indonesia to identify the most appropriate entry points to improve the effectiveness of disaster management to in the country.*

What is a complex system? Systems are a **tangled pattern of relationships**. They are comprised of individuals, institutions, policies, regulations, as well as the connections and influences between them.

**Influences** can be the political, economic, social, and environmental context, cultural relationships between actors, the type of governance and other processes like power relationships and personal networks.

How do we know that the disaster management sector is complex?

- Laws and regulations
- Policies and plans
- Institutional set-up and financial allocations
- Central-local relations, communication, and coordination
- Political priorities
- Actors (government and non-government), networks and power relations
- End-user clients (the people)

No single action to improve the effectiveness of the disaster management system can be undertaken without considering the influence or impact of the other components of the system.

It is impossible to know the details of an entire system. The focus should be on understanding the **big picture**: actors, institutions, relationships, incentives, and disincentives to behave in a collaborative way within the system.

As such, the SIAP SIAGA theory of change is embedded in a system approach that takes a helicopter view of looking at the disaster management system's **coherence** (alignment), **clarity** and **communications** processes.

SIAP SIAGA initiated its problem identification process by undertaking a **political economy analysis**, which resulted in the following findings:

- The Law on Disaster Risk Management (Law No. 24/2007) and key regulations have yet to provide sufficient **clarity over roles and responsibilities**

and the division of authority. As such there is ongoing bureaucratic confusion and competition as actors with political power project their own interpretations of the law and regulation to best suit their interests.

- A large number of **rules and regulations** governing disaster management and civil protection in Indonesia which are in places **conflicting, contradictory and misaligned** lead Government institutions to selectively enforce and to reinforce regulations that are viewed as more beneficial for their respective institutions. This acts as a barrier to collaboration and inter-institutional approaches.
- Indonesia has a broad range of national and local civil society organizations with considerable experience and an ongoing commitment to working in both disaster preparedness and response. National and regional faith-based organizations also provide significant response and preparedness capacity as do a range of other actors such as media organizations, private sector and political parties. **Formalisation of these relationships, coordination and leveraging complementarities is at best weak and/or usually absent.**

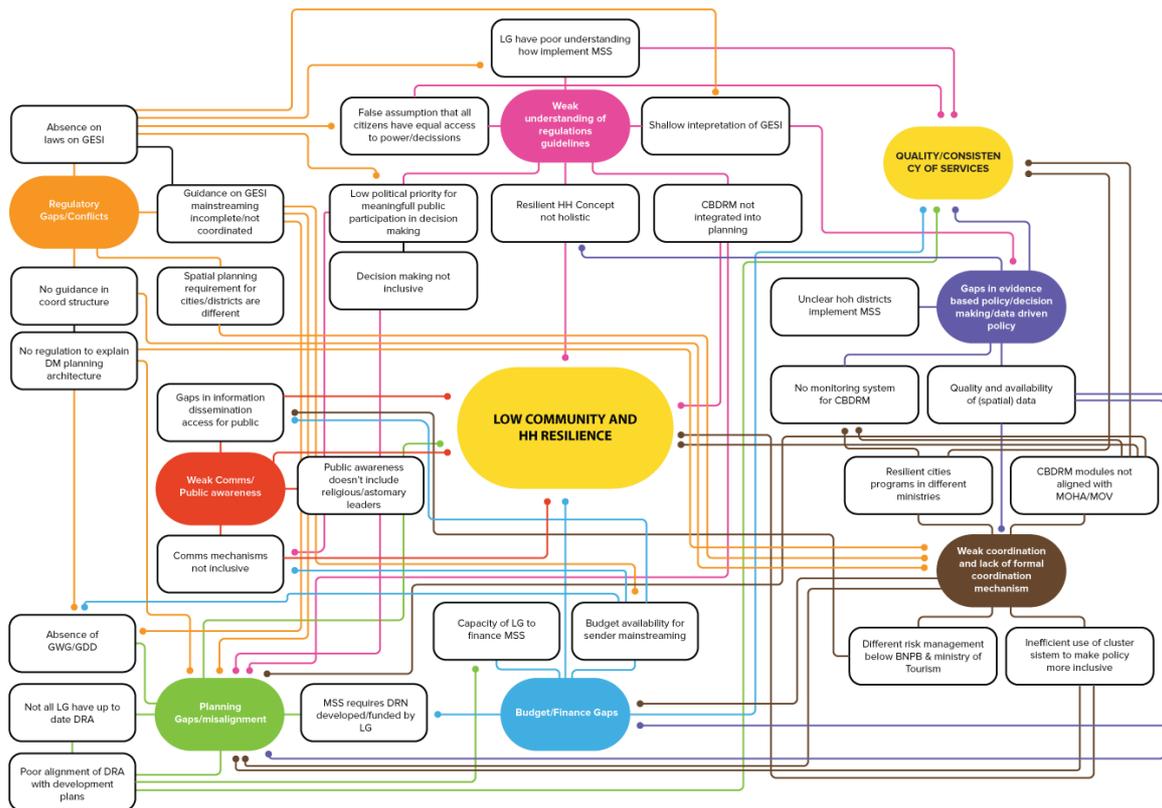
The findings from our initial analysis helped SIAP SIAGA to identify key areas for deeper investigation which subsequently led to 11 separate studies on coordination issues, communications, government systems for disaster management, and strategies for local resilience and risk analysis.

## About SIAP SIAGA

SIAP SIAGA is a five-year partnership program between the Governments of Indonesia and Australia. The program aims to improve the management of disasters and increase community resilience in Indonesia and in the Indo-Pacific Region. Our approach is measured, reflective and forward-leaning which helps us to deliver the best results for DFAT and Indonesia's communities.

The results of these studies provided in-depth understanding of the **bottlenecks to effectiveness (and efficiency) in the disaster management system** and provided broad recommendations on how individual bottlenecks could be addressed.

In keeping with SIAP SIAGA’s system-level intervention, and in recognition of the complexity of the disaster management environment, the bottlenecks and their impacts were analysed thematically using a modified **‘systems effects mapping’** methodology. This methodology allowed the SIAP SIAGA team to identify key thematic bottlenecks and trace the impacts of those bottlenecks on other aspects of the disaster management system. While not perfect in its implementation, the systems effects mapping process created space for the SIAP SIAGA team and its partners to better understand the various ‘puzzle pieces’ of the disaster management system and how they fit and work together. The exercise resulted in the below map of system bottlenecks and impacts:

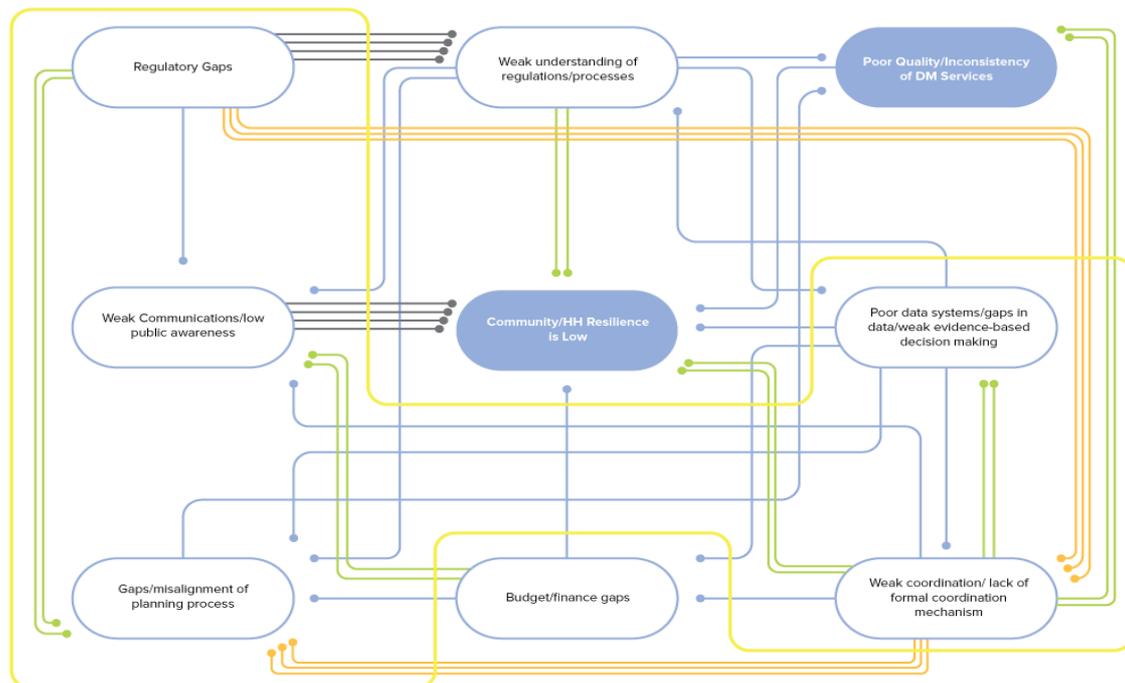


Seven **thematic areas** emerged: regulatory gaps and conflicts, weak understanding of regulations and guidelines, gaps in evidence-based policy/decision-making and poor data driven policy; weak coordination and lack of formal policy and regulatory coordination mechanisms; budget and finance gaps; planning gaps and misalignment; and weak public communications and awareness. Each connecting line represents how a bottleneck in the system negatively impacts on other parts of the system.

Two key issues emerged as the main **results of the bottlenecks**: the poor quality and consistency of disaster management services delivered by the government at all levels; and low community and household resilience. **SIAP SIAGA’s Theory of Change** assumes that a reduction in the number of bottlenecks will lead to more effective and consistent disaster management services and improve community resilience.

To determine where SIAP SIAGA would add the most value, and in recognition of the fact that it is not feasible to address all of the bottlenecks identified in the studies, it was necessary to draw **boundaries** around the thematic bottlenecks in the system map. SIAP SIAGA identified five **prioritization principles** to assist in this process: determine which interventions would best be served by a focus on the system level (not downstream activities); what interventions were feasible for SIAP SIAGA to build on the study recommendations and lessons from the COVID-19 response; which interventions would align with key government priorities at national and subnational levels; where was SIAP SIAGA best placed to leverage on-going or prior investments in disaster management; and where could SIAP SIAGA add value to its activities through partnerships and resource sharing.

This process of reflection resulted in the following boundaries for SIAP SIAGA activities:



The process of problem identification, mapping the bottlenecks in the disaster management system, and then drawing boundaries around the bottlenecks where SIAP SIAGA was best placed to effect change has contributed significantly to SIAP SIAGA program team and partners' understanding of the complexity of the disaster management system, and has created a culture of 'if we do X, then how will that impact on Y and Z?' This has resulted in a continual process of deliberation and attention to the strategy for activity implementation as being as important, if not sometimes more important, than the actual activity result itself.

The benefit of spending the first year of implementation focusing on problem identification and on mapping the bottlenecks and their impacts in the disaster management system has also allowed SIAP SIAGA to **improve the evidence for its theory of change, challenge and strengthen its assumptions, and determine appropriate intermediate outcomes** and identify relevant indicators to measure progress towards the end of program outcomes as well as the continued relevance of its theory of change.

The **PDIA process** is new to many development practitioners, civil society organizations and government officials in Indonesia. Applying this process in a traditional institutional capacity building or community development program would already be a challenge with respect to overcoming resistance to the uncertainty of learning and refining project activities and targets to ensure continued relevance and progress. Applying this approach in a program that focuses on complex systems is an even more risky endeavour. Theoretical understanding of a program that operates at the system level is relatively low in the country and implementing a program that is not working towards clear, timebound, quantifiable targets is still unfamiliar.

As such, **continued iteration** of the need to assess why certain challenges perpetuate, and how those issues impact on other issues, was a common theme in all discussion, both within the program as well as with partners. Creating space for stakeholders to share their concerns about the approach and providing reassurances was a key component of the **program's risk management** to ensure continued stakeholder buy-in. 'Hold your nerve' was a common refrain in senior management meetings. Doubts persisted and course corrections were common, but the result of the process – the identification of the thematic bottlenecks, the understanding of just how complex the disaster management system is, and the identification of entry points for SIAP SIAGA and its partners to begin 'untangling' the bottlenecks – has been worthwhile. An appreciation for **a new approach to address old problems** – and a better understanding of why those problems persist despite best efforts – has emerged with key government stakeholders. Appreciation and participation in **routine reflection and learning** activities is gaining ground. A recognition that a driver for change will be the institutionalization of the significant body of knowledge and **knowledge management processes** has leveraged SIAP SIAGA into the orbits of high-level decision makers – relationships that can be fostered to improved coordination and communication across a plethora of program interventions.

In 2021, SIAP SIAGA will continue to use the PDIA approach, with quarterly reflection workshops to assess the continued relevance of key activities, identify emerging issues that impact on the program's intended outcomes, and work towards solutions that can be fed back into the program management process using the adaptive management approach. Indeed, if the goal of the program is to untangle some key bottlenecks by the end of 2022, reflection and problem solving will be a central component of all activities!