

CRMC Baseline Report Pabean Community

Mercy Corps Nepal, Jordan, Indonesia

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In partnership with:























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Executive Summary

This report presents baseline (T0) study results of Climate Resilience Measurement for Communities (CRMC) in Pabean conducted by Mercy Corps Indonesia and IKUPI (Urban Initiative for Climate Change) as part of the *Zurich Climate Resilience Alliance* initiative. The objective of this study is to measure the resilience that focuses on the community level pertaining the danger of climate, specifically flood. The result of this study is aspired to support the decision making and advocacy at a district or city scale. Pabean itself is a village in Pekalongan Regency that merged into Padukuhan Kraton Subdistrict in 2015, along with Kraton Lor and Dukuh Sub-district. Like other coastal areas in Pekalongan, Padukuhan Kraton Sub-district, especially Pabean, is highly vulnerable to flooding. Crossed by two rivers, the Bremi-Meduri and Lodji Rivers, the flooding faced by the Pabean community is not only from tidal flooding but also inundation due to rain. Tidal flooding in Pabean has occurred since 2009 and the inundation has been difficult to recede since 2012. In response, Padukuhan Kraton Sub-district was designated a Disaster Resilient Sub-district since 2021. This was done as a community-based disaster reduction effort. This study was conducted to measure the climate resilience of the Pabean community, which is at high risk of tidal flooding and inundation.

CHAPTER 1 contains general overview regarding Mercy Corps Indonesia as the acting organization and Zurich Climate Resilience Alliance as the platform for CRMC.

CHAPTER 2 explains in detail the methodological approach of the CRMC instrument, study preparation and data collection, as well as the limitations during data collection. The CRMC applies an empirical framework supported by technology-based data collection and processing. Preparation process of the study consists of the Padukuhan Kraton Sub-district's profile alongside the Pabean community. The profile of the Pabean Sub-district area includes the administrative context, natural physical conditions, environment, disasters, demographic, socio-cultural, economic, and infrastructure contexts. Meanwhile, the description of the Pabean community explains the history of the merging of Pabean Village into Padukuhan Kraton, the population's characteristics that are different from Dukuh and Kraton Lor, the natural physical and flood conditions faced by the community from 2009 until the present. In addition, this chapter also discusses data collection used in CRMC consisting of household surveys, key informant interviews, FGDs, and secondary data. Limitation and mitigation narrate the predicaments encountered throughout the study as well as the mitigating steps to minimize their impacts.

CHAPTER 3 presents the main findings of the resilience resource assessment through various lenses: the five capitals (social, human, physical, natural, and financial), city resilience index, disaster risk management cycle, the 4 resilience system (4R), and GAID. This chapter gives an output in the form of priority interventions. Strengths and weaknesses of resilience resources are identified using SW-ON matrix. Resources that already have strength and are not relevant to the community are then filtered out. Interventions are focused on the resilience resource which presents opportunities to be built on, needs to be grown, and what makes weaknesses for the community. The intervention is then prioritized based on the impacts, internal/ external community, and order of the disaster cycle management. After that, it is then aligned with the ZCRA program and the initial identification by implementing actors.

CHAPTER 4 summarizes the main findings of the T0 study such as key gaps, along with the measures taken to address the gaps identified during the analysis and the CRMC findings. On top of that, the



subsequent steps are also outlined in the chapter, namely dissemination and validation of the CRMC results with the finalization of the program action plan together with the community.

CHAPTER 5 outlines the key lessons that arose throughout the study, spanning from the technical aspects, community participation, intervention focuses, to resilience resources that are generally irrelevant to community context. These insights are important considerations for forthcoming T1 studies.

CHAPTER 6 contains supporting appendices of the report, including the results of the community resilience resource assessment, study visuals, community information, questionnaire translations, list of interviewed participants, Mercy Corps Indonesia's data collection ethical standards, list of FGDs participants, and references used.



1. Overview

1.1 About Mercy Corps

1.2 Zurich Climate Resilience Alliance

Zurich Flood Resilience Alliance ('Alliance') is a cross-sector collaboration between Zurich Insurance Group, non-governmental organization, and academia. Zurich Insurance Group partners with humanitarian and civil society organizations including Concern Worldwide, International Federation of the Red Cross and Red Crescent Societies (IFRC), Mercy Corps, Plan International, and Practical Action, as well as research partners such as the International Institute for Applied Systems Analysis (IIASA), London School of Economics, and the Institute for Social and Environmental Transition-International (ISET). The Alliance was initially launched in 2013 with the aim of shifting the focus from flood emergency response and recovery to risk reduction before disasters may occur.

Since 2013, Zurich Flood Resilience Alliance has succeeded in developing and implementing Flood Resilience Measurement for Communities (FRMC), which has also been applied to more than 400 communities worldwide. In 2020, the Alliance members decided to explore the possibility of upgrading the FMRC, and in 2021, a team consisting of Alliance members and other experts developed the Climate Resilience Measurement for Communities (CRMC). The CRMC is an evolution of FRMC that responds to the increasing demand of measuring resilience across various beneficiary to accelerate climate change adaptation. As of moment, the CRMC is currently covers flood and heatwave hazards, but can be expanded to other climate-related risks. Operations have been conducted in several communities through Climate Change Adaptation Program of the Z Zurich Foundation, including the Pabean community in Pekalongan City.

The CRMC is currently being tested through Climate Change Adaptation Program (Zurich Climate Resilience Alliance - ZCRA) from the Z Zurich Foundation. In early 2024, the ZCRA program entered its third phase and Mercy Corps is currently developing CRMC framework as the basis of implementation in this phase, while also drawing lessons from the second phase. In preparation of this profile and strategy is a collaboration between IKUPI (Urban Initiative for Climate Change) and Mercy Corps Indonesia, which carried out progressively from May 2024 - October 2025.



2. Study Setup and Data Collection Methodology

2.1 Zurich Climate Resilience Measurement for Communities Tool

Climate Resilience Measurement for Communities (CRMC) is a **framework to measure community's resilience toward climate disaster**, with processes and pertaining tools to implement the framework as practiced. The CRMC is designed using **system-based** approach. The CRMC framework has a **holistic and integrated nature**, it as well facilitates exploration of interconnection between results. This framework is made from ex-ante indicator or 'resilience resource' which are **measured when it's at a normal/non-disastrous state**, and variables post calamity are calculated after calamity. The CRMC is built based on Flood Resilience Measurement for Communities (FRMC) which was first developed by the Zurich Flood Resilience Alliance. It encompasses approach that tests and validates the framework empirically, alongside **gathering tools and technology-based data evaluation** to measure and assess community resilience towards specific disasters relating to climate such as heatwaves and floods. The instrument is a practical 'hybrid' software made as a web online-based platform to prepare the process and to analyze the results, and an application smartphone-based or tablet-based which can be accessed offline on the field for data collection.

The CRMC focuses on the community level because it is at this level that impacts are most strongly felt, where many disaster response actions need to be carried out, and on this scale, many NGOs as well as humanitarian organizations operate. As for the CRMC's main objective, 'community' is defined geographically (plausible in village context) or based on administrative boundary (which can be applied in urban situation). However, there are no community which feels like other communities. There is a cultural aspect that needs to be considered. We concluded that in reality, a majority communities define themselves. Disregard how a community is truly defined, it is very important that this study to address inclusivity for every member of the community including sex, age, ability, ethnicity, and culture.

Notably, measuring resilience at the community level can also support decision-making and advocacy at higher levels. In addition, community resilience measurement can also serve as input for program planning and initiatives to face other risks affecting the community. The CRMC is built to evaluate many more urban aspects, such as congestion (population, buildings, infrastructure, etc.), diversity (actors, infrastructure, and space), and dynamics (population growth, industry, commerce, etc.).



2.2 Study Setup and Data Collection

2.2.1 Region Profile

1) Padukuhan Kraton Sub-district

A. Administration Context

Padukuhan Kraton Sub-district is part of the North Pekalongan District, Pekalongan City, Central Java Province. This area is a combination of three sub-districts/villages: Pabean Village, Dukuh Sub-district, and Kraton, as stipulated in Regional Regulation Number 8 of 2013 (Perda Nomor 8 Tahun 2013). The area covers 414.717 Ha and consists of 15 Community Association (RW) and 78 Neighborhood Association (RT). The sub-district borders the following areas:

Northern Border : Bandengan Sub-district

Southern Border : Pasir Kraton Kramat Sub-district, West Pekalongan District

Western Border : Jeruksari Village, Wonokerto District

Eastern Border : Kandang Panjang Sub-district

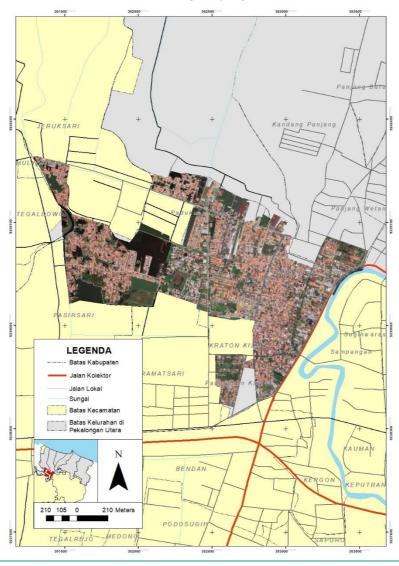


Figure 2.1 Administration Map of Padukuhan Kraton Sub-District Source: Modified SAS Planet Satellite Image (2025)



- B. Physical Nature, Environment, and Disaster Context
- Physical Nature

According to Central Java's Public Works, Water Resources, and Spatial Planning Agency (PUSDATARU) in 2022, the following presents the physical conditions of Padukuhan Kraton Sub-district, reviewed across several aspects:

Table 2.1 Padukuhan Kraton Sub-district Physical Nature Condition

No	Physical Nature Con-	Information	Area (Ha)	Percentage
	dition			
1	Hydrology	Widespread Produc-	141.6	100%
		tive Aquifer		
2	Soil Type	Alluvial	141.6	100%
3	Land Suitability	Cultivation Territory	141.6	100%
4	Precipitation	1750-2250 mm/year	141.6	100%
5	Terrain Gradient	0-8%	141.6	100%
6	Water Filtration Area	-	0	0%

Source: PUSDATARU Central Java (2022)

The hydrological characteristic of Padukuhan Kraton Sub-district consist entirely of widespread, productive aquifers. This means that Padukuhan Kraton holds a large amount of groundwater, allowing for the construction of drilled wells or public water wells, but this needs to be managed for control and sustainability. The soil type in Padukuhan Kraton is alluvial. This type of soil is formed from silt deposits carried by river flows and is considered fertile. According to the Head of Padukuhan Kraton, before the tidal flood in 2009, Pabean was a rice paddy area.

The entire Padukuhan Kraton Sub-district is within a cultivation area. This indicates that the area is suitable for land use activities such as settlements and other activities that support local community activities. Rainfall is categorized as low to moderate, ranging from 1,750 to 2,250 mm/year. Furthermore, in terms of slope, Padukuhan Kraton sub-district is classified as plain, with a slope of 0-8%. Padukuhan Kraton sub-district does not have a water filtration area, and given this condition, it can be said that Padukuhan Kraton sub-district still has the potential to be optimally utilized by referring to spatial planning and sustainable development principles.

Land Use

Table 2.2 Land Utilization Padukuhan Kraton Sub-district

	Table 2:2 Land Chilladion Ladakanan Maton Sab alst			
No	Information	Area (Ha)	Percentage	
1	Settlements	106.01	74.87%	
2	Rice Fields	34.21	24.16%	
3	Fish ponds	0.96	0.68%	
4	Sungai	0.42	0.30%	

Source: PUSDATARU Central Java (2022)

Settlements are the most dominant land use type in Padukuhan Kraton Sub-district, accounting for 74.87% of the area, according to land use data from the Central Java Data Center (Pusdataru) in 2022. Rice fields remain in Padukuhan Kraton Sub-district, accounting



for 24.16%. There are also land use for ponds (0.68%), and rivers, including the Bremi-Meduri and Lodji Rivers.

Disaster

A 2022 study on Climate Risk and Impact Assessment in the Kupang River Basin by Mercy Corps Indonesia showed that Padukuhan Kraton Sub-district was one of the coastal areas in Pekalongan City with a high flood risk category in 2020. Based on the 2021-2035 projections, without any intervention, Padukuhan Kraton Sub-district has the potential to experience an increase in the hazard category to very high. At the same time, based on its vulnerability components, consisting of sensitivity, exposure, and capacity (Table 2.3), Padukuhan Kraton Sub-district's sensitivity and capacity levels in 2035 are in the moderate category, while its exposure is high. Therefore, Padukuhan Kraton Sub-district's vulnerability has decreased from high in 2020 and is projected to be moderate in 2035.

The combination of these hazard and vulnerability resulted in a risk level in 2020 dominated by a very high-risk level. Projections by 2035 place the entire Padukuhan Kraton Sub-district area in the very high-risk category. The Climate Risk and Impact Study in the Kupang river basin (2022) predicts that by 2025, permanent pool will expand in parts of Padukuhan Kraton Sub-district. This was evident during field observations, with most of the Pabean area inundated during heavy rainfall and at points of permanent pools. Furthermore, the Bremi-Meduri River frequently overflows in the Pabean area and its surroundings. This is because the Bremi-Meduri River still uses an emergency embankment.

Table 2.3 Disaster Conditions in Padukuhan Kraton Sub-district

No.	Vulnerability Components	Index
1	Sensitivity	2.68
2	Exposure	3.92
3	Capacity	2.51
Vulnerability Score 5.9		

Source: Climate Risk and Impact Assessment in the Kupang River Basin (2022)

C. Demographic Context

Table 2.4 Demography of Padukuhan Kraton Sub-district

Total Population	Amount
Male	6301
Female	6353
Ages 0-14	2721
Ages 15-65	9038
Ages >65	895
Total	12654

Source: Padukuhan Kraton Sub-district Monograph Data (2024)

Based on the 2024 Padukuhan Kraton Sub-district Monograph Data, there are 12,654 residents in 4,144 households. The sex ratio of Padukuhan Kraton Village is 99.18, meaning there are fewer males than females. A 71.42% of the population is of productive age (aged 15-60 years) and 28.58% is of non-productive age (children and the elderly).



Education

Table 2.5 Padukuhan Kraton Sub-district's Education Condition

No	Education	Amount (Lives)
1	Kindergarten	3816
2	Elementary School	2947
3	Junior High School	1916
4	Senior High School	2829
5	Diploma 1-Diploma 3	306
6	Bachelor's Degree (S1)	31
7	Postgraduate Degree (S2)	1

Source: Padukuhan Kraton Sub-district Monograph Data (2024)

In terms of education, the majority of the population, as much as 32.21%, is currently attending kindergarten. This is followed by 24.88% of the population attending elementary school. Another 16.17% are in junior high school, and 23.88% are in senior high school. In Padukuhan Kraton, 2.85% of the population has pursued higher education, ranging from diploma level to postgraduate level.

D. Socio-Cultural

- Institutional

Table 2.6 Padukuhan Kraton Sub-district's Institutional Condition

No	Institutes	Organizer	Member Amount
		Amount	
1	Community Empowerment Institutions (LPM)	13	13
2	Community Empowerment Agency	13	13
3	PKK	10	42
4	Youth Organization	10	No information

Source: Padukuhan Kraton Sub-district Monograph Data (2024)

Institutions within Padukuhan Kraton Sub-district include the Community Empowerment Institute (LPM), which focuses on infrastructure improvements such as roads and drainage. Additionally, there are the Community Empowerment, Family Empowerment and Welfare Agency (PKK), as well as the Youth Organization (Karang Taruna). Other community organizations include the Healthy Alert Sub-district Forum (FKSS) and the Poverty Alleviation Coordination Team (TKPK).

E. Economics

Self-employed/traders dominate the population at 54.1%, followed by the private sector at 25.57%, and industrial workers at 5.61%. A significant figure remains at 6%. There is no data on unemployment. However, according to Statistics Indonesia (BPS) standards, there are still 7,372 impoverished people, with 1,557 families in poverty.



Table 2.7 Livelihoods of Padukuhan Kraton Sub-district

	Livelihoods		Amount (Lives)
1	Employee	Civil Servants	437
2		TNI/POLRI	85
3		Private Sector	2097
4		Doctors	24
5	5 Self-employed/traders		4435
6	Farmers		0
7	Carpenters		340
8	Industrial workers		460
9	Retirees		46
10	Fishermen		36
11	Services		241

Source: Padukuhan Kraton Sub-district Monograph Data (2024)

F. Infrastructure Context

Table 2.8 Infrastructures of Padukuhan Kraton Sub-district

No	Infrastructure	Detail	Amount
1	Sub-district Office		1
2	Health	Sub-Community Health Center	1
3		Polyclinics	2
4		Community-Based Health Efforts/Health Service Post	18
5	Education	Early Childhood Educa- tion Centers	6
6		Kindergartens	8
7		Elementary Schools	7
8		Junior High Schools	3
9		High Schools	3
10		Universities	2
11	Worship	Mosques	10
12		Prayer Rooms	32
13		Churches	2
14	Recreation	Sports Fields	5
15	Arts	Arts/Cultural Buildings	2
16	Public Infrastructure	Meeting Halls	3

Source: Padukuhan Kraton Sub-district Monograph Data (2024)

Padukuhan Kraton Sub-district has complete facilities and infrastructure to support community activities in various fields. There is one Sub-district office located on Patriot Road, precisely in the Dukuh area to support government activities. In terms of health services, Padukuhan Kraton Sub-district is served by the Dukuh Sub-Community Health Center, a polyclinic, and Community-Based Health Unit/ Posyandu. Padukuhan Kraton community has easy access to education because educational services are available from early childhood education to university level. In addition, various worship facilities consist of mosques, prayer rooms, and churches. Recreation and arts



development also exist, consisting of sports fields and arts/cultural buildings. To support social activities, there are meeting halls scattered throughout Padukuhan Kraton Sub-district.

2) Pabean Community

The Pabean community is defined as a community most affected by tidal flooding and inundation in Padukuhan Kraton. It is named the Pabean community since it was formerly a village called Pabean, which has now merged with the Padukuhan Kraton Sub-district. Padukuhan Kraton Sub-district is a combination of three sub-district: Dukuh Sub-district, Kraton Lor Sub-district, and Pabean Village. In 2015, these three villages were merged under the name Padukuhan Kraton Sub-district, taken from the names of the three villages/sub-district. The merger of these three villages aims to improve administrative efficiency in Pekalongan City. These three areas have their own characteristics. Kraton Lor and Dukuh have historically been urban areas with heterogeneous communities and different livelihoods. Until now, the conditions in Kraton Lor and Dukuh are relatively similar. Unlike Pabean, this area was formerly part of the Tirto District, Pekalongan Regency, and is now part of the city. Because it was once a village, this area still retains its village-like characteristics with a homogeneous community. Pabean was once an agricultural area, with the majority of the population subsisting on farming, particularly rice farming. Currently, in terms of livelihoods, Pabean has undergone changes, from farming to a more diverse population, but the majority are batik makers.

The Padukuhan Kraton area is crossed by two rivers which are the Bremi-Meduri River and the Lodji River. Vegetation in Pabean and Padukuhan Kraton is generally sparse due to seawater intrusion, which has made the soil saline, allowing only certain species to survive. Some vacant land is used by the community for food crops, such as vegetables, rather than hard-stemmed crops.

The appearance of tidal flood in Padukuhan Kraton began in 2009. This flood would recede at certain times. Starting in 2012, the tidal waters became difficult to recede, resulting in permanent pools at certain points. This pool was always present regardless of the season. In 2015, the tidal flood peaked, causing flooding almost daily for several months. As a result, land and agricultural activities were lost in Pabean. Rice fields and settlements were inundated until 2017. The flooding began to subside after the construction of a giant tidal embankment stretching 2.3 km to the end of the Bremi River. This giant tidal embankment was completed in 2019 and in the same year, land appeared in Pabean along with its surroundings. Inundation persists on vacant land and rice fields, this is because this land cannot be used for residential areas, and the roads have been raised.

Access to Pabean has been flooded and there was a community initiative to raise the road with red soil in 2020. The community self-funded by paying contributions per household, this was because the Pekalongan City budget was not yet obtainable to address the problem. The main road to Pabean was finally concreted in 2022 through the Pekalongan City government budget, and since then, the slums area in Pabean has been reduced. Currently, the Pabean slum area is approximately 21 Ha, spread across almost all Neighbourhood (RW) (RW 12, 13, 14, and 15). In the following year until now, many fixes to footpaths or alleys in Pabean have begun. Funds for this road elevation came from the Pekalongan City government, POKIR (Regional People's Representative Council), self-help, and subdistrict funds.



(a) Perpetual flooding in residential areas



(b) Community activities as garment workers at abode



(c) Pools around residential areas after high rainfall intensity



(d) The surface of the Bremi-Meduri River which exceeds the border/road level



(e) Community raised the emergency embankment with sand bags.



(f) Pabean Elementary School flooded due to high rainfall intensity

Figure 2.2 Padukuhan Kraton Sub-district's Environmental Condition Source: IKUPI Documentation (2025)

2.2.2 Study Setup and Data Collection

- 1) CRMC Training and CRMC Tool Simulation
- Training of Trainers for CRMC Tools



On November 17, 2023, the IKUPI team attended a training of trainers conducted by Mercy Corps Indonesia to understand the key concepts and principles underlying the Climate Resilience Measurement approach for communities using the CRMC application, as well as to clarify roles and responsibilities in data collection. Training was delivered by David Nash, a representative from the Z Zurich Foundation, and was attended by the IKUPI team, Mercy Corps Indonesia, Mercy Corps Nepal, alongside the Regional Program and Advocacy Manager from the Zurich Climate Resilience Alliance. The training materials consisted of an overview of the CRMC including its updates from the FRMC, the main concepts and principles of the CRMC, the 5C-4R framework as the basis for the CRMC framework, resilience resource assessment, and an introduction to the CRMC tool with simulation.

The training discussed 76 indicators or resources of heatwave and flood resilience with 52 indicators or resources of flood resilience and 50 indicators or resources of heatwave resilience. As agreed during training, the resilience assessment conducted on the Pekalongan coast used 52 indicators or resources of flood resilience. These indicators are as follows:

Table 2.	9	Resilience	Resources
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No	Five Capitals	Indicators or Resilience Resources
1	Human	Attendance in secondary school
2		Availability of food
3		Knowledge of first aid
4		Awareness of the need for action on climate change
5		Awareness of climate change risks
6		Awareness of how nature can mitigate risks
7		Awareness of hazard exposure
8		Knowledge of evacuation and safety
9		Awareness of unsafe water
10	Social	Mutual support
11		Social inclusiveness in disaster risk management
12		Community safety
13		Local leadership
14		Disaster emergency response personnel
15		Accessibility of health services
16		Trust in local authorities
17		Intra-community justice
18		Inter-community justice
19		Risk reduction planning
20		Emergency response planning
21		Domestic violence and emergency response planning
22		Stakeholder engagement in risk management
23		Risk mapping
24		Collection and use of disaster impact data
25	Physical	Continuity of energy supply
26		Continuity of transportation systems
27		Continuity of communication systems
28		Early warnings
29		Continuity of education during disasters
30		Emergency infrastructure and supplies
31		Continuity of healthcare services during disasters
32		Forecasting
33		Household-level protection and adaptation

No	Five Capitals	Indicators or Resilience Resources
34		Availability of clean and safe water
35		Waste management and risk control
36		Large-scale flood protection
37	Natural	Tree covers
38		Permeable surfaces
39		Land use planning
40		Resource management
41		Land-water boundary conditions
42		Ecological management for disaster risk reduction
43	Financial	Household access to reserve funds
44		Community financial health
45		Financial capacity of local government
46		Budget for public infrastructure maintenance
47		Climate change adaptation planning and investment
48		Business continuity
49		Continuity of household income
50		Risk reduction investment
51		Disaster insurance
52		Disaster recovery budget

Source: Website-Based CRMC Application (2025)

- Enumerator Training and Simulation

The IKUPI conducted training on 23rd of May 2025, for two new enumerators who had never participated in CRMC. The training was conducted face-to-face in Department of Urban and Regional Planning, Diponegoro University. This was done to improve enumerators' understanding of the survey instrument, the required data, and the data collection tool used, namely the smartphone-based CRMC application, which must be downloaded in each individual's phone. It also aimed to establish a common understanding of certain definitions, terms, and indicators. Some questions were simplified in their delivery to avoid misunderstanding. The simulation was conducted through role-playing to ensure all enumerators had a common understanding and agreed on the survey procedures according to protocol. The simulation also trains technical interview skills with respondents as well as anticipating obstacles that may occur in the field.



Figure 2.3 Enumerator Training and Simulation Source: IKUPI Documentation (2025)



2) Study Setup

Preparation for the study was conducted from May to July 2024. The IKUPI team translated 12 modules, questions, and all components of the CRMC application so that it could run in Indonesian for both the website and mobile versions. The IKUPI team then submitted the translation results to the Mercy Corps Indonesia team to review the translation and ensure the questions aligns with local context without ignoring the main focus. The editing process by Mercy Corps took approximately one month. Afterward, the IKUPI team developed CRMC training materials in Indonesian based on the translated modules. On April 15, 2025, the project leader from the Mercy Corps Indonesia team prepared a study on the website-based CRMC application, consisting of enumerator assignments and determination of the type of data collection. The enumerator assignments were as follows.

Table 2.10 Assignment of Enumerators on CRMC Applications

No	Pabean Community
1	MercyCorpsIndonesiaFieldWorker01
2	MercyCorpsIndonesiaFieldWorker02
3	MercyCorpsIndonesiaFieldWorker03
4	MercyCorpsIndonesiaFieldWorker04

Source: Website-Based CRMC Application (2025)

3) Permit and Field Observation

On May 27, 2025, Mercy Corps Indonesia and IKUPI visited the Pabean community in Padukuhan Kraton Sub-district, North Pekalongan District. This activity included meetings with the Padukuhan Kraton Head, Head of RW 12 and 13, with each RT Head. Field observations were conducted concurrently with permitting. This was done to identify environmental conditions such as settlement type, land use, and human interaction in the surrounding area.

2.2.3 Data Collection

Data collection was conducted through a series of primary data collection (household surveys, key informant interviews, focus group discussions) and secondary data collection. Data collection took place from $26-30^{th}$ May, 2025, with the following details:

1) Household Surveys

The community consists of 610 households and after calibration, the resulting sample consisted of 112 respondents, with an average family size of four. The interval or distance between houses was obtained by dividing the total number of households by the number of respondents required, resulting in a distance of approximately 5-6 houses per sample.





Figure 2.4 Detailed Map of Pabean Community Source: Processed in Google Earth (2025)

Household data collection was conducted through structured interviews between enumerators and household respondents. The survey was conducted over four days, from May 27 to 30, 2025. IKUPI provided souvenirs to respondents who agreed to answer the household survey questions. There were no obstacles during the household survey process.

2) Key Informant Interviews

A total of 11 key informants were interviewed in the Pabean community. Key informant interviews were conducted directly from May 26-30, 2025, parallel to the household surveys. These key informants represented stakeholders at the community and city levels. Key informant interviews provided in-depth insights from individuals with specialized knowledge related to the Pabean community. The following is a description of the key informant interviews conducted in the Pabean community:

- Participants: Village heads, Community health center staff, Community Empowerment Agency (BKM), Village-based Disaster Response Group (KSB), School principals, Business groups, and Government agencies (DPMPPA, BAPPERIDA, BPBD, Health Office, and DPUPR).
- Expected outcomes: The macro and micro contexts of the community relate to the five capitals possessed by each community.
- Method: Interview
- Time allocation: 30 minutes to 1 hour

3) Focus Group Discussion

A series of Focus Group Discussions (FGDs) were held by IKUPI and Mercy Corps Indonesia on June 11, 2025. The FGDs were conducted in parallel in separate rooms between representatives of community groups from the Pabean community and the Pekalongan City and Central Java Peovince Governments (local governments). In the FGDs, the separation of rooms between community and local government representatives was carried out to ensure the neutrality of the results and avoid the dominance of opinions due to the influence of asymmetric power. The local government group FGDs invited representatives from each relevant technical agency that corresponds to the field of the questions asked. The community FGDs consisted of various groups



such as KSB, waste banks, Bara Air, Women Association (PKK), community groups (society), workshop owners, and Community Empowerment Group (BKM). Both FGD sessions were guided by two facilitators from IKUPI, assisted by two co-facilitators from IKUPI, and supervised by three Mercy Corps Indonesia staff in each FGD.

- Participants: KSB, waste banks, Bara Air, PKK, community groups (societies), entrepreneurs, BKM (Benefits and Community Empowerment Agency), Pekalongan City government, and Central Java Provincial government.
- Expected outcomes: Each group will provide information related to five capital assets according to the questions provided.
- Method: Focus Group Discussion
- Time allocation: 5-6 hours
- Discussion dynamics:

The community council was represented by the secretary of the Padukuhan Kraton Subdistrict Community Empowerment Group (BKM). This group is involved in many decisionmaking processes at the sub-district level. All perspectives were represented as they were formed before the FGD. They were representative, with women speaking more, and the discussion captured all perspectives.

Community groups

Community groups were represented by representatives from the disability and children's forums. While the entire community was represented, the focus group was somewhat unrepresentative because this group was less active in expressing opinions, men spoke more, and the discussion was insufficient to capture all perspectives.

Entrepreneur groups

The business group was represented by workshop owners and fishermen from the Public Works and Fisheries Unit (PUD). This group captured views on the impacts of business continuity and losses experienced due to the flooding. Some communities were underrepresented due to their inactivity. The focus group was gathered for the purposes of the FGD, but it was somewhat underrepresented due to the lack of activity, the preponderance of male participation, and the discussion was sufficient to capture all perspectives.

Elderly groups

Elderly representatives were less active in the discussions and needed help understanding the questions. Elderly representatives represented a portion of the community. They were gathered for the purposes of the focus group discussions. They were also highly unrepresentative, were predominantly male, and captured one or a few perspectives.

Women groups

The women's group was represented by representatives from the Padukuhan Kraton PKK. The community groups were partly represented, but the groups were established long time ago before the FGD and are active. They were somewhat representative, exclusive groups, and the discussions were quite inclusive of all perspectives.

Youth groups

This group was represented by the Padukuhan Kraton Youth Organization, which is active in youth affairs and emergency disaster response when needed. The entire community was represented. The groups were established and active, fairly representative, with men speaking out, and the discussions captured a wide range of perspectives.

Religious groups

The religious group was represented by the local Islamic scholar (ustadz) in the Pabean community, the entire community was represented, gathered for the purpose of the FGD.



It was quite representative with men spoke a lot more, and the discussion was quite captured all views.

Local community groups

Community groups were represented by KSB, community leaders, representatives of the waste bank, and the Bara Air community. All communities were represented, each already established and active, but were brought together in the same group for the purposes of the FGD. It was highly representative, with men speaking more, and the discussion captured all perspectives.

Local government

The local government was represented by various technical agencies related to flood disasters, both from Pekalongan City and Central Java Province. The local government represented the entire community's perspectives. It was formed before the FGD and was active in its field. It was highly representative, with diverse perspectives, represented across all communities, and the discussion captured all perspectives. Men and women had equal opportunity to speak.

· Security unit

The security unit group was represented by the Pekalongan City Public Order Agency (Satpol PP) and the Pekalongan City Fire Department. The Satpol PP represented the entire community's perspectives. They were formed before the FGD and are active in their respective fields. They were somewhat unrepresentative because they were less active during the discussions, with men speaking more, and the discussions captured a wide range of perspectives.

4) Secondary Data

IKUPI and Mercy Corps Indonesia use secondary data sources as one of the methods used in collecting baseline data, where the data can be used as a reference again for endline data collection. Secondary data consists of policy documents, previous studies, and local mass media coverage.

2.3 Limitations and Mitigation Measures

During the implementation of the Pabean community study, various challenges were encountered at every stage of the process, from study planning through data collection and analysis. These challenges have the potential to impact the quality and completeness of the data collected. Therefore, it is important to identify these limitations and the mitigation measures taken to minimize their impact. Understanding these constraints is expected to provide lessons learned to improve the effectiveness of similar studies in the future.





Table 2.11 Limitations and Mitigation Measures	ble 2.11 Lir	nitations a	and Mitiga	ation Meas	ures
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Stage	Limitation	Description	Impact on Data Collection	Mitigation Measures
Study Setup / Planning	Ungrounded language trans- lation	The translation into Indonesian was as clear as possible. The team did not simplify the language in the app, fearing that doing so would alter or eliminate the original meaning and context.	The translated language was difficult for respondents (HH, KII, FGD) and the internal team to understand.	 Simplify the question language without input to the application (marked on the printed question). Train enumerators regularly. Convey questions in simple language to respondents.
Study Setup / Planning	Administrative requirements for licensing	The sub-districts in Pekalongan City require that field activity permits be printed from Sakpore.pekalongankota.go.id, the letter of which is ready after five days. This process was missed at the beginning by only relying on the permit letter issued by IKUPI/Mercy Corps Indonesia.	The team experienced delays in data collection and did not meet daily targets.	Coordination of the IKUPI and Mercy Corps Indonesia teams to collect the ID cards of all enumerators, an informal approach with RT, RW, and village heads.
Data Collection (HH)	Community activities that clash with household survey activities	Urban communities generally work outside the home, such as employees or factory workers, so that during working hours the residential environment is quiet and the houses are closed.	Enumerators did not reach their daily targets.	Data collection in one day is extended until the evening or starts from the afternoon until the evening.

Stage	Limitation	Description	Impact on Data Collection	Mitigation Measures
Data Collec- tion (HH)	Transportation limitations	It is difficult to find motor vehicle rentals in Pekalongan City/Regency and have experienced fraud.	Material loss due to fraud.	Prioritize enumerators who use motorbikes and pay for the motorbike used at the motorbike rental price, enumerators who are close together will ride together, another option is to use online transportation.
Data Collec- tion (HH)	Special approach to sensitive questions	People generally find it difficult to explore political questions such as trust in community government, fairness in financial support, and government bias. Questions about disability and marginalization are also sensitive to ask.	Respondents had to dig into the political questions several times because some respondents gave vague answers.	Don't try to provoke the public because of respondents' previous answers, especially to political questions. Use polite communication strategies such as saying "I apologize in advance" or "Nuwun Sewu" followed by a soft tone of voice and respectful body language.
Data Collec- tion (HH)	Respondents were unwilling to continue the Q&A session	The enumerator asked the respondents if they were willing to ask questions. If they were, a Q&A session would ensue. It was not uncommon for respondents to be engaged in other activities. However, due to the need to focus on those activities, the survey had to be canceled.	The enumerator had to look for new respondents and questions that had been partially answered (cannot be deleted but can change the answers).	The enumerator moved to the next house and repeated the same questions on the list of respondents.

Stage	Limitation	Description	Impact on Data Collection	Mitigation Measures
Data Collec- tion (HH)	Elderly respondents did not understand the questions well	Elderly respondents generally experienced difficulties understanding the questions and encountered language barriers. It was not uncommon for elderly respondents to be alone during the Q&A session. When they didn't understand a question, they often asked their companion.	There were biased answers to certain questions.	The enumerator repeats the question in the simplest possible language to the respondent and locks in the answer that the respondent answered themselves.
Data Collec- tion (KII)	The number of key informant interview ques- tions was lim- ited	The system generated very few questions automatically, and these respondents were asked closedended questions. Examples of questions were for school principals, business owners, and health department officials.	Enumerators were required to independently compile introductory and additional questions to deepen the information obtained.	 Introductory and additional questions were prepared before conducting the interview. Involve senior or experienced enumerators to conduct key informant interviews.
Data Collec- tion (KII)	Key informant interview schedule mis- match	The availability of informants to conduct key informant interviews exceeded the timeframe provided, necessitating a re-arrangement.	Uploading of key informant interviews usually occurs simultaneously with FGDs.	Provides the option of online interviews or during FGDs.
Data Collection (HH & KII)	Time con- straints of field workers as- signed when collecting data	If the field worker assigned to the KII or household survey has limited time, then assistance from other available field workers were needed.	Other field workers had work commitments that conflict with the schedules they were replacing.	Print out the HH/KII questions for fieldwork that isn't assigned to a specific data collection method. This allows the answers to be input into the application at the end.

Stage	Limitation	Description	Impact on Data Collection	Mitigation Measures
Data Collection (FGD)	Human resource and time constraints for implementing FGD	The FGDs were designed to separate community members from local government members. The composition of these two groups was heterogeneous, consisting of groups already separated in the CRMC system. The community group comprised community councils, community members, entrepreneurs, seniors, women, youth, religious groups, and local organizations. The local government group comprised all relevant technical OPDs.	 The FGD did not gather in-depth information from each group. The FGD was not effective in terms of time and effort. Some FGD groups were absent, resulting in a void in the discussion. The FGD seemed to focus solely on answering questions without explanation. 	 Redesign the FGD questions (combined into one) to be distributed to the facilitators and FGD groups, and the composition of these questions is used for input to CRMC. Each room consists of one facilitator and one notetaker. FGD groups that were not present must still be entered into the application, and the team must select the group with the most similar representative characteristics. Always remind FGD participants to represent their group, not individual. This is because each FGD group is represented by one person.
Data Input	Possible human error and failed data up- load process	To reduce the risk of failure during the survey results upload process, it was necessary to screen record the answers to the questions that have been inputted in the CRMC mobile application.	Have experienced failure in the survey results upload process and human error (two field workers using the same CRMC account).	Record or screen capture all answers, continue the upload process, then upload the screen recording results to Google Drive.

Stage	Limitation	Description	Impact on Data Collection	Mitigation Measures
Data Input	FGD answers input that were different from HH and KII	Because the FGD was conducted simultaneously with all FGD groups, all FGD questions were combined into one unit to simplify the FGD process. FGD answer input was done manually, namely, the question papers or minutes were sorted based on each group's questions.	Inputting FGD answers requires more concentration and time than other data collection methods.	Create color coding of FGD groups for specific questions.
Data Pro- cessing	HH, KII, and FGD notes were incom- plete for data interpretation	Some enumerators filled in records that were open to interpretation or incomplete.	Analysis was disrupted, needed to reask the enumerator and clean the data.	Remind enumerators of questions that require further notes and explanations, especially for the following questions: 1. What disabilities/minorities are involved? 2. Total annual household income 3. Occupation (outdoor, semi-indoor, indoor) 4. Political questions related to local government 5. Flood-prone areas 6. Sanitation 7. Questions about opinions/perceptions regarding waste, climate change, and the natural environment.

Source: IKUPI Analysis (2025)



3. CRMC Baseline Results and Priority Interventions

After the data collection has been completed, the user needs to conduct an assessment (grading) on 52 indicators or resilience resources. The level assessment activity was carried out by a Mercy Corps Indonesia team consisting of five people, an IKUPI team consisting of two people, namely Rukuh Setiadi, Purnomo Dwi Sasongko, and Rayhan Chansa Chaidir. There was also a local government representative from BAPPERIDA Pekalongan Regency represented by Mrs. Diah. In addition, there were three representatives of the Pabean community, namely the Head of Padukuhan Kraton, Mrs. Pr Widya Putri Nugraha and the and the Head of RW 13, Mr. Yahya. The results of the assessment were reviewed by Khair Ranggi Laksita Wengi, as the ZCRA Program Consultant. The assessment process was carried out on July 1, 2025, at the Howard Johnson Hotel Pekalongan.

The assessment takes into account collaborative discussions, including reflections on the CRMC tool's framework, the consistency of information across collected data sources, and a focus on the most reliable and trustworthy information, whether selecting information from household surveys, key informant interviews, focus group discussions, secondary data, or new information agreed upon during the assessment. Reviewing all information and incorporating the opinions of each participant is a consistent process for each question. Furthermore, reviewing the data collection process can strengthen confidence in selecting a score. For example, information from the focus group discussion (FGD) corroborates the responses from the household survey, and the assessment is adjusted accordingly.

During the assessment process, sometimes the information presented from the data collection was insufficient to determine a score, requiring the team to seek additional information to better determine the score and increase confidence. This additional information was recorded in a rationale box. Furthermore, several notes were made during the grading process, such as the description of the answer that appeared in each assessment answer but did not appear across all data collection methods. Some answer choices did not reflect the community's condition, but required an answer of choice. This slightly reduced the team's confidence in answering questions like these. Therefore, the team chose "No" for the question "Are you confident in this source's assessment?" and the reason for their lack of confidence was stated in the comment box.

There are cases where responses from household surveys, key informant interviews, focus group discussions, and secondary data cannot answer the assessment questions. Hence, box rationales are very useful for addressing these questions. During the grading process, answers were recorded manually, then filled in and finalized the following day. This is because the box rationales and comments must be in English. The assessment findings can be found in the next chapter.



Figure 3.1 Pabean Community-Level Assessment Process Source: IKUPI Documentation (2025)

After the grading process is carried out, the results will output an overall score for the five capitals, a score per capital that is differentiated by flood-specific hazards and general hazards, with score per lens. CRMC results can be viewed in the data cockpit accessed through the web-based CRMC application. Once the grading process has been set to complete, the application will display a "results" menu on the screen. The results page will show the overall score for the selected hazard in the community, in this case, the Pabean community has a flood hazard. Scores are sorted based on specific lenses such as the five capitals (5C), resilience index, community context, disaster risk management cycle, politics, 4R, 7 themes, and based on GAID (Gender, Age, Inequality, Disability). This study focuses on the five capital lenses and the interrelationships of the five capital GAID elements. Because this is currently a T0 or baseline study, the display in the data cockpit only displays the T0 study. Community studies can be displayed in aggregate or separately. For example, comparing the Simonet Baru community with other communities or displaying only one of them.

Table 3.1 Community Health Grading Scale

Grade	Explanation	
Α	Good practices in managing risk	
В	As standard, no haste restoration needed	
С	Visible gaps, room for improvement	
D	Far below standard, harming potential	

Source: CRMC Project Preparation, Study Arrangement, Data Collection, and Level Assessment Document (2023)

The table above shows the rating scale used in the CRMC tool. The CRMC tool rates each resilience resources on a letter scale from A to D, with A indicating the best and D indicating the worst. Not all A's are strengths and not all D's are weaknesses. Questions that are not relevant to the community



will automatically receive a poor score. Therefore, context and understanding of the community are essential, not just from the lens of the five capitals. Numerous lenses assist in the analysis phase, such as the city resilience index, the plan management cycle, the four resilience (4R) framework, and specific GAID. The lenses in the CRMC tool refer to the resilience resources within the five capitals, totaling 52 indicators.

3.1 Resilience Sources via Five Capitals Lens

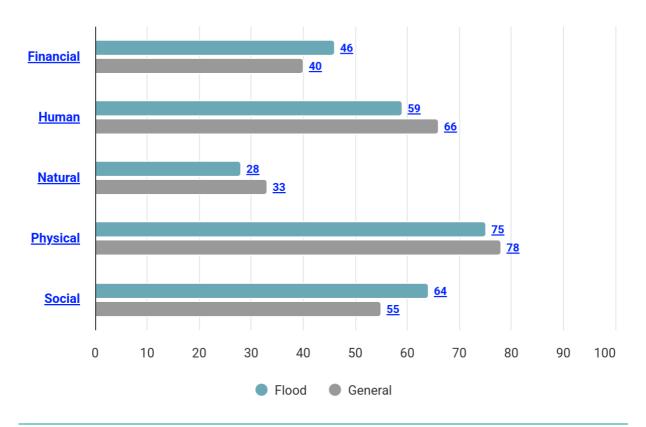


Figure 3.2 Grading Score of Five Capitals Lens Source: Website-Based CRMC Application (2025)

The graph above shows the assessment scores from the five capital lenses consisting of financial, human, natural, physical, and social capital which are distinguished from flood-specific and general resilience resources. The highest average score was obtained for (1) physical capital with a score of 75 for flood-specific and a score of 78 for general resilience resources. Followed by (2) human capital with a score of 59 for flood-specific and a score of 66 for general resilience resources. (3) Social capital with a score of 64 for flood-specific and 55 for general resilience resources. (4) Financial capital with a score of 46 for flood-specific and a score of 40 for general resilience resources. The lowest score was obtained for (5) natural capital with a score of 28 for flood-specific and 33 for general resilience resources.

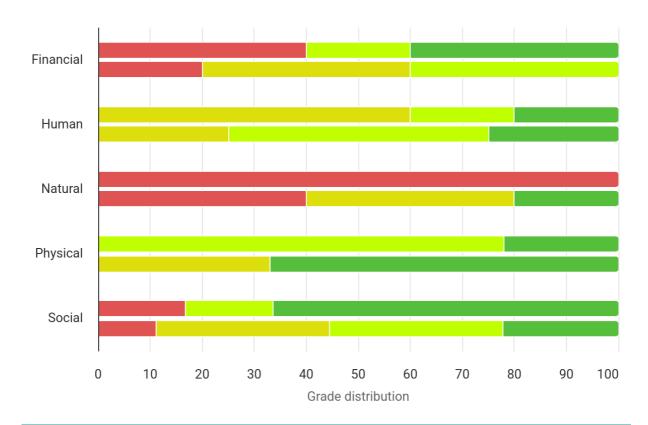


Figure 3.3 Distribution of Five Capitals Lens Grading Source: Website-Based CRMC Application (2025)

The bar chart above shows the resilience distribution values based on the five capitals of the Simonet Baru community. The top bar in each capital shows the specific resources of flood hazard resilience, while the bottom bar shows the general resilience resources. Red indicates a grade of D, yellow indicates grade C, light green indicates grade B, and dark green indicates grade A. The X-axis shows the proportion of each value in percent (%), while the Y-axis shows the components of the five capitals. There are a total of 52 resilience resources indicators consisting of 26 flood-specific and general resilience resources each.

In the specific resources of flood resilience: (1) financial capital gets 40% of grade D, 20% of grade B, and 40% of grade A. (2) Human capital consists of 60% of grade C, 20% of grade B, and 60% of grade A. (3) Natural capital obtained all or 100% of grade D. (4) Physical capital gets 78% of grade B an 22% of grade A. (5) Social capital consists of 17% of grade D, 17% of grade B, and 67% of grade A.

In general resilience resources (generic): (1) financial capital gets 20% of grade D, 40% of grade C, and 40% of grade B. (2) Human capital gets 25% of grade C, 50% of grade B, and 25% of grade A. (3) Natural capital gets 40% of the grade D, 40% of grade C, and 20% of grade A. (4) Physical capital consists of 33% of grade C and 67% of grade A. (5) Social capital consists of 11% of grade D, 33% of grade C, 33% of grade B, and 22% of grade A. For more details, below is a discussion of each of the five capital components.

3.1.1 Physical Capital



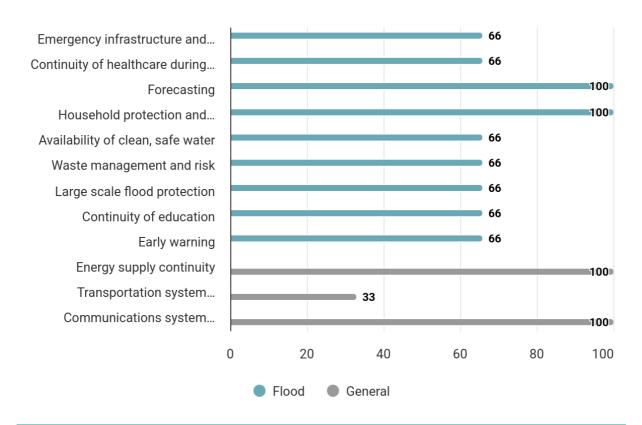


Figure 3.4 Grading Score of Physical Capital Source: Website-Based CRMC Application (2025)

The graph above shows 12 indicators of community resilience from the physical capital aspect. CRMC measures resilience in general and against specific hazards or in this context specifically floods. Flood-specific hazards are shown in blue bars and general ones in gray. Resilience resources with specific flood hazards consist of (1) infrastructure and emergency supplies, (2) continuity of education during disasters, (3) forecasting, (4) protection and adaptation at the household level, (5) availability of clean and safe water, (6) waste and risk management, (7) large-scale flood protection, (8) continuity of health services during disasters, (9) early warning. Meanwhile, general resilience resources consist of (10) continuity of energy supplies, (11) continuity of transportation systems, and (12) continuity of communication systems. The value has a range of 33 - 100 where the higher the score, the better the level of resilience.

Overall, general resilience resource scores tend to be higher than flood-specific ones. Key aspects of building general resilience are relatively better than flood resilience. Specific flood resilience scores range from 66 to 100, with 100 being allocated to forecasting, protection, and adaptation at the household level. Flood forecasts were sourced from the Meteorology, Climatology, and Geophysics Agency (BMKG) which were also disseminated to the community and relevant agencies. For riverbased flooding, forecasts can be made by monitoring CCTV in the upstream area, which was monitored by the Central Java Data Center (PUSDATARU) and Kupang's Water Resources Management Agency (BBWS). If the river level rises, PUSDATARU or the BBWS will inform the Pekalongan City government. Unlike tidal floods, flood forecasts can be seen at the pump house. If overflow occurs, tidal flooding will occur. There are two pump houses in the Pabean community, located in RW 12 and RW 13.





Figure 3.5 Pabean Community's Pump House Location Source: IKUPI Documentation (2025)

In addition, the construction of the Bremi-Meduri Flood Management System is planned, which is currently in the financing stage and if there are no obstacles, work can begin in 2026. The Bremi-Meduri River currently still relies on emergency embankments that are prone to leaks. To be more protected, members of the self-help community raised the embankment with sand bags. When a household survey was conducted on May 30, 2025, the river embankment experienced a leak on the west side of the river, causing overflow towards Tegaldowo Village. The community around the river carried out mutual cooperation to repair the broken embankment. Protection and adaptation at the household level also received a score of 100, 85% of the community raised their houses, 34% raised their roofs, 26% raised their bases/doors, and 10% stored their possessions in safe places.





(c) Valuables/objects are stored in higher places



(d) Raised house foundation

Figure 3.6 Forms of Protection and Adaptation at the Pabean Community's Household Level Source: IKUPI Documentation (2025)

Resilience generally has a score ranging from 33 to 100, with 100 being assigned to two indicators which are energy supply and communication system continuity. Communication systems (internet, television, radio, etc.) and energy supplies (electricity, fuel, etc.) are reliable during extreme events. The lowest score is for transportation system continuity with a score of 33. Floodwaters up to calves height can still be accessed by motorized vehicles. Floodwaters higher than calf height require water transportation assistance such as boats, and emergency services must be accessed at safe points. However, there is no public transportation service in this community.

3.1.2 Human Capital

The Figure 3.7 shows nine indicators of community resilience from the human capital aspect. Resilience resources with specific flood hazards consist of (1) awareness of climate change risks, (2) awareness of hazard exposure, (3) awareness of unsafe water, (4) awareness of how nature can mitigate risks, and (5) knowledge of evacuation and safety. While general resilience resources consist of (6) food availability, (7) knowledge of first aid, (8) awareness of the need for action related to climate change, and (9) attendance at secondary school.

Flood-specific resilience scores range from 33 to 100, with 100 being the indicator for awareness of hazard exposure. Almost the entire community (97%) is aware of areas prone to flooding. The Pabean community, consisting of RW 12 and RW 13, are all prone to flooding, particularly in undeveloped alleys, the western and southern parts of Pabean, river borders, and Pabean Elementary School. Community members are also aware of flood-prone areas outside of Pabean, such as Jeruksari, Pasirsari, Tegaldowo, Bandengan, Srandeng, Mulyorejo, Clumprit, Kraton, Babadan, Krandeng, and Karangjompo. No specific flood resilience indicator scored 0, but the lowest score was 33, regarding the awareness of climate change risks, awareness of unsafe water, and knowledge of evacuation and security.



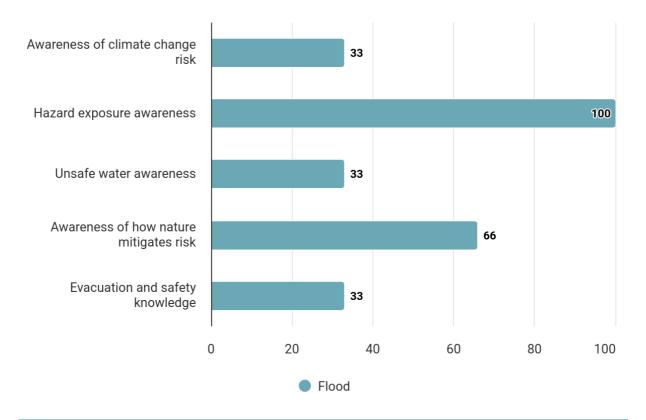


Figure 3.7 Grading Score of Human Capital Source: Website-Based CRMC Application (2025)

On the climate change risk awareness indicator, only about 20-50% or 42% of community members are aware of the risks of climate change, 9% do not agree or strongly disagree, and 49% have no opinion. Community members who agree that climate change increases the risk of flooding and will continue in the future (42%) believe that the current climate or weather is increasingly uncertain, supported by land subsidence on the coast of Pekalongan, and high tides cause tidal flooding to occur more frequently which are not limited to certain seasons. The 9% of community members who disagree that climate change can increase the risk of flooding in the future are those who believe that flood intensity will decrease and climate does not affect the occurrence of flooding events. On this indicator, the majority of people or 49% answered that they did not have an opinion which can be considered as a sign that community members are not aware of the context of climate change. On the unsafe water awareness indicator, only 50-80% of community members or 68% know the correct actions to protect themselves from unsafe water after a flood. Communities in Pabean have two clean water sources which are the Regional Water Company (PDAM) and the Public Water Company (PAMSIMAS). The condition of the PDAM in Pabean is poor. Household surveys have found that the water from the PDAM is colored, smelly, salty, has a poor flow rate, and only flows at night due to the outdated piping network. This forces residents to rely on the PAMSIMAS for their water needs. The PAMSIMAS also experiences contamination during floods, but residents have no other clean water source options.

Based on interviews with the Pekalongan City Health Office, cases of digestive problems caused by unclean water sources, such as diarrhea, did not spike during the flooding in Pabean. Skin diseases did increase during the flooding. Treatment is carried out using topical medications or ointments. Furthermore, North and East Pekalongan have been ODF (Open Defecation Free) since 2023. Residents

have elevated bathrooms and provided public toilets for public use to support community sanitation needs.

Regarding knowledge of evacuation and safety, only 61% of community members knew when to evacuate and 69% knew how to do so. According to community members, the community observed flood warning signs and received warnings from authorities to prepare for evacuation. The following is the process followed by the Pabean community in the event of a disaster.

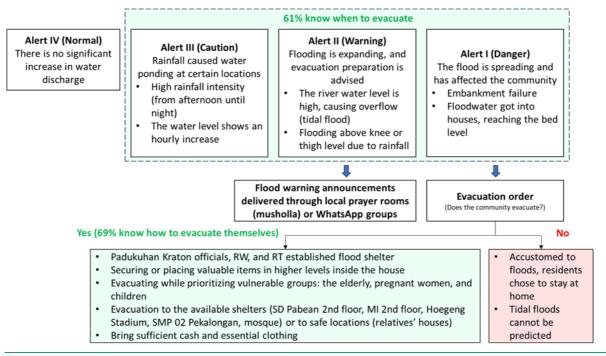


Figure 3.8 Phenomenon Flow, Early Warning, and Evacuation Stages of the Pabean Community Source: IKUPI Analysis (2025)

General resilience has a score ranging from 33 to 100, with 100 being the indicator for attendance in secondary schools. Based on an interview with the Principal of Pabean Elementary School, it can be said that 99% regularly attend school, although there are still 1-2 children per class who do not attend regularly and are at risk of being expelled from school due to marriage or having to work. No indicator from the general resilience resources that has a score of 0, but the lowest score is 33, namely food availability. There are still community members who admit going to bed hungry in the last 4 weeks. To overcome this, community members must save for daily needs, borrowing from superiors or from food stalls. The difficulty of community members to eat daily is in line with information obtained from an interview with the secretary of the BKM Padukuhan Kraton, in Pabean, specifically in RW 12, 13, 14, and 15, out of a total of 1,500 households, which there are 75% of households included in the low-income community (MBR). Income uncertainty causes the primary needs of community members not to be met.

3.1.3 Social Capital



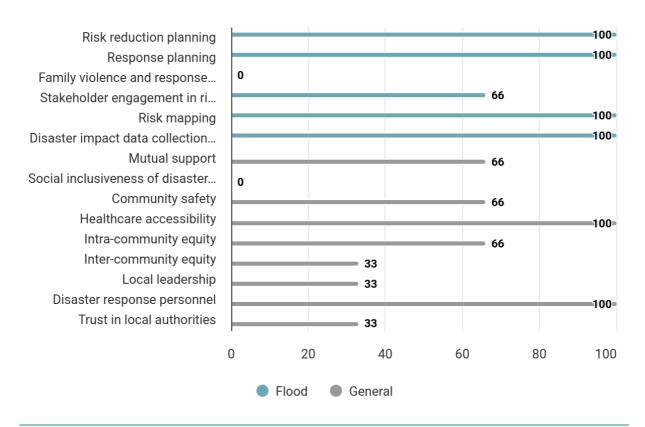


Figure 3.9 Grading Score of Social Lens Source: Website-Based CRMC Application (2025)

The graph above shows 15 indicators of community resilience from the social capital aspect. CRMC measures resilience in general and against specific hazards or in this context specifically floods. Flood-specific hazards are shown in blue bars and general ones in gray. Resilience resources with flood-specific hazards consist of (1) risk reduction planning, (2) emergency response planning, (3) domestic violence and emergency response planning, (4) stakeholder involvement in risk management, (5) risk mapping, and (6) collection and use of disaster impact data. While general resilience resources consist of (7) mutual support, (8) social inclusiveness in disaster risk management, (9) community security, (10) accessibility of health services, (11) intra-community justice, (12) justice between communities, (13) local leadership, (14) disaster emergency response personnel, and (15) trust in local authorities. The value has a range of 0-100 where the higher the score, the better the level of resilience.

Overall, the scores for specific flood resilience resources tend to be higher than for general resilience resources. Key aspects of building specific flood resilience are relatively better than for general resilience resources. Specific flood resilience has a score ranging from 0 to 100, with a score of 100 for four indicators which are risk reduction planning, emergency response planning, risk mapping, and disaster impact data collection and use. The risk reduction planning indicator has a score of 100 because Padukuhan Kraton Sub-district has been a Disaster Resilient Sub-district since 2021. It has a Disaster Risk Assessment Document at the sub-district level, created in 2020, and at the city level, which is updated every five years and reviewed annually. The preparation of this sub-district-level document is budgeted by the Pekalongan City government. This sub-district-level DKRB aims to map flood conditions in the sub-district which and used to make more targeted policies, which will be reflected in the Musrenbang (Regional Development Planning Forum).

The emergency response planning indicator also scored 100. Based on interviews with the Pekalongan City Regional Disaster Management Agency (BPBD), the Disaster Management Plan (DKRB) will produce a derivative product in the form of a Disaster Reduction Planning Document (DRPB), which contains planning-based programs and activities at both the city and sub-district levels. This document covers vulnerable groups drawn from population and social data. The DRPB, like the DKRB, is updated every five years and reviewed annually. Risk mapping indicators are also included in the DKRB at both the sub-district and city levels. Another specific resilience resource indicator scoring 100 is the collection and use of disaster impact data. Data collection on victims and damage caused by disasters is carried out by agencies involved in disaster emergencies, and the data is then disseminated by the BPBD to the general public and relevant agencies.

There is still a score of 0 for a specific resource in flood resilience, namely indicator of domestic violence and emergency response planning. At the national level, as outlined in the 2020-2024 National Disaster Management Plan (RENAS PB), mainstreaming gender, disability, and child protection is a cross-sectoral issue in the implementation of RENAS PB. However, preventing domestic violence, which includes elements of gender, disability, and child protection, has not yet become a mainstream issue in Pekalongan City. This is in line with information provided by the Regional Disaster Management Agency (BPBD) and The Agency for Community Empowerment, Women and Child Protection (DPMPPA), which states that domestic violence has not been integrated into the emergency response plan. However, the DPMPPA will be responsible for complaints related to domestic violence during a disaster.

The resilience assessment generally has a value range of 0-100, with a value of 100 for the accessibility of health services and emergency response personnel. Padukuhan Kraton is served by the Dukuh Community Health Center, a health post (Posyandu), and a hospital located not far from the subdistrict. The Dukuh Community Health Center is strategically located in the middle of Padukuhan Kraton, so that Pabean, Dukuh, and Kraton Lor do not experience obstacles in physically accessing health services. When a flood occurs, the Posyandus available in certain RWs reach flood-affected locations. In addition, if there are Posyandu cadres living in the community, residents can directly request emergency medicines from the cadres on duty. In the emergency response personnel indicator, the parties involved in emergencies at the village level are KSB, RT/RW, community organizations, and volunteers. The Padukuhan has been a Disaster Resilient Sub-district since 2021, and regularly conducts drills and simulations to meet the need for capacity building for emergency response personnel.

There is still a score of 0 for general resilience, an indicator of social inclusiveness in disaster risk management. Focus group discussions outlined vulnerable groups in the Pabean community consisting of people with disabilities, the elderly, abandoned children, women, the poor, and low-income workers (casual/daily laborers, farmers, fishermen, livestock breeders, and home industries). Of these groups, very few actively participate in disaster risk management decision-making. Access to participate in decision-making forums at the sub-district and city levels already exists, but the obstacle faced is that the community in general tends to be passive in discussions or only the same people attend. This phenomenon was also experienced by the team when holding focus group discussions involving all elements of society, including vulnerable groups. The activeness of the Pekalongan city community, especially the Pabean community, was not more active than the Simonet Baru community held in the same time period.





3.1.4 Financial Capital

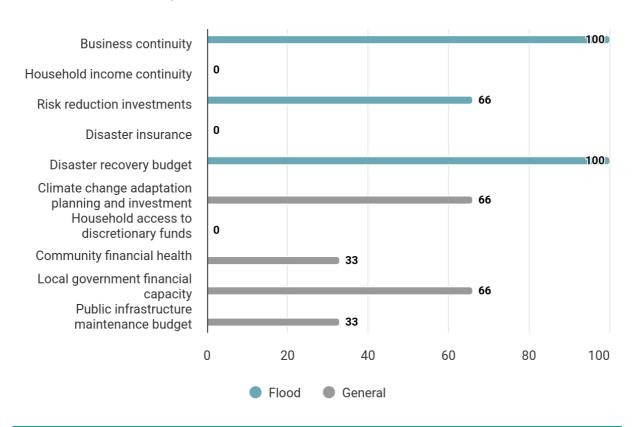


Figure 3.10 Grading Scroe of Financial Capital Source: Website-Based CRMC Application (2025)

The graph above shows ten indicators of community resilience from the financial capital. These resilience resources measure resilience to flood-specific hazards, consisting of (1) business continuity, (2) household income continuity, (3) risk reduction investments, (4) disaster insurance, and (5) disaster recovery budgets. While general resilience consists of (6) climate change adaptation planning and investment, (7) household access to reserve funds, (8) community financial health, (9) local government financial capacity, and (10) public infrastructure maintenance budgets.

Overall, flood-specific resilience resources scores are higher than general resilience resources. Flood-specific resilience resource scores a range from 0 to 100, with 100 being the indicators for business continuity and disaster recovery budgets. Interviews with workshop owners in Pabean revealed that they generally take the same protective and adaptive measures as they do for their homes, as the majority of businesses in the Pabean community are home-based businesses. These workshop owners even raised the road next to their homes to facilitate access to the workshop. Business owners generally use savings or bank loans to raise the floor to ensure their businesses remain operational during flood. However, not all businesses can continue operating during floods and the rainy season. For example, garment and batik businesses cannot dry their fabrics during the rain.

Another indicator that scores 100 points for flood-specific resilience is the disaster recovery budget. Based on interviews conducted with the Regional Disaster Management Agency (BPBD), the Pekalongan City government, specifically the BPBD, has rehabilitation and reconstruction funds in the

form of contingency funds for physical damage to homes, with the amount adjusted to the level of damage. The amount received is IDR 7,500,000 for severe damage, IDR 5,000,000 for moderate damage, and IDR 3,000,000 for minor damage. Disbursement of these contingency funds from the BPBD must be no later than one month after the disaster. Physical rehabilitation on the impact of the disaster can also be carried out by relevant technical agencies, for example, through the RTLH (Uninhabitable Houses) rehabilitation program from the Public Works and Housing Agency (DPUPR). This program not only addresses disaster-affected homes, but also restores environmental facilities and infrastructure. Other common sources of emergency funds involved during disasters include LAZISNU (National Aid Institute for the Study of Disaster Management), LAZISMU (National Aid Institute for the Study of Disaster Management), and private corporate social responsibility (CSR). The BPBD also has a contingency plan that includes SOPs in the event of an emergency, action plans for handling and the roles of emergency response personnel for specific tasks, as well as mapping local resource capacity measured by possible flood conditions.

Indicators with a score of 0 for flood-specific resilience sources are household income continuity and disaster insurance. Based on a household survey, 70% of community income was disrupted by flooding. This is because the majority of people in the Pabean community are garment and batik workers. Flooding makes the distribution of sewing materials difficult due to flooded roads. Unlike batik, batik production will be completely halted due to the drying process requiring sufficient sunlight and material distribution constraints. 30% of household income is not affected by flooding because their livelihoods are outside of Pabean. Disaster insurance also has a score of 0. Awareness of the importance of disaster insurance is still low in Indonesia. Furthermore, the Pabean community is a low-income community and therefore lacks the ability to pay insurance premiums. The assessment of general resilience resources has a score range of 0-66. No indicator has a score of 100 for general resilience resources, but an indicator with a score of 0 is the indicator of household access to reserve funds. According to a household survey, 71% of community members have no savings or emergency funds, while 29% have savings from *arisan urugan* (a small-scale social cooperation), conventional bank savings, and gold savings. Those without savings rely on assistance from relatives or borrow from neighbors.

3.1.5 Natural Capital

Figure 3.11 shows six indicators of community resilience resources from a natural capital aspect. Resilience resources with flood-specific hazards only consist of (1) ecological management for disaster risk reduction, while general resilience recourse consist of (2) tree cover, (3) permeable (non-watertight) surfaces, (4) land-use planning, (5) resource management, and (6) land-water boundary conditions.

Overall, the natural resilience resource score has the lowest score of the five capitals. The specific flood resilience score consists only of the ecological management indicator for disaster risk reduction, which has a grade of D. A grade of D here does not mean bad, but rather this indicator is not relevant to this community because it discusses terrain gradient, whereas the community is a coastal community with a gentle slope of 0-8%. The general resilience resource assessment ranges from 0-100, with 100 being for land use planning. The land use planning process in Pekalongan City is clear and transparent. This is indicated by the accessibility of the RTRW (Regional Spatial Plan) and the latest RTRW revision in the Pekalongan City Spatial Utilization Information and Service System (SiMANTAN), which can be accessed through the link https://simantan.pekalongankota.go.id. The



revised Pekalongan City RTRW 2009-2029 has been accompanied by a disaster vulnerability analysis, considers climate change projections, and is reviewed regularly every five years. The tree cover indicator scored 0 because it is a densely populated area, with much waterlogged vacant land, and only wild plants that can tolerate high salinity. The permeable (non-watertight) surface indicator also scored 0, indicating that, according to data from the Central Java Data Center (Pusdataru) in 2022, there are no water filtration areas in Padukuhan Kraton.

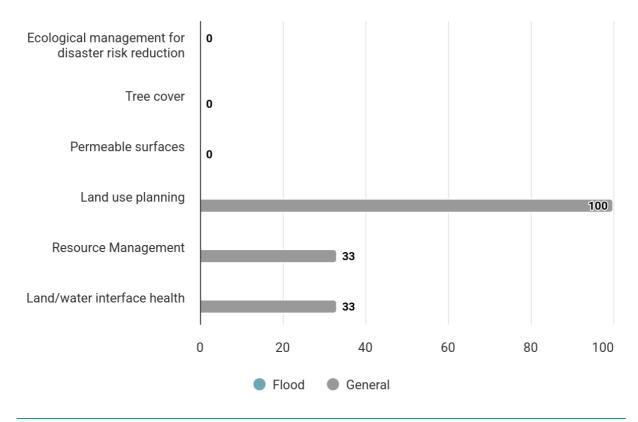


Figure 3.11 Grading Score of Natural Capital Source: Website-Based CRMC Application (2025)

3.2 Resilience Scores via Resilience City Index Lens

Figure 3.12 shows the assessment scores from the lens of the city resilience index. The city resilience index in CRMC refers to the seven resilience characteristics of the Resilient Cities Network (RCN) which consist of flexible, inclusive, integrated, backup/alternative, reflective, resource-possessed, and robustness. The components of the city resilience characteristics are also reviewed from the flood-specific and general resilience resources. The highest score for the city resilience characteristic is (1) "Reflective" with a score of 84 for the flood-specific and a score of 83 for the general resilience resource. The next score is (2) "Resource ownership" with a score of 76 for the flood-specific and a score of 83 for the general resilience resource. "Integrated" is the third highest score (3) with a score of 60 for the flood-specific and 66 for the general resilience resource, followed by (4) "Backup/alternative" with a score of 50 for the flood-specific and a score of 59 for the general resilience resource. Next is (5) "Inclusive" with 49 for flood-specific and 46 for general resilience resource. (6) "Robust" with a score of 45 for flood-specific and a score of 46 for general resilience resource. (7) "Flexible" with a score of 29 for flood-specific and 37 for general resilience resource.

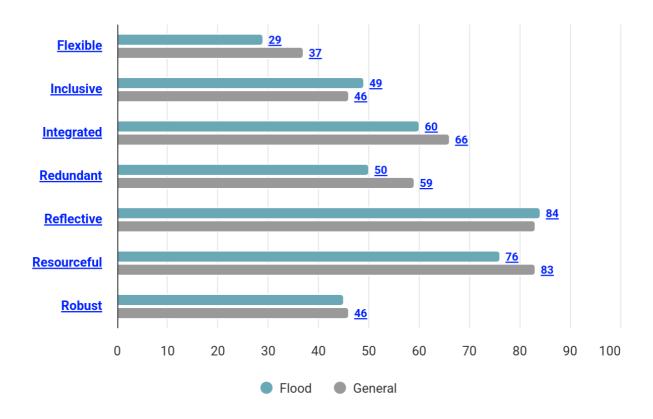


Figure 3.12 Grading Score of Resilience City Index Source: Website-Based CRMC Application (2025)

Figure 3.13 shows the distribution of resilience resources based on the city resilience index of the Pabean community. The top bar in each component shows specific flood hazard resilience resources, while the bottom bar shows general resilience resources. Red indicates grade D, yellow indicates grade C, light green indicates grade B, and dark green indicates grade A. The X-axis shows the proportion of each value as a percentage (%), while the Y-axis shows the components of the city.

In the specific flood resilience resources: (1) Flexible gets 40% of grade D, 40% of grade C, and 20% of grade A. (2) Inclusive is 100% of grade A. (3) Integrated consists of 33% of the grade D, 33% of grade B, and 33% of grade A. (4) Reserve/alternative consists of 50% of grade D and 50% of grade A. (5) Reflective consists of 20% of grade C and 80% of grade A. (6) Resource ownership consists of 80% of grade B and 20% of grade A. (7) Robustness consists of 100% of grade A.

In the generic resilience resources: (1) Flexible gets 50% of grade D and 50% of grade B. (2) Inclusive gets 10% of grade D, 50% of grade C, 30% of grade B, and 10% of grade A. (3) Integrated gets 100% of the grade B. (4) Reserve/alternative gets 67% of grade C and 33% of grade A. (5) Reflective gets 50% of grades A and B. (6) Resource ownership also gets 50% of grades A and B. (7) Robustness gets 33% of grade D, 133% of grade C, and 33% of grade A.



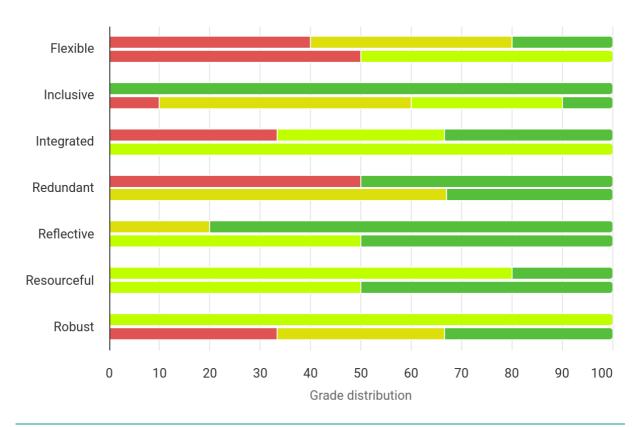


Figure 3.13 Distribution of Resilience City Index Lens Grading Source: Website-Based CRMC Application (2025)

The highest average value was obtained in the reflective component with a value range of A-C. This component consists of indicators (1) awareness of climate change risks, (2) awareness of hazard exposure, (3) risk reduction planning, (4) emergency response planning, (5) collection and use of disaster impact data, (6) land use planning, and (7) climate change adaptation planning and investment. The majority of reactive components have a value of A consisting of awareness of hazard exposure, risk reduction planning, emergency response planning, collection and use of disaster impact data, and land use planning.

The lowest average value was obtained in the flexible component with a value range of A-D. This component consists of indicators (1) food availability, (2) disaster emergency response personnel, (3) continuity of communication systems, (4) continuity of education during disasters, (5) continuity of health services during disasters (6) availability of clean and safe water, (7) waste and risk management, (8) large-scale flood protection, (9) tree cover, (10) permeable surfaces (non-waterproof), and (11) public infrastructure maintenance budget. The low value in this component indicates that the Pabean community still does not have the ability to adopt alternative strategies, operate in different ways, change, develop, and adapt, especially in the indicators of tree cover and permeable surfaces (non-waterproof).

3.3 Resilience Scores via DRM Cycle Lens

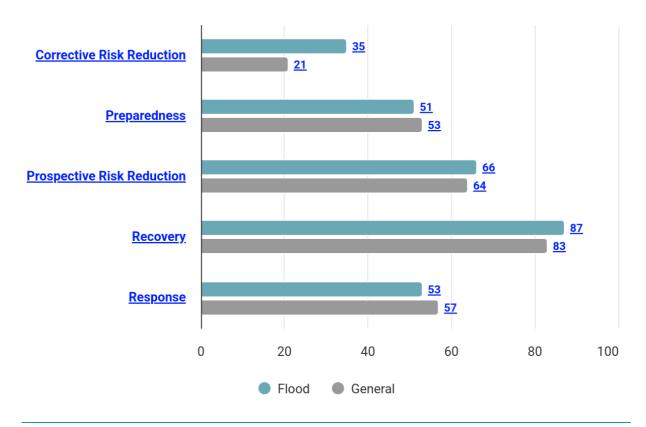


Figure 3.14 Grading Score of DRM Cycle Lens Source: CRMC Website-Based Application (2025)

The graph above shows the assessment scores from the disaster risk management (DRM) cycle lens. The disaster management cycle is a continuous process consisting of disaster planning and mitigation, actions taken during a disaster, and disaster recovery steps involving multiple sectors such as government, business, and the community. It consists of five stages starting from prospective risk reduction, preparedness, emergency response, recovery, and corrective risk reduction. The stages of the disaster risk management cycle are repetitive and interrelated. In this lens, the highest score is in stage (1) "Recovery" with a score of 87 for flood-specific and a score of 83 for general. The second highest score is (2) "Prospective risk reduction" with a score of 66 for flood-specific and 64 for general. Then there is (3) "Emergency response" with a score of 53 for flood-specific and 57 for general. Next is (4) "Preparedness" with a score of 51 for flood-specific and 53 for general. Last is (5) "Corrective risk reduction" with a score of 35 for flood-specific and 21 for general. Overall, when referring to the sequence of stages in the disaster management cycle, the recovery stage received the highest score. This is evident, among other things, in the rapid physical rehabilitation and reconstruction process in the Pabean community. This situation has the potential to burden the government's disaster management budget. According to Kumparan.com (2024), 90% of the BNPB budget is allocated for emergency response and recovery, while only 10% is allocated for disaster prevention and risk reduction.

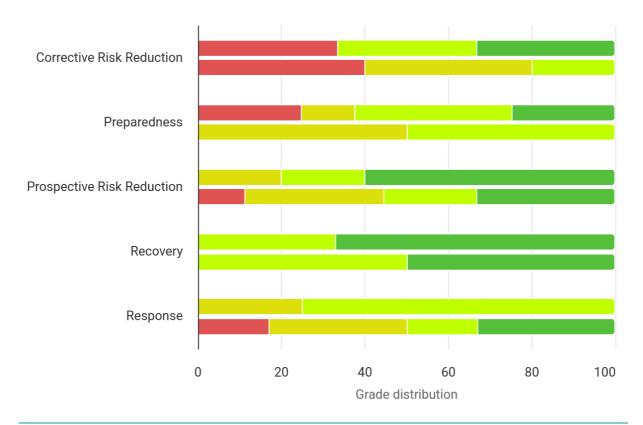


Figure 3.15 Distribution of DRM Cycle Lens Grading Source: Website-Based CRMC Application (2025)

The bar chart above shows the distribution of resilience values based on the disaster management cycle lens of the Simonet Baru community. The top bar at each stage shows the resilience resources for specific flood hazards, while the bottom bar shows the general resilience resources. Red indicates a grade D, yellow indicates a grade C, light green indicates a grade B, and dark green indicates grade A. The X-axis shows the proportion of each value as a percentage (%), while the Y-axis shows the stages of the disaster risk management cycle.

In the specific flood resilience resources: (1) corrective risk reduction gets 33% of grade D, 33% of grade B, and 33% of grade A. (2) Preparedness gets 25% of grade D, 13% of grade C, 38% of grade B, and 25% of grade A. (3) Prospective risk reduction consists of 20% of grade C, 20% of grade B, and 40% of grade A. (4) Recovery consists of 33% of grade B and 67% of grade A. (5) Emergency response consists of 25% of grade C and 75% of grade B. In the generic resilience resources: (1) corrective risk reduction gets 40% of grade D, 40% of grade C, and 20% of grade B. (2) Preparedness gets 50% of grade C and B. (3) Prospective risk reduction gets 11% of grade D, 33% grade C, 22% of grade B, and 33% of grade A. (4) Recovery gets 50% of both grade B and A. (5) Emergency response gets 17% of grade D, 33% of grade C, 17% of grade B, and 33% of grade A.

The highest average score was obtained in the recovery stage with a score range of A-B. This stage consists of indicators (1) community security, (2) disaster emergency response personnel, (3) collection and use of disaster impact data, (4) continuity of education during a disaster, and (5) disaster recovery budget. This means that actions taken after a disaster, both in the short and long term in the Pabean community can be relied upon to overcome the impact of the disaster. In the recovery stage, indicators with a score of A consist of disaster emergency response personnel and disaster recovery budget, collection and use of disaster impact data, and disaster recovery budget.

The lowest average value was obtained at the corrective risk reduction stage with a value range of A-D. This component consists of indicators (1) awareness of hazard exposure, (2) intra-community justice, (3) inter-community justice, (4) domestic violence and emergency response planning, (5) protection and adaptation at the household level, (6) large-scale flood protection, (7) tree cover, (8) permeable (non-waterproof) surfaces, (9) land-water boundary conditions, (10) ecological management for disaster risk reduction, and (11) risk reduction investment. Corrective risk reduction is a step taken to reduce existing risks. Indicators that contribute to the D value at this stage consist of domestic violence and emergency response planning, tree cover, permeable (non-waterproof) surfaces, and ecological management for disaster risk reduction.

3.4 Resilience Sources via 4Rs Lens

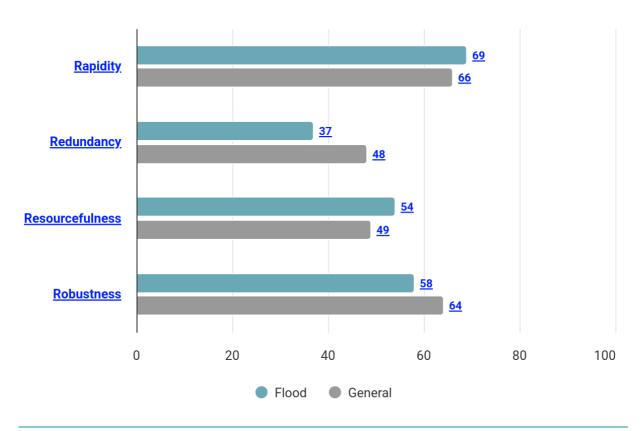


Figure 3.16 Grading Score of 4Rs Lens Source: CRMC Website-Based Application (2025)

The graph above shows the assessment scores of the 4R lens or four resilience systems. The 4R lens or four resilience systems consider quality of life, interactions, and interconnectedness at the community level. This lens consists of (1) Rapidity (speed and preparedness), (2) Robustness, (3) Resourcefulness (resource availability), and (4) Redundancy (reserves/alternatives). The highest score was in component (1) "Rapidity" with a score of 69 for flood-specific and a score of 66 for general. Next, followed by (2) "Robustness" with a score of 58 for flood-specific and 64 for general. In third place (3) is "Resourcefulness" with a score of 54 for flood-specific and 49 for general, while "Redundancy" with a score of 37 for flood-specific and 48 for general.



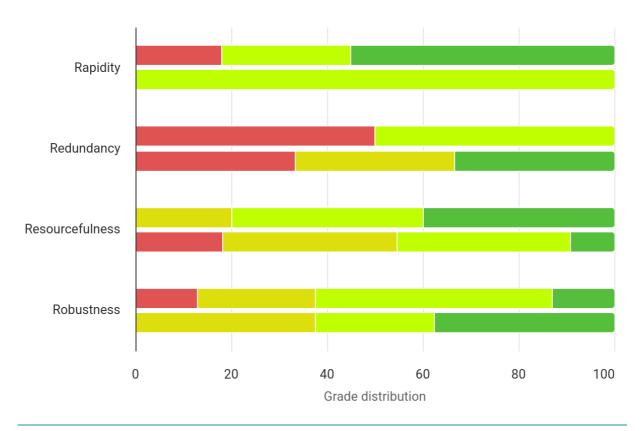


Figure 3.17 Distribution of 4Rs Lens Grading Source: Website-Based CRMC Application (2025)

The bar chart above shows the distribution of resilience values based on the 4R lens, or the four resilience systems of the Simonet Baru community. The top bar in each component shows specific resources of flood hazard resilience, while the bottom bar shows general resilience resources. Red indicates grade D, yellow indicates grade C, light green indicates grade B, and dark green indicates A grade. The X-axis shows the proportion of each value as a percentage (%), while the Y-axis shows the 4R components.

In the specific flood resilience resources: (1) Rapidity gets 18% of grade D, 27% of grade B, and 55% of grade A. (2) Redundancy gets 50% of grade D and 50% of grade B. (3) Resourcefulness consists of 20% grade C, 40% of grade B and A. (4) Robustness consists of 13% of grade D, 25% of grade C, 50% of grade B, and 13% of grade A. Meanwhile, in the general resilience resources: (1) Rapidity gets all 100% of grade B. (2) Redundancy gets 33% of grade D, C and A. (3) Resourcefulness consists of 18% of grade D, 36% of grade C and B, as well as 9% of grade A. (4) Robustness consists of 38% of grade C, 25% of grade B, and 38% of grade A.

The highest average value was obtained in the rapidity component with a value range of A-D. This component consists of indicators (1) awareness of the need for action related to climate change, (2) risk reduction planning, (3) emergency response planning, (4) risk mapping, (5) early warning, (6) continuity of education during disasters, (7) forecasting, (8) business continuity, (9) household income continuity, (10) risk reduction investment, (11) disaster insurance, and (12) disaster recovery budget. The rapidity components that have a value of A are the indicators of risk reduction planning, emergency response planning, risk mapping, forecasting, business continuity, and disaster recovery

budget. Although this rapidity component has the highest value range, there are still indicators with poor values or D, namely household income continuity and disaster insurance.

The lowest average value was obtained in the redundancy component with a value range of A-D. This component consists of indicators (1) awareness of how nature can mitigate risks, (2) sustainability of energy supplies, (3) sustainability of transportation systems, (4) tree cover, (5) permeable surfaces (not impermeable), (6) land use planning, (7) land-water boundary conditions, and (8) ecological management for disaster risk reduction. This means that the ability to build dual or backup/alternative systems in the Pabean community still needs attention. In redundancy, indicators with a value of D consist of tree cover, permeable surfaces (non-waterproof), and ecological management for disaster risk reduction.

3.5 Resilience Sources via GAID Lens

GAID, or Gender, Age, Inequity, and Disability, influences disaster risk. GAID data provides an opportunity to minimize marginalization of vulnerable groups, such as elderly women or children with disabilities. Interventions need to consider the needs of various groups to create resilience interventions that are gender-sensitive, age-sensitive, and disability-sensitive, and empower vulnerable groups. Power dynamics, ethnicity, religion, and other factors can provide additional information regarding GAID-based program considerations and to identify disparities between community groups.

3.5.1 Profile of the Pabean Community respondents based on GAID

The GAID profile comprises the context of gender, age, inequality, and disability inherent in respondents from the Pabean community. The primary source of respondents for the Pabean community profile is through household surveys. The following is the GAID profile of the Pabean community:

1) Gender Context

Data collection was not limited to a specific gender but rather was based on field conditions during the household survey. As can be seen below, the majority of respondents were women. During the household survey, there was a phenomenon where women were more willing to spend time conducting interviews. When linked to the family's primary source of income, semi-indoor work dominated at 33%, followed by indoor workers (29%), outdoor workers (24%), self-employed (9%), relying on remittances (4%), and don't know (1%), with the majority of household heads were men (85%). Therefore, it can be assumed that the majority of those working are men, which made respondents who are at home are housewives or women. It is not uncommon for respondents to direct enumerators to interview women because they have a better understanding of domestic household knowledge.

Table 3.2 Respondents by Gender

Gender	Amount	Percentage
Female	74	66%
Male	38	34%
Total	112	100%

Source: Processed Household Survey Data (2025)



Table 3.3 Female Head of Family in the Simonet Baru Community

Female head of household	Amount	Percentage
Yes	17	15%
No	95	85%
Total	112	100%

Source: Processed Household Survey Data (2025)

Female heads of households make up 15% of the Pabean community, meaning there are families with deceased spouses and divorcees. Female heads of households face the dual burden of caring for children and being the primary breadwinner. So far, none of the respondents in the Pabean community reported experiencing social discrimination due to being widowed.

2) Age Context

The age categories in the CRMC for respondents are 18-30 years, 31-65 years, and above 65 years. This age-based classification is important to understand the gap in understanding flood risks, especially among vulnerable groups such as the elderly. Furthermore, it allows for more targeted programming to address these gaps. This age range of respondents does not include children or adolescents (under 18 years). Based on the survey results, the majority of respondents are in the productive age group of 31-65 years, totaling 94 people. There are 12 young people (18-30 years), and the lowest age group is the elderly, with six people. According to field observations, the majority of respondents are batik and garment workers who are working from their respective homes. There are differences in age grouping in the CRMC tool and the Indonesian Central Statistics Agency.

Table 3.4 Respondents Based on Age

Age	Amount	Percentage				
18-30 years old	12	11%				
31-65 years old	94	84%				
Over 65 years old	6	5%				
Total	112	100%				

Source: Processed Household Survey Data (2025)

3) Context of Injustice

Table 3.5 Respondents Identify Themselves as a Minority Group

Minority Group	Amount	Percentage
Yes	1	1%
No	108	96%
I don't know	3	3%
It's better not to say	0	0%
Total	112	100%

Source: Processed Household Survey Data (2025)



The injustice encompasses whether households identify themselves as a minority or marginalized group. There are still some in the Pabean community who identify themselves as a minority, especially those who answered that they identify as such. Based on information obtained through the household survey, these respondents felt inferior due to the inadequate condition of their homes, leading them to consider themselves part of a minority group.

4) Disability

The disabilities questioned in this CRMC tool include deafness or severe hearing loss, blindness or visual impairment, cognitive impairment, and physical disabilities that interfere with daily mobility. There are also people with multiple or more disabilities, such as deafness and muteness. This question was asked to identify the number of people with disabilities in the household. People with disabilities often experience discrimination and are left behind in their communities, such as difficulties in obtaining employment, healthcare, and education. Four percent, or five respondents, had one or more disabilities in their families. Information obtained revealed that the disabilities suffered included two individuals suffering from chronic illnesses, consisting of a person with heart disease and a stroke. Another wo individuals with paralysis who were unable to walk and paralyzed in their legs due to a motorcycle accident. Lastly, one elderly person who required assistance with daily activities. None of the households had more than one family member with a disability.

Table 3.6 Family Members with Disabilities

Family Members with Disabilities	Amount	Percentage
No	107	96%
Yes, one or more	5	4%
Total	112	100%

Source: Processed Household Survey Data (2025)

3.5.2 Interrelation between GAID and resilience sources

Based on GAID data, the level of inclusiveness across all community groups can be identified. Inclusiveness is defined as encompassing everyone, ensuring no bias or exclusion of vulnerable groups, and returning the results of this process to the community to empower and more clearly articulate the needs of all groups. CRMC provides 19 of the 52 specific GAID resilience indicators or resources. Table 3.7 shows a disaggregation of resilience resources based on GAID.

Table 3.7 GAID Specific Resilience Resource

No	Kode	Resilience Resource	Score
1	H01	Secondary school attendance	Α
2	H07	Awareness of hazard exposure	Α
3	S06	Accessibility of health services	Α
4	S11	Emergency response planning	Α
5	S14	Risk mapping	Α
6	P09	Protection and adaptation at the household level	Α
7	H03	Knowledge of first aid	В
8	S03	Community safety	В



No	Kode	Resilience Resource	Score
9	S08	Intra-community equity	В
10	S13	Stakeholder engagement in risk management	В
11	P06	Emergency infrastructure and supplies	В
12	P07	Continuity of health services during disasters	В
13	H02	Food availability	С
14	H09	Knowledge of evacuation and safety	С
15	H10	Awareness of unsafe water	С
16	S07	Trust in local authorities	С
17	S09	Inter-community equity	С
18	S02	Social inclusivity in disaster risk management	D
19	S12	Family violence and emergency response planning	D

Source: Website-Based CRMC Application (2025)

GAID-specific resilience resources cover only human, physical, and social capital. In its assessment, the majority of GAID-specific resilience sources received grades A and B, followed by a grade C. Two resilience sources received a grade D: social inclusivity in disaster risk management and domestic violence.

1) Best Practices Based on GAID

Attendance at school

This resource measures the level of educational attendance in a community during normal times and whether attendance is equitable across genders. Generally, in Indonesia, access to education is guaranteed for all Indonesian citizens regardless of background, identity, or gender, and this also applies to the Pabean community. This indicator received an A grade, representing good practice in the Indonesian educational context. However, based on interviews with the principal of Pabean Elementary School, there are still 1-2 students per class who do not attend school regularly and are at risk of being expelled due to marriage or work. Pabean Elementary School serves not only school-age children from Pabean but also those from Jeruksari Village.

- Awareness of exposure to hazards

This resilience resource assesses the community's knowledge of where and when flooding is likely to occur. Percentage-wise, men and women have roughly the same level of awareness, with women 2% higher than men at 97% (agree and strongly agree) and men at 95% (agree and strongly agree) knowing flood-prone locations. This demonstrates that the Pabean community has a good understanding of flood-prone areas. Community members can map flood-prone locations down to the neighborhood association (RT) level in their respective community association (RW). In terms of age, the younger the age group, the higher the level of awareness regarding flood-prone areas. The young age group (18-30 years) entirely or 100% (agree and strongly agree) know flood-prone locations, followed by the productive age group (31-65 years) at 95%, and the lowest is the elderly at 90%.

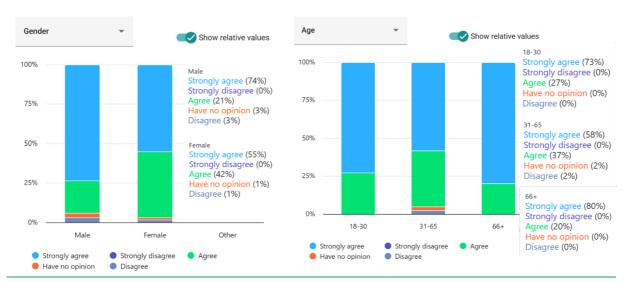


Figure 3.18 Awareness of Hazard Exposure Source: Website-Based CRMC Application (2025)

- Accessibility of health services

This resilience resource measures how well the health care system adapts to the social, cultural, and physical needs of the community during normal times. This resilience resource was assessed through focus group discussions with the Public Order Agency (Satpol PP), the Padukuhan Kraton Community Empowerment Agency (BKM), the elderly, community groups, and women's groups. This resilience resource asked two questions which are the safe reach of health services and the barriers to accessing health services. Based on the FGD results, health services are available in this community and can be safely accessed by the entire community. The health care system meets the needs of all groups, especially vulnerable groups. Padukuhan Kraton has a first-level health facility, the Dukuh Community Health Center. If flooding hinders physical access, a health post is provided at the evacuation site or at the integrated health post (Posyandu). Furthermore, health services meet the needs of all groups, without discrimination against gender, age, marginalized groups, or certain disabilities.

- Emergency response planning

This resource assess whether a flood emergency response plan exists for this community, including a targeted plan that addresses the specific needs of all social groups, including all vulnerable and marginalized groups. This resilience resource asks whether an appropriate flood emergency response plan exists for this community, whether the emergency response plan addresses the specific needs of all social groups, and whether the plan is regularly tested. The presence of a DKRB at the sub-district level provides the basis for disaster-based activity planning at the sub-district level. The available risk assessment considers vulnerability factors, including social vulnerability.

- Risk mapping

This resilience resource measures whether flood risk mapping has been conducted and whether the results can be used in flood risk management planning and actions. The methods used to



address this resilience resource are key informant interviews and secondary data. Key informant interviews were conducted with the Community Empowerment Agency (BKM), village heads, the Regional Disaster Management Agency (BPBD), and the Regional Development Planning Agency (BAPPERIDA). Flood risk maps available in Pekalongan City are detailed down to the sub-district level and include vulnerability components. Risk analysis is outlined in the Sub-district-level Regional Disaster Management Agency (DKRB) with details down to the sub-district level. The Regional Development Planning Agency (BAPPEDA) uses these maps in development planning, and the Regional Disaster Management Agency (BPBD) uses them in risk management actions. If there are vulnerability components, the GAID aspect is included in the mapping.

Protection and adaptation at the household level

This source assess the actions taken by households to protect themselves from flood damage. Various actions taken by the Pabean community include raising floors (85%), raising the house (roof) (34%), raising the base/door (26%), storing belongings in a flood-proof manner (16%), building or upgrading walls around the house (10%), building or upgrading to the latest building code (5%), using flood barriers or sandbags (5%), using the upper floor for storage (3%), channeling floodwater around the house (channels, embankments, etc.) (2%), and building flood-resistant structures (1%). Respondents could select more than one action.

2) Below Standard GAID Practice

Social inclusivity in disaster risk management

This resource measures the inclusiveness of a community in disaster risk management. Information was obtained from focus group discussions with participants consisting of BKM, the elderly, local communities, government, religious groups, community groups, women's groups, and youth groups. Community access to participate in decision-making is available, but when forums are held, the community tends to be inactive. There is a feeling of fear or embarrassment when expressing opinions, so some are more comfortable sharing on social media. Quotas for gathering aspirations from certain groups, including vulnerable groups, have been set in official forums held by the government, however, community activity in official forums is still lacking. Vulnerable groups in this community include people with disabilities, the elderly, abandoned children, women, the poor, and low-income workers (casual/daily laborers, farmers, fishermen, livestock breeders, and home industries).

Domestic violence and emergency response planning

The issue of preventing domestic violence has been a focus of the National Disaster Management Agency (BNPB) in its National Disaster Management Plan (RENAS PB) as a cross-sectoral mainstreaming initiative. However, this issue has not yet been addressed in Pekalongan City. Mainstreaming domestic violence in emergency response planning is crucial and relevant to GAID, as women and children are often the most vulnerable groups. In emergencies, gender-based violence can occur due to limited safe spaces for vulnerable groups.



3.6 Identification of SO-WN Resilience Sources

This stage analyzes the strengths-opportunities (SO) and weaknesses-needs (WN) of all assessed lenses. Later, each resilience resources will be reviewed from various lenses and identified according to its strength (SO) or weakness (WN). Before entering the SO-WN matrix of various lenses, the table below shows the relevance of resilience resources to the community and the identification of SO-WN from the five-capital lens consisting of resilience resources. From the observation results, it was found that resilience resources with value A are resilience resources or strength (S) and not all values of B, C, and D are weaknesses (W). The following is a description.



Table 3.8 Relevance and Identification of SO-WN

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
1	H01	Secondary school attendance	A	Yes	S	Children's regular attendance at school is close to 100%, however there are still 1-2 children per class who do not regularly attend school.
2	H07	Hazard exposure awareness	A	Yes	S	Community knowledge regarding flood-prone areas in Pabean is good, the majority know the flood-prone locations down to the RT level in their respective RW.
3	S05	Disaster response personnel	Α	Yes	S	Having been a Disaster Resilient Sub-district since 2021, KSB is in place, and routine training and simulations are conducted.
4	S06	Health care accessibility	А	Yes	S	Padukuhan Kraton is served by the Dukuh Community Health Center (Puskesmas), a community health post (Posyandu), and a hospital located nearby. The Dukuh Community Health Center is strategically located in the center of Padukuhan Kraton. During floods, the Posyandu reaches affected areas.
5	S10	Risk reduction planning	Α	Yes	S	DKRB every 5 years at the city level, Disaster Study Document at the sub-district level, Disaster Resilient Sub-district since 2021.
6	S11	Emergency response planning	А	Yes	S	The DKRB is passed down to the DRPB (Disaster Reduction Planning Document, containing disaster-based programs and activities at the city and sub-district levels). Risk assessments consider vulnerability factors and are reviewed every five years.
7	S14	Risk mapping	A	Yes	S	The DKRB is reviewed every 5 years, includes vulnerability components, and is used by the DPUPR (overlaying disaster data with spatial planning based on ministerial regulations) and is used by BAPPEDA in short and medium plans.
8	S15	Collection and use of disaster impact data	А	Yes	S	There is data collection on victims or damage carried out by the sub-district or related agencies, the data is disseminated by the BPBD and can be used by related agencies, there is already a 2024 Pekalongan City RAD API.
9	P01	Energy supply continuity	Α	Yes	S	Energy supplies such as electricity, LPG, and motor vehicle fuel are not disrupted and are running normally.
10	P03	Communication system continuity	Α	Yes	S	Communication systems are available and reliable in extreme conditions.

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
11	P08	Forecasting	A	Yes	S	Flood forecasts from the Meteorology, Climatology, and Geophysics Agency (BMKG) have been disseminated to the public and relevant agencies. The Kupang City Government will be notified via CCTV at the Hulu Pusdataru (City Center for Water Resources Management) if the water level rises. Tidal flooding is expected to originate from the pump house. If it overflows, tidal flooding will occur.
12	P09	Protection and adaptation at the household level	Α	Yes	S	85% of people at least raised the floor of their house because it is relatively cheaper than raising the roof.
13	N03	Land use planning	A	Yes	S	The land use planning process is clear and transparent, based on risk maps (overlaid with the RTRW), and takes into account climate change projections.
14	F06	Business continuity	Α	Yes	S	The business owner raised the floor to mitigate the impact of the flood on his business. Funding came from savings and a bank loan.
15	F10	Disaster recovery budget	А	Yes	S	There is a disaster recovery budget at the Regional Disaster Management Agency (BPBD), related technical OPDs such as the Public Works and Housing Agency (DPUPR), or from non-government funding such as CSR which can be quickly accessed.
16	H03	Knowledge of first aid	В	Yes	0	For each disaster training activity, Padukuhan Kraton sends 30-40 people. These trained individuals can provide an opportunity to share their knowledge with the Pabean community.
17	H04	Awareness of the need for action on climate change	В	Yes	0	People are already aware that they need to take greater action to reduce the risks of climate change, but they don't know what steps to take.
18	H06	Awareness of how nature can mitigate risks	В	Yes	0	62% of the community is aware of the importance of a healthy environment to reduce the risk of flooding, have an understanding that unintegrated upstream and downstream flood management will still cause flooding, garbage can cause flooding and requires river normalization, the community also understands the need for tree planting but is not possible in Pabean, also needs structural flood management (e.g. embankments). There are still those who disagree because they think that tidal flooding here is caused by land subsidence, can no longer be planted with trees, and because of geographical factors on the coast so it will always flood. It becomes an opportunity because there is already a basis of understanding that can be developed into real action.

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
19	S01	Mutual support	В	Yes	S	Community self-reliance, a sense of togetherness, and mutual cooperation are high, in line with the results of household surveys and information from village heads, although there are still those who feel that the community is individualistic and does not want to express their opinions.
20	S03	Community security	В	Yes	S	There are still cases of theft at Pabean, but the perpetrators are not from the Pabean community, but this number doesn't occur every year. Crime at Pabean is very rare.
21	S08	Intra-community equity	В	Yes	S	People feel that pay is fair according to their skills, there are no problems with educational opportunities because this depends on zoning and achievements, and they do not experience discrimination when applying for work.
22	S13	Stakeholder engagement in risk management	В	Yes	0	There is already a CSR regulation, but there is still a need to optimize the regulation.
23	P04	Early warning	В	Yes	N	The available early warning system is informal (from social media, WA groups) but there is no formal EWS at Pabean.
24	P05	Education continuity during disasters	В	Yes	0	There are already practices of adapting education during disasters (distance learning) or using second-floor rooms. Even during floods, children continue to attend school.
25	P06	Emergency infrastructure and supplies	В	Yes	S	Equipments are in good condition
26	P07	Health care continuity during disasters	В	Yes	S	There are already mobile health centers and integrated health posts (posyandu) in case access to the health center is cut off, and there are SOPs for handling earthquakes and fires.
27	P10	Availability of clean and safe water	В	Yes	N	Water quality can be affected, toilets can be affected if they are not raised, but there is an alternative of using 2 public toilets.
28	P11	Waste and risk management	В	Yes	0	There is growing awareness that rivers and drains clogged with trash can exacerbate flooding. Thanks to the strong sense of community cooperation, collective action to clean up trash can be carried out at Pabean.
29	P12	Large-scale flood protection	В	Yes	0	The Bremi-Meduri flood mitigation system will be implemented in 2026. While waiting, non-structural protection systems (river patrols) can be implemented.
30	F03	Local government financial capacity	В	Yes	0	High transparency, there is PAD, large infrastructure depends on the center and there is awareness of receiving non-government funds.

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
31	F05	Climate change adaptation plan- ning and investment	В	Yes	S	There are RAD API and POKJA PI. Tidal flood mitigation efforts are constantly evaluated; more details can be found in the Regional Apparatus Organization (OPD) work plan. Meetings with POKJA PI are held to prepare collaborations, including budgets, between OPDs, OPDs, and NGOs to ensure sustainable climate change action.
32	F08	Risk reduction investments	В	Yes	0	Large-scale infrastructure is funded by central government funds, while local governments are opening up other funding mechanisms, in line with the CSR regional regulation.
33	H02	Food availability	С	Yes	N	The survey results show a higher figure than the sub-district government's statement regarding the percentage of people experiencing hunger in the past month. This remains an area that needs improvement.
34	H05	Climate change risk awareness	С	Yes	N	Although the community has sufficient awareness to reduce flood risks, less than half of respondents agree that climate change can increase the risk of flooding in the future because people do not know what climate change is, weather does not affect flooding, and some are optimistic that flooding will decrease in the future.
35	H09	Evacuation and safety awareness	С	Yes	N	61% of the public already know when to evacuate themselves, such as when hearing a notice at the mosque, the water is knee- or thigh-deep, heavy rain from day to night, more alert during the rainy season, if the embankment breaks or the river overflows. 69% of the public know how to evacuate, prepare personal needs (money and clothing), prioritize vulnerable groups, secure valuables at home, then go to the evacuation point. Based on CRMC measurements, there is still a chance for improvement for this condition because some people still choose to stay at home even though there is flooding.
36	H10	Unsafe water awareness	С	Yes	W	Under normal conditions, the water from the Regional Water Company (PDAM) in Pabean (RW 12) is not in good condition due to the outdated piping network. Rejuvenating the infrastructure is difficult because it is deep underground (the piping is from the Dutch colonial era). The community still has an alternative, namely the Pamsimas (public water supply system), but groundwater use in coastal areas needs to be controlled.

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
37	S04	Local leadership	С	Yes	W	There are issues of public trust regarding access to aid and weak coordination among key village actors. Regarding road assistance, sub-district governments are being directed to use POKIR (Regional Development Planning) rather than sub-district programs due to the slow disbursement of funds (program priorities).
38	S07	Trust in local authorities	С	Yes	N	Police trust: There are suspicions of money laundering practices and the public has never interacted directly with the police, trust in the neighborhood unit (RT/RW/sub-district) is still low due to indications of aid recipients not being on target and infrequent inspections at Pabean. Trust in emergency services: There are standby cars, ambulances, and mobile integrated health posts (posyandu), but the public relies more on private vehicles. There needs to be an increase in trust in the government (RT/RW/sub-district).
39	S09	Equity between communities	С	Yes	N	The community focused on the perceived unfairness of financial assistance (i.e., mistargeting and uneven regional development). Education and employment were not a problem. Regarding infrastructure assistance, the village government directed the use of village funds.
40	P02	Sustainability of transportation systems	С	No	-	Not relevant for this community as there is no public transportation in Pabean.
41	N04	Resource management	С	Yes	W	Individual natural resources are managed by individuals while communal natural resources such as water (PAMSIMAS) are maintained together for mutual benefit, but this is actually not sustainable.
42	N05	Condition of land-water boundaries	С	Yes	W	There is no protective vegetation, the risk of the embankment breaking is high, but there is already a RAD API and the realization of a flood mitigation system in 2026. For now, it still needs more attention.
43	F02	Community financial health	С	Yes	W	The majority of batik and garment workers earn Rp 50,000 per day for a six-day workweek, earning Rp 1,200,000 per month, which is still below the Pekalongan City minimum wage of Rp 2,545,138. If a husband and wife work in the same field, the pay is close to the minimum wage.
44	F04	Public infrastructure maintenance budgets	С	Yes	N	Infrastructure development through a prioritization process

No	Code	Resilience Resources	Score	Contextual Relevance	SO-WN	Information
45	S02	Social inclusiveness in disaster risk management	D	Yes	N	Access to the forum has been provided by the government, such as the musrembang which has a quota for vulnerable groups to be involved, but when given the opportunity, vulnerable groups are not active (embarrassed, afraid, uncomfortable expressing opinions in the forum).
46	S12	Domestic violence and emergency response planning	D	No	-	There is no urgency to include domestic violence prevention in flood emergency response plans at the city level.
47	N01	Tree cover	D	Yes	W	It's a densely populated area. The land is unsuitable for cultivation due to seawater intrusion. Many houses are permanently flooded due to the inability to fill the land, leaving the land abandoned.
48	N02	Permeable (non-waterproof) surfaces	D	Yes	W	The area is saturated, there are no water filtration areas.
49	N06	Ecological management for disaster risk reduction	D	No	-	Not relevant for this community as it is a 0-8% terrain gradient (this resileince resource is related to slope gradient).
50	F01	Household access to reserve funds	D	Yes	W	People earn daily income, but there are savings and <i>arisan urugan</i> at Pabean. 71% of the population have no savings.
51	F07	Household income continuity	D	Yes	W	Batik is not flexible during flooding because it cannot be dried in the sun. Sewing machines cannot be used if submerged. Businesses that are not affected by flooding are stalls and workers outside of Pabean.
52	F09	Disaster insurance	D	No	-	It is not common for people to use flood insurance in Indonesia.

Source: IKUPI Analysis (2025)



There are four resilience resources that are not relevant to the Pabean community, namely the sustainability of the transportation system (P02), domestic violence and emergency response planning (S12), ecological management for disaster risk reduction (N06), and disaster insurance (F09). Resilience resources that are graded A are all strengths (S). Resilience sources valued B-C generally have a varied distribution ranging from strengths (S) - only those graded B, opportunities (O), needs (N), and weaknesses (W). While grade D needs (N) and weaknesses (W). Therefore, from the SO-WN mapping of these resilience resources, it can be derived into a SO-WN matrix of resilience resources from various lenses consisting of the five capital lenses themselves, community context, disaster management cycle, 4R, 7 themes, city resilience index, and specific GAID. The following is the explanation.



Table 3.9 Grouping of Various Lens Resistance Resources

SO/WN	Five Capitals	Community Context	Disaster Management Cycle	Resilience Systems (4R)	7 Themes	City Resilience Index	GAID Specifics
Strength/ Opportunities	Strength: 1. Human (Grade A: H01, H07) 2. Social (Grade A: S05, S06, S10, S11, S14, S15; Grade B: S01, S03, S08) 3. Physical (Grade A: P01, P03, P08, P09; Grade B: P06, P07) 4. Natural (Grade A: N03) 5. Financial (Grade A: F06, F10; Grade B: F05) Opportunities: 1. Human (Grade B: H03, H04, H06) 2. Social (Grade B: S13) 3. Physical (Grade B: P05, P11, P12) 4. Financial (Grade B: F03, F08)	1. Supportive Environment 2. Community Level	1. Prospective risk reduction 2. Preparedness 3. Emergency response 4. Recovery 5. Corrective risk reduction	 Resource availability Robustness Speed and Preparedness Availability of backups/alternatives 	1. Assets 2. Life and Health 3. Natural Environment 4. Livelihoods 5. Social Norms 6. Lifeline Systems 7. Governance	1. Backup/Alternative 2. Robust 3. Integrated 4. Inclusive 5. Reflective 6. Resourceful 7. Flexible	12 of the 30 N&W resilience resources consider GAID
Needs/ Weaknesses	Needs: 1. Human (Grade C: H02, H05, H09) 2. Social (Grade C: S07, S09; Nilai D: S02) 3. Physical (Grade B: P04, P10) 4. Finacial (Grade C: F04) Weaknesses: 1. Human (Grade C: H10) 2. Social (Grade C: S04) 3. Natural (Grade C: N04, N05; Grade D: N01, N02) 4. Financial (Grade C: F02; Grade D: F01, F07)	1. Supportive Environment 2. Community Level	1. Prospective risk reduction 2. Preparedness 3. Emergency response 4. Recovery 5. Corrective risk reduction	 Resource availability Robustness Speed and Preparedness Availability of backups/alternatives 	1. Assets 2. Life and Health 3. Natural Environment 4. Livelihoods 5. Social Norms 6. Lifeline Systems 7. Governance	 Backup/Alternative Robust Integrated Inclusive Resource-Based Flexible 	6 of the 18 N&W resilience resources consider GAID

Source: IKUPI Analysis (2025)



3.7 Pre-Feasibility

The pre-feasibility study aims to formulate initial interventions to increase community resilience to the hazards of climate change. Interventions can include infrastructure, tools, technologies, methods or approaches, and systems. Interventions can relate to resilience resources, one or more resilience themes, or other assets. The assessment results are useful for exploring and identifying the most needed resilience resources or themes and resilience opportunities that can be intervened. This is done by examining areas of strength and weakness, interactions between resilience resources, and opportunities to address issues of concern in the Simonet Baru community. However, not all strengths are opportunities, and not all weaknesses require intervention. These various forms of resilience-enhancing interventions are outlined in an intervention plan or action plan.

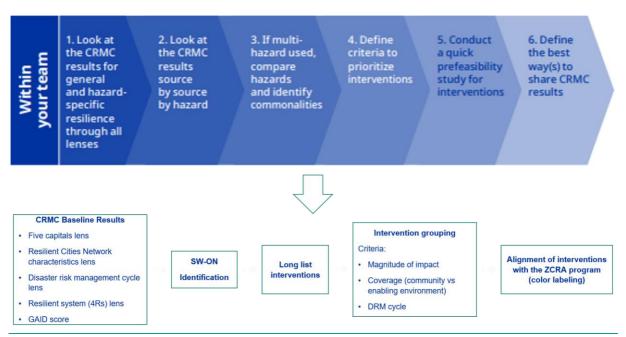


Figure 3.19 Stages of CRMC Results Analysis and Intervention Planning
Source: IKUPI Analysis Adapted from the document "From Analysis Results to CRMC Planning Interventions"
(2025)

Interventions were developed by eliminating existing resilience resources (S) and those irrelevant to the community. These resilience sources were irrelevant in the Pabean community, including ecological management for disaster risk reduction. Furthermore, slope management was also irrelevant in this community, as it is a coastal area with low slopes.

Priority interventions focus solely on resilience resources that can be increased or strengthened (W and O), and improved or enhanced (N). Intervention mapping is based on relevance, gaps, and can be derived from stakeholder or community input. Priorities are divided into three classes: priority 1, priority 2, and priority 3. Priority 1 means increasingly prioritized. Priority analysis is the accumulation of scores from the five-capital lens; community context, and the disaster management cycle. The **five-capital lens** and the **disaster management cycle** use a 5-class Likert scale, while the **community coverage** uses a 2-class Likert scale with score explanations in Table 3.10. For example, in the disaster management cycle lens, priority is given to the initial stage of disaster management

with the highest value (5) and the final stage of the cycle has the lowest value (1) with the consideration that the initial stage of disaster risk management is more proactive while the final stage is a reactive response, although all are still needed as a whole.

Table 3.10 Priority Intervention Score Description

No	Criteria	Description	Parameter	Score
1	Impact Magnitude	The magnitude of the impact felt by the community. The	Very large impact and affects many people	5
		greater the impact, the higher the assessment score.	Moderately large impact and affects many people	4
			Approximately 50% impact on the community	3
			Minor impact on the community	2
			Very small impact on the community	1
2	Scope	Interventions originating from	Community level	5
		within or outside the community. The community level is valued higher than the supporting environment.	Enabling environment	4
3	MRB Cycle	Proactive disaster risk	Prospective risk reduction	5
		management stages have	Preparedness	4
		greater value than reactive	Emergency response	3
		ones.	Recovery	2
			Corrective risk reduction	1

Source: IKUPI Analysis (2025)

A greater the total score indicates a higher priority in developing the intervention. The lowest possible total score is 6 and the highest is 15. In this process, it is known that the score is in the range of 7-15, so priority 1 is obtained with a total score range of 13-15, priority 2 with a total score range of 10-12, and priority 3 with a total score range of 7-9. Table 3.11 shows the results of the grouping in the proposed priority interventions:





Table 3.11 Grouping of Priority Intervention Proposa
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No	Code	Resilience Resources	Community Context	Disaster Management Cycle	Total Score	Priority
1	S02	Inclusivity in disaster risk management	Community Level	Prospective Risk Reduction	15	Priority 1
2	H06	Awareness of how nature can mitigate risk	Community Level	Prospective Risk Reduction	14	Priority 1
3	S13	Stakeholder engagement in risk management	Community Level	Preparedness	14	Priority 1
4	F07	Household income continuity	Community Level	Preparedness	14	Priority 1
5	H03	Knowledge of first aid	Community Level	Preparedness	13	Priority 1
6	H04	Awareness of the need for climate change action	Supportive Environment	Prospective Risk Reduction	13	Priority 1
7	H05	Awareness of climate change risks	Community Level	Prospective Risk Reduction	13	Priority 1
8	H09	Knowledge of evacuation and safety	Community Level	Preparedness	13	Priority 1
9	S07	Trust in local authorities	Community Level	Emergency Response	13	Priority 1
10	F04	Public infrastructure maintenance budget	Supportive Environment	Prospective Risk Reduction	13	Priority 1
11	F01	Household access to reserve funds	Community Level	Emergency Response	13	Priority 1
12	F02	Community financial health	Community Level	Preparedness	12	Priority 2
13	P04	Early warning	Supportive Environment	Preparedness	11	Priority 2
14	P11	Waste and risk management	Supportive Environment	Emergency Response	11	Priority 2
15	H10	Awareness of unsafe water	Community Level	Emergency Response	11	Priority 2
16	S04	Local leadership	Community Level	Preparedness	11	Priority 2
17	N04	Resource management	Supportive Environment	Prospective Risk Reduction	11	Priority 2
18	P10	Availability of clean and safe water	Supportive Environment	Emergency Response	10	Priority 2
19	F03	Local government financial capacity	Supportive Environment	Preparedness	10	Priority 2
20	P05	Education continuity during disasters	Supportive Environment	Recovery	8	Priority 3
21	P12	Large-scale flood protection	Supportive Environment	Corrective Risk Reduction	8	Priority 3
22	N05	Land-water boundary conditions	Supportive Environment	Corrective Risk Reduction	8	Priority 3
23	N01	Tree cover	Supportive Environment	Corrective Risk Reduction	8	Priority 3
24	F08	Risk reduction investments	Supportive Environment	Corrective Risk Reduction	7	Priority 3
25	H02	Food availability	Supportive Environment	Emergency Response	7	Priority 3

No	Code	Resilience Resources	Community Context	Disaster Management Cycle	Total Score	Priority
26	S09	Equity among communities	Community Level	Corrective Risk Reduction	7	Priority 3
27	N02	Permeable (non-waterproof) surfaces	Supportive Environment	Corrective Risk Reduction	7	Priority 3

Source: IKUPI Analysis (2025)



Furthermore, in a pre-feasibility session held on July 7, 2025, intervention prioritization was aligned with the Mercy Corps Indonesia team. The established priorities can be adjusted based on the ZCRA program's alignment with color-coded labeling. The pre-feasibility also included initial identification of actors who would follow up on CRMC interventions. Table 3.12 below compares the long list of proposed interventions based on the CRMC study with the interventions after alignment in the pre-feasibility study:



Table 3.12 Comparison of Pro	oosed Interventions with Interventions	After Pre-Feasibility Study

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
1	Collective urban farming management using hydroponic methods (e.g., in RW 14) in collaboration with the Department of Environment and Forestry (Dinperpa) (H02)	Management of collective urban farming using hydroponic methods (example in RW 14) integrated with fisheries cultivation in collaboration with Dinperpa and other key actors (H02)	Priority 1
2	Collective management of former rice paddy ponds or wildland (H02)	-	Not feasible
3	Providing regular public kitchen activities (H02)	Establishing public kitchens for communities in special situations (H02)	Priority 3
4	Encouraging the use of regular disaster training participants or KSB (National Disaster Management Agency) to transfer first aid knowledge to the community (H03)	Facilitating the transfer of first aid knowledge to the community (H03)	Priority 1
5	Practical climate change action training involving KSB or environmental groups (H04)	Training and outreach on climate change (and its community-level actions) involving representatives of all community groups, including religious leaders, vulnerable groups, and local environmental communities (H04)	Priority 1
6	Encouraging partnerships with NGOs or universities to provide assistance in climate change actions at the community level (H04)	Encouraging collaboration with local actors, such as local NGOs or universities, to provide support for climate change actions at the community level (H04)	Priority 1
7	Involving religious leaders and utilizing religious activities as a medium for education and strengthening public awareness in disaster risk reduction (H05)	Utilizing religious activities as a medium for education and strengthening community awareness of DRR and climate change (H05)	Priority 2
8	Encouraging collaboration between KSB and local environmental groups to conduct climate change action outreach activities at the community level (H05)	Encouraging collaboration between the KSB and local nature conservation groups to conduct outreach activities on climate change actions at the community level (H05)	Priority 1
9		Socialization of nature-based solutions at the community level to mitigate flood risk (H06)	Priority 1

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
10		Participatory mapping of green and blue elements in communities that can be utilized to reduce flood risk (H06)	Priority 1
11	Facilitating communal textile waste management (batik and garments) (H06)	Facilitating communal processing of textile waste (batik and garments) in home-based industries (H06)	Priority 2
12	Collective waste composting training (H06)	Community-scale waste composting training (H06)	Priority 2
13	Disaster evacuation training and simulations at the neighborhood and community association (RT/RW) level (H09)	Disaster evacuation training and simulation at the neighborhood and association (RT/RW) level (H09)	Priority 1
14	Participatory preparation of evacuation route maps (H09)	Participatory evacuation route map development (H09)	Priority 1
15	Facilitating cross-sectoral audiences to encourage the use of Special Allocation Funds (DAK) for repairs to the PDAM (Regional Water Company) piping system (very high costs due to the network being too deep and covered with concrete and earth fill) (H10)	Provision and introduction of simple water filtration systems for the community (H10)	Priority 2
16	Mapping of damaged water sources at the sub-district level to avoid the need for new water supply systems (H10)		Not feasi- ble
17	Encouraging regular regeneration of KSB and Disaster Resilient Sub- district management to increase community awareness of disaster risk management issues (S02)	Encourage regular regeneration of KSB and Disaster Resilient Sub-district management to increase public awareness of dis- aster risk management issues (S02)	Priority 1
18	Regularly updating vulnerable group data and incorporating it into the sub-district monograph (S02)	Data collection on vulnerable groups is updated periodically and included in the sub-district monograph (S02)	Priority 1
19	Holding neighborhood and community association (RT/RW) meetings that actively involve women (S02)	-	Not feasi- ble
20	Allocating a minimum quota of one village meeting participant per vulnerable group (S02)	Providing a minimum quota for participants in community meetings per vulnerable group, including encouraging women's active participation in community meetings at the neighborhood association (RT/RW/sub-district) level (S02)	Priority 2
21	Implementing outreach activities to encourage community participation in efforts to diversify alternative funding sources for flood adaptation (elevated roads) at the sub-district level (S04)	Outreach to encourage community participation in accessing alternative funding sources for flood adaptation at the subdistrict level (S04).	Priority 3
22	Facilitating Pekalongan City stakeholders to access alternative funding sources for climate resilience-related activities (S04)	Facilitate Pekalongan City stakeholders to access alternative funding sources for climate resilience activities (504)	Priority 2

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
23	Holding regular meetings between residents and sub-district governments (RT/RW/Sub-district) to gather community aspirations (S07)	Conduct discussions with stakeholders at the village level to build a shared commitment to aligning recommendations from assessments and community resilience plans with development plans in the Musrenbangkel (S07)	Priority 1
24	Promoting transparency in data collection of aid recipients (S09)	Encourage transparency in data collection on aid recipients (S09)	Priority 3
25	Forming collaboration with institutions such as LAZISNU to provide assistance to communities in need (\$09)	Formulate collaboration with humanitarian agencies to enhance community empowerment (S09)	Priority 3
26	Enhancing the institutional capacity of the Regional Disaster Management Agency (BPBD) to integrate cross-sectoral planning and work programs, taking disaster risk analysis into account (S13)	Strengthen the integration of disaster risk analysis results into cross-sectoral planning and work programs (S13)	Priority 2
27	Providing tax incentives for large-scale industries conducting CSR activities in Pekalongan City (S13)	-	Not feasi- ble
28	Developing recommendations for collaboration between city, district, and provincial governments to address tidal flooding through the development of a cross-regional flood management strategy (S13)	Develop recommendations for collaboration between city, district, and provincial governments to address tidal flooding through the development of a cross-regional flood management strategy (S13)	Priority 1
29	Developing a flood risk management model using a pentahelix or cross-sectoral approach, emphasizing the integration of various sectors within the Mercy Corps Indonesia strategic alliance, such as disaster management, climate change, development, economics, and community development (S13)	Develop recommendations for flood risk management schemes using a cross-sectoral approach, emphasizing the integration of various sectors within the Mercy Corps Indonesia strategic alliance, such as disaster management, climate change, development, economics, and community development (S13)	Priority 1
30	Installing EWS (Electrical Water Well Systems) in rivers to detect the risk of embankment breaches or flooding (P04)	Development of EWS with an agreed information delivery mechanism, for example integrating EWS with WA channels (P04)	Priority 2
31	Establishment of an EWS communications and information team (P04)	Developing a climate information system that is accessible to the public (P04)	Priority 1
32	Procurement of boots and raincoats with BOS funds (P05)	Procurement of boots and raincoats with BOS funds (P05)	Priority 3
33	Utilization of WhatsApp groups for teachers and parents to access the school (P05)	Utilization of WA groups for teachers and parents to access schools (P05)	Priority 3

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
34		Encourage the development of Disaster Safe Education Units, including the existence of SOPs for the continuity of education during disasters (P05)	Priority 3
35	Routine maintenance of communal toilets with community participation (10)	Routine maintenance of communal toilets with community participation (P10)	Priority 1
36		Encourage investment in maintenance and replacement of PDAM pipe networks (P10)	Priority 3
37		Encourage alternative financing for the maintenance of the Pamsimas pipeline network (P10)	Priority 2
38		Encouraging the use of surface water as an alternative water source (P10)	Priority 1
39		Facilitating cross-sectoral audiences to encourage the use of Special Allocation Funds (DAK) for repairing PDAM piping systems (P10)	Priority 2
40		Mapping the zoning of damaged water sources at the village level to avoid the procurement of new public water supply systems (P10)	Priority 1
41	Formation of TPS3R (P11)	Establishing TPS3R (Recycling Waste Management System) along with effective management institutions (e.g., BLUD, KSM, other institutions) (P11)	Priority 1
42	Optimization of waste banks supported by improving supporting facilities, establishing management institutions and management SOPs (P11).	Optimizing waste banks by improving supporting facilities and strengthening management institutions to support community socio-economic activities (P11)	Priority 1
43	Facilitating Padukuhan Kraton to become a pro-climate village (P11)	Facilitating the development of Padukuhan Kraton as a Climate Village (Proklim) (P11)	Priority 1
44	Integrating waste banks with community social and economic activities (P11)	-	Not feasible
45	Opening collaboration between waste banks and MSMEs and large industries (P11)	Establishing collaboration between waste banks with MSMEs and large industries (P11)	Priority 1
46	Training on recycling waste crafts (P11)	Training on recycling waste crafts (P11)	Priority 1

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
47	Providing a support team from technical government agencies for routine river monitoring and public complaint handling (P12)	Encouraging cross-regional collaboration to manage flood risks in the Bremi-Meduri River (between sub-districts and villages) (P12)	Priority 1
48	Regularly checking pumping stations to ensure pumps can pump water, as water cannot flow to the sea due to elevation differences (P12)	Regularly monitoring pump stations and the condition of flood protection infrastructure, utilizing two-way information channels that involve the community (P12)	Priority 2
49		Accelerating the construction of river embankments in Pabean and operationalizing pumps in the system (P12)	Priority 1
50	Developing vertical gardens in yards and public facilities (N01)	Development of vertical gardens or potted plants in yards and public facilities (N01)	Priority 3
51	Planting sea pines in residential areas (N01)	Planting of sea pines in residential areas (N01)	Priority 3
52	Constructing retention ponds (N02)	Development of green open spaces that function as public spaces on former field land (NO2)	Priority 2
53	Training on the use of water hyacinth for compost (N04)	Training on the use of water hyacinth for compost (N04)	Priority 2
54	Establishing a river patrol team in collaboration with relevant agencies and the local community to routinely check river conditions, clean them, and identify potential embankment breaches (N05)	Establishment of river patrol teams in collaboration with agencies and the community to routinely monitor river conditions, clean them, and identify potential damage to embankments (N05)	Priority 1
55	Capacity building, such as through training in business management, financial management, and financing, as well as strengthening financial institutions (F01)	Strengthening financial literacy for women's business groups assisted by MCI (F01)	Priority 3
56	Disseminating information about changes to the data collection system to DTSEN for beneficiaries and the general public (F02)	Socialization of changes to the DTKS data collection system to DTSEN for beneficiaries and the general public (F02)	Not feasi- ble
57	Facilitating registration for economic empowerment programs from BAZNAS or other institutions (F02)	Collaborating on economic empowerment by involving other organizations working in the livelihood and humanitarian sectors (F02)	Priority 2
58	Synergizing CSR programs with Pekalongan City government programs (F03)	Optimizing the role of the CSR Forum to increase Pekalongan City's climate resilience by synergizing CSR programs with Pekalongan City government programs (F03)	Priority 2

No	Proposed Intervention	Intervention after Pre-Qualification Coordination	Priority
59	Facilitating Pekalongan City stakeholders to access alternative funding sources for climate resilience-related activities (F04)	Encouraging the effective use of alternative financing sources to increase financing for sustainable and environmentally friendly flood infrastructure (F04)	Priority 1
60	Encouraging the preservation of the shrimp paste industry, of which only two remain (RW 12 & 14) (F07)	Empowering assisted groups in fisheries cultivation and processed products (such as presto milkfish, frozen food, crackers, etc.) (F07)	Priority 1
61	Collaborating with the Vocational Training Center (BLK) on a creative economy training program for the Pabean community as a form of non-labor livelihood diversification (F07)	Collaborating with creative economy actors on creative economy training programs, including technology-based economies (freelance, online shops, and content creation), as a form of non-labor livelihood diversification (F07)	Priority 2
62	Livelihood diversification to increase additional household income (livelihood strengthening) (F07)	Livelihood diversification with seasonal work (e.g., training in processing presto milkfish) (F07)	Priority 1
63	Improving community skills and access to technology-based economic opportunities (freelancing, online shops, and content creation) and gender (F07)	Improving community skills and access to technology-based economic opportunities (F07)	Priority 2
64		Management of former rice paddy ponds or illegal land owned by the sub-district government (bent) for collective fish farm- ing (F07)	Priority 2
65	Synergizing CSR programs with Pekalongan City government programs (F08)	Optimizing the role of the CSR Forum to improve Pekalongan City's climate resilience through synergizing CSR programs with Pekalongan City government programs (F08)	Priority 2
66		Providing tax incentives for large-scale industries that undertake CSR activities in the areas of climate change adaptation and disaster risk reduction in Pekalongan City (F08)	Priority 3

Source: Analysis by IKUPI and Mercy Corps Indonesia (2025)

Color code description:

Relevant, important, and aligned with ToC, Logframe, and ZCRA strategy

Relevant, Important, but not aligned with the ToC, Logframe, and ZCRA strategy

Not relevant to ZCRA, but important for the region (community/village/sub-district administration), with potential for follow-up by other actors Not relevant to ZCRA and not relevant to the regional context



3.7.1 Priority 1

The following is priority 1 for the Pabean community interventions.

No	le 3.13 Priority 1 Pabean Community Interventions Interventions	Resilience Re-	Tasks Executor
		sources	
1	Management of collective urban farming using hydroponic methods (example in RW 14) integrated with fisheries cultivation in collaboration with Dinperpa and other key actors (H02)	Food availability	MCI, Dinperpa, Pem- kel, Community
2	KSB Facilitation for the transfer of first aid (P3K) knowledge to the community (H03)	Knowledge of first aid	BPBD, KSB,
3	Training and outreach on climate change (and its actions at the community level) involving representatives of all community groups, including religious leaders, vulnerable groups, and local environmental communities (H04)	Awareness of the need for action on climate change	Puskesmas/PMI
4	Encourage collaboration with local actors, such as local NGOs or universities, to provide support for climate change actions at the community level (H04)	Awareness of the need for action on climate change	MCI, Pemkel, Pokja PI, Community
5	Encourage collaboration between KSB and local nature-loving groups to carry out climate change action socialization activities at the community level (H05)	Awareness of cli- mate change risks	MCI, Pemkel, Pokja PI, Local actors, Community
6	Socialization of nature-based solutions at the community level to mitigate flood risks (H06)	Awareness of how nature can mitigate risks	Pemkel, DLH, local NGO
7	Participatory mapping of green and blue elements in communities that can be utilized to reduce flood risk (H06)	Awareness of how nature can mitigate risks	Pemkel, DLH, local NGO
8	Disaster evacuation training and simulation at the RT/RW level (H09)	Knowledge of evacuation and safety	Pemkel, DLH, local NGO
9	Participatory preparation of evacuation route maps (H09)	Knowledge of evacuation and safety	BPBD, KSB, Pemkel
10	Encourage routine regeneration of KSB and Disaster Resilient Sub-district management to increase public awareness of disaster risk management issues (S02)	Social inclusivity in disaster risk management	BPBD, KSB, Pemkel
11	Data collection on vulnerable groups is up- dated periodically and included in the sub-dis- trict monograph (SO2)	Social inclusivity in disaster risk management	BPBD, KSB, Pemkel
12	Holding discussions with stakeholders at the sub-district level to build a shared commitment to aligning recommendations from assessment results and community resilience plans with development plans at the Musrenbangkel (S07)	Trust in local authorities	MCI, Pemkel

No	Interventions	Resilience Re- sources	Tasks Executor
13	Developing recommendations for collaboration between city, district and provincial govern- ments in resolving tidal flooding through the development of cross-regional flood manage- ment strategies (S13)	Stakeholder engagement in risk management	MCI, Other Actors
14	Develop recommendations for flood risk management schemes using a cross-sectoral approach with an emphasis on the integration of various sectors within the Mercy Corps Indonesia strategic alliance such as disaster management, climate change, development, economics and community development (S13)	Stakeholder engagement in risk management	MCI, Other Actors
15	Developing a climate information system that is accessible to the public (P04)	Early warning	MCI, Other Actors
16	Routine maintenance of communal toilets with community participation (P10)	Availability of clean and safe water	Pemkel, Community
17	Encourage the use of surface water as an alternative water source (P10)	Availability of clean and safe water	MCI, City Govern- ment, PDAM
18	Mapping of damaged water source zones at the sub-district level to avoid the procurement of new public water supply (P10)	Availability of clean and safe water	
19	Establishment of TPS3R along with effective management institutions (e.g.: BLUD, KSM, other institutions) (P11)	Waste management and risks	Pemkel, DLH
20	Optimizing waste banks by improving supporting facilities and strengthening management institutions so that they can support community socio-economic activities (P11)	Waste management and risks	Pemkel, DLH
21	Facilitating Padukuhan Kraton as a Climate Village (Proklim) (P11)	Waste management and risks	
22	Opening collaboration between waste banks and MSMEs and large industries (P11)	Waste management and risks	
23	Waste craft recycling training (P11)	Waste management and risks	
24	Encourage cross-regional collaboration to manage flood risks from the Bremi-Meduri River (between sub-districts and villages) (P12)	Large-scale flood protection	MCI, Technical OPD and other Actors
25	Accelerating the construction of river embankments in Pabean and the operation of pumps in the system (P12)	Large-scale flood protection	DPUPR
26	Strengthening financial literacy for women's business groups assisted by MCI (F01)	Household access to reserve funds	MCI
27	Encouraging the effective use of alternative financing sources to increase sustainable and environmentally friendly flood infrastructure financing (F04)	Public infrastruc- ture maintenance budget	BAPPERIDA

No	Interventions	Resilience Re-	Tasks Executor
		sources	
28	Empowering assisted groups in fish farming and processing fish products (such as presto milkfish, frozen food, crackers, etc.) (F07)	Household income continuity	ZCRA-MCI
29	Livelihood diversification with seasonal work (e.g., training in processing farmed products: presto milkfish) (F07)	Household income continuity	

Source: Pre-Feasibility Study Results (2025)

3.7.2 Priority 2

The following is priority 2 for the Pabean community interventions.

Table 3.14 Priority 2 Pabean Community Interventions

No	le 3.14 Priority 2 Papean Community Interventions Interventions	Resilience Re-	Tasks Executor
		sources	
1	Utilizing religious activities as a medium for education and strengthening public awareness regarding DRR and climate change (H05)	Awareness of cli- mate change risks	Religious leaders, BPBD
2	Facilitating communal processing of textile waste (batik and garments) in home-scale industries (H06)	Awareness of how nature can mitigate risks	DLH, Community
3	Communal-scale waste composting training (H06)	Awareness of how nature can mitigate risks	DLH, Community
4	Provision and introduction of simple water filtration systems for communities (H10)	Awareness of unsafe water	DPU, LSM, BPSPAM
5	Providing a minimum quota for muskel participants per vulnerable group, including encouraging women's active participation in community meetings at the neighborhood association (RT/RW/Sub-district) level (S02)	Social inclusivity in disaster risk management	MCI, Pemkel
6	Facilitate Pekalongan City stakeholders to access alternative funding sources for climate resilience activities (S04)	Local leadership	MCI
7	Strengthening the integration of disaster risk analysis results into cross-sectoral planning and work programs (\$13)	Stakeholder in- volvement in risk management	Other actors
8	Developing an EWS with an agreed-upon information delivery mechanism, for example, integrating the EWS with WhatsApp channels (P04)	Early warning	Other actors
9	Promoting alternative financing for the maintenance of the Pamsimas pipeline network (P10)	Availability of clean and safe water	Pemkel, DPUPR, BP SPAM
10	Facilitating cross-sectoral audiences to encourage the use of Special Allocation Funds (DAK) for improvements to the PDAM piping system (P10)	Availability of clean and safe water	
11	Regularly monitoring pumping stations and flood protection infrastructure conditions,	Large-scale flood protection	DPUPR, Pemkel, Community



No	Interventions	Resilience Re- sources	Tasks Executor
	utilizing two-way information channels that involve the community (P12)		
12	Training on the use of water hyacinth for composting (N04)	Resource manage- ment	Other actors
13	Establishment of a collaborative river patrol team between government agencies and the community to routinely monitor river conditions, clean up, and identify potential damage to embankments (N05)	Land-water bound- ary conditions	Technical OPD
14	Collaboration on economic empowerment involving other organizations engaged in livelihoods and humanitarian work (F02)	Community finan- cial health	Technical OPD
15	Optimizing the role of the CSR Forum to increase Pekalongan City's climate resilience through synergy of CSR programs with Pekalongan City government programs (F03)	Local government financial capacity	BAPPERIDA
16	Collaborate with creative economy actors for training programs in the creative economy sector, including technology-based economy (free-lance, online shops, and content creations), as a form of diversification of non-labor livelihoods (F07)	Household income continuity	MCI, Other actors
17	Improving community skills and access to technology-based economic opportunities (F07)	Household income continuity	
18	Management of former rice paddy ponds or wild land owned by the sub-district govern- ment (Bengkok) for collective fish farming (F07)	Household income continuity	Other actors, Pemkel
19	Optimizing the role of the CSR Forum to increase Pekalongan City's climate resilience through synergizing CSR programs with Pekalongan City government programs (F08)	Risk reduction investments	OPD, Private, Other actors

Source: Pre-Feasibility Study Results (2025)

3.7.3 Priority 3

The following is priority 3 for the Pabean community interventions.

Table 3.15 Priority 3 Pabean Community Interventions

No	Interventions	Resilience Re- sources	Tasks Executor
1	Providing public kitchens for communities under special circumstances (H02)	Food availability	
2	Outreach to encourage community participation in accessing alternative funding sources for flood adaptation at the sub-district level (S04)	Local leadership	Other actors
3	Promoting transparency in recipient data collection (S09) Collaborating with humanitarian agencies to enhance community empowerment (S09)	Equity between communities	
4	Collaborating with humanitarian agencies to en-hance community empowerment (S09)	Equity between communities	Other actors

No	Interventions	Resilience Re- sources	Tasks Executor
_	Procuring boots and raincoats with BOS funds	Education continu-	
5	(P05)	ity during disasters	
6	Utilizing WhatsApp groups for teachers and parents to access schools (P05)	Education continu- ity during disasters	
7	Promoting the development of Disaster-Safe Education Units, including SOPs for educational continuity during disasters (P05)	Education continu- ity during disasters	Technical OPD
		Availability of	
	Promoting investment in the maintenance and	clean and safe wa-	Pemkel, DPUPR,
8	replacement of PDAM piping networks (P10)	ter	PDAM
	Developing vertical gardens or potted plants in	Tree cover	
9	yards and public facilities (N01)		Other actors
10	Planting sea pines in residential areas (N01)	Tree cover	
11	Developing green open spaces that function as public spaces on former fields (N02)	Permeable surfaces (non-waterproof)	Technical OPD
	Disseminating information on changes to the	Community finan-	Technical OPD
	DTKS data collection system to DTSEN for ben-	cial health	
12	eficiaries and the general public (F02)		
	Provision of tax incentives for large-scale in-	Risk reduction in-	OPD, Private, Other
	dustries that undertake CSR activities in the	vestments	actors
	areas of climate change adaptation and disas-		
13	ter risk reduction in Pekalongan City (F08)		

Source: Pre-Feasibility Study Results (2025)





4. Conclusions and Recommendations

Overall, the results of the baseline study (T0) indicate that the community has high resilience in physical capital with a specific flood resilience resource value of 75 and a general value of 78. This measure is based on good practices of early warning and protection and adaptation at the household level for specific flood resilience and the continuity of energy supply and the continuity of communication systems for general resilience. Early warning has integrated information from upstream to downstream. If flooding occurs due to rain, BBWS will monitor water discharge from upstream, if there is potential for flooding, it will be informed to authorities in the downstream area of the river and then conveyed to the community.

Unlike tidal flooding, monitoring is conducted around the pump house. If there is an overflow in the upstream river, the potential for flooding is reported to the authorities and to be communicated to the community. There are two pump houses available in Pabean, spread across RW 12 and 13. At the household level, protection and adaptation are commonly carried out by elevating houses. The majority do this through self-help. Community self-help is high, not only for private property, but also by raising roads and protecting emergency embankments with sandbags. In response, the Bremi-Meduri Flood Control System will be built with construction will begin in 2026 as an effort to reduce flood risk around the river. Natural capital is the resilience resource with the lowest score, with a score of 28 for specific flood resilience and 33 for general resilience. Low vegetation, the absence of water filtration areas, individual and non-collective resource management, and poorly protected rivers result in low community resilience in terms of natural capital.

Of the 52 flood-specific and general resilience resources used in this CRMC, 28.85% or 15 resilience resources were graded A, 32.69% or 17 were graded B, 23.08% or 12 were graded C, and 15.38% or 8 were graded D. These resources were assessed for their strengths and weaknesses using the SW-ON matrix. Interventions emerged by reducing existing resilience resources (strengths) and focusing on resilience resources that still have opportunities and need improvement due to inherent weaknesses in the community. Interventions were grouped based on priority. After the intervention priorities were established, the next step was to disseminate and validate the results to the community and finalize the program action plan and its implementers based on community input.

4.1 Dissemination Session

The dissemination session is a collaborative activity between the community and relevant stakeholders to communicate and discuss CRMC results. Dissemination is conducted to define/verify the results, prioritize interventions developed by the Mercy Corps Indonesia team and IKUPI, incorporate new interventions that emerged during the dissemination, and plan for the future of the CRMC process. Dissemination serves to:

- Communicate and discuss CRMC results with communities and stakeholders to achieve a shared understanding of the strengths and weaknesses of resilience resources (stage 7).
- Exchange ideas about possible interventions from resilience resources whose strengths and weaknesses have been analyzed (stage 8).

- Selecting available interventions that have the greatest impact and are most feasible (stage 8) based on the list of interventions selected in the previous feasibility study.
- Intervention implementation plan (stage 9).



Figure 4.1 Stages of CRMC Dissemination with the Community Source: Document "From Analysis Results to CRMC Planning Interventions" (2025)

When delivering information to the community, the team provided easy-to-understand information using visual elements such as field documentation and assessment graphs. Furthermore, language simplification was also employed to achieve shared understanding. Participants came from various community groups, including those who had previously undergone CRMC data collection processes, such as key informant interviews and focus group discussions (FGDs). New participants were also invited from various community elements, such as new community leaders, the private sector, and relevant technical agencies. The presentations focused on conveying the community's strengths and addressing weaknesses in non-judgmental language, avoiding sensitive and confidential discussions. The intervention presentations were directed at not raising expectations for Mercy Corps Indonesia and IKUPI. It should be stated at the outset that these organizations could not implement all interventions due to resource constraints. During dissemination, the team also provided time for the community to reflect on the presented results and provide feedback on the results. Feedback included responses to weaknesses and deficiencies in resilience resources, input on the interventions provided, and any potential additions or revisions to the language of the interventions provided.

4.2 Action Plan

The development of the action plan includes finalizing priorities with the community using criteria developed by the team. This stage involves not only selecting established priorities but also selecting appropriate implementing actors or collaborators to implement the intervention. This priority finalization utilizes the World Cafe method. World Cafe is a group discussion facilitation method designed to create an informal atmosphere, allowing participants to actively participate in various rounds of discussion. Participants are directed to be divided into priority groups 1, 2, and 3. Then, each individual writes down the implementing actors and their newly selected priorities. Based on the participants' new priority choices, the team will select the top votes for each priority (1, 2, and 3).





5. Lesson Learned

A series of T0 study processes were conducted, from study preparation and data collection using a combination of methods, to analysis and intervention development, community dissemination, and the development of an action plan. Throughout this process, several important notes were noted for future similar studies, including T1 studies. The following are lessons learned and recommendations from the T0 study.

- 1. The focus of community interventions can vary according to the regional context, level of flood vulnerability, and unique conditions inherent in the area. For example, in the Pabean community which has a high risk level (2020) and very high in 2035, interventions focus on training and socialization of climate change at the community level by collaborating with cross-sectors (awareness of the need for action related to climate change), strengthening the capacity of KSB through routine regeneration and data collection of vulnerable groups (social inclusiveness in disaster risk management), cross-sector collaboration in handling tidal flooding (stakeholder involvement in risk management), improving the quality of sanitation and clean water (availability of clean and safe water), and waste management (waste and risk management).
- 2. **FGDs provide new opportunities for cross-sector collaboration**. FGDs are not only a mandatory data collection method for CRMC, but also provide a space for cross-agency collaboration and a means of communication between stakeholders.
- 3. Data collection can focus on specific methods tailored to community conditions. CRMC provides data collection methods including household surveys, key informant interviews, focus group discussions, and secondary data. The CRMC's rigid questionnaire may not address issues that need to be addressed in a specific community. The solution is to add local context questions. For example, in the Pabean community, local context questions were asked during key informant interviews regarding the flooding conditions experienced by Pabean. Focused Group Discussions (FGDs) do not allow for in-depth information gathering because participants tend to focus solely on answering the questions provided.
- 4. **Key Informant Interviews and Focus Group Discussions (FGDs) serve to validate data**. The CRMC system is designed to simplify the presentation and organization of data processed through various methods. CRMC uses qualitative and quantitative approaches, with the quantitative data generally derived from household surveys. Questions from household surveys, key informant interviews, FGDs, and secondary data are designed to be similar or identical to triangulate data within the community context. Triangulation was conducted during the grading process with the team and community stakeholders. The team found a pattern that generally, consistent information came from FGDs and key informant interviews. The household survey will differ from the combination of answers from FGDs and key informant interviews. Here, FGDs and key informant interviews play a role in helping to agree on the grading. While FGDs and KIIs are not always considered the most relevant perspectives, contextualizing questions based on parties with specific knowledge is important in the grading process.
- 5. **Regular enumerator training**. Ideally, training should always be conducted before data collection. This is done to refresh understanding of the instruments and methodology, anticipate changes to the instruments, improve communication skills and field ethics, and reduce technical errors during data collection.
- 6. **Disaster insurance is difficult to implement in Indonesia.** Of the five villages/sub-districts surveyed over three phases along the coast of Pekalongan, the research team found no households



with disaster insurance. Several assumptions are made regarding this. First, limited data in Indonesia makes it difficult for insurance providers to calculate disaster insurance premiums. Second, the government still needs more time to study the relevance of disaster insurance, a concept common in developed countries, for regions in Indonesia. Third, the low willingness to pay insurance premiums is due to the majority of community members having lower-middle incomes.

- 7. Local language skills are essential for a deeper understanding of the community context. Limited proficiency in local languages can present challenges in building rapport with respondents, understanding local terms, and gathering more comprehensive information. It is crucial to involve local people in the data collection process, especially during household surveys. However, this is not always a major obstacle, as long as household respondents can be guided and understand the questions using Indonesian. Unlike key informant interviews and focus group discussions (FGDs), these two methods are more formal and prioritize the use of the national language (Bahasa Indonesia), so language barriers were not encountered in this data collection method.
- 8. Additional information in the "Notes" section can be used to enhance the justification for grading. Additional information in household survey questions is important for providing the rationale behind respondents' responses, especially for qualitative questions. This not only strengthens the analysis, but also facilitates validation and discussion during grading meetings with community stakeholders and the expert team. Going forward, it's important to remind enumerators to make it a habit to include additional notes in this section.
- 9. **Document each activity as thoroughly as possible.** Visual documentation in the form of photos, videos, and field notes is essential to support the narrative of the report and visualize the situation during the dissemination presentation with key community members.
- 10. The level of detail of disaster risk maps influences flood risk management actions. Risk Mapping is a resilience resource that considers the availability of flood risk maps at the community level. In Indonesia, the Disaster Risk Assessment Document (DKRB) is the Minimum Service Standard (SPM) based on Ministerial Regulation (Permendagri) No. 101 of 2018. The DKRB is valid for 5 years and is reviewed every two years or if a major disaster occurs. The detail of this risk map only reaches the sub-district level. The expert team needs to pay attention to whether the question of this disaster risk map is limited to the community/village level or applies to disaster risk maps issued by the Regional Disaster Management Agency (BPBD). This is because the level of preparedness of communities that have community/village-level maps differs from that of communities that do not.





6. Appendix

6.1 Result Results of Community

Resilience Source Grades for TO

Source ID	Resilience Source Name	Peril	Grade
H01	Kehadiran di sekolah menengah	GENERIC	Α
H02	Ketersediaan makanan	GENERIC	С
H03	Pengetahuan mengenai pertolongan pertama	GENERIC	В
H04	Kesadaran akan perlunya aksi terkait perubahan iklim	GENERIC	В
H05	Kesadaran akan risiko perubahan iklim	FLOOD	С
H06	Kesadaran tentang bagaimana alam dapat memitigasi risiko	FLOOD	В
H07	Kesadaran akan keterpaparan bahaya	FLOOD	Α
H09	Pengetahuan tentang evakuasi dan keamanan	FLOOD	С
H10	Kesadaran akan air yang tidak aman	FLOOD	С
S01	Saling mendukung	GENERIC	В

Source ID	Resilience Source Name	Peril	Grade
S02	Inklusivitas sosial dalam manajemen risiko bencana	GENERIC	D
S03	Keamanan komunitas	GENERIC	В
S04	Kepemimpinan daerah	GENERIC	С
S05	Personel tanggap darurat bencana	GENERIC	А
S06	Aksesibilitas layanan kesehatan	GENERIC	Α
S07	Kepercayaan terhadap otoritas daerah	GENERIC	С
S08	Keadilan intra-komunitas	GENERIC	В
S09	Keadilan antar komunitas	GENERIC	С
S10	Perencanaan pengurangan risiko	FLOOD	Α
S11	Perencanaan tanggap darurat	FLOOD	Α
S12	Kekerasan dalam keluarga dan perencanaan tanggap darurat	FLOOD	D
S13	Keterlibatan pemangku kepentingan dalam manajemen risiko	FLOOD	В
S14	Pemetaan risiko	FLOOD	Α
S15	Pengumpulan dan penggunaan data dampak bencana	FLOOD	A
P01	Keberlangsungan pasokan energi	GENERIC	Α
P02	Keberlangsungan sistem transportasi	GENERIC	С
P03	Keberlangsungan sistem komunikasi	GENERIC	Α

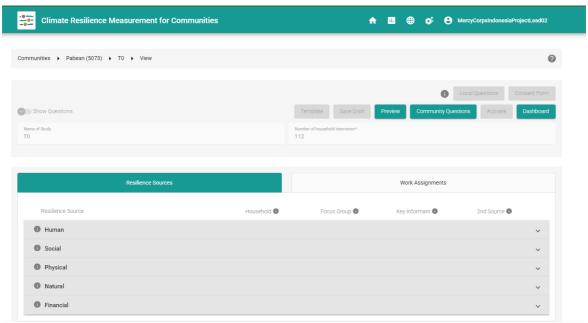
Source ID	Resilience Source Name	Peril	Grade
P04	Peringatan dini	FLOOD	В
P05	Keberlangsungan pendidikan pada saat bencana	FLOOD	В
P06	Infrastruktur dan perbekalan darurat	FLOOD	В
P07	Keberlangsungan pelayanan kesehatan pada saat bencana	FLOOD	В
P08	Prakiraan	FLOOD	A
P09	Perlindungan dan adaptasi di tingkat rumah tangga	FLOOD	A
P10	Ketersediaan air yang bersih dan aman	FLOOD	В
P11	Pengelolaan sampah dan risiko	FLOOD	В
P12	Perlindungan banjir skala besar	FLOOD	В
N01	Tutupan pohon	GENERIC	D
N02	Permukaan permeabel (tidak kedap air)	GENERIC	D
N03	Perencanaan penggunaan lahan	GENERIC	A
N04	Pengelolaan sumber daya	GENERIC	С
N05	Kondisi batas daratan-perairan	GENERIC	С
N06	Pengelolaan ekologi untuk pengurangan risiko bencana	FLOOD	D
F01	Akses rumah tangga terhadap dana cadangan	GENERIC	D
F02	Kesehatan finansial komunitas	GENERIC	С

Zurich Climate Resilience Alliance

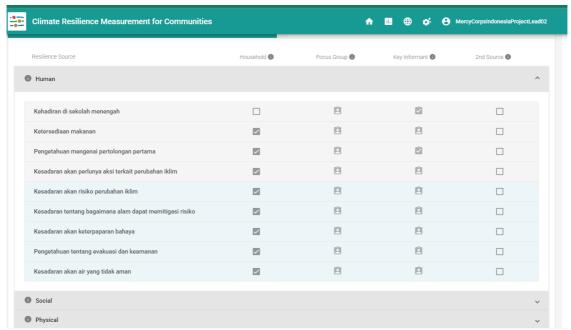
Source ID	Resilience Source Name	Peril	Grade
F03	Kapasitas keuangan pemerintah daerah	GENERIC	В
F04	Anggaran pemeliharaan infrastruktur publik	GENERIC	С
F05	Perencanaan dan investasi adaptasi perubahan iklim	GENERIC	В
F06	Keberlangsungan bisnis/usaha	FLOOD	Α
F07	Kontinuitas pendapatan rumah tangga	FLOOD	D
F08	Investasi pengurangan risiko	FLOOD	В
F09	Asuransi bencana	FLOOD	D
F10	Anggaran pemulihan bencana	FLOOD	Α



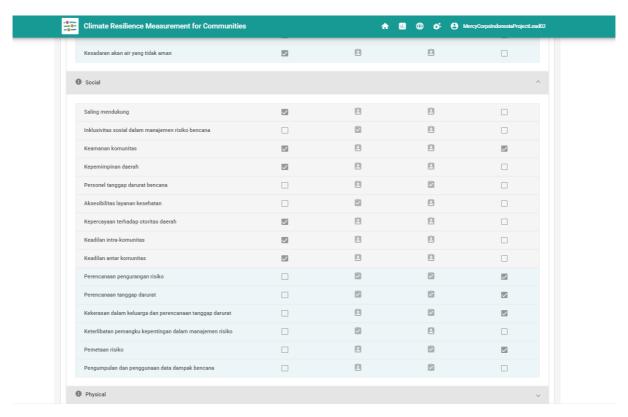
6.2 Study Setup Dashboard

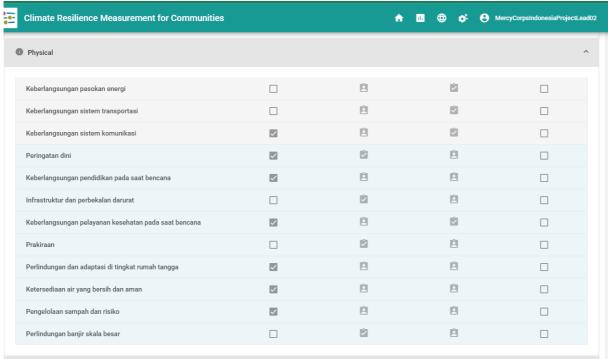


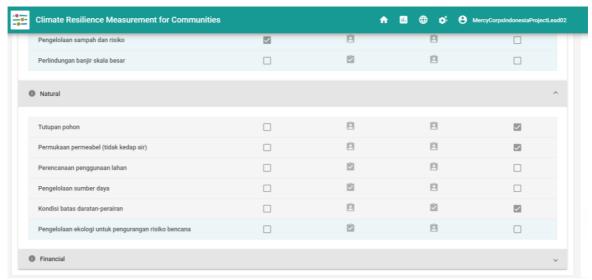
Release notes 3.34 Privacy policy



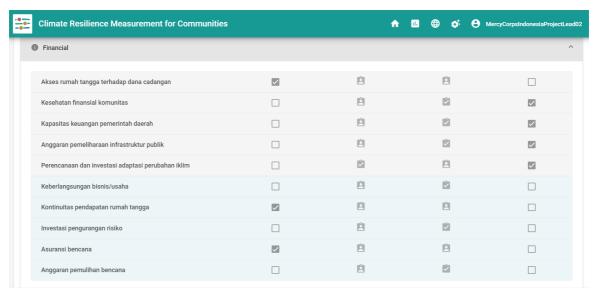
Release notes 3.34 Privacy policy



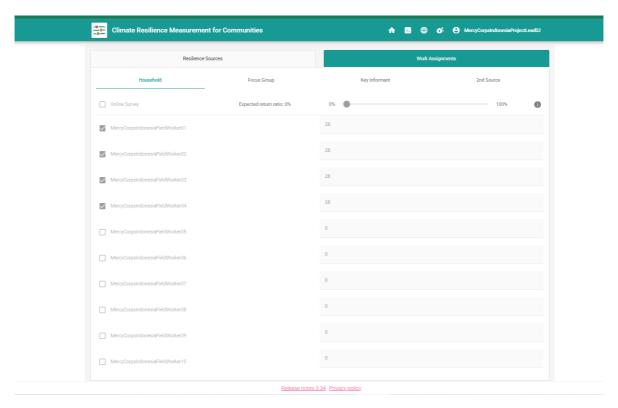


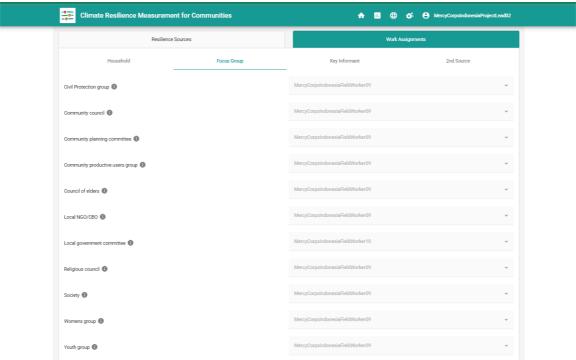


Release notes 3.34 Privacy policy



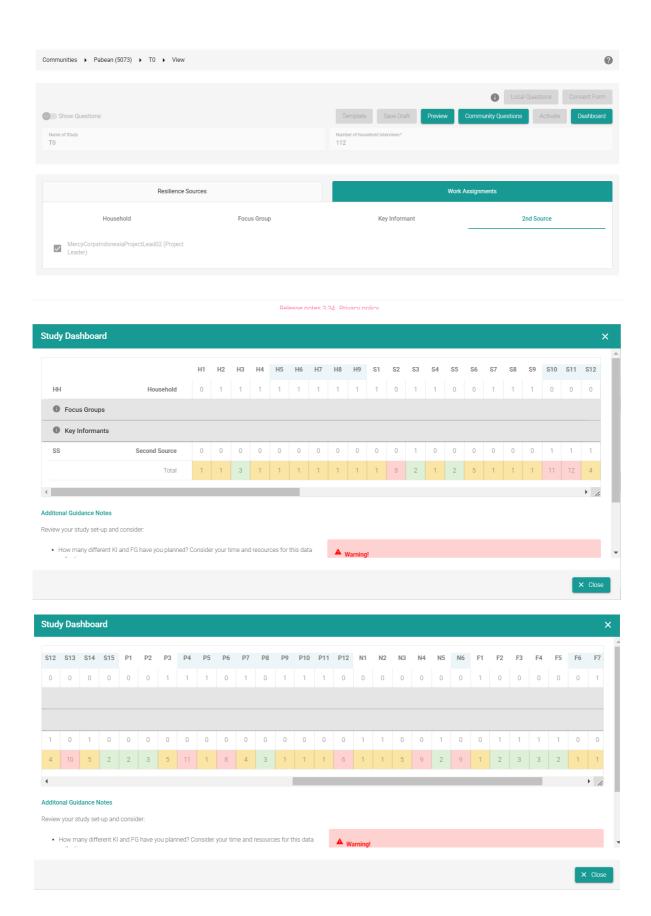
Release notes 3.34 Privacy policy



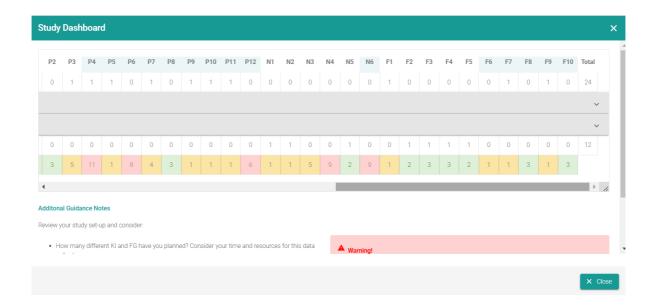


Release notes 3.34 Privacy policy











6.3 Community Context Information Sheet

Community context, T0

Percentage of Minority or marginalized groups in the Community

n

Natural hazard events turned into disasters in the last 10 years

Banjir

Natural hazard types that are new, or have always been experienced but have recently been getting more frequent and/or worse

Banjir





6.4 Sources of Resilience

Sumber Ketahanan: Modal Keuangan

F01	Akses rumah tangga ter- hadap dana cadangan	F02	Kesehatan finansial komuni- tas
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Assets	Theme	Assets
5C	Financial	5C	Financial
4R	Resourcefulness	4R	Robustness
DRM	Response	DRM	Preparedness
Context	Community Level	Context	Community Level
RCN	Flexible	RCN	Inclusive
F03	Kapasitas keuangan pemerintah daerah	F04	Anggaran pemeliharaan in- frastruktur publik
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Governance	Theme	Lifelines
5C	Financial	5C	Financial
4R	Resourcefulness	4R	Robustness
DRM	Preparedness	DRM	Prospective Risk Reduction
Context	Enabling Environment	Context	Enabling Environment
RCN	Inclusive	RCN	Robust
F05	Perencanaan dan investasi adaptasi perubahan iklim	F06	Keberlangsungan bisnis/usaha
F05 Hazard		F06 Hazard	
	adaptasi perubahan iklim		bisnis/usaha
Hazard	adaptasi perubahan iklim GENERIC (UMUM)	Hazard	bisnis/usaha FLOOD (BANJIR)
Hazard Theme	adaptasi perubahan iklim GENERIC (UMUM) Governance	Hazard Theme	bisnis/usaha FLOOD (BANJIR) Livelihoods
Hazard Theme 5C	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial	Hazard Theme 5C	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial
Hazard Theme 5C 4R	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness	Hazard Theme 5C 4R	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity
Hazard Theme 5C 4R DRM	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction	Hazard Theme 5C 4R DRM	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness
Hazard Theme 5C 4R DRM Context RCN	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective	Hazard Theme 5C 4R DRM Context RCN	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant
Hazard Theme 5C 4R DRM Context	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment	Hazard Theme 5C 4R DRM Context	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level
Hazard Theme 5C 4R DRM Context RCN	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan ru-	Hazard Theme 5C 4R DRM Context RCN	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant
Hazard Theme 5C 4R DRM Context RCN	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan rumah tangga	Hazard Theme 5C 4R DRM Context RCN	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant Investasi pengurangan risiko
Hazard Theme 5C 4R DRM Context RCN F07 Hazard	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan rumah tangga FLOOD (BANJIR)	Hazard Theme 5C 4R DRM Context RCN F08	FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant Investasi pengurangan risiko FLOOD (BANJIR)
Hazard Theme 5C 4R DRM Context RCN F07 Hazard Theme	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan rumah tangga FLOOD (BANJIR) Livelihoods	Hazard Theme 5C 4R DRM Context RCN F08 Hazard Theme	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant Investasi pengurangan risiko FLOOD (BANJIR) Lifelines
Hazard Theme 5C 4R DRM Context RCN F07 Hazard Theme 5C	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan rumah tangga FLOOD (BANJIR) Livelihoods Financial	Hazard Theme 5C 4R DRM Context RCN F08 Hazard Theme 5C	bisnis/usaha FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant Investasi pengurangan risiko FLOOD (BANJIR) Lifelines Financial
Hazard Theme 5C 4R DRM Context RCN F07 Hazard Theme 5C 4R	adaptasi perubahan iklim GENERIC (UMUM) Governance Financial Robustness Prospective Risk Reduction Enabling Environment Reflective Kontinuitas pendapatan rumah tangga FLOOD (BANJIR) Livelihoods Financial Rapidity	Hazard Theme 5C 4R DRM Context RCN F08 Hazard Theme 5C 4R	FLOOD (BANJIR) Livelihoods Financial Rapidity Preparedness Community Level Redundant Investasi pengurangan risiko FLOOD (BANJIR) Lifelines Financial Rapidity

F09	Asuransi bencana	F10	Anggaran pemulihan bencana
Hazard	FLOOD (BANJIR)	Hazard	FLOOD (BANJIR)
Theme	Assets	Theme	Governance
5C	Financial	5C	Financial
4R	Rapidity	4R	Rapidity
DRM	Preparedness	DRM	Recovery
Context	Community Level	Context	Enabling Environment
RCN	Redundant	RCN	Resourceful

Sumber Ketahanan: Modal Manusia

H01	Kehadiran di sekolah menengah	H02	Ketersediaan makanan
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Livelihoods	Theme	Life and Health
5C	Human	5C	Human
4R	Resourcefulness	4R	Robustness
DRM	Prospective Risk Reduction	DRM	Response
Context	Community Level	Context	Enabling Environment
RCN	Resourceful	RCN	Robust
H03	Pengetahuan mengenai per-	H04	Kesadaran akan perlunya
	tolongan pertama		aksi terkait perubahan iklim
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Life and Health	Theme	Natural Environment
5C	Human	5C	Human
4R	Resourcefulness	4R	Rapidity
DRM	Preparedness	DRM	Prospective Risk Reduction
Context	Community Level	Context	Enabling Environment
RCN	Resourceful	RCN	Flexible
LIOE	Mass days a strangistic many	1107	Kasadaran akan asalunus
H05	Kesadaran akan risiko peru- bahan iklim	H06	Kesadaran akan perlunya aksi terkait perubahan iklim
Hazard		Hazard	•
Theme	FLOOD (BANJIR) Livelihoods	Theme	FLOOD (BANJIR) Natural Environment
5C	Human	5C	Human
4R	Robustness	4R	Redundancy
DRM	Prospective Risk Reduction	DRM	Prospective Risk Reduction
Context	Community Level	Context	Community Level
RCN	Reflective	RCN	Resourceful
RCH	Reflective	KCIT	nesour cerut
H07	Kesadaran akan keterpapa-	H09	Pengetahuan tentang
	ran bahaya		evakuasi dan keamanan

Hazard	FLOOD (BANJIR)	Hazard	FLOOD (BANJIR)
Theme	Assets	Theme	Life and Health
5C	Human	5C	Human
4R	Resourcefulness	4R	Resourcefulness
DRM	Corrective Risk Reduction	DRM	Preparedness
Context	Community Level	Context	Community Level
RCN	Reflective	RCN	Flexible
H10	Kesadaran akan air yang ti- dak aman		

Sumber Ketahanan: Modal Alam

FLOOD (BANJIR)

Life and Health

Human

Robustness

Response Context Community Level

Flexible

Hazard Theme

5C

4R

DRM

RCN

Hazard GENERIC (UMUM) Theme Natural Environment 5C Natural 4R Redundancy DRM Corrective Risk Reduction Context Enabling Environment RCN Robust NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Corrective Risk Reduction Context Enabling Environment RCN Robust NO4 Pengelolaan sumber daya han NO4 Pengelolaan sumber daya Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Theme Natural Environment SC Natural NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard FLOOD (BANJIR) Theme Natural Environment	N01	Tutupan pohon	N02	Permukaan permeabel (tidak kedap air)
SC Natural 4R Redundancy DRM Corrective Risk Reduction Context Enabling Environment RCN Robust NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance SC Natural 4R Redundancy Theme Governance SC Natural 4R Redundancy DRM Prospective Risk Reduction Theme Governance SC Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan NO6 Pengelolaan sumber daya Pengelolaan sumber daya Resourcefulness SC Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment No6 Natural Environment	Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
4R Redundancy DRM Corrective Risk Reduction Context Enabling Environment RCN Robust NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan NO6 Pengelolaan sumber daya Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive NO5 Kondisi batas daratan- perairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Natural Environment	Theme	Natural Environment	Theme	Natural Environment
DRM Corrective Risk Reduction Context Enabling Environment RCN Robust NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Robust NO4 Pengelolaan sumber daya Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratanperairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment NO6 Natural Environment NO7 Natural Environment NO8 Natural Environment NO9 Natural Environment	5C	Natural	5C	Natural
Context RCN Robust RCN Robust RCN Robust NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO4 Pengelolaan sumber daya Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment NO6 Pengelolaan ekologi untuk pengurangan risiko bencana	4R	Redundancy	4R	Redundancy
RCNRobustRCNRobustN03Perencanaan penggunaan lahanN04Pengelolaan sumber dayaHazardGENERIC (UMUM)HazardGENERIC (UMUM)ThemeGovernanceThemeGovernance5CNatural4RResourcefulnessDRMProspective Risk ReductionDRMProspective Risk ReductionContextEnabling EnvironmentContextEnabling EnvironmentRCNReflectiveRCNInclusiveN05Kondisi batas daratan-perairanN06Pengelolaan ekologi untuk pengurangan risiko bencanaHazardGENERIC (UMUM)HazardFLOOD (BANJIR)ThemeNatural EnvironmentNatural Environment	DRM	Corrective Risk Reduction	DRM	Corrective Risk Reduction
NO3 Perencanaan penggunaan lahan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment NO6 Reflective NO6 Pengelolaan ekologi untuk pengurangan risiko bencana	Context	Enabling Environment	Context	Enabling Environment
Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Hazard GENERIC (UMUM) Theme Natural Environment Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Theme Natural Environment	RCN	Robust	RCN	Robust
Hazard GENERIC (UMUM) Theme Governance 5C Natural 4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Hazard GENERIC (UMUM) Theme Natural Environment Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Theme Natural Environment				
Theme Governance 5C Natural 4R Redundancy 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective Theme Governance 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive NO5 Kondisi batas daratan- perairan NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Theme Natural Environment	N03		N04	Pengelolaan sumber daya
5C Natural 4R Redundancy 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective N05 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Theme Natural Environment 5C Natural 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive N06 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard FLOOD (BANJIR) Theme Natural Environment	Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
4R Redundancy DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective N05 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Theme Natural Environment 4R Resourcefulness DRM Prospective Risk Reduction Context Enabling Environment RCN Inclusive N06 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard FLOOD (BANJIR) Theme Natural Environment	Theme	Governance	Theme	Governance
DRM Prospective Risk Reduction Context Enabling Environment RCN Reflective NO5 Kondisi batas daratan- perairan Hazard GENERIC (UMUM) Theme Natural Environment DRM Prospective Risk Reduction Context Enabling Environment Inclusive NO6 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard FLOOD (BANJIR) Theme Natural Environment	5C	Natural	5C	Natural
Context Enabling Environment RCN Reflective RCN Inclusive N05 Kondisi batas daratan- perairan Parard GENERIC (UMUM) Theme Natural Environment Context Enabling Environment RCN Inclusive N06 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard FLOOD (BANJIR) Theme Natural Environment	4R	Redundancy	4R	Resourcefulness
RCN Reflective RCN Inclusive N05 Kondisi batas daratan- perairan N06 Pengelolaan ekologi untuk pengurangan risiko bencana Hazard GENERIC (UMUM) Theme Natural Environment Hazard FLOOD (BANJIR) Theme Natural Environment	DRM	Prospective Risk Reduction	DRM	Prospective Risk Reduction
N05Kondisi batas daratan- perairanN06Pengelolaan ekologi untuk pengurangan risiko bencanaHazardGENERIC (UMUM)HazardFLOOD (BANJIR)ThemeNatural EnvironmentThemeNatural Environment	Context	Enabling Environment	Context	Enabling Environment
perairanpengurangan risiko bencanaHazardGENERIC (UMUM)HazardFLOOD (BANJIR)ThemeNatural EnvironmentThemeNatural Environment	RCN	Reflective	RCN	Inclusive
perairanpengurangan risiko bencanaHazardGENERIC (UMUM)HazardFLOOD (BANJIR)ThemeNatural EnvironmentThemeNatural Environment				
Theme Natural Environment Theme Natural Environment	N05		N06	
	Hazard	GENERIC (UMUM)	Hazard	FLOOD (BANJIR)
5C Natural 5C Natural	Theme	Natural Environment	Theme	Natural Environment
oc Natural	5C	Natural	5C	Natural

4R	Redundancy	4R	Redundancy
DRM	Corrective Risk Reduction	DRM	Corrective Risk Reduction
Context	Enabling Environment	Context	Enabling Environment
RCN	Redundant	RCN	Flexible

Sumber Ketahanan: Modal Fisik

P01	Keberlangsungan pasokan energi	P02	Keberlangsungan sistem transportasi
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Lifelines	Theme	Lifelines
5C	Physical	5C	Physical
4R	Redundancy	4R	Redundancy
DRM	Prospective Risk Reduction	DRM	Prospective Risk Reduction
Context	Enabling Environment	Context	Enabling Environment
RCN	Redundant	RCN	Redundant
P03	Keberlangsungan sistem komunikasi	P04	Peringatan dini
Hazard	GENERIC (UMUM)	Hazard	FLOOD (BANJIR)
Theme	Lifelines	Theme	Lifelines
5C	Physical	5C	Physical
4R	Robustness	4R	Rapidity
DRM	Response	DRM	Preparedness
Context	Enabling Environment	Context	Enabling Environment
RCN	Robust	RCN	Resourceful
P05	Keberlangsungan pendidikan	P06	Infrastruktur dan perbeka-
	Keberlangsungan pendidikan pada saat bencana		Infrastruktur dan perbeka- lan darurat
P05 Hazard		P06 Hazard	
	pada saat bencana		lan darurat
Hazard	pada saat bencana FLOOD (BANJIR)	Hazard	FLOOD (BANJIR)
Hazard Theme	pada saat bencana FLOOD (BANJIR) Livelihoods	Hazard Theme	FLOOD (BANJIR) Life and Health
Hazard Theme 5C	pada saat bencana FLOOD (BANJIR) Livelihoods Physical	Hazard Theme 5C 4R DRM	FLOOD (BANJIR) Life and Health Physical
Hazard Theme 5C 4R	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity	Hazard Theme 5C 4R	FLOOD (BANJIR) Life and Health Physical Resourcefulness
Hazard Theme 5C 4R DRM	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery	Hazard Theme 5C 4R DRM	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness
Hazard Theme 5C 4R DRM Context RCN	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust	Hazard Theme 5C 4R DRM Context RCN	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful
Hazard Theme 5C 4R DRM Context	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan	Hazard Theme 5C 4R DRM Context	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment
Hazard Theme 5C 4R DRM Context RCN	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana	Hazard Theme 5C 4R DRM Context RCN	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan
Hazard Theme 5C 4R DRM Context RCN P07	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana FLOOD (BANJIR)	Hazard Theme 5C 4R DRM Context RCN P08	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan FLOOD (BANJIR)
Hazard Theme 5C 4R DRM Context RCN P07 Hazard Theme	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana FLOOD (BANJIR) Life and Health	Hazard Theme 5C 4R DRM Context RCN P08 Hazard Theme	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan FLOOD (BANJIR) Livelihoods
Hazard Theme 5C 4R DRM Context RCN P07 Hazard Theme 5C	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana FLOOD (BANJIR) Life and Health Physical	Hazard Theme 5C 4R DRM Context RCN P08 Hazard Theme 5C	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan FLOOD (BANJIR) Livelihoods Physical
Hazard Theme 5C 4R DRM Context RCN P07 Hazard Theme 5C 4R	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana FLOOD (BANJIR) Life and Health Physical Robustness	Hazard Theme 5C 4R DRM Context RCN P08 Hazard Theme 5C 4R	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan FLOOD (BANJIR) Livelihoods Physical Rapidity
Hazard Theme 5C 4R DRM Context RCN P07 Hazard Theme 5C	pada saat bencana FLOOD (BANJIR) Livelihoods Physical Rapidity Recovery Enabling Environment Robust Keberlangsungan pelayanan kesehatan pada saat bencana FLOOD (BANJIR) Life and Health Physical	Hazard Theme 5C 4R DRM Context RCN P08 Hazard Theme 5C	Ian darurat FLOOD (BANJIR) Life and Health Physical Resourcefulness Preparedness Enabling Environment Resourceful Prakiraan FLOOD (BANJIR) Livelihoods Physical

RCN	Robust	RCN	Integrated
P09	Perlindungan dan adaptasi di tingkat rumah tangga	P10	Ketersediaan air yang bersih dan aman
Hazard	FLOOD (BANJIR)	Hazard	FLOOD (BANJIR)
Theme	Assets	Theme	Lifelines
5C	Physical	5C	Physical
4R	Robustness	4R	Robustness
DRM	Corrective Risk Reduction	DRM	Response
Context	Community Level	Context	Enabling Environment
RCN	Flexible	RCN	Robust
P11	Pengelolaan sampah dan risiko	P12	Perlindungan banjir skala besar
Hazard	FLOOD (BANJIR)	Hazard	FLOOD (BANJIR)
Theme	Lifelines	Theme	Assets
5C	Physical	5C	Physical
4R	Robustness	4R	Robustness
DRM	Response	DRM	Corrective Risk Reduction
Context	Enabling Environment	Context	Enabling Environment
RCN	Robust	RCN	Robust

Sumber Ketahanan: Modal Sosial

S01	Saling mendukung	S02	Inklusivitas sosial dalam ma- najemen risiko bencana
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Social Norms	Theme	Governance
5C	Social	5C	Social
4R	Resourcefulness	4R	Resourcefulness
DRM	Response	DRM	Prospective Risk Reduction
Context	Community Level	Context	Community Level
RCN	Integrated	RCN	Inclusive
S03	Keamanan komunitas	S04	Kepemimpinan daerah
Hazard	GENERIC (UMUM)	Hazard	GENERIC (UMUM)
Theme	Life and Health	Theme	Governance
5C	Social	5C	Social
4R	Robustness	4R	Resourcefulness
DRM	Recovery	DRM	Preparedness
Context	Community Level	Context	Community Level
RCN	Inclusive	RCN	Inclusive
S05	Personil tanggap darurat bencana	S06	Aksesibilitas layanan kesehatan



Hazard Theme 5C 4R DRM Context RCN	GENERIC (UMUM) Governance Social Robustness Recovery Enabling Environment Robust	Hazard Theme 5C 4R DRM Context RCN	GENERIC (UMUM) Life and Health Social Robustness Response Enabling Environment Inclusive
S07	Kepercayaan terhadap otori- tas daerah	S08	Keadilan intra-komunitas
Hazard Theme 5C 4R DRM Context RCN	GENERIC (UMUM) Social Norms Social Resourcefulness Response Community Level Inclusive	Hazard Theme 5C 4R DRM Context RCN	GENERIC (UMUM) Social Norms Social Resourcefulness Corrective Risk Reduction Community Level Inclusive
S09	Keadilan antar komunitas	S10	Perencanaan pengurangan risiko
Hazard Theme 5C 4R DRM Context RCN	GENERIC (UMUM) Social Norms Social Resourcefulness Corrective Risk Reduction Community Level Inclusive	Hazard Theme 5C 4R DRM Context	FLOOD (BANJIR) Governance Social Rapidity Prospective Risk Reduction Community Level Reflective
S11	Perencanaan tanggap da- rurat	S12	Kekerasan dalam keluarga dan perencanaan tanggap darurat
Hazard Theme 5C 4R DRM Context RCN	FLOOD (BANJIR) Lifelines Social Rapidity Prospective Risk Reduction Community Level Reflective	Hazard Theme 5C 4R DRM Context RCN	FLOOD (BANJIR) Life and Health Social Robustness Corrective Risk Reduction Community Level Integrated
S13	Keterlibatan pemangku kepentingan dalam mana- jemen risiko	S14	Pemetaan risiko
Hazard Theme 5C 4R DRM	FLOOD (BANJIR) Governance Social Resourcefulness Preparedness	Hazard Theme 5C 4R DRM	FLOOD (BANJIR) Governance Social Rapidity Prospective Risk Reduction



Context RCN	Community Level Integrated	Context RCN	Community Level Inclusive
S15	Pengumpulan dan penggun- aan data dampak bencana		
	dan data dampak beneana		
Hazard	FLOOD (BANJIR)		
Theme	Governance		
5C	Social		
4R	Resourcefulness		
DRM	Recovery		
Context	Enabling Environment		
RCN	Reflective		



6.5 List of Full Questionnaires

Translasi Pertanyaan Survei Rumah Tangga dalam Bahasa Indonesia

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
1		Di antara kelompok usia berikut, Anda termasuk yang mana: 18-30, 31-65, atau lebih dari 65 tahun?	18-30 tahun / 31-65 tahun / Lebih dari 65 tahun
2		Apa jenis kelamin Anda?	Perempuan / Laki-laki / Lainnya
3		Apakah ini rumah tangga yang dikepalai perempuan?	Ya / Tidak / Lebih baik tidak mengatakan
4	(Generic) : Context	Berapa lama anggota rumah tangga tersebut tinggal di komunitas ini?	Setidaknya satu anggota rumah tangga dewasa memiliki riwayat keluarga yang panjang di sini (yaitu beberapa generasi telah tinggal di komunitas tersebut) / Setidaknya satu anggota rumah tangga dewasa lahir di komunitas tersebut / Anggota rumah tangga pindah ke sini lebih dari 20 tahun yang lalu / Anggota rumah tangga pindah ke sini antara 5 dan 20 tahun yang lalu / Anggota rumah tangga pindah ke sini kurang dari 5 tahun yang lalu / Saya tidak tahu
5		Apa tingkat pendidikan tertinggi yang pernah Anda selesaikan?	Tidak pernah bersekolah / Pernah bersekolah di sekolah dasar, namun tidak tamat / Selesai sekolah dasar / Menghadiri pendidikan menengah, tetapi tidak menyelesaikannya / Menyelesaikan pendidikan

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
			menengah / Perguruan tinggi atau pelatihan / Sertifikat atau gelar kejuruan / Gelar universitas
6		Apakah ada orang di rumah ini yang: tuli atau mengalami kesulitan mendengar yang serius; buta atau mengalami kesulitan melihat meskipun memakai kacamata; gangguan kognitif atau mengalami kesulitan serius dalam berkonsentrasi, mengingat, atau mengambil keputusan; cacat atau mengalami kesulitan serius dalam berjalan atau menaiki tangga?	Ya untuk satu atau lebih / Tidak untuk semua / Saya tidak tahu / Lebih baik tidak mengatakan
7		Apakah ada orang dalam rumah tangga ini yang mengidentifikasi diri sebagai anggota dari satu atau lebih kelompok minoritas atau terpinggirkan, seperti minoritas etnis, agama, ras, LGBTQI+?	Ya / Tidak / Saya tidak tahu / Lebih baik tidak mengatakan
8		Silakan sebutkan kelompok minoritas atau terpinggirkan manakah yang berlaku untuk orang di dalam rumah tangga ini? Silakan centang semua opsi yang berlaku	Etnis / Keagamaan / Rasial / LGBTQI+ / Lainnya / Tidak ada / Lebih baik tidak mengatakan
9		Berapa pendapatan tahunan rata-rata rumah tangga tersebut?	
10		Apa sumber pendapatan terbesar rumah tangga ini?	Upah untuk pekerjaan yang sebagian besar dilakukan di luar ruangan (buruh tani, konstruksi, pertamanan, dll.) / Upah untuk pekerjaan semi-indoor (supir, buruh pabrik, buruh gudang) / Upah untuk pekerjaan yang sebagian besar di dalam ruangan (desk-job, pemerintahan, dll.) / Kiriman uang / Pembayaran kesejahteraan sosial dari pemerintah / Dukungan dari keluarga, gereja, atau LSM / Pendapatan dari aset seperti properti (sewa) atau investasi lainnya / Pensiun / Sumber pendapatan lainnya / Tidak ada sumber pendapatan / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
11		Berapa banyak orang yang tinggal di rumah ini pada sebagian besar waktunya?	
12		Bisakah semua orang di rumah yang berusia di atas 12 tahun membaca dan menulis?	Ya, semua orang bisa membaca dan menulis / Sebagian besar anggota rumah tangga dapat membaca dan menulis / Setidaknya satu orang di rumah bisa membaca dan menulis / Setidaknya satu orang di rumah bisa membaca / Tidak seorang pun di rumah bisa membaca atau menulis / Lainnya / Lebih baik tidak mengatakan
13		Apakah anggota rumah tangga ini fasih dalam bahasa utama yang digunakan oleh pemerintah daerah?	Ya, semua orang fasih / Sebagian besar anggota rumah tangga fasih / Sebagian besar anggota rumah tangga cukup menguasai bahasa utama untuk berkomunikasi / Beberapa atau hanya satu anggota rumah tangga cukup menguasai bahasa utama untuk berkomunikasi / Tak seorang pun di rumah tangga ini cukup menguasai bahasa utama yang digunakan pemerintah setempat untuk berkomunikasi / Saya tidak tahu / Lebih baik tidak mengatakan
14		Siapa pemilik tempat tinggal ini?	Tempat tinggal dimiliki oleh seseorang yang tinggal di sini / Tempat tinggal disewa oleh seseorang yang tinggal di sini / Orang-orang yang tinggal di sini hidup bebas sewa dengan izin dari pemiliknya / Orang-orang yang tinggal di sini menghuni tempat tinggal ini tanpa izin dari pemiliknya / Lainnya / Saya tidak tahu
15	(Flood): Context	Selama Anda tinggal di sini, dalam 10 tahun terakhir berapa kali anggota rumah tangga mengalami kerusakan harta benda akibat banjir?	

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
16		Bayangkan banjir terparah yang pernah Anda alami selama tinggal di sini selama 10 tahun terakhir, berapa lama waktu yang Anda perlukan untuk pulih secara finansial (misalnya akibat perbaikan gedung atau hilangnya pendapatan)?	Saya belum pernah terkena dampak banjir di komunitas ini / Kurang dari satu bulan / Kurang dari tiga bulan / Kurang dari satu tahun / Lebih dari satu tahun / Saya tidak tahu
17	(Generic): Assets	Jika Anda tiba-tiba mengalami kebutuhan keuangan, apakah Anda memiliki tabungan yang cukup untuk menutupi pengeluaran selama seminggu?	Ya / Tidak / Saya tidak tahu
18	(Generic): Governance	Pemimpin daerah di komunitas ini bertindak demi kepentingan terbaik seluruh komunitas dan bukan hanya kepentingan kelompok tertentu.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan ini?	
19		Dalam 4 minggu terakhir, pernahkah Anda atau seseorang di rumah Anda tidur dalam keadaan lapar karena tidak memiliki cukup makanan untuk dimakan?	Ya / Tidak / Saya tidak tahu
20		Apakah ada orang dewasa di rumah tangga ini yang menerima pelatihan pertolongan pertama dalam 5 tahun terakhir?	Ya / Tidak / Saya tidak tahu
	(Generic): Life and Health	Saya khawatir menjadi korban kejahatan di daerah saya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
21		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
22	(Generic): Lifelines	Sistem komunikasi apa yang dapat Anda akses? Silakan centang semua opsi yang berlaku.	Telepon seluler / Telepon rumah/kantor (non-seluler) / Internet / Televisi / Radio / Tetangga ke Tetangga / Radio 2 arah / Lainnya / Tidak ada sistem komunikasi

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
23		Apakah sistem komunikasi tersebut dapat diandalkan, termasuk selama dan setelah kejadian ekstrem?	Ya, sistem komunikasi sangat andal / Sistem komunikasi secara umum tetap berfungsi atau pulih dengan cepat / Sistem komunikasi hanya cukup dapat diandalkan / Sistem komunikasi sangat tidak dapat diandalkan / Tidak ada sistem komunikasi yang berfungsi / Saya tidak tahu
24	(Generic): Natural Environment	Komunitas saya harus mengambil tindakan lebih besar untuk mengurangi risiko perubahan iklim. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
25	(Generic): Social Norms	Orang-orang dalam komunitas ini umumnya berusaha untuk saling membantu dan dapat mengandalkan satu sama lain untuk membantu mereka pada saat dibutuhkan. Misalnya, jika Anda terserang flu dan harus terbaring di tempat tidur selama beberapa hari, akan ada orang yang dapat Anda andalkan untuk membantu Anda melakukan tugas-tugas dasar rumah tangga dan mendapatkan makanan. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
26		Polisi di komunitas ini dapat dipercaya. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
		Pemerintah daerah di komunitas ini dapat dipercaya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
27		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
		Layanan darurat di komunitas ini dapat dipercaya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
28		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
		Orang-orang yang bekerja di komunitas ini dibayar secara adil.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
29		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
		Semua anak di komunitas ini mempunyai kesempatan pendidikan yang sama.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
30		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
31		Semua orang diperlakukan secara adil ketika melamar pekerjaan di komunitas ini.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
		Komunitas ini mendapat dukungan finansial yang sama dari pemerintah seperti komunitas tetangga lainnya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
32		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
33		Anak-anak di komunitas ini mempunyai kesempatan pendidikan yang sama dengan anak-anak di komunitas tetangga lainnya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
34		Orang-orang di komunitas ini mempunyai kesempatan kerja yang setara dengan orang-orang di komunitas tetangga lainnya.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
35	(Flood): Assets	Saya tahu daerah mana di komunitas yang kemungkinan besar akan terkena banjir.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
36		Tindakan apa yang telah Anda ambil di sekitar rumah Anda untuk menjaga properti dan aset Anda aman dari air banjir? Silakan centang semua opsi yang berlaku.	Penghalang banjir atau karung pasir / Dinding di sekitar rumah / Rumah yang ditinggikan / Lantai yang ditinggikan di dalam rumah / Alas/pintu yang ditinggikan / Mengalihkan air banjir di sekitar rumah (misalnya saluran pengalihan, tanggul atau sejenisnya) / Menggunakan lantai atas untuk penyimpanan / Bangunan tahan banjir / Penyimpanan/harta benda anti banjir / Dibangun atau ditingkatkan ke kode bangunan terbaru / Melindungi, membuat tahan air atau memindahkan sistem penting seperti sistem kabel atau mekanis
37		Apakah rumah Anda berada di dataran banjir atau pernah mengalami banjir sebelumnya?	Ya / Tidak / Saya tidak tahu
38		Apakah Anda memiliki asuransi banjir?	Ya / Tidak / Saya tidak tahu
39	(Flood): Life and Health	Saya tahu kapan harus mengevakuasi diri saya dan anggota rumah tangga saya dengan aman saat banjir. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
40		Saya tahu cara mengevakuasi diri saya dan anggota rumah tangga saya dengan aman saat terjadi banjir.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
41		Saya tahu tindakan yang benar yang harus diambil untuk melindungi diri saya dan rumah tangga saya dari air yang tidak aman setelah banjir.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
42		Jika Anda membutuhkan layanan kesehatan saat terjadi banjir, dapatkah Anda mengaksesnya dengan aman?	Ya / Tidak / Saya tidak tahu
43		Apakah ada peringatan dini banjir yang disebarluaskan oleh pemerintah, dinas terkait cuaca, atau sumber terpercaya lainnya?	Ya / Tidak / Peringatan dini banjir tidak tersedia di komunitas ini / Saya tidak tahu
44	(Flood): Lifelines	Jika Anda menerima peringatan dini banjir, apakah Anda dapat menggunakan peringatan tersebut untuk mengambil tindakan perlindungan atau pencegahan? Silakan centang semua opsi yang berlaku.	Ya / Agak / Tidak, peringatan datang terlambat untuk membuatnya berguna / Tidak, peringatan tidak tersedia dalam bahasa saya / Tidak, peringatan membingungkan dan Saya tidak tahu apa yang harus saya lakukan ketika menerimanya / Saya tidak berharap menerima peringatan / Lainnya / Saya tidak tahu
45		Apakah pasokan air bersih Anda terdampak banjir?	Pasokan air tetap berfungsi dan air dapat digunakan dengan aman tanpa pengolahan / Pasokan air sedikit rusak atau terganggu, namun tetap berfungsi atau cepat pulih / Pasokan air rusak sedang atau hanya

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
			beroperasi sebagian / Tidak ada pasokan air bersih / Pasokan air mati total / Lainnya / Saya tidak tahu
46		Apakah sistem sanitasi Anda terkena dampak banjir?	Sistem sanitasi tidak rusak dan dapat terus digunakan / Sistem sanitasi terkena dampaknya, namun tetap dapat digunakan / Sistem sanitasi rusak dan hanya dapat digunakan sebagian / Sistem sanitasi gagal/rusak total / Tidak ada sistem sanitasi / Lainnya / Saya tidak tahu
47		Apakah sampah memperburuk banjir?	Tidak, sampah tidak menyebabkan atau memperparah masalah banjir / Ya, sampah menyebabkan atau memperburuk beberapa masalah banjir / Ya, sampah menyebabkan masalah banjir yang signifikan / Ya, sampah menyebabkan masalah banjir besar
		Perubahan iklim meningkatkan risiko banjir dan akan terus berlanjut di masa depan.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
48		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	
49	(Flood): Livelihoods	Bagaimana dampak banjir terhadap sekolah-sekolah di komunitas ini?	Sekolah tidak banjir / Sekolah terkena banjir dalam skala kecil sehingga tidak berdampak signifikan terhadap sekolah / Sekolah terkena dampak sedang dan dapat melanjutkan beberapa layanan, namun tidak semua layanan / Sekolah terkena banjir secara signifikan / Sekolah tidak terkena banjir, namun digunakan sebagai tempat perlindungan banjir atau sejenisnya yang mengganggu kegiatan sekolah / Tidak ada sekolah untuk komunitas kami / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
50		Jika banjir, apakah anak-anak Anda dapat sampai ke sekolah dengan aman?	Kami bisa sampai di sekolah dengan aman / Kami mungkin mengalami masalah dalam mencapai sekolah / Kami tidak akan bisa sampai ke sekolah / Kami tidak memiliki akses ke sekolah meskipun tidak terjadi banjir / Saya tidak punya anak usia sekolah / Saya tidak tahu
51		Jika sekolah rusak, tidak dapat diakses, digunakan sebagai tempat berlindung/mengungsi, atau tidak tersedia, apa yang akan terjadi pada kegiatan sekolah bagi anak-anak di rumah tangga ini?	Sekolah tidak terkena dampaknya / Ada rencana alternatif yang memungkinkan guru dan anak sekolah bertemu di tempat sementara yang aman / Gangguan apa pun akan berlangsung kurang dari seminggu dan tidak akan berdampak signifikan pada kegiatan sekolah / Gangguan akan berlangsung lebih dari seminggu dan akan berdampak signifikan pada kegiatan sekolah / Tidak ada rencana alternatif untuk melanjutkan kegiatan sekolah / Tidak ada sekolah yang tersedia untuk komunitas ini / Saya tidak tahu
52		Jika terjadi banjir, apakah Anda dapat tetap bekerja dan/atau mempertahankan penghasilan?	Ya, pekerjaan atau penghasilan saya tidak terganggu ketika terjadi banjir / Ya, saya mempunyai sumber penghasilan alternatif atau pekerjaan alternatif yang bisa saya lakukan saat banjir / Tidak, pekerjaan dan penghasilan saya terganggu sampai banjir berakhir / Tidak, pekerjaan dan penghasilan saya akan terganggu tanpa batas waktu / Lainnya / Saya tidak tahu
53	(Flood): Natural Environment	Lingkungan alam yang sehat mengurangi risiko banjir.	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju

No	Tema	Pertanyaan yang didiskusikan	Pilihan Jawaban
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	



Translasi Pertanyaan Wawancara Informan Kunci dalam Bahasa Indonesia

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
1	(Control Control	Di antara kelompok usia berikut, manakah yang sesuai untuk Anda: 12-17, 18-30, 31-65, atau lebih dari 65 tahun?	 Community leader Community council member Community health worker Local response services Headteacher 	12-17 tahun / 18-30 tahun / 31-65 tahun / Lebih dari 65 tahun
2	(Generic): Context	Apa posisi atau peran Anda?	Local business person	
3		Berapa tahun Anda mempunyai pengalaman dengan komunitas ini, baik dengan tinggal di sini atau bekerja dengan komunitas ini?	 Women gender official Development/planning official DRR/CC official Health official 	
4		Apa jenis kelamin Anda?	Public works official	Perempuan / Laki-laki / Lainnya
5		Berapa banyak rumah tangga di komunitas yang memiliki pendapatan atau kekayaan di atas garis kemiskinan nasional?	Community council member	Hampir semuanya / Sebagian besar / Beberapa, sedikit atau tidak ada sama sekali / Saya tidak tahu
6	(Generic): Assets	Berapa banyak rumah tangga di komunitas yang mempunyai pendapatan atau kekayaan di atas pendapatan median nasional?	Community council member	Sebagian besar / Sekitar setengah / Sedikit atau tidak ada sama sekali / Saya tidak tahu
7	(Generic): Governance	Bisakah pemerintah daerah mengumpulkan uangnya sendiri?	 Community council member Development/planning official 	Ya, mereka memungut pajak daerah, mengenakan biaya untuk pemberian layanan, dan/atau dapat meminjam uang atau menerbitkan utang / Agak; mereka memiliki sejumlah pendanaan daerah selain pendanaan dari tingkat pemerintahan yang lebih tinggi / Tidak, mereka hanya memperoleh pendanaan

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
				dari tingkat pemerintahan yang lebih tinggi / Lainnya / Saya tidak tahu
8		Apakah pemerintah daerah mengelola keuangannya secara transparan dan akuntabel?	Community council member Development/planning official	Ya, keuangan pemerintah daerah dikelola secara transparan dan pengambil keputusan bertanggung jawab kepada komunitas / Agak; keuangan pemerintah daerah sebagian besar transparan dan pengambil keputusan sebagian besar akuntabel / Tidak, keuangan pemerintah daerah tidak transparan dan/atau pengambil keputusan tidak bertanggung jawab kepada komunitas / Lainnya / Saya tidak tahu
9		Siapa saja di komunitas yang terlibat dalam tanggap darurat (misalnya staf yang digaji, relawan)?	DRR/CC officialLocal response services	
10		Seberapa baik kebutuhan personil tanggap darurat bencana saat ini dipenuhi melalui pelatihan, sumber daya, dan dukungan lainnya?	DRR/CC officialLocal response services	Kebutuhan mereka terpenuhi dengan baik / Kebutuhan mereka sedikit banyak terpenuhi / Kebutuhan mereka tidak terpenuhi sama sekali
11		Manajer risiko secara aktif merencanakan bagaimana kebutuhan personil tanggap darurat bencana di masa depan akan berubah akibat perubahan iklim.	DRR/CC officialLocal response services	Sangat setuju / Setuju / Tidak punya pendapat / Tidak setuju / Sangat tidak setuju
		Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?		
12	(Generic): Lifelines	Apakah pasokan bahan bakar tetap berkelanjutan selama kejadian ekstrem?	Community council memberCommunity leader	Ya, komunitas telah sepenuhnya melindungi sumber pasokan bahan bakar

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
				/ Akses terhadap bahan bakar sedikit terkena dampaknya, namun komunitas dapat melanjutkan kehidupan seharihari dengan gangguan yang terbatas / Akses bahan bakar sangat terkena dampaknya, sehingga menyebabkan gangguan selama beberapa hari / Tidak, pasokan bahan bakar tidak mencukupi dan/atau sangat tidak dapat diandalkan bahkan dalam kondisi normal / Lainnya / Saya tidak tahu
13		Apakah sistem pembangkit energi tetap beroperasi selama dan setelah kejadian ekstrem?	 Community council member Community leader 	Ya, sistem pembangkit energi tetap beroperasi / Sistem pembangkit energi sedikit terkena dampaknya, namun mampu tetap beroperasi dengan gangguan yang terbatas / Sistem pembangkit energi sangat terkena dampaknya, sehingga menyebabkan gangguan selama beberapa hari / Sistem pembangkit energi sangat tidak dapat diandalkan bahkan dalam kondisi normal / Lainnya / Saya tidak tahu
14		Apakah sistem energi siap menghadapi kejadian yang lebih ekstrem di masa depan?	Community council memberCommunity leader	Ya / Mungkin / Tidak / Saya tidak tahu
15		Akankah komunitas tetap memiliki aksesibilitas, baik akses dan layanan darurat, maupun kelancaran fungsi pekerjaan, akses ke pasar, dan pemenuhan kebutuhan seharihari selama kejadian ekstrem?	 Community council member Community leader Public works official 	Ya, semua wilayah komunitas tetap dapat diakses / Semua wilayah komunitas tetap dapat diakses untuk akses dan layanan darurat, namun di beberapa wilayah fungsi/kegiatan sehari-hari mungkin terganggu selama beberapa hari / Sebagian besar wilayah

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
				komunitas masih dapat diakses untuk akses dan layanan darurat, namun peralatan/kendaraan khusus mungkin diperlukan (perahu, kendaraan 4x4, dll.) / Jalur transportasi komunitas terkena dampak serius selama dan setelah bencana, yang mengakibatkan dampak serius terhadap kehidupan, kesehatan, atau ekonomi / Tidak ada sistem transportasi yang berfungsi / Saya tidak tahu
16		Dapatkah pengguna sistem transportasi umum menggunakan sistem transportasi umum dengan aman dalam cuaca apa pun dan apakah sistem transportasi umum akan terus berjalan sesuai jadwal dan tidak membuat pengguna terlantar?	Community council member Community leader Public works official	Pengguna dapat menggunakan sistem transportasi umum dengan aman dalam cuaca apa pun / Pengguna dapat menggunakan sistem transportasi umum dengan aman di sebagian besar cuaca, namun saat terjadi peristiwa ekstrem akan terjadi gangguan dan/atau pengendara mungkin terkena cuaca berbahaya untuk sementara waktu. / Sistem transportasi umum menjadi sangat terganggu, sehingga membuat pengguna terpapar cuaca berbahaya dan/atau pengguna yang terdampar / Tidak ada sistem transportasi umum / Saya tidak tahu
17		Sistem komunikasi apa yang dapat diakses oleh anggota komunitas? Silakan centang semua opsi yang berlaku.	 Community council member Community leader DRR/CC official Local response services 	Telepon selular / Telepon rumah/kantor (non-seluler) / Internet / Televisi / Radio / Tetangga ke Tetangga / Radio 2 arah / Lainnya / Tidak ada sistem komunikasi / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
18		Apakah sistem komunikasi tersebut dapat diandalkan, termasuk selama dan setelah kejadian ekstrem?	 Community council member Community leader DRR/CC official Local response services 	Ya, sistem komunikasi sangat andal / Sistem komunikasi secara umum tetap berfungsi atau pulih dengan cepat / Sistem komunikasi hanya cukup dapat diandalkan / Sistem komunikasi sangat tidak dapat diandalkan / Tidak ada sistem komunikasi yang berfungsi / Saya tidak tahu
19		Apakah ada anggaran tahunan khusus untuk pemeliharaan infrastruktur publik?	Community council memberDevelopment/planning official	Ya / Tidak / Saya tidak tahu
20		Apakah anggaran cukup untuk memenuhi kebutuhan pemeliharaan?	Community council memberDevelopment/planning official	Ya, infrastruktur terpelihara dengan baik / Tidak, ada backlog pemeliharaan dan/atau kerusakan infrastruktur saat kejadian ekstrem / Saya tidak tahu
21		Apakah infrastruktur publik di komunitas ini dipelihara secara rutin dan dengan standar yang sama seperti infrastruktur di komunitas sekitar?	Community council memberDevelopment/planning official	Ya / Tidak / Saya tidak tahu
22	(Generic):	Berapa persentase anak perempuan di komunitas yang bersekolah secara rutin?	Headteacher	
23	Livelihoods	Berapa persentase anak laki-laki di komunitas yang bersekolah secara rutin?	Headteacher	
24	(Generic): Life and Health	Berapa persentase orang dewasa di komunitas yang telah menerima pelatihan pertolongan pertama dalam 5 tahun terakhir?	Health officialLocal response services	
25	(Generic): Natural Environment	Apakah sungai dan tepi sungai secara proaktif dilindungi dengan vegetasi, infrastruktur hijau/ramah lingkungan, dan/atau rekayasa struktur penguat dan tanggul?	Community council member	Ya / Sebagian besar / Sebagian besar tidak / Tidak / Tidak relevan untuk komunitas ini / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
26		Apakah lahan basah alami dilindungi dari kegiatan budidaya atau pembangunan dan ditingkatkan dengan rekayasa atau pengelolaan lahan basah?	Community council member	Ya / Sebagian besar / Sebagian besar tidak / Tidak / Tidak relevan untuk komunitas ini / Saya tidak tahu
27		Apakah komunitas pesisir terlindungi dari gelombang badai dengan adanya bukit pasir, lahan basah, hutan bakau yang lebat, terumbu karang lepas pantai, atau melalui tanggul, tembok penahan, atau struktur bangunan yang dibangun dengan baik dan terawat?	Community council member	Ya / Sebagian besar / Sebagian besar tidak / Tidak / Tidak relevan untuk komunitas ini / Saya tidak tahu
28		Apakah perubahan iklim (dan kenaikan permukaan air laut jika relevan) dipertimbangkan secara aktif dalam pengelolaan area batas daratan-perairan?	Community council member	Ya / Sebagian besar / Sebagian besar tidak / Tidak / Tidak relevan untuk komunitas ini / Saya tidak tahu
29		Apakah peta risiko banjir telah dikembangkan untuk komunitas ini dalam lima tahun terakhir?	 Community council member Community leader DRR/CC official Development/planning official 	Ya / Tidak / Saya tidak tahu
30	(Flood): Governance	Apakah pemetaan risiko banjir mencakup komponen kerentanan?	 Community council member Community leader DRR/CC official Development/planning official 	Ya / Tidak / Saya tidak tahu
31		Apakah peta risiko banjir digunakan dalam perencanaan dan tindakan manajemen risiko?	 Community council member Community leader DRR/CC official Development/planning official 	Ya / Tidak / Saya tidak tahu
32		Apakah ada rencana pengurangan risiko banjir untuk komunitas ini?	DRR/CC officialLocal response services	Ya / Tidak / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
33		Apakah rencana tersebut mencakup pengurangan risiko prospektif dan korektif?	DRR/CC officialLocal response services	Ya / Tidak / Saya tidak tahu
34		Apakah rencana pengurangan risiko banjir ditinjau dan diperbarui secara berkala?	DRR/CC officialLocal response services	Ya / Tidak / Saya tidak tahu
35		Apakah ada sistem untuk mengumpulkan data mengenai dampak langsung dan tidak langsung dari banjir pada komunitas ini?	Community council member Development/planning official	Ya / Tidak / Saya tidak tahu
36		Apakah data ini banyak digunakan oleh pemangku kepentingan dan dinas utama untuk meningkatkan manajemen risiko banjir?	Community council member Development/planning official	Ya / Tidak / Saya tidak tahu
37		Apakah proyeksi iklim masa depan dan data layanan iklim banyak digunakan dalam pengambilan keputusan?	Community council memberDevelopment/planning official	Ya / Tidak / Saya tidak tahu
38		Apakah ada sumber pendanaan untuk mendukung pemulihan komunitas? Silakan centang semua opsi yang berlaku.	 Community council member DRR/CC official Development/planning official 	Ya, ada anggaran pemerintah khusus untuk pemulihan banjir / Memang benar, terdapat pendanaan pemulihan banjir yang dapat diandalkan dari sumber-sumber non-pemerintah / Di masa lalu, komunitas kami menerima dana, namun dana tersebut hanya menutupi sebagian kebutuhan kami / Tidak, tidak ada anggaran khusus untuk pemulihan banjir / Lainnya / Saya tidak tahu
39		Apakah pendanaan yang tersedia mudah diakses dan diterima dengan cepat sehingga dapat digunakan?	 Community council member DRR/CC official Development/planning official 	Pendanaan pemulihan mudah diakses dan tiba dengan cepat / Pendanaan sulit diakses tetapi tiba dengan cepat / Pendanaan mudah diakses tetapi lambat sampainya / Pendanaan tidak mungkin

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
				diakses atau tiba dengan terlambat sehingga tidak dapat digunakan / Tidak ada dana yang tersedia / Lainnya / Saya tidak tahu
40	(Flood): Life and	Apakah ada rencana untuk keberlangsungan layanan kesehatan saat banjir? Silakan centang semua opsi yang berlaku.	 Community council member Community health worker Health official 	Ada rencana kontijensi untuk manajemen staf / Ada keberlangsungan rencana operasional / Ada keberlangsungan rencana perawatan untuk pasien / Ada daya cadangan untuk seluruh fasilitas / Terdapat daya cadangan yang terbatas untuk layanan- layanan penting, namun sebagian besar bangunan tidak akan mempunyai aliran listrik / Tidak ada daya cadangan / Tidak ada rencana untuk keberlangsungan layanan / Lainnya / Saya tidak tahu
41	Health	Akankah fasilitas kesehatan tetap dapat diakses dengan aman ketika terjadi banjir?	 Community council member Community health worker Health official 	Fasilitas layanan kesehatan akan tetap dapat diakses oleh semua orang, termasuk mereka yang menggunakan transportasi umum atau berjalan kaki / Fasilitas layanan kesehatan akan sulit diakses secara aman oleh sebagian kecil komunitas / Fasilitas layanan kesehatan akan sulit atau berbahaya untuk diakses oleh sebagian besar komunitas / Tidak ada fasilitas kesehatan yang tersedia untuk komunitas ini / Lainnya / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
42		Apakah rencana tanggap darurat banjir mencakup pencegahan kekerasan dalam keluarga?	DRR/CC officialLocal response servicesWomen/gender official	Ya / Tidak / Saya tidak tahu
43		Sejauh mana personil tanggap darurat bencana telah dilatih dalam perlindungan kekerasan dalam keluarga?	 DRR/CC official Local response services Women/gender official 	Seluruh atau sebagian besar personil tanggap darurat bencana telah menerima pelatihan / Beberapa personil tanggap darurat bencana telah mendapatkan pelatihan / Hanya sedikit personil tanggap darurat bencana telah menerima pelatihan / Sangat sedikit atau bahkan tidak ada personil tanggap darurat bencana yang menerima pelatihan
44		Apakah ada anggaran pengurangan risiko khusus dari mekanisme pendanaan lain yang secara aktif digunakan untuk melaksanakan prioritas pengurangan risiko banjir? Silakan centang semua opsi yang berlaku.	 Community council member DRR/CC official Development/planning official 	Ya, ada anggaran tahunan pemerintah yang khusus / Ya, ada pendanaan khusus dari sumber non-pemerintah / Ada pendanaan, tapi tidak teratur atau tidak dapat diprediksi / Tidak ada anggaran pengurangan risiko / Bukan dari salah satu di atas / Saya tidak tahu
45	(Flood): Lifelines	Apakah investasi pengurangan risiko banjir memberikan manfaat yang adil bagi seluruh penduduk, baik dalam komunitas ini maupun dibandingkan dengan komunitas lain?	Community council memberDRR/CC officialDevelopment/planning official	Ya / Investasi agak tidak adil / Investasi sangat tidak adil / Tidak ada anggaran pengurangan risiko / Lainnya / Saya tidak tahu
46		Apakah ada rencana tanggap darurat banjir untuk komunitas ini?	DRR/CC officialLocal response service	Ya / Tidak / Saya tidak tahu
47		Apakah rencana tanggap darurat banjir mempunyai rencana yang ditargetkan untuk	DRR/CC officialLocal response service	Ya / Tidak / Saya tidak tahu

No	Tema	Pertanyaan yang didiskusikan	Key Informant (Stakeholders)	Pilihan Jawaban
		memenuhi kebutuhan spesifik semua kelompok sosial termasuk semua kelompok rentan?		
48		Apakah rencana tersebut diuji dan diperbarui secara berkala dengan melibatkan semua organisasi yang berpartisipasi?	DRR/CC officialLocal response service	Ya / Tidak / Saya tidak tahu
49		Kira-kira berapa persentase pelaku usaha atau pemberi kerja di komunitas yang mempunyai rencana untuk meminimalkan kerugian dan tetap menjalankan usahanya jika terjadi banjir?	Local business person	Lebih dari 80% / 50% - 80% / 20% - 50% / Kurang dari 20% / Saya tidak tahu
50	(Flood): Livelihoods	Sumber pembiayaan apa yang dimiliki dunia usaha ketika terjadi banjir? Silakan centang semua opsi yang berlaku	Local business person	Asuransi banjir / Asuransi keberlangsungan usaha / Jalur kredit terbuka atau pinjaman yang telah disetujui sebelumnya dengan lembaga keuangan / Tabungan darurat / Lainnya / Bukan dari salah satu di atas / Saya tidak tahu



Translasi Pertanyaan Diskusi Kelompok Terfokus dalam Bahasa Indonesia

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
1		Siapa kelompok sosial utama, termasuk kelompok rentan dan terpinggirkan, dalam komunitas ini?	 Local government committee Community council Council of elders Local NGO/CBO Religious council Society Womens group Youth group 	Community council: masyarakat yang mempunyai aktivitas tersebut terabaikan saat bencana, sedangkan masyarakat rentan seperti masyarakat miskin mem- peroleh bantuan.
2	(Generic): Governance	Berapa banyak dari kelompok sosial tersebut, termasuk kelompok rentan dan terpinggirkan, yang mempunyai atau memberi masukan aktif dalam pengambilan keputusan mengenai manajemen risiko bencana?	 Local government committee Community council Council of elders Local NGO/CBO Religious council Society Womens group Youth group 	 DP3KB: keterwakilan perempuan sedikit dalam musrenbang dan biasanya malam hari. BAPPERIDA: anak-anak dan ibu hamil sulit diajak rapat. Kelompok miskin, petani, dll sulit berpikir keras dalam forum dan tidak aktif dalam manajemen risiko bencana. BMKG: kelompok tani dan migran sulit diajak diskusi karena merasa wilayah kerja mereka bukan tempat tinggal mereka. Tidak memiliki sense of belongings.
3		Apakah ada proses perencanaan penggunaan lahan yang jelas dan transparan?	 Local government committee Community council Community planning committee Community productive users group 	BAPPERIDA: Perda Kabupaten Pekalongan 2020 (RTRW) sudah dipublikasi, sosialisasi sudah dilakukan sampai kecamatan oleh DPUPR, apabila ada perubahan lahan, no- taris menyampaikan ke individu. Dapat

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Local NGO/CBO	diakses melalui aisitaru.pekalongankab.go.id DKPP: karena langsung berkaitan dengan lahan jadi DKPP tahu jika ada alih fungsi dan akan disampaikan ke DPUPR.
4		Apakah Anda setuju bahwa perencanaan penggunaan lahan didasarkan pada peta bahaya dan risiko?	 Local government committee Community council Community planning committee Community productive users group Local NGO/CBO 	
5		Apakah Anda setuju bahwa perencanaan penggunaan lahan didasarkan pada proyeksi perubahan iklim dan bagaimana perubahan iklim dapat mengubah lanskap risiko?	 Local government committee Community council Community planning committee Community productive users group Local NGO/CBO 	 Lurah: Tidak perlu ditangani, dibiarkan saja. Jeruksari dijadikan pembelajaran untuk seluruh dunia, lembaga donor nasional dan internasional. Pemerintah tidak mampu menyelesaikan masalah tersebut. Masyarakat perlu beradaptasi dan bersahabat dengan air. BMKG: ada warning stripe untuk mengidentifikasi peningkatan suhu. BAPPERIDA: sudah ada direview RTRW, sudah ada RAD API, dan di dalam RAD API sudah ada kajian proyeksi hingga 20 tahun.
6		Apakah sumber daya alam dipelihara sedemikian rupa sehingga bermanfaat bagi seluruh komunitas? silakan centang semua opsi yang berlaku.	 Local government committee Community council Community planning committee Community productive users group Council of elders 	 Local government committee: kata "tanpa masukan dari komunitas" diganti dengan "adanya masukan dari pemerintah/komunitas" Lurah: No.1 yang baik dan berkelanjutan perlu. No.2 hanya menguntungkan 1

No Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
		Local NGO/CBOSocietyWomens groupYouth Group	komunitas. Air bersih tidak ada, tumbuhan tidak ada. Opsi 1-3 perlu dikendalikan negara sehingga individu perlu ada pengorbanan. Contoh ingin membuat tanggul, tetapi ada hak milik (tanah) sehingga pembangunan tanggul terhalang adanya tanah tersebut. • RW: tambak dikelola pribadi.
7	Apakah sumber daya alam dalam kondisi baik dan dikelola secara berkelanjutan?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Society Womens group Youth Group 	 Youth group: sumber daya alam sama dengan tambak. Local government committee: kondisi saat ini tidak baik-baik saja. Berkelanjutan apabila menguntungkan secara ekonomi atau bekerja di sektor alam (petani dan tambak), tidak berkelanjutan apabila bekerja di sektor nonalam (limbah batik dibuang sembarangan ke alam). Womens group: setuju. Udara panas karena tidak ada pohon. Saluran air setelah pembendungan tersumbat penuh sampah, kotor, penuh nyamuk, tidak mengalir karena dibendung sehingga tidak sehat. Hidup di Jeruksari terpaksa, apabila ada opsi lain akan pindah. Dulu ada sawah namun tidak bisa digunakan (terendam) dan tambak juga banyak yang merugi.

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
8		Apakah pemerintah mengetahui perkiraan perubahan iklim di masa depan?	Local government committee	 BMKG: Pemerintah sudah meratifikasi sehingga otomatis atas ke bawah sama. Dari segi perubahan iklim saat ini, historis, dan global sudah terjadi perubahan iklim dibandingkan jaman dahulu. Ada lembaga sendiri yang menganalisis (BPP). Ada proyeksi suhu, iklim, dan cuaca hingga 2049 namun tidak seakurat yang dulu karena adanya distorsi dari perubahan iklim. DKP: ada prediksi suhu, iklim, dan cuaca per hari.
9		Apakah pemerintah mempunyai rencana untuk beradaptasi terhadap perubahan iklim?	Local government committee	Local government committee: sudah ada RAD API
10		Apakah pemerintah mempunyai anggaran untuk menindaklanjuti rencana adaptasi perubahan iklim tersebut?	Local government committee	Local government committee: belum ter- tagging dalam rencana anggaran daerah.
11		Apakah pemerintah meninjau rencana investasi modal untuk memastikan bahwa perubahan iklim telah ditangani secara memuaskan?	Local government committee	
12	(Flood) Governance	Terdapat rencana pengurangan risiko banjir yang tepat untuk komunitas ini. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO 	 Local government committee: Kalau rencana sudah, DED, FS, amdal namun tinggal menunggu anggaran. DPUPR: anggaran pompa jeruksari termasuk ke dalam bentuk adaptasi.

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Savings groupWomens groupYouth Group	
13		Rencana pengurangan risiko banjir mencakup pengurangan risiko prospektif dan korektif. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Savings group Womens group Youth Group 	BAPPERIDA: yang merencanakan adalah BBWS
14		Rencana pengurangan risiko banjir ditinjau dan diperbarui secara berkala. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Savings group Womens group Youth Group 	 BAPPERIDA: rencana sudah dari dua tahun yang lalu sekarang akan direview. Apabila mau dilaksanakan akan direview (pengembangan alat, dana, dll). RW: peristiwa banjir di Jeruksari sudah bencana sehingga perlu penanganan serius/besar dari pemerintah pusat. Womens group: Pompa dan peninggian jalan saja, tidak ada inovasi lain.
15		Siapa saja pemangku kepentingan kunci yang harus dilibatkan dalam perencanaan dan tindakan manajemen risiko banjir untuk komunitas ini?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO 	

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Religious council	
			Savings group	
			• Society	
			Womens group	
			Youth Group	
		Berapa banyak dari pemangku	Local government committee	
		kepentingan kunci yang terlibat secara	Community council	
		aktif dalam perencanaan dan tindakan	Community planning committee	
		manajemen risiko banjir?	Community productive users	
		The state of the s	group	
			Council of elders	
16			Local NGO/CBO	
			Religious council	
			Savings group	
			Society	
			Womens group	
			Youth Group	
		Apakah layanan kesehatan tersedia	Civil protection group	
		dalam jangkauan fisik yang aman bagi	Community council	
17		komunitas ini?	Council of elders	
		Normanicas IIII	Society	
			Womens group	
	(Generic) : Life and	Beberapa kelompok komunitas	Civil protection group	Council of elders: tidak dipenuhi
	Health	mungkin mengalami hambatan dalam	Community council	kesehatannya karena KIS ditarik, dari
		mengakses layanan kesehatan karena	Council of elders	pusat tidak aktif dan kurang informasi
18		kondisi keuangan, sosial, budaya atau	Society	terkait pengaktifan BPJS.
. •		fisik mereka. Apakah sistem layanan	Womens group	
		kesehatan memenuhi kebutuhan		
		semua kelompok komunitas, terutama		

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
		kelompok rentan atau terpinggirkan, untuk menjamin akses?		
19		Untuk mendukung tanggap darurat banjir, evakuasi dan Pencarian & Penyelamatan, manakah dari hal-hal berikut yang dimiliki oleh komunitas? Pilih semua yang berlaku. Silakan centang semua opsi yang berlaku.	 Local government committee Community council Community planning committee Council of elders Local NGO/CBO Society Womens group Youth Group 	Local government committee: terdapat tosa.
20	(Flood) : Life and Health	Apakah Anda yakin bahwa peralatan darurat banjir berada dalam kondisi yang baik, diuji secara rutin, dan akan berfungsi dengan baik?	 Local government committee Community council Community planning committee Council of elders Local NGO/CBO Society Womens group Youth Group 	 DP3KB: alat kesehatan setiap tahun dikalibrasi. Yang rentan yaitu kendaraan (ambulance) yang korosif terkena air laut, tetapi untuk penggantian unit cepat. DKPP: perawatan terbatas dalam jangka waktu per tahun. RW: peralatan diberikan (dibina) oleh BINTARI, namun perawatan tidak ada sama sekali apalagi diji rutin, contohnya jalur evakuasi yang lama kelamaan hilang. LPMD: tidak tahu, maka memilih tidak.
21		Apakah semua kelompok di komunitas mampu mengakses infrastruktur dan peralatan darurat?	 Local government committee Community council Community planning committee Council of elders Local NGO/CBO Society Womens group 	 DKPP: struktur jalan Jeruksari ada jalan besar yang terletak di tengah-tengah desa sehingga evakuasi mudah dilakukan. BAPPERIDA: ada Tagana yang menggerakkan dan memanfaatkan alat darurat. DPUPR: ada penjaga pompa dari masyarakat setempat dan listrik-solar dari DPUPR.

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Youth Group	
22	(Flood) : Assets	Apakah komunitas dan aset-aset komunalnya dilindungi melalui kombinasi tindakan perlindungan banjir struktural dan non-struktural?	 Local government committee Community council Community planning committee Community productive users group Local NGO/CBO Society 	 DKPP: dapat mengungsi di luar Jeruksari seperti di rumah keluarganya. Rumah yang sudah diuruk lingkungan sekitarnya tetap terdampak. BAPPERIDA: semua kena banjir, perlindungan sudah ada. RW: banyak barang-barang di pertanyaan peralatan untuk keadaan darurat yang sebelumnya tidak dimiliki sehingga hanya menyelamatkan diri seadanya. KSB: setiap individu melindungi dirinya sendiri, hanya disabilitas yang tidak. Aset sebagian besar terendam. Community council: Ketika banjir tidak teratasi (butuh berhari-hari), kebutuhan dan alat-alat tidak terlindungi. Tidak ada alat yang bisa digunakan saat dibutuh-kan.
23		Apakah tindakan perlindungan terhadap banjir dapat diandalkan, dipelihara secara rutin, dan tidak menimbulkan risiko baru?	 Local government committee Community council Community planning committee Community productive users group Local NGO/CBO Society 	 DP3KB: jalan ditinggikan berdampak ke permukiman sehingga rumah makin pendek, berpengaruh ke kesehatan karena kelembaban tinggi. Society: ada parapet, namun air tetap meluap walaupun sudah ditambal dengan karung-karung.
24		Apakah perencanaan perlindungan di masa depan secara aktif mempertimbangkan potensi dampak perubahan iklim?	 Local government committee Community council Community planning committee Community productive users group 	

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Local NGO/CBOSociety	
25		Ada rencana tanggap darurat banjir yang tepat untuk komunitas ini. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Savings group Society Womens group Youth Group 	Local government committee: sering mengorbankan daerah lain, terkadang tempat yang aman juga terkena dampak pembangunan sehingga menimbulkan masalah lain. Pompa air kota menyebabkan dampak ke Jeruksari padahal pompa air tersebut bentuk penanganan perubahan iklim di kota.
26	(Flood) : Lifelines	Rencana tanggap darurat banjir mencakup rencana yang ditargetkan untuk memenuhi kebutuhan spesifik semua kelompok sosial termasuk semua kelompok rentan. Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju, atau sangat tidak setuju dengan pernyataan tersebut?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Savings group Society Womens group Youth Group 	
27		Rencananya diuji dan diperbarui secara berkala dengan melibatkan semua organisasi yang berpartisipasi? Apakah Anda sangat setuju, setuju, tidak punya pendapat, tidak setuju,	 Local government committee Community council Community planning committee Community productive users group Council of elders 	

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
		atau sangat tidak setuju dengan	Local NGO/CBO	
		pernyataan tersebut?	Savings group	
			Society	
			Womens group	
			Youth Group	
		Apakah anggota komunitas menerima peringatan dini banjir dari pemerintah, dinas terkait cuaca atau sumber terpercaya lainnya?	Local government committee	BMKG: peringatan banjir dari Pusdataru.
			Community council	BMKG menggunakan whatsapp group
			Community planning committee	dalam menyebarkan informasi ke OPD
			Community productive users	terkait kemudian ke komunitas. • DKP: informasi ombak besar dan cuaca
			group	buruk sampai ke komunitas.
28			Council of elders Lagrand MCO (CRO)	BAPPERIDA: kendala informasi karena
			Local NGO/CBO Deligious council	yang memegang hp anaknya, tidak ada
			Religious councilSociety	kuota internet, ada yang tidak paham
			Womens group	dalam membaca informasi.
			Youth Group	
			Local government committee	
		Jika anggota komunitas menerima peringatan dini banjir, apakah mereka	Community council	
			Community council Community planning committee	
		dapat menggunakan peringatan	Community productive users	
		tersebut untuk mengambil tindakan perlindungan atau pencegahan? Silakan	group	
29		centang semua opsi yang berlaku.	Council of elders	
29		centaing semida opsi yang bertaka.	Local NGO/CBO	
			Religious council	
			Society	
			Womens group	
			Youth Group	
	Apakah prakiraan banjir dibuat untuk (Flood):	Local government committee	BMKG: prakiraan banjir ada untuk PU	
20		wilayah ini?	Community council	pusat dan BMKG pusat yang disebar ke
30	Livelihoods	Thayan iiii		UPT Jawa Tengah per 10 hari dan
			sebulan, tidak disebarluaskan karena	

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Community productive users group	tumpang tindih dengan kewenangan Pusdataru (banjir).
31		Apakah informasi prakiraan cuaca disampaikan kepada pihak berwenang secara tepat waktu untuk disebarluaskan dan memberikan peringatan darurat?	 Local government committee Community council Community productive users group 	BMKG: dari BMKG peringatan cuaca maksimal 1 jam sebelum kejadian dan minimal 3 jam. Banjir bukan kewenangan BMKG lagi, dapat diakses melalui cuaca.bmkg.go.id hingga tingkat desa, prakiraan tersedia per jam, tetapi jika ingin meminta data historis harus meminta ke instansi.
32		Apakah informasi prakiraan dikomunikasikan dengan cara yang dapat dipahami dan digunakan oleh pihak berwenang?	 Local government committee Community council Community productive users group 	 BMKG: pihak berwenang yang mendapat peringatan dini adalah BPBD dan PSDA. BAPPERIDA: secara umum dapat dipahami. PSDA: ada level awas, siaga, dan waspada. Community productive users: prakiraan cuaca tidak diinformasikan dengan jelas, misalnya di jam sekian ada angin ribut sebelah utara, tetapi utaranya tidak dirincikan tepatnya dimana.
33	(Flood) : Natural Environment	Apakah lahan miring (dengan kelerengan) dipelihara atau dilindungi sedemikian rupa sehingga mengurangi limpasan air, erosi dan tanah longsor?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Society Womens group 	Community planning committee: karena kawasan pesisir.

No	Tema	Pertanyaan yang didiskusikan	Peserta FGD (Stakeholders)	Catatan
			Youth Group	
34		Apakah saluran air dan fitur drainase alami lainnya dilestarikan secara aktif, dan dilengkapi dengan area retensi air hujan dan kanal buatan sehingga banjir dapat dicegah bahkan ketika terjadi badai ekstrem?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Society Womens group Youth Group 	Local government committee: karena be- lum ada tindak lanjut.
35		Apakah infrastruktur ramah lingkungan dan/atau solusi berbasis alam digunakan secara aktif untuk mengatasi manajemen risiko banjir?	 Local government committee Community council Community planning committee Community productive users group Council of elders Local NGO/CBO Society Womens group Youth Group 	Local government committee: ada, namun tidak tahu kebermanfaatannya dan efektivitasnya pada masyarakat.



6.6 List of Individual Interviewed

No	Informan Kunci Komunitas Pabean	Kategori	Diwakili oleh:
1	Lurah Padukuhan Kraton	Community leader	 Nama: Widya Putri Nugraha Jenis kelamin: Perempuan Jabatan: Lurah Padukuhan Kraton Lama bekerja di bidang ini: 4 tahun
2	Pengusaha Bengkel	Local business person	 Nama: Budi Setiono Jenis kelamin: Laki-laki Jabatan: Pemilik Usaha Bengkel Lama bekerja di bidang ini: 15 tahun
3	Perwakilan Puskesmas Dukuh	Community health worker	 Nama: dr. Lely Prajasari Jenis kelamin: Perempuan Jabatan: Kepala Puskesmas Dukuh Lama bekerja di bidang ini: 5 tahun
4	BKM Kelurahan Padukuhan Kraton	Community council mem- ber	 Nama: Kayisa Jenis kelamin: Perempuan Jabatan: Sekretaris BKM Lama bekerja di bidang ini: 10 tahun
5	KSB (Kelompok Siaga Bencana) Kelurahan Padukuhan Kraton	Local response services	 Nama: Kuwat Santoso Jenis kelamin: Laki-laki Jabatan: Anggota KSB Lama bekerja di bidang ini: 3 tahun
6	Kepala SD Pabean	Headteacher	 Nama: Haryanto Jenis kelamin: Laki-laki Jabatan: Kepala sekolah Lama bekerja di bidang ini: 2 tahun
7	DPMPPA Kota Pekalongan	Women/gen- der official	 Nama: Eni Purwanti Jenis kelamin: Perempuan Jabatan: Kepala Bidang Kelembagaan Masyarakat dan Pemberdayaan Masyarakat Lama bekerja di bidang ini: 2 tahun
8	BAPPERIDA Kota Pekalongan	Develop- ment/Planning official	 Nama: Cayekti Widigdo Jenis kelamin: Laki-laki Jabatan: Kepala BAPPERIDA Kota Pekalongan Lama bekerja di bidang ini: 3 tahun
9	BPBD Kota Pekalongan	DRR/CC official	 Nama: Dimas Arga Jenis kelamin: Laki-laki Jabatan: Kepala Bidang Pencegahan dan Kesiapsiagaan Lama bekerja di bidang ini: 6 tahun

No	Informan Kunci Komunitas Pabean	Kategori	Diwakili oleh:
10	Dinas Kesehatan Kota Pekalongan	Health official	 Nama: Slamet Budiyanto Jenis kelamin: Laki-laki Jabatan: Kepala Dinas Kesehatan Lama bekerja di bidang ini: 9 tahun
11	DPUPR Kota Pekalongan	Public works official	 Nama: Endang Febriana Jenis kelamin: Perempuan Jabatan: JF Penataan Ruang Lama bekerja di bidang ini: 4 tahun





6.7 Data Collection Ethical Standards and Considerations

Formulir Persetujuan Survey Rumah Tangga

Mercy Corps Indonesia

PERSETUJUAN DAN RILIS MERCY CORPS

WAWANCARA, FOTO, DAN VIDEO

Demi membantu misi amal Mercy Corps, dan tanpa mengharapkan kompensasi atau imbalan dalam bentuk apa pun, kini maupun nanti, dengan ini saya memberikan persetujuan saya kepada Mercy Corps, juga afiilasi dan agennya, untuk menggunakan nama atau gambar saya maupun anak saya yang masih di bawah umur (baik fotografis, video, dan/atau elektronik), dan/atau pernyataan wawancara (dan petikan pernyataan) mana pun yang keluar dari mulut saya atau anak saya dalam wawancara pada publikasi, iklan, atau aktivitas media lain (termasuk internet). Persetujuan ini termasuk namun tidak terbatas pada,

- (a) izin untuk mewawancarai, memfilmkan, mengambil foto, merekam dengan kaset, atau mereproduksi video saya dan/atau anak/anak-anak saya dan/atau merekam suara kami; dan.
- (b) izin untuk menggunakan nama saya dan/atau anak/anak-anak saya, dan
- (c) izin untuk menggunakan kutipan dari wawancara (-wawancara) (atau petikan dari kutipan tersebut), film, foto (-foto), kaset (-kaset) rekaman atau reproduksi (-reproduksi) dari kami dan/atau rekaman suara (-suara) kami, sebagian atau seluruhnya, dalam publikasinya, pada koran, majalah, dan media cetak lainnya, di televisi, radio, dan media elektronik (termasuk "internet"), dalam media teatrikal dan/atau persuratan untuk kampanye pendidikan dan kesadaran Mercy Corps, dalam hubungannya dengan promosi produk-produk Mercy Corps dan/atau untuk membantu menggalang dana untuk Mercy Corps.

Persetujuan ini berlaku seterusnya, dan tidak memerlukan persetujuan awal dari saya.

Nama subjek (jika	berusia lebih dari 18 tahun):	+ırda
(Tanda Tangan): _	Au Lew	
Atau, atas nama		
Nama Anak:		
Usia Anak:		
umur yang naman	nya disebutkan di atas yang der	vah ini adalah orang tua atau wali dari anak di bawah ngan ini memberikan persetujuan dan memberikan izin na anak di bawah umur yang namanya disebutkan di
Tanda Tangan Ora	7	
	- 12 PT 02	Nama Terang:
Alamat: Pabean	RW 12 RT 03	
Tanggal: 27 N	Nei 2025	Molania





Formulir Persetujuan Wawancara Informan Kunci

PERSETUJUAN DAN RILIS M	ERCY CORPS
WAWANCARA, FOTO, DAN VIDEO	
A Second Mason Corns	dan tanpa mengharapkan kompensasi atau imbalan dalam
Demi membantu misi amai Mercy Corps,	dan tanpa mengharapaan kecaljuan saya kepada Mercy Corps, gan ini saya memberikan persetujuan saya kepada Mercy Corps,
sentuk apa pun, kini maopus untuk menggu	gan ini saya memberikan permuanan anak saya yang masih di nakan nama atau gambar saya maupun anak saya yang masih di nakan nama atau gambar saya maupun anak saya yang masih di
nawah umur (baik fotografis, video, dani	nakan nama atau gambar saya 'atau elektronik), dan/atau pernyataan wawancara (dan petikan 'atau elektronik), dan/atau pernyataan wawancara pada publikasi,
pernyataan) mana pun yang keluar dari r	mulut saya atau anak saya dalam wawancara pada publikasi, mulut saya atau anak saya dalam wawancara pada publikasi,
klan, atau aktivitas media lain (termasul	mulut saya atau anak saya samulut saya saya saya kinternet). Persetujuan ini termasuk namun tidak terbatas pada,
t manifelini	kan, mengambil foto, merekam dengan kaset, atau
a unital video sava dan/atau a	NUTRY / BUSINESS BUSINESS CONTROL OF THE PROPERTY OF THE PROPE
cetak lainnya, di televisi, radio, dan	media elektronik (termasuk "internet"), dalam media teatrikal iye pendidikan dan kesadaran Mercy Corps, dalam hubungannya iye pendidikan dan kesadaran Mercy Corps, dalam hubungannya
dan/atau persuratan untuk kampan	ercy Corps dan/atau untuk membantu menggalang dana untuk
	ncy cores designation
Mercy Corps.	
	tidak memerlukan persetujuan awai dari saya.
Nama subjek (jika berusia lebih dari 18	stahun): Endung Februana
(Tanda Tangan): Atau, atas nama	
Nama Anak:	
Usia Anak:	
Orang tua atau wali yang bertanda tan	gan di bawah ini adalah orang tua atau wali dari anak di bawah s yang dengan ini memberikan persetujuan dan memberikan izin
umur yang namanya disebutkan di atas	n atas nama anak di bawah umur yang namanya disebutkan di
	11 0103 10110 01010 01010
atas.	
Tanda Tangan Orang Tua	
Atau Wali Sah:	Nama Terang:
Alamat: DPuPA	
Tanggal: 1.8	
Staf Mercy Corps yang hadir:	



6.8 List of FGD Participants

No	Kategori	Peserta FGD	Rincian	
	Perwakilan pemerintah	Pemerintah Provinsi Jawa Tengah dan Kota Pekalongan	BMKG Klimatologi Jawa Tengah (tidak hadir) BMKG Maritim Jawa Tengah BAPPERIDA Kota Pekalongan (tidak hadir) BPBD Kota Pekalongan	
1	(local government		DPUPR Kota Pekalongan	
	committee)		DLH Kota Pekalongan	
			DPMPPA Kota Pekalongan	
			Dinas Kelautan dan Perikanan KotaPekalongan	
			Dinas Pertanian dan Pangan Kota Pekalongan	
2	Satuan keamanan (civil protection group)	Satpol PP Kota Pek	alongan	
3	Perwakilan pemerintah Kelurahan (community planning committee)	Lurah Padukuhan Kraton (tidak hadir), ketua RW 12, ketua RW 13		
4	Perwakilan agama (religious council)	Tokoh agama Pabea	an	
5	Dewan masyarakat (community council)	BKM Kelurahan Keli	urahan Padukuhan Kraton	
6	Kelompok masyarakat (society)	Perwakilan disabili	tas dan Pembina forum anak	
7	Kelompok pemuda (youth group)	Karang Taruna Kelu	urahan Padukuhan Kraton	
8	Kelompok lansia (council of elders)	Perwakilan lansia		
9	Komunitas lokal (local NGO/CBO)		uan Bencana) Kelurahan Padukuhan Kraton, koordinator Bank Sampah, Komunitas Bara Air	
10	Perwakilan wanita (womens group)	PKK Kelurahan Padukuhan Kraton		
	Kelompok usaha	Pengusaha bengkel	ngusaha bengkel motor	
11	(community productive users group)	Perwakilan nelayan PUD		



6.9 List of Literature Reviewed

- Rencana Nasional Penanggulangan Bencana 2020-2024
- Citra Satelit Google Earth
- Dataset Pusdataru Jawa Tengah 2022
- Dokumen RAD API Kota Pekalongan 2024
- Dokumen Kajian Risiko Bencana BPBD Kota Pekalongan
- Kajian Risiko dan Dampak Iklim di DAS Kupang 2022
- Kecamatan Pekalongan Utara dalam Angka 2019-2024
- Ringkasan APBD Menurut Kelompok dan Jenis Pendapatan, Belanja dan Pembiayaan Tahun Anggaran 2024 Kota Pekalongan
- Liputan media massa lokal