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YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

COMMUNITY-BASED DISASTER RISK MANAGEMENT (CBDRM)

MUKIM SAYONG, KUALA KANGSAR

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1.0 Background

The Community-Based Disaster Risk Management (CBDRM) project is a strategic collaboration between Think City and MERCY Malaysia, designed to enhance community resilience by integrating cultural heritage, traditional knowledge, and livelihood-based economies into disaster risk reduction efforts. Recognising the unique cultural landscape of the community, this initiative aims to systematically document indigenous and locally rooted practices that contribute to disaster resilience. The collected knowledge will not only serve as a reference for government agencies and policy-makers but also as a transferable model for other communities facing similar vulnerabilities. By bridging cultural preservation with risk management, the project contributes to more inclusive, adaptive, and sustainable disaster preparedness at both local and regional levels.

2.0 Objectives

i. To strengthen community resilience by integrating elements of cultural heritage, traditional knowledge, and livelihood-based practices into comprehensive disaster risk reduction strategies.

ii. To systematically document and disseminate indigenous and locally rooted resilience practices, providing a valuable reference for government agencies, policy-makers, and as a replicable model for other communities facing similar disaster-related vulnerabilities.

3.0 Programme Summary

Programme	Community-Based Disaster Risk Management (CBDRM) at Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong Kuala Kangsar
Date	May 17th, 2025 (Saturday)
Time	08:00 am to 13:00 pm
Venue	Dewan Kampung Sayong Tebing
Total Fund	RM196,000
Funder	Think City
Recipients	41 recipients

4.0 Programme Agenda

Time	Activities
8:00 am – 8:15 am	Registration and breakfast
8:15 am – 8:30 am	Welcoming speech and introduction - Chief Village Kampung Sayong Tebing - Think City - MERCY Malaysia
8:30 am – 8:35 am	CBDRM Pre-Assessment
8:35 am – 12:05 pm	**Capacity Building** **Module 1: Introduction to Disaster Risk Management** (Understanding the basic phases of disaster risk reduction, and the concept of disaster risk based on hazard, vulnerability, and capacity) Speaker: Mr Azman Zainonabidin Fasilitator: 1. Mr Ezzat Fahmi Ahmad 2. Dr Siew Qui Hen 3. Ms Yuhainis Abdul Talib 4. Mr Satheesh a/l Nadaraja 5. Ms Nur Athirah Sakah **Module 2: Community Preparedness in Disaster** (Understanding of the importance and effective preparedness measures in facing disasters) Speaker: Mr Ezzat Fahmi Ahmad Fasilitator: 1. Mr Azman Zainonabidin 2. Dr Siew Qui Hen 3. Ms Yuhainis Abdul Talib 4. Mr Satheesh a/l Nadaraja 5. Ms Nur Athirah Sakah

8:35 am – 12:05 pm

Module 3: Community-Based Disaster Management

(Exposure of the community to activities and implementation of preparedness measures in facing disasters)

Speaker: Ms Yuhainis Abdul Talib

Fasilitator:
1. Mr Ezzat Fahmi Ahmad
2. Mr Azman Zainonabidin
3. Dr Siew Qui Hen
4. Mr Satheesh a/l Nadaraja
5. Ms Nur Athirah Sakah

Module 4: Site Observation

(Understanding the local community's awareness in the mitigation and preparedness phases of disaster management to develop their own disaster action plan with a systematic map)

Speaker by Mr Ezzat Fahmi Ahmad

Fasilitator:
1. Mr Azman Zainonabidin
2. Dr Siew Qui Hen
3. Ms Yuhainis Abdul Talib
4. Mr Satheesh a/l Nadaraja
5. Ms Nur Athirah Sakah

Module 5: Disaster Action Plan

(Basic understanding in community-based disaster action plans, including the formation of committees and methods of information sharing)

Speaker by Mr Ezzat Fahmi Ahmad

Fasilitator:
1. Mr Azman Zainonabidin
2. Dr Siew Qui Hen
3. Ms Yuhainis Abdul Talib
4. Mr Satheesh a/l Nadaraja
5. Ms Nur Athirah Sakah

12:05 pm – 12:30 pm	**Heatwave Preparedness and Response Planning** (Discussion on community understanding of climate change and extreme heat risks, as well as risk reduction methods for heatwaves at both individual and community levels) Speaker by Dr Siew Qui Hen
12:30 pm – 12:35 pm	CBDRM Post-Assessment
12:35 pm – 13:00 pm	- Lunch - Lucky Draw - Photography session
13:00 pm	Disperse

5.0 Overview of Mukim Sayong

Based on the Draft Local Plan for Kuala Kangsar District 2035 (Replacement), Mukim Sayong is situated within Planning Block (BP) 1.3, encompassing a land area of 33,148.36 hectares. The report indicates that 12.04% of the area is designated as built-up, while 87.96% remains as non-built-up land, offering ample space for sustainable development and conservation initiatives. Mukim Sayong is blessed with a wealth of unique cultural and heritage assets, such as the traditional art of Labu Sayong carving and heritage homes. These elements contribute to the area's identity and offer strong potential for heritage-based tourism and community empowerment, ensuring that local traditions are preserved and celebrated for generations to come. While the area is located near the Perak River basin, which is susceptible to flooding, this presents an opportunity to strengthen disaster resilience, enhance infrastructure planning, and implement community-based disaster risk management. By embracing proactive strategies, Mukim Sayong can continue to thrive as a culturally rich and resilient community.

5.1 Flood Risks and Community Conditions

Mukim Sayong is a traditional Malay settlement located in the Kuala Kangsar district of Perak, known for its cultural heritage, especially the iconic Labu Sayong pottery. The mukim consists of several villages that lie along the Perak River, making it culturally rich and environmentally vulnerable. The community is predominantly Malay and characterised by strong family ties and a balanced age distribution. Many households rely on traditional livelihoods such as paddy farming, rubber tapping, and small-scale industries. Women are actively involved in home-based economic activities, particularly in craft and food production.

The community is especially vulnerable to seasonal floods due to its low-lying location, highlighting the need for improved disaster preparedness and infrastructure development. Mukim Sayong reflects a blend of tradition and resilience, with ongoing efforts needed to support its sustainable development and protect its cultural identity.

One of the most significant flood events recorded in this area was the Great Flood of 1926, also known as the "Red Flood". As one of the most historic floods in the Malay Peninsula, it had a profound impact on Mukim Sayong. The overflowing river submerged large parts of the villages, causing extensive damage to traditional wooden houses and destroying much of the local agricultural produce.

Several major floods that have significantly shaped community awareness and preparedness. The 1971 flood led to the evacuation of many residents to temporary shelters, with damage to basic infrastructure such as dirt roads and small bridges disrupting mobility and village livelihoods for weeks. In 2003 and 2014, flash floods triggered by prolonged heavy rainfall upstream of the Perak River caused severe damage to traditional homes. Poor drainage systems were identified as a key factor in the slow receding of floodwaters.

Although the 2021 flood was less severe, it heightened local awareness of the need for early warning systems and structured disaster risk management. Over time, these recurring events have fostered a culture of preparedness, including communal clean-ups (gotong-royong), elevated house designs, and the preservation of traditional flood knowledge. They have also encouraged the implementation of community-based disaster risk reduction (CBDRR) initiatives in recent years.

5.2 Community Profile

Mukim Sayong is located in Kuala Kangsar, Perak, along the Perak River. It includes several traditional Malay villages with strong cultural heritage and historical links to the Perak Sultanate. While the river supports farming and tourism, it also causes frequent flooding in the area. The local economy depends on small-scale businesses, such as traditional crafts and service production. Some families also earn from informal tourism related to the area's history and riverside attractions.

However, these income sources are seasonal and easily affected by floods, leading to financial insecurity. The area is rich in cultural assets, including old wooden houses, mosques, suraus, cemeteries, and village customs. These are important to the community's identity but are at risk due to repeated floods and a lack of proper protection or documentation.

According to the Kuala Kangsar District Local Plan 2035, the population of Mukim Sayong was approximately 32,500 in the year 2025, with a projected annual growth rate of 1.51%. The majority of the population in the area is Malay and resides in rural settings. A significant number of young people have migrated to urban areas in search of better education and employment opportunities, resulting in an ageing population being left behind. This demographic shift impacts the community's capacity to preserve cultural traditions and respond effectively to emerging challenges. Approximately 41 individuals from Mukim Sayong participated in the Community-Based Disaster Risk Management (CBDRM) initiative held at Dewan Kampung Sayong Tebing, representing around 0.13% of the total population of the mukim.

5.3 Key Issues

i. Traditional knowledge and cultural practices are not fully integrated into disaster risk reduction and resilience planning.

ii. Weak preservation efforts increase the risk of losing significant cultural assets during disasters.

iii. Economic activities such as small-scale farming, handicrafts, and informal tourism are highly vulnerable to disruption, with limited capacity for recovery.

iv. An ageing population with limited mobility remains, while younger generations migrate in search of better opportunities, weakening local capacity and continuity.

6.0 Community Based Disaster Risk Management (CBDRM)

Kuala Kangsar, known for its rich cultural heritage and traditional livelihoods, is increasingly vulnerable to the impacts of recurrent flooding. These flood events not only pose risks to lives and infrastructure but also threaten the preservation of heritage assets and the community's economic stability, particularly in sectors such as small-scale tourism, agriculture, and traditional crafts.

In response to these challenges, the implementation of a Community-Based Disaster Risk Management (CBDRM) programme is proposed in Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong to enhance local resilience through a culturally grounded and community-led approach. The programme seeks to build capacity among residents by providing practical knowledge and skills in disaster risk reduction, while actively incorporating local wisdom and traditional practices into preparedness and response strategies.

By engaging all segments of the community, including vulnerable groups, this initiative aims to foster inclusive participation, strengthen community ownership, and ensure the protection of both cultural values and economic livelihoods. Ultimately, this approach supports long-term resilience and sustainability in the face of climate-related risks.

7.0 Key Activities and Focus Areas

i. Conduct training sessions on disaster prevention, preparedness, and response for local residents.

ii. Involve vulnerable groups in leadership roles to ensure representation and equity in disaster planning.

iii. Incorporate local traditions and knowledge into disaster management to enhance relevance and acceptance.

iv. Strengthen community resilience by building practical skills and promoting self-reliance in disaster response.

8.0 Summary of Capacity Building

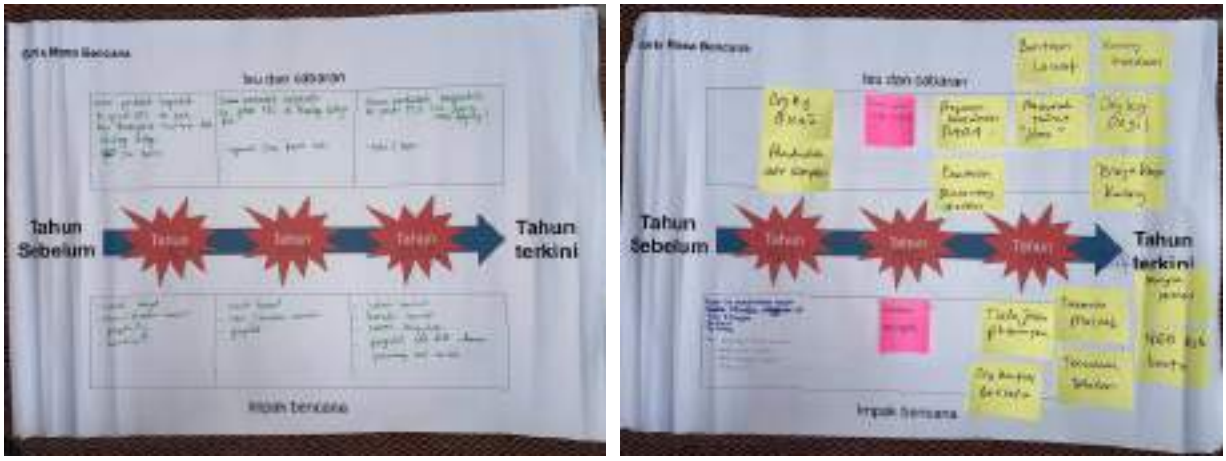
The capacity-building activity in Mukim Sayong involved a total of 41 people (male and female participants) from Kampung Sayong Tebing and Kampung Sayong Hulu (for full details, please refer to Section 10.0: Respondents Analysis). This hands-on session was conducted at the Dewan Sayong Tebing, facilitated by a CBDRM subject matter expert, who provided exposure, knowledge sharing, and guidance on community-level disaster risk management. Key activities carried out during the session included:

- Disaster timeline-related activities
- Risk Mapping
- Disaster Management Action Plan
- Seasonal Calendar

These participatory exercises aimed to empower the local community with practical tools and strategies to enhance their preparedness and resilience against potential disasters.

8.1 Disaster timeline-related activities

This activity focused on documenting and discussing the history of disasters that have impacted the settlement area in Mukim Sayong, with particular attention to their effects on the community's daily life over both the short and long term. The session provided a platform for community members to share personal experiences, highlight challenges encountered during and after disaster events, and identify key issues that continue to affect local resilience.



Picture 1: Outcome of the discussion and information sharing on issues, challenges, and disaster impacts based on the disaster timeline experienced by the communities of Kampung Sayong Tebing and Kampung Sayong Hulu.

8.1.1 Findings

Between 1967-1973, severe floods forced the evacuation of all residents to temporary shelters at SMK Raja Perempuan Kalsom and Malay College Kuala Kangsar (MCKK). Some were also relocated to Kampung Bukit Lada. Floodwaters submerged half the town clock tower, cutting off access routes and requiring boat rescues. Homes were destroyed, and key areas like Pekan Kuala Kangsar, Jalan Besar, and Kampung Sayong Tebing were badly affected. The floods caused property loss, disease outbreaks, food shortages, and fatalities.

Next, between 1993-1994, according to the local community a lack of disaster preparedness led to poor evacuation compliance and delayed aid. Access roads were cut off, hampering relief efforts. Crops and livestock were lost, but the community showed resilience by supporting one another through the crisis.

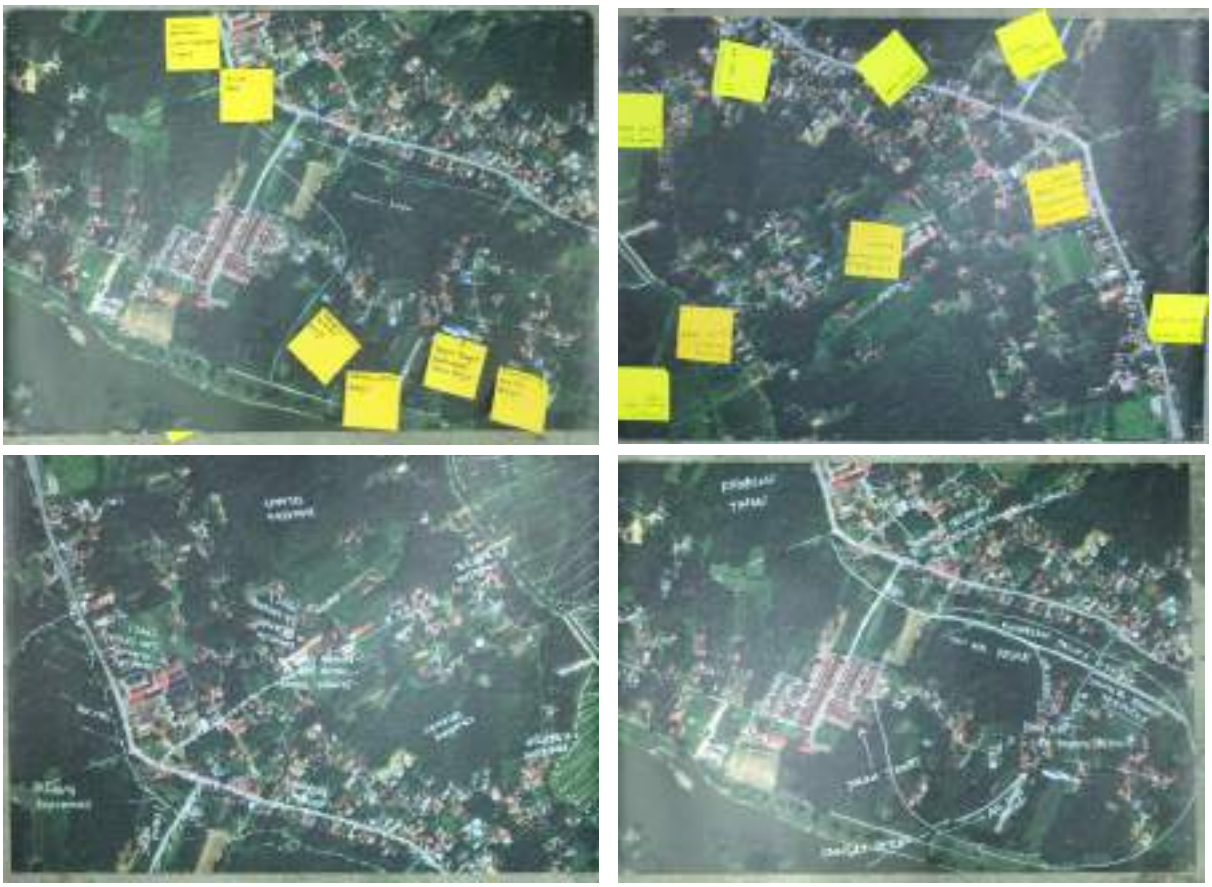
Meanwhile in 2014, residents were evacuated to SK Sayong and SMK Sayong due to heavy flooding. Though the water didn't reach the clock tower roundabout, the impact was severe. However, many lacked swimming or rescue skills, leading to safety risks and one recorded drowning. Livestock losses and home damage were significant.

"Numerous NGOs mobilised on the ground to provide aid and support, helping to alleviate the burden faced by the affected community in 2014 flood," said one representative during the session.

8.2 Risk Mapping

A community risk mapping activity was conducted with the objective of gathering local knowledge on hazard-prone areas, vulnerabilities, and community capacities to support more effective disaster preparedness and response strategies. The exercise served as a participatory platform for residents to contribute insights based on lived experiences.

During the session, participants were guided through basic mapping techniques and engaged in identifying key elements within their locality. This included mapping high-risk zones, community assets, and vulnerable groups, as well as noting important cultural and heritage sites in Mukim Sayong. The activity not only strengthened local awareness but also enhanced the community's ability to participate in risk reduction planning and decision-making processes.



Picture 2: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in Kampung Sayong Tebing and Kampung Sayong Hulu.

8.2.1 Findings

The community risk mapping activity in Mukim Sayong highlighted several important insights related to disaster risk, local knowledge, and cultural heritage. Residents identified various historically and culturally significant sites, including old tombs and sayong crafting industrial, many of which are located in safe area meanwhile housing area was located in flood-prone areas.

In addition, the mapping exercise enabled participants to identify safe zones and evacuation routes that could be used during flood events. Elevated areas and public facilities, such as SK Sayong and SMK Sayong, were recognised as suitable locations for temporary evacuation centres (PPS). The community also mapped nearby water bodies and gained a better understanding of safe evacuation pathways that could be used in the event of a disaster.

"Most residents in Mukim Kota Lama Kiri rely on village-based work, and whenever floods occur, our source of income is affected," said one representative from Kampung Basong.

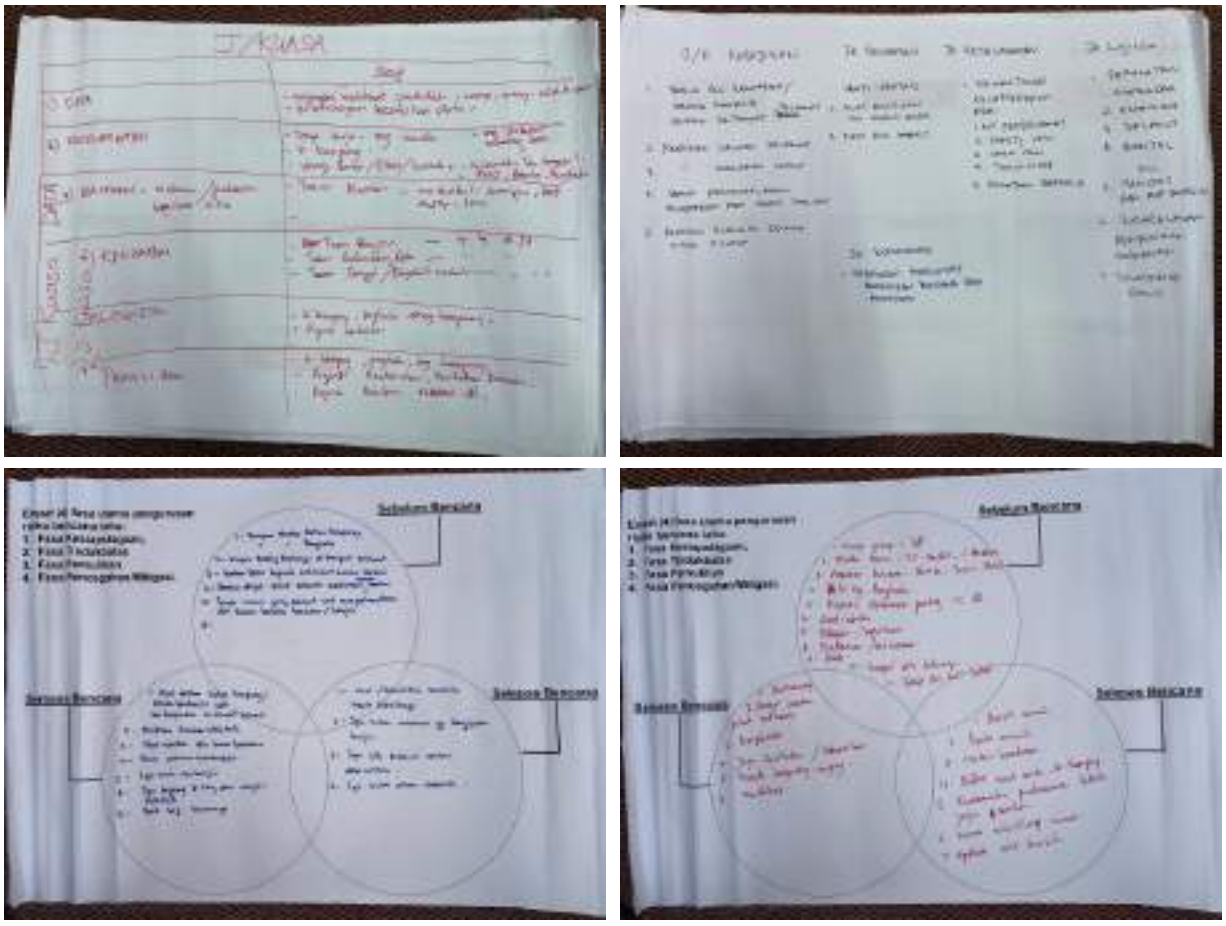
Further findings indicate that low-lying areas along the Perak River are especially vulnerable to flooding. A flood marker, measuring three meters in height, has been installed at the Kampung Sayong Tebing community hall to commemorate the history of a major flood that once affected the village.

The mapping activity also identified the presence of small-scale agricultural activities, such as scattered vegetable plots and paddy fields, which serve as key sources of livelihood for many households in Kampung Sayong Tebing and Kampung Sayong Hulu. However, these agricultural activities are often operated by foreign workers.

Additionally, the renowned Sayong pottery-making industry is widely practiced throughout Mukim Sayong. This traditional craft has been preserved across generations and remains a symbolic cultural heritage of Kuala Kangsar. Most of these economic activities are located in areas with lower disaster risk due to their higher elevation.

8.3 Disaster Management Action Plan

The Disaster Management Action Plan activity aims to establish a community-based disaster organisation to support disaster risk management, with the goal of reducing risks and enhancing the capacity and resilience of the community in facing hazardous situations — across all phases of response, recovery, mitigation, and preparedness.



Picture 3: Outcome of the group discussion on community disaster management for scenarios across four phases—preparedness, response, recovery, and prevention/mitigation

8.3.1 Findings

The establishment of community-level Disaster Management Committees is a critical step in strengthening local preparedness and response capacity in Mukim Sayong. These committees aim to enhance coordination, streamline emergency response, and ensure that vulnerable groups receive timely support during disasters. The proposed structure and functions of each committee are as follows:

Data and Information Management Committee

This committee is tasked with collecting, verifying, and maintaining accurate demographic and household data of community members. The integrity of this data is essential to support efficient decision-making and targeted relief efforts during emergencies.

Safety and Special Operations Committee

Comprised of physically and mentally fit youth volunteers, this committee will:

- Support high-risk groups, including persons with disabilities, women, single mothers, and children.
- Conduct routine patrols and monitor high-risk areas to identify potential hazards.
- Ensure the availability and functionality of essential safety equipment in anticipation of worst-case scenarios.

Relief and Rescue Committee

This committee will coordinate the deployment of critical assets and equipment such as boats, sampans, 4x4 vehicles, and lorries to facilitate evacuation and relief operations effectively.

Health Committee

The Health Committee is responsible for:

- Preparing for and mitigating waterborne disease outbreaks, particularly during flood seasons.
- Disseminating health-related information, including heatwave advisories and dengue prevention measures.
- Providing basic first-aid training and psychosocial support.
- Ensuring sufficient stock of essential medicines and medical supplies.

Logistics Committee

This committee oversees logistical planning and the movement of resources and personnel before, during, and after disaster events. It plays a key role in ensuring coordinated and timely responses.

Recovery Committee

The Recovery Committee will facilitate communication between the community and external agencies, particularly on post-disaster needs related to safety, health, and livelihood restoration.

Communications Committee

This committee ensures that accurate and reliable information is disseminated promptly within the community. It will utilise platforms such as WhatsApp and other digital tools to share critical updates and alerts in real time.

Welfare Committee

Focused on protecting the well-being of disaster-affected individuals, this committee will:

- Channel issues and concerns to the appropriate authorities.
- Facilitate safe and accessible information sharing regarding evacuation centers.
- Ensure the availability of adequate food supplies at evacuation sites.
- Maintain proper records of evacuees entering and leaving relocation centers to uphold safety and accountability.

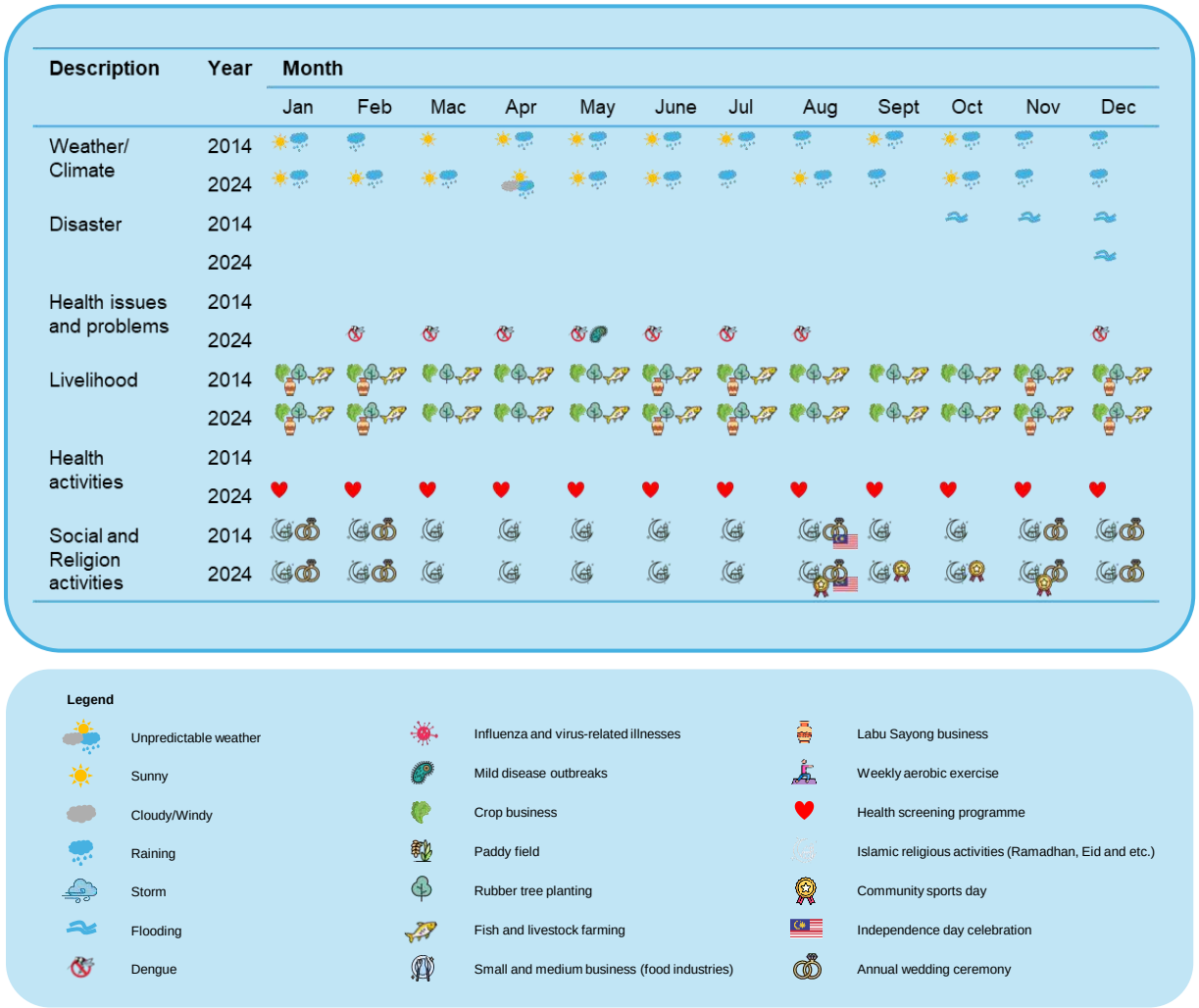
This comprehensive committee structure is designed to build a resilient, informed, and well-prepared community capable of responding effectively to disaster risks and emergencies.

8.4 Seasonal Calendar

A seasonal calendar is a participatory tool designed to help communities map out and understand the timing of key events, activities, and hazards throughout the year. Developed through local input and lived experiences, it visually illustrates the relationships between seasonal changes, climate patterns, livelihood cycles, cultural practices, and disaster risks such as floods, droughts, or disease outbreaks. This tool supports communities in planning and preparing more effectively for recurring challenges.

Picture 5: Outcome of the seasonal calendar activity based on the experiences of the communities from Kampung Sayong Tebing and Kampung Sayong Hulu, comparing the years 2014 and 2024.

8.4.1 Findings



The seasonal calendar activity provided valuable insights into how women in the community perceive and adapt to changes in climate, health, and livelihood patterns between 2014 and 2024. Women highlighted the following key observations:

Climate and Health

In both 2014 and 2024, unpredictable hot and rainy weather was reported. Dengue cases rose in 2024, while no specific health impacts were identified in 2014. Floods occurred from October to December in 2014 and only in December 2024.

Economy and Community Life

Economic activities such as cash crop farming, rubber tapping, livestock rearing, and fishing continued year-round in both years. Labu Sayong production was seasonal, concentrated in January–February, June–July, and November–December. Health programmes were active in 2024 but unrecorded in 2014. Social and religious events, including Ramadan, Hari Raya, National Day, and gotong-royong weddings, remained important in both years.

Evacuation and Emergency Plan Mukim Sayong (Kampung Sayong Tebing and Kampung Sayong Hulu)

Legend

- River Flow
- Flood Area
- Proposed PPS
- Existing PPS
- Proposed Evacuation Route
- Economy Activity
- Tourism and Heritage Site
- Health Facility

9.0 Community Assessment Summary

The community assessment was conducted using assessment forms collected from respondents who answered a set of questions designed to evaluate the community's level of preparedness and understanding in disaster risk management. The assessment focused on the following key components:

- Pre-Assessment Analysis - To gauge the initial awareness, knowledge, and preparedness level of the community before the engagement activities.
- Post-Assessment Analysis - To measure the improvement in understanding and readiness after participating in the programme.
- Evaluation of Community Experience and DRR Practices - To assess the community's past experiences with disasters and their current practices in reducing disaster risks.

9.1 Pre Assessment Analysis

Table 1: Disaster Risk Awareness in Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong: Before attending Community-Based Disaster Risk Reduction Management Initiative

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	2 (8%)	9 (35%)	7 (27%)	6 (23%)	2 (8%)
2.	I know the importance of effective disaster risk reduction (DRR).	5 (19%)	12 (46%)	3 (12%)	6 (23%)	0 (0%)
3.	I know actions to reduce disaster risks for myself and my community.	5 (19%)	7 (27%)	9 (35%)	4 (15%)	1 (4%)
4.	I understand what outbreaks are and how diseases spread.	4 (15%)	9 (35%)	4 (15%)	8 (31%)	1 (4%)
5.	I know the types of health threats and harmful diseases.	6 (23%)	5 (19%)	3 (12%)	11 (42%)	1 (4%)
6.	I know good practices to maintain personal and community health.	3 (12%)	7 (27%)	4 (15%)	9 (35%)	3 (12%)
7.	I understand the negative impacts of disasters.	8 (31%)	2 (8%)	10 (38%)	5 (19%)	1 (4%)
8.	I know why building personal and community resilience is important.	9 (35%)	7 (27%)	6 (23%)	3 (12%)	1 (4%)
9.	I know effective ways to build resilience.	9 (35%)	4 (15%)	10 (38%)	2 (8%)	1 (4%)
10.	I can identify high-risk or dangerous areas in my community.	7 (27%)	5 (19%)	8 (31%)	6 (23%)	0 (0%)
11.	I know the safe places in my community.	8 (31%)	3 (12%)	6 (23%)	8 (31%)	1 (4%)
12.	I know how to strengthen community capacity to face disasters.	9 (35%)	3 (12%)	10 (38%)	4 (15%)	0 (0%)
13.	I understand the importance of a community-level Disaster Management Committee.	7 (27%)	6 (23%)	4 (15%)	8 (31%)	1 (4%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
14.	I know the key units needed in a Disaster Management Committee.	7 (27%)	4 (15%)	10 (38%)	4 (15%)	1 (4%)
15.	I know the roles of each unit in the Disaster Management Committee.	8 (31%)	4 (15%)	9 (35%)	4 (15%)	1 (4%)
		97 (12%)	**87 (11%)**	**103 (13%)**	**88 (11%)**	**15 (2%)**

Out of 41 participants from Kampung Sayong Tebing and Kampung Sayong Hulu, only 26 responded to the survey. Based on Table 1 above, most respondents reported only moderate clarity on disaster risk reduction, health threats, and community resilience, with the highest responses in the "Somewhat Clear" (13%) and "Clear" (11%) categories. However, a notable portion still felt "Not Clear" (12%) or "Less Clear" (11%), especially regarding resilience-building and disaster management roles.

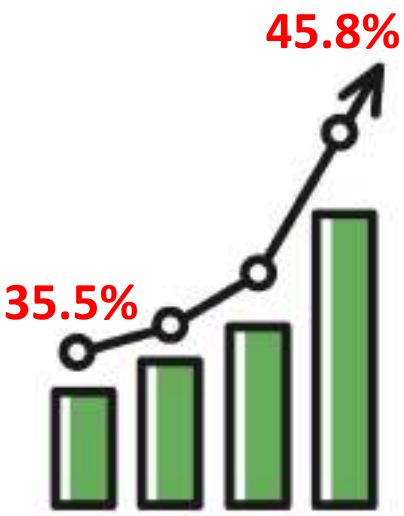
These findings suggest that while a basic level of awareness exists among the respondents, significant gaps remain in their deeper understanding and confidence, especially in key areas related to disaster preparedness and health. The results highlight the need for targeted education and training initiatives to improve knowledge and build stronger community resilience, ensuring that more residents are well-equipped to manage and respond to disasters and health emergencies in the future.

9.2 Post Assessment Analysis

Table 2: Disaster Risk Awareness in Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong: After attending Community-Based Disaster Risk Reduction Management

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	5 (19%)	1 (4%)	2 (8%)	9 (35%)	9 (35%)
2.	I know the importance of effective disaster risk reduction (DRR).	6 (23%)	1 (4%)	4 (15%)	6 (23%)	9 (35%)
3.	I know actions to reduce disaster risks for myself and my community.	6 (23%)	0 (0%)	3 (12%)	7 (27%)	10 (38%)
4.	I understand what outbreaks are and how diseases spread.	5 (19%)	0 (0%)	3 (12%)	11 (42%)	7 (27%)
5.	I know the types of health threats and harmful diseases.	6 (23%)	0 (0%)	3 (12%)	9 (35%)	8 (31%)
6.	I know good practices to maintain personal and community health.	6 (23%)	0 (0%)	3 (12%)	7 (27%)	10 (38%)
7.	I understand the negative impacts of disasters.	8 (31%)	1 (4%)	4 (8%)	8 (31%)	5 (19%)
8.	I know why building personal and community resilience is important.	9 (35%)	1 (4%)	2 (12%)	8 (31%)	6 (23%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
9.	I know effective ways to build resilience.	7 (27%)	0 (0%)	3 (12%)	10 (38%)	6 (23%)
10.	I can identify high-risk or dangerous areas in my community.	8 (31%)	1 (4%)	3 (12%)	7 (27%)	7 (27%)
11.	I know the safe places in my community.	8 (31%)	1 (4%)	1 (4%)	8 (31%)	8 (31%)
12.	I know how to strengthen community capacity to face disasters.	8 (31%)	0 (0%)	4 (15%)	9 (35%)	5 (19%)
13.	I understand the importance of a community-level Disaster Management Committee.	7 (27%)	0 (0%)	1 (4%)	9 (35%)	9 (35%)
14.	I know the key units needed in a Disaster Management Committee.	9 (35%)	0 (0%)	1 (4%)	9 (35%)	7 (27%)
15.	I know the roles of each unit in the Disaster Management Committee.	9 (35%)	1 (4%)	1 (4%)	11 (42%)	4 (15%)
		107 (13%)	7 (1%)	38 (5%)	128 (16%)	110 (14%)



Meanwhile in Table 2, among 26 respondents from Kampung Sayong Tebing and Kampung Sayong Hulu, most (16% "Clear," 14% "Very Clear") showed good understanding of disaster and health concepts, with 35-38% "Very Clear" on topics like DRR and health practices. However, significant gaps (13% "Not Clear," 1% "Less Clear") emerged for concepts like resilience building, identifying high-risk areas, and understanding Disaster Management Committee roles, where 35% were "Not Clear." This highlights the need for targeted training to boost overall community preparedness.

Overall, the percentage increase in community understanding of disaster risk management after participating in the community-based disaster risk management programme, from 35.5% to 45.8%, is 10.3 percentage points. This represents an approximate 29.01% increase relative to the original value of 35.5%.

9.3 Evaluating Community Experience and Disaster Risk Reduction Practices

Table 3: Average score disaster risk management and preparedness among community

	Average Score
Experienced in disaster	(0.60) Moderate
Knowledge in disaster risk management	(0.67) Risky
Losses suffered	(0.62) Moderate
Action and planning in disaster management	(0.59) Moderate
Community recovery strategies and action plan	(0.57) Moderate
Environmental cleanliness and health standards	(0.66) Risky

A survey involving 26 individual from Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong indicates that the community's preparedness for disaster risk management is at moderate level, with an average readiness score of 3.7 out of 6.

The assessment covered six (6) key areas:

i. Experience with past disasters
ii. Knowledge of disaster risk management
iii. Losses sustained from disasters
iv. Actions and planning for disaster response
v. Community recovery strategies
vi. Environmental cleanliness and health standards

Table 3 presents the results of an assessment conducted in Kampung Sayong Tebing and Kampung Sayong Hulu reveals that both communities have a moderate level of exposure to disaster events, with many residents having experienced flooding in the past (score: 0.60). However, their knowledge of disaster risk management remains low and falls within a risky category (score: 0.67), indicating limited awareness and understanding of appropriate preparedness and response strategies.

The level of losses suffered during past disasters is moderate (score: 0.62), though it is notable that there a fatalities have been recorded in 2014. In terms of disaster management actions and planning, both communities show a moderate level of preparedness (score: 0.59), but lack formal structures and coordinated efforts. Community recovery strategies are also moderately rated (score: 0.57), reflecting the need for more systematic post-disaster recovery plans.

Lastly, environmental cleanliness and health standards in both villages are at a risky level (score: 0.66), suggesting that while basic conditions are in place, improvements are necessary to support overall community resilience. These findings indicate the urgent need to strengthen disaster education, promote risk reduction planning, and build local capacity to ensure a more effective and sustainable disaster management framework in both communities.

Figure 1: Radar Chart of Average Community Scores on Disaster Risk Management and Preparedness for Mukim Sayong

This figure illustrates the average scores across six key indicators: disaster experience, knowledge in disaster risk management, losses suffered, action and planning in disaster management, community recovery strategies, and environmental cleanliness and health standards. Mukim Sayong scored moderate levels in most areas, with knowledge in disaster risk management and environmental cleanliness and health standards scoring the highest, falls within the risky category. These results suggest that while the community demonstrates awareness and limited preparedness, there is a pressing need to strengthen recovery strategies and translate knowledge into more effective disaster management practices.

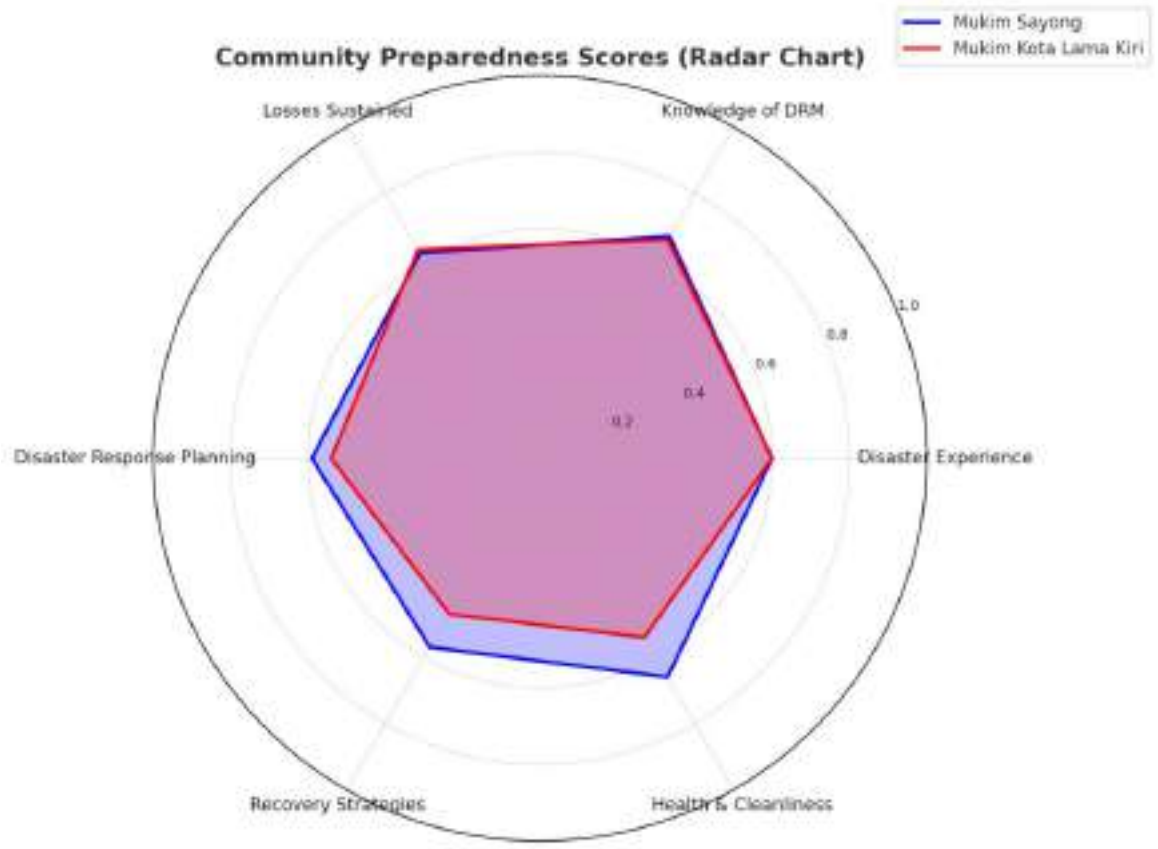


Figure 2: Comparative Radar Chart of Average Community Scores on Disaster Risk Management and Preparedness for Mukim Sayong and Mukim Kota Lama Kiri.

The comparative analysis indicates that Mukim Sayong demonstrates relatively stronger performance in disaster risk management and preparedness, particularly in the areas of action and planning, community recovery strategies, and environmental cleanliness and health standards, thereby reflecting enhanced resilience-building capacity when compared to Mukim Kota Lama Kiri. Conversely, Mukim Kota Lama Kiri records marginally higher scores in losses suffered, which suggests greater exposure to disaster impacts rather than improved preparedness. Both mukims exhibit comparable levels of disaster experience and knowledge in disaster risk management; however, the latter remains within the “risky "category, underscoring the gap between awareness and effective implementation. Overall, Mukim Sayong illustrates stronger adaptive capacity, yet both communities require targeted interventions to strengthen recovery planning and sustain long-term community-based preparedness strategies. In this regard, local authorities and policymakers should prioritise capacity-building programmes, community-based disaster drills, and integrated recovery planning to translate awareness into effective resilience outcomes.

10.0 Respondents Analysis

A total of 41 individuals participated in the community engagement activity. The demographic breakdown by gender and age group is presented below:

Gender Distribution
- Female participants: 28 respondents (68.3%)
- Male participants: 13 respondents (31.7%)

This indicates slightly higher engagement from women within the community.

Table 3: Age Group Distribution by Gender

Age Group	Male	Female	Total
13–17	4	1	5
18–24	0	1	1
25–30	1	0	1
31–40	2	8	10
41–50	0	3	3
51 and above	6	15	21

Key Observations
- Many participants are aged 51 and above, with several in their 60s and 70s, indicating high involvement from older adults.
- Only a few participants are teenagers (ages 10–17), with just 4 individuals (10%) in this group, suggesting low youth engagement.
- While females outnumber males in most age groups, the youngest group (ages 10–13) includes both genders, but older groups are predominantly female.
- Out of 41 participants, 28 are female (68%) and 13 are male (32%), showing a strong female majority.

The participant list from Kampung Sayong Tebing and Kampung Sayong Hulu is largely female, with women making up over two-thirds of the group. Most participants are older adults, particularly those aged 51 and above, while youth and young adults are underrepresented. Middle-aged adults also participate, but to a lesser extent. These trends highlight strong engagement from older women and suggest a need to encourage more involvement from younger community members and men to achieve a more balanced and inclusive community programme.

Table 4: List of CBDRM recipients in Mukim Sayong, Kuala Kangsar

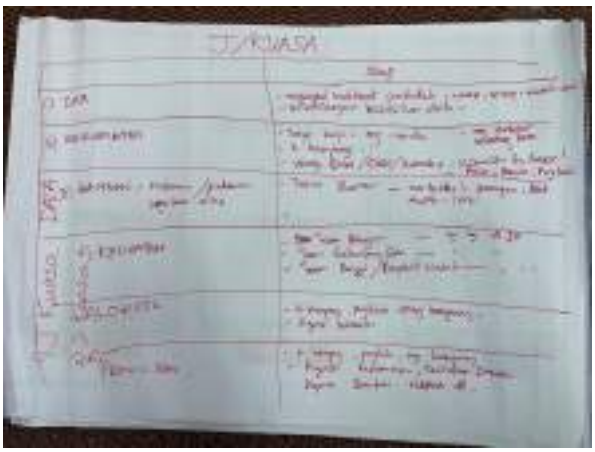
No	Name	Gender	Age
1	Jama Atis Binti Haji Abdullah	Female	53
2	Zainab Binti Zainal	Female	73
3	Hamidah Binti Alang Abdullah	Female	74
4	Ainun Zakiah Binti Shaarom	Female	65
5	Nor Afifi Binti Azmi	Female	34
6	Lela Wati Binti Mad Zahari	Female	58
7	Nor Fazilah	Female	37
8	Mohd Farish Daniel	Male	14
9	Haliza Binti Abdul Ralim	Female	64
10	Khadijah Binti Lebai Said	Female	79
11	Roshelan Binti Mohd Tahir	Female	65
12	Mohd Asri Abdul Rahman	Male	59
13	Muhammad Izadin Bin Mohd Hanifah	Male	33
14	Nur Atikah	Female	31
15	Nurul Farahain	Female	33
16	Mohd Fitri	Male	27
17	Salmi Binti Abdul Syukur	Female	54
18	Saleha Binti Mad Daleh	Female	67
19	Rosliza Binti Razali	Female	39
20	Ismail Akhir Bin Muhammed	Male	37
21	Affandi Bin Azmi	Male	38
22	Abdul Razak	Male	68
23	Azizul	Male	13
24	Muhayyad	Male	13
25	Sriraayah	Female	67
26	Azizah Binti Yang Ghazali	Female	76
27	Irosyina Zainal Baharin	Female	40
28	Rahaidah Binti Isa	Female	49
29	Sadatul Nor Suhaida	Male	38
30	Mohd Zainudin Mokhtar	Male	57
31	Nor Azwa Binti Sabawi	Female	58
32	Nur Zuliana Binti Ramli	Female	40
33	Aesyah Azizah Maryam Nur Alam	Female	13
34	Rose Hakimah Binti Mohd Raus	Female	58
35	Balqis Almaris Mohd Isma Rais	Female	10
36	Kalthom Binti Yeob Md Sah	Female	61
37	Zaleha Haji Sabri	Female	60
38	Musawwir Bin Badri	Male	33
39	Nur Mellisa Safiyyah Binti Mokhtar Rulnizam	Female	22
40	Mokhtar Rulnizam Bin Mohamed	Male	39
41	Mohd Azhar Bin Mat Nor	Male	63

11.0 Appendix





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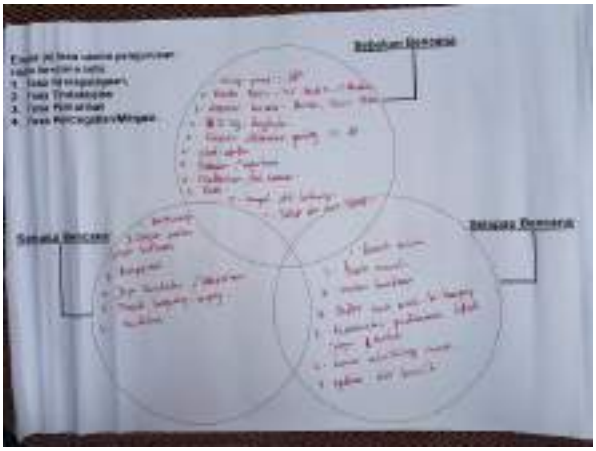
Selepas Bencana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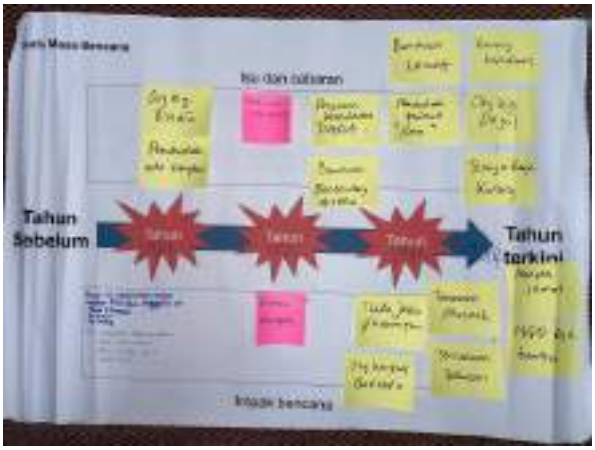
Selepas Bencana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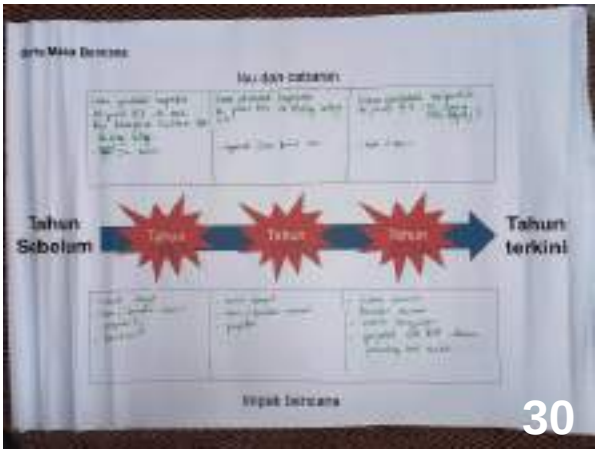
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mercy

12.0 Appreciation

MERCY Malaysia HQ
Mr Shahril Idris, Programme Officer

CBDRM Subject Matter Expert
Mr Ezzat Fahmi Ahmad
Mr Azman Zainonabidin
Dr Siew Qui Hen
Ms Yuhainis Abdul Talib
Mr Satheesh a/l Nadaraja
Ms Nur Athirah Sakah

Think City
Dr Yogeswary Chellapan, Senior Manager
Ms Pooveneswary Nagaiah, Associate

thinkCITY
Bersama Membentuk Bandar Berdaya Huni.

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YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

COMMUNITY-BASED DISASTER RISK MANAGEMENT (CBDRM)

MUKIM KOTA LAMA KIRI, KUALA KANGSAR

Table of Contents

1.0 Background

The Community-Based Disaster Risk Management (CBDRM) project is a strategic collaboration between Think City and MERCY Malaysia, designed to enhance community resilience by integrating cultural heritage, traditional knowledge, and livelihood-based economies into disaster risk reduction efforts. Recognising the unique cultural landscape of the community, this initiative aims to systematically document indigenous and locally rooted practices that contribute to disaster resilience. The collected knowledge will not only serve as a reference for government agencies and policy-makers but also as a transferable model for other communities facing similar vulnerabilities. By bridging cultural preservation with risk management, the project contributes to more inclusive, adaptive, and sustainable disaster preparedness at both local and regional levels.

2.0 Objectives

i. To strengthen community resilience by integrating elements of cultural heritage, traditional knowledge, and livelihood-based practices into comprehensive disaster risk reduction strategies.

ii. To systematically document and disseminate indigenous and locally rooted resilience practices, providing a valuable reference for government agencies, policy-makers, and as a replicable model for other communities facing similar disaster-related vulnerabilities.

3.0 Programme Summary

Programme	Community-Based Disaster Risk Management (CBDRM) at Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri, Kuala Kangsar
Date	May 17th, 2025 (Saturday)
Time	08:00 am to 13:00 pm
Venue	Masjid Hidayatul Ummah, Kota Lama Kiri
Total Fund	RM196,000
Funder	Think City
Recipients	53 recipients

4.0 Programme Agenda

Time	Activities
8:00 am – 8:15 am	Registration and breakfast
8:15 am – 8:30 am	Welcoming speech and introduction - Chief Village Kampung Jias and Kampung Basong - Think City - MERCY Malaysia
8:30 am – 8:35 am	CBDRM Pre-Assessment
8:35 am – 12:05 pm	**Capacity Building** **Module 1: Introduction to Disaster Risk Management** (Understanding the basic phases of disaster risk reduction, and the concept of disaster risk based on hazard, vulnerability, and capacity) Speaker: Ts Dr Dzulkarnaen Ismail Fasilitator: 1. Ms Nur Yasmin Ahmad Jaafar 2. Ms Nur Mashitah Amaludin 3. Dr Ruzita Mustaffa 4. Mr Zaidin Ismail 5. Ts Mohd Nasurudin Hasbullah **Module 2: Community Preparedness in Disaster** (Understanding of the importance and effective preparedness measures in facing disasters) Speaker: Ts Dr Dzulkarnaen Ismail Fasilitator: 1. Ms Nur Yasmin Ahmad Jaafar 2. Ms Nur Mashitah Amaludin 3. Dr Ruzita Mustaffa 4. Mr Zaidin Ismail 5. Ts Mohd Nasurudin Hasbullah

8:35 am – 12:05 pm

Module 3: Community-Based Disaster Management

(Exposure of the community to activities and implementation of preparedness measures in facing disasters)

Speaker: Mr Zaidin Ismail

Fasilitator:
1. Ms Nur Yasmin Ahmad Jaafar
2. Ms Nur Mashitah Amaludin
3. Dr Ruzita Mustaffa
4. Ts Dr Dzulkarnaen Ismail
5. Ts Mohd Nasurudin Hasbullah

Module 4: Site Observation

(Understanding the local community's awareness in the mitigation and preparedness phases of disaster management to develop their own disaster action plan with a systematic map)

Speaker by Ts Mohd Nasurudin Hasbullah

Fasilitator:
1. Ms Nur Yasmin Ahmad Jaafar
2. Ms Nur Mashitah Amaludin
3. Dr Ruzita Mustaffa
4. Ts Dr Dzulkarnaen Ismail
5. Mr Zaidin Ismail

Module 5: Disaster Action Plan

(Basic understanding in community-based disaster action plans, including the formation of committees and methods of information sharing)

Speaker by Ts Mohd Nasurudin Hasbullah

Fasilitator:
1. Ms Nur Yasmin Ahmad Jaafar
2. Ms Nur Mashitah Amaludin
3. Dr Ruzita Mustaffa
4. Ts Dr Dzulkarnaen Ismail
5. Mr Zaidin Ismail

12:05 pm – 12:30 pm	**Heatwave Preparedness and Response Planning** (Discussion on community understanding of climate change and extreme heat risks, as well as risk reduction methods for heatwaves at both individual and community levels) Speaker by Dr Ruzita Mustaffa
12:30 pm – 12:35 pm	CBDRM Post-Assessment
12:35 pm – 13:00 pm	- Lunch - Lucky Draw - Photography session
13:00 pm	Disperse

5.0 Overview of Mukim Kota Lama Kiri

Based on the Draft Local Plan for Kuala Kangsar District 2035 (Replacement), Mukim Kota Lama Kiri is situated within Planning Block (BP) 1.3, encompassing a land area of 33,148.36 hectares. The report indicates that 12.04% of the area is designated as built-up, while 87.96% remains as non-built-up land, offering ample space for sustainable development and conservation initiatives. Mukim Kota Lama Kiri is blessed with a wealth of unique cultural and heritage assets, such as forest-based crafts, and heritage homes. These elements contribute to the area's identity and offer strong potential for heritage-based tourism and community empowerment, ensuring that local traditions are preserved and celebrated for generations to come. While the area is located near the Perak River basin, which is susceptible to flooding, this presents an opportunity to strengthen disaster resilience, enhance infrastructure planning, and implement community-based disaster risk management. By embracing proactive strategies, Mukim Kota Lama Kiri can continue to thrive as a culturally rich and resilient community.

5.1 Flood Risks and Community Conditions

The flood history of Mukim Kota Lama Kiri mirrors the broader pattern of riverine flood vulnerability in the Kuala Kangsar district. Significant flood events in 1967/1969, 1993, 2014, and most recently in May 2024 have had substantial social and economic consequences for the local communities. These recurring incidents highlight the persistent exposure of the area to flood risks, particularly due to its geographical location along the Perak River.

Flooding in Mukim Kota Lama Kiri is primarily driven by intense monsoonal rainfall and the overflow of the Perak River. The low-lying topography of the riverbanks makes the area particularly susceptible to rapid rises in water levels, especially during periods of heavy rain or when water is released from upstream reservoirs such as the Cenderoh Dam. The 2024 flood was further aggravated by dam water releases, necessitating the activation of temporary relief centers to accommodate displaced residents.

According to residents of Kampung Jias and Kampung Basong, during the flash flood on May 18, 2024, approximately 28 individuals from 16 families were evacuated and temporarily relocated to the relief centre at Sekolah Kebangsaan Clifford, Kuala Kangsar. The repeated occurrence of severe floods over the decades underscores the urgent need for continued investment in flood risk reduction measures, including enhanced monitoring, early warning systems, and sustainable flood mitigation infrastructure. The persistent vulnerability of Mukim Kota Lama Kiri demands a coordinated and proactive approach to strengthen community resilience against future flood events.

5.2 Community Profile

Mukim Kota Lama Kiri is located in Kuala Kangsar, Perak, along the Perak River. It includes several traditional Malay villages with strong cultural heritage and historical links to the Perak Sultanate. While the river supports farming and tourism, it also causes frequent flooding in the area. The local economy depends on small-scale farming, such as paddy and fruit planting, and traditional crafts. Some families also earn from informal tourism related to the area's history and riverside attractions.

However, these income sources are seasonal and easily affected by floods, leading to financial insecurity. The area is rich in cultural assets, including old wooden houses, mosques, suraus, cemeteries, and village customs. These are important to the community's identity but are at risk due to repeated floods and a lack of proper protection or documentation.

According to the Kuala Kangsar District Local Plan 2035, the population of Mukim Kota Lama Kiri was approximately 27,200 in the year 2025, with a projected annual growth rate of 0.41%. The majority of the population in the area is Malay and resides in rural settings. A significant number of young people have migrated to urban areas in search of better education and employment opportunities, resulting in an ageing population being left behind. This demographic shift impacts the community's capacity to preserve cultural traditions and respond effectively to emerging challenges. Approximately 53 individuals from Mukim Kota Lama Kiri participated in the Community-Based Disaster Risk Management (CBDRM) initiative held at Masjid Hidayatul Ummah, representing around 0.19% of the total population of the mukim.

5.3 Key Issues

i. Traditional knowledge and cultural practices are not fully integrated into disaster risk reduction and resilience planning.

ii. Weak preservation efforts increase the risk of losing significant cultural assets during disasters.

iii. Economic activities such as small-scale farming, handicrafts, and informal tourism are highly vulnerable to disruption, with limited capacity for recovery.

iv. An ageing population with limited mobility remains, while younger generations migrate in search of better opportunities, weakening local capacity and continuity.

6.0 Community Based Disaster Risk Management

Kuala Kangsar, known for its rich cultural heritage and traditional livelihoods, is increasingly vulnerable to the impacts of recurrent flooding. These flood events not only pose risks to lives and infrastructure but also threaten the preservation of heritage assets and the community's economic stability, particularly in sectors such as small-scale tourism, agriculture, and traditional crafts.

In response to these challenges, the implementation of a Community-Based Disaster Risk Management (CBDRM) programme is proposed in Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri to enhance local resilience through a culturally grounded and community-led approach. The programme seeks to build capacity among residents by providing practical knowledge and skills in disaster risk reduction, while actively incorporating local wisdom and traditional practices into preparedness and response strategies.

By engaging all segments of the community, including vulnerable groups, this initiative aims to foster inclusive participation, strengthen community ownership, and ensure the protection of both cultural values and economic livelihoods. Ultimately, this approach supports long-term resilience and sustainability in the face of climate-related risks.

7.0 Key Activities and Focus Areas

i. Conduct training sessions on disaster prevention, preparedness, and response for local residents.

ii. Involve vulnerable groups in leadership roles to ensure representation and equity in disaster planning.

iii. Incorporate local traditions and knowledge into disaster management to enhance relevance and acceptance.

iv. Strengthen community resilience by building practical skills and promoting self-reliance in disaster response.

8.0 Summary of Capacity Building

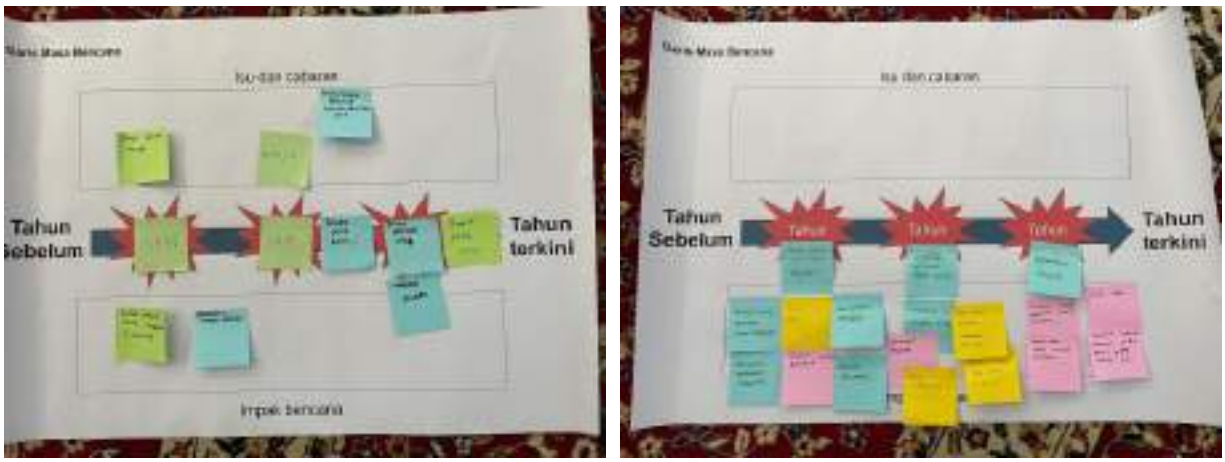
The capacity-building activity in Mukim Kota Lama Kiri involved a total of 53 people (male and female participants) from Kampung Jias and Kampung Basong (for full details, please refer to Section 10.0: Respondents Analysis). This hands-on session was conducted at the Dewan Sayong Tebing, facilitated by a CBDRM subject matter expert, who provided exposure, knowledge sharing, and guidance on community-level disaster risk management. Key activities carried out during the session included:

- Disaster timeline-related activities
- Risk Mapping
- Disaster Management Action Plan
- Seasonal Calendar

These participatory exercises aimed to empower the local community with practical tools and strategies to enhance their preparedness and resilience against potential disasters.

8.1 Disaster timeline-related activities

This activity focused on documenting and discussing the history of disasters that have impacted the settlement area in Mukim Kota Lama Kiri, with particular attention to their effects on the community's daily life over both the short and long term. The session provided a platform for community members to share personal experiences, highlight challenges encountered during and after disaster events, and identify key issues that continue to affect local resilience.



Picture 1: Outcome of the discussion and information sharing on issues, challenges, and disaster impacts based on the disaster timeline experienced by the communities of Kampung Jias and Kampung Basong.

8.1.1 Findings

The Kuala Kangsar District experienced significant flooding in the years 1967, 1969, and 1974. These events resulted in extensive damage to residential properties and household belongings. Numerous homes were submerged, and affected residents were temporarily relocated to nearby schools, which, at the time, had not yet been gazetted as official Temporary Evacuation Centres (PPS).

In 2009, Mukim Kota Lama Kiri recorded a flash flood that caused notable damage to private property. The incident highlighted the area's vulnerability to sudden, high-intensity rainfall and insufficient drainage capacity.

A major flood event occurred in 2014, severely impacting Mukim Kota Lama Kiri. The disaster caused extensive property damage and significant disruption to the local economy. Livelihoods dependent on agriculture and aquaculture were particularly affected, with the destruction of crops, livestock, and fish cage farms.

The community also faced critical shortages of food and electricity supply, leading to prolonged hardship while awaiting aid from government agencies and non-governmental organisations (NGOs). Most affected residents were evacuated to nearby PPS. During this period, incidents of strong wind and storm damage were also reported, contributing to further property loss.

Between 2020 and 2021, the COVID-19 pandemic severely affected the community in Mukim Kota Lama Kiri. At least 10 fatalities were recorded. Movement restrictions and mandatory social distancing measures resulted in the loss of income for many residents and significantly impacted day-to-day activities.

In 2023, Mukim Kota Lama Kiri experienced a series of disaster events, including flooding, windstorms, and drought. The floods disrupted local economic activities, damaging homes, shops, and small farms.

Subsequently, strong windstorms caused structural damage, including uprooted trees and damaged rooftops. A prolonged drought followed, resulting in significant agricultural losses, livestock deaths—particularly in the aquaculture sector—and several reported cases of heatstroke, mainly among children. These events highlighted the community's vulnerability to recurring and compounding climate-related hazards.

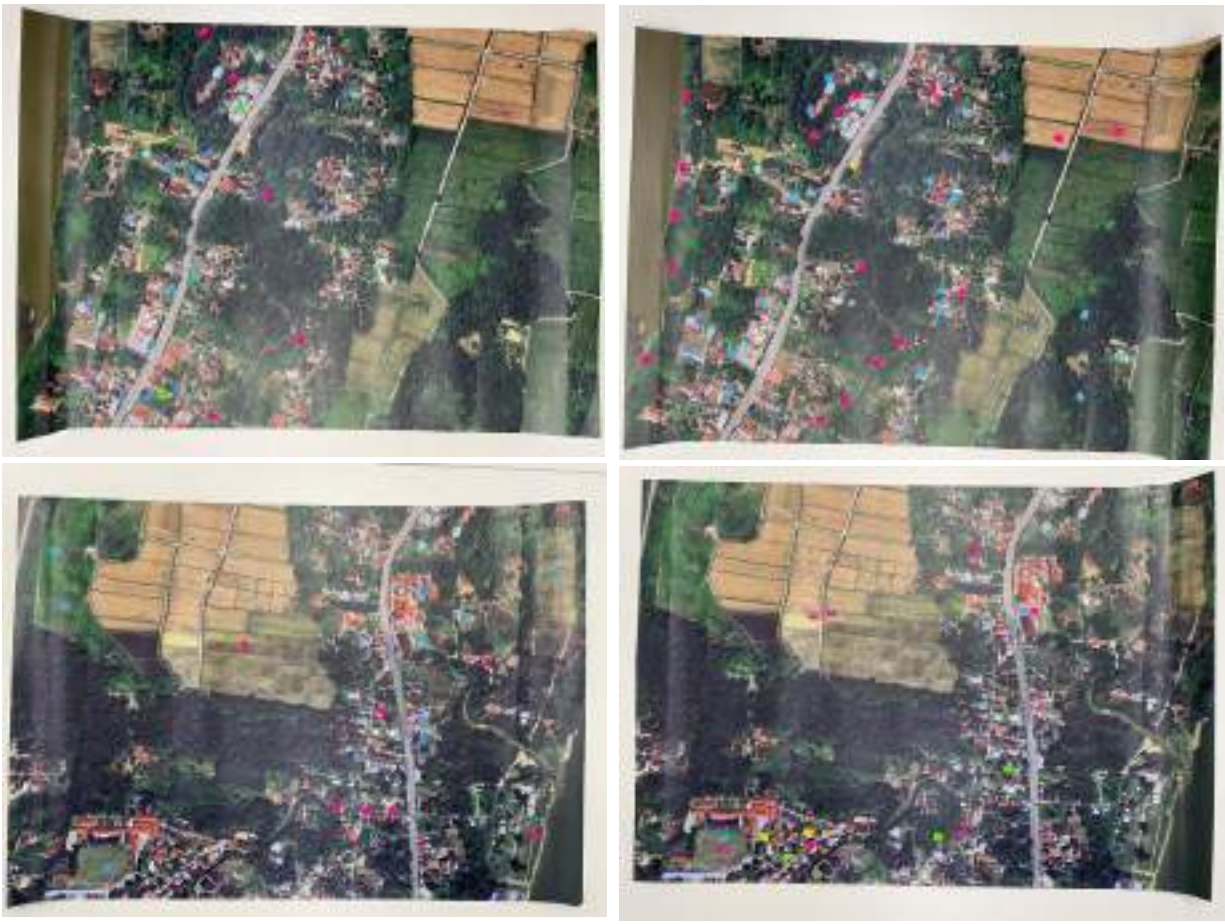
Towards the end of 2024, another flood event resulted in damage to at least 10 residential homes in Mukim Kota Lama Kiri. Concurrently, a rise in dengue cases was recorded across the Kuala Kangsar District, including within the mukim, further straining local health and emergency response systems during an already challenging disaster season.

"The dam built by TNB can help reduce big floods like the one in 1969. However, it's still important to share and promote community preparedness through programmes like this," expressed the head of Kampung Basong

8.2 Risk Mapping

A community risk mapping activity was conducted with the objective of gathering local knowledge on hazard-prone areas, vulnerabilities, and community capacities to support more effective disaster preparedness and response strategies. The exercise served as a participatory platform for residents to contribute insights based on lived experiences.

During the session, participants were guided through basic mapping techniques and engaged in identifying key elements within their locality. This included mapping high-risk zones, community assets, and vulnerable groups, as well as noting important cultural and heritage sites in Mukim Kota Lama Kiri. The activity not only strengthened local awareness but also enhanced the community's ability to participate in risk reduction planning and decision-making processes.



Picture 2: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in Kampung Jias and Kampung Basong.

8.2.1 Findings

The community risk mapping activity in Mukim Kota Lama Kiri highlighted several important insights related to disaster risk, local knowledge, and cultural heritage. Residents identified various historically and culturally significant sites, including old tombs and heritage homes, many of which are located in flood-prone areas. These sites are considered vital for preserving the community's cultural identity and educating future generations on their ancestral heritage.

In addition, the mapping exercise enabled participants to identify safe zones and evacuation routes that could be used during flood events. Elevated areas and public facilities, such as SK Datin Khadijah, were recognised as suitable locations for temporary evacuation centres (PPS). The community also mapped nearby water bodies and gained a better understanding of safe evacuation pathways that could be used in the event of a disaster.

Further findings revealed that low-lying areas along the Perak River and within Kampung Banjir are particularly susceptible to flooding. Flash floods, usually triggered by heavy rainfall, may occur within a few hours and last several days depending on water flow and local drainage infrastructure. Floodwater levels are typically estimated between 0.6 to 1.2 metres, ranging from knee to waist height.

The mapping activity also documented the presence of small-scale agricultural activities, including scattered vegetable farming and paddy cultivation, which are common livelihood sources for many households in the mukim. Additionally, cage fish farming (ikan sangkar) in the Perak River was identified as a significant local economic activity. These sectors are especially vulnerable to flooding and extreme weather events, which can result in loss of income and damage to crops and aquaculture infrastructure.

"Most residents in Mukim Kota Lama Kiri rely on village-based work, and whenever floods occur, our source of income is affected," said one representative from Kampung Basong.

The insights gathered from this activity are essential for informing local disaster preparedness plans, protecting livelihoods, and ensuring the resilience of both the community and its cultural assets.

"Usually, any announcements about programmes or emergencies are shared through social media platforms like WhatsApp, Facebook and TikTok," said a resident of Kampung Jias

8.3 Disaster Management Action Plan

The Disaster Management Action Plan activity aims to establish a community-based disaster organisation to support disaster risk management, with the goal of reducing risks and enhancing the capacity and resilience of the community in facing hazardous situations — across all phases of response, recovery, mitigation, and preparedness.

Picture 3: Outcome of the group discussion on self, family, and community disaster management for scenarios before, during, and after a disaster and emergency actions and responses across four phases—preparedness, response, recovery, and prevention/mitigation—before, during, and after a disaster

8.3.1 Findings

The Disaster Management Action Plan is structured into three key phases — Preparedness, Response, Recovery and Mitigation — each with clearly defined objectives and committees to strengthen community resilience and coordination during flood events.

Preparedness

- Ensure people with disabilities (PWDs), such as those using wheelchairs, bedridden patients, and the elderly, are identified and their needs assessed.
- Pack essential emergency items, including first aid kits, medications, important documents, and personal necessities.
- Share early warnings and emergency preparedness information with family members and local residents. Participation in disaster risk management programmes is highly encouraged.
- Prepare an emergency kit with all critical items needed during evacuation or emergency situations.
- Save contact numbers of key safety and emergency response agencies for quick access when needed.

"Through this programme, we are able to understand the roles and responsibilities of the community safety committee members, which will help improve flood disaster management in the future," said an unnamed community member.

Responses

- Stay alert and follow evacuation orders or safety directives issued by emergency agencies to move to the nearest Temporary Evacuation Centre (PPS).
- Rely only on trusted and official news outlets for updates and instructions.
- Ensure your pre-packed emergency kit is with you during evacuation.
- Be aware of the appropriate emergency agencies to contact based on the type of crisis.
- Provide timely information to the Village Community Management Council (JPKK) or relevant emergency authorities for effective response and planning.
- Switch off the main power source to prevent hazards such as electric shocks.
- Ensure that at-risk groups, including children, the elderly, and persons with disabilities, receive priority during rescue operations.

Recovery and Mitigation

- Get medical attention or counseling if needed to recover from injuries or trauma.
- Work together with neighbours to clean up the area and reduce the risk of waterborne or vector-borne diseases.

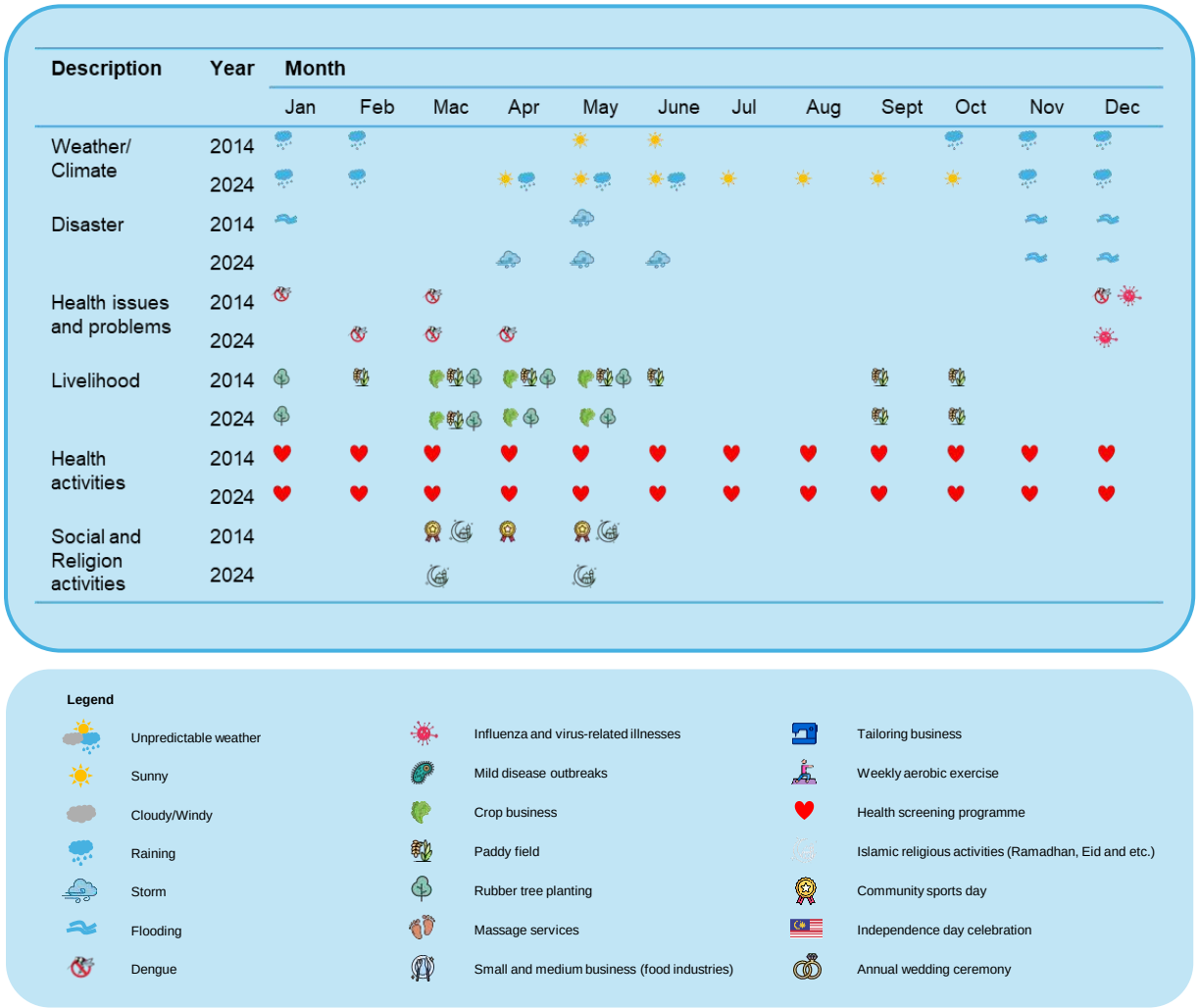
"This programme can help the community be better prepared to face future flood situations," expressed the head of Kampung Basong

8.4 Seasonal Calendar

A seasonal calendar is a participatory tool designed to help communities map out and understand the timing of key events, activities, and hazards throughout the year. Developed through local input and lived experiences, it visually illustrates the relationships between seasonal changes, climate patterns, livelihood cycles, cultural practices, and disaster risks such as floods, droughts, or disease outbreaks. This tool supports communities in planning and preparing more effectively for recurring challenges.

Picture 5: Outcome of the seasonal calendar activity based on the experiences of the communities from Kampung Jias and Kampung Basong, comparing the years 2014 and 2024.

8.4.1 Findings



The seasonal calendar activity provided valuable insights into the lived experiences of the community and highlighted changes in weather patterns, livelihoods, and health conditions over the past decade. This exercise not only served as a tool for assessing seasonal variations but also supported collective planning by linking economic activities and health challenges with environmental changes.

Weather Patterns and Natural Events

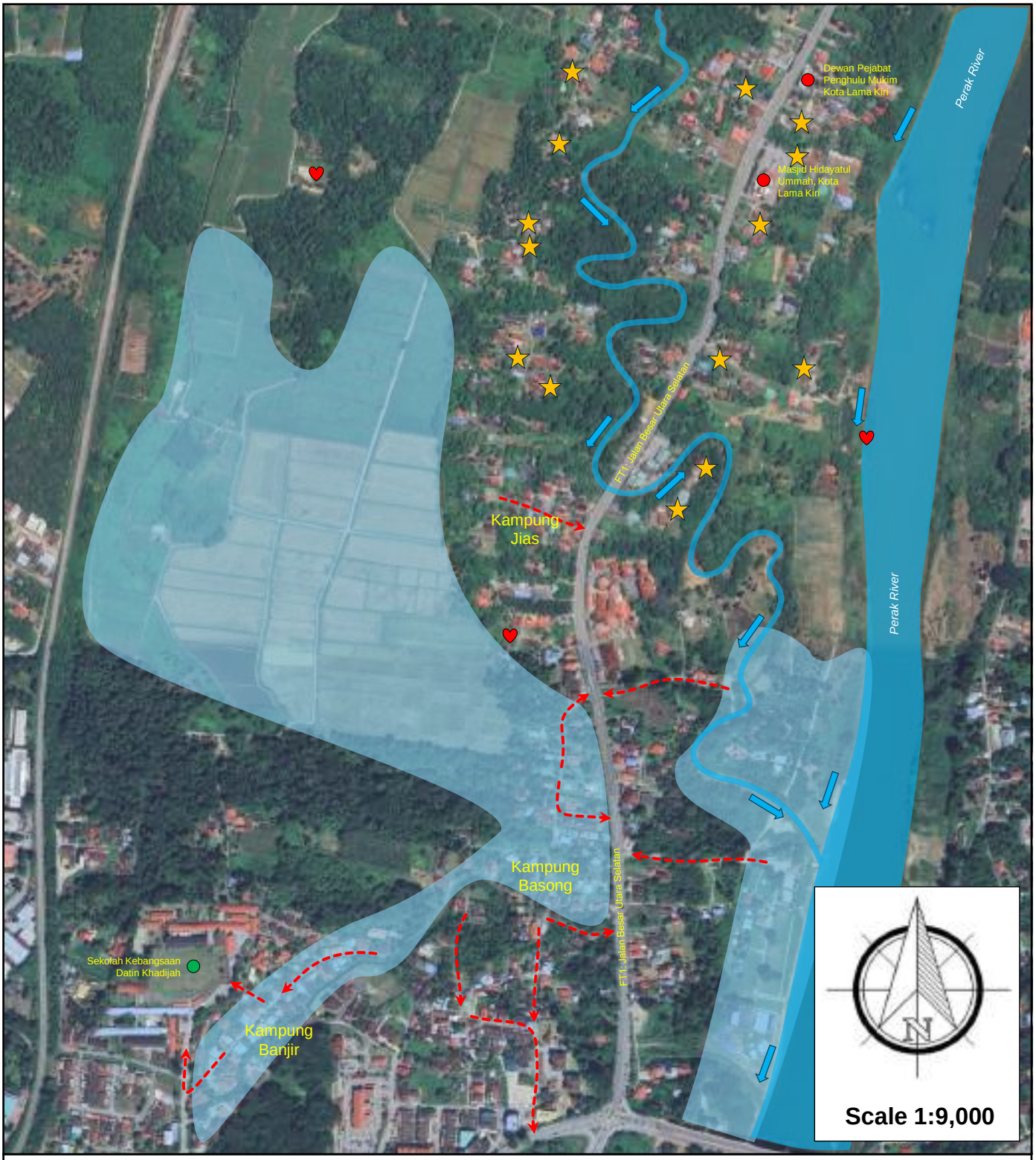
In 2024, the community experienced a higher frequency of hot weather compared to 2014. Despite this, flooding incidents were recorded in both years, primarily between November and December, caused by heavy rainfall. Storm events also showed a notable increase in 2024, occurring between April and June, whereas in 2014, only a single storm was reported around May. These changes may be linked to shifts in climate patterns or other contributing factors such as deforestation and land development in hilly areas.

Health and Disease Trends
Vector-borne diseases, including chikungunya and other Aedes-related illnesses, were reported in both 2014 and 2024. Additionally, floods posed a risk of waterborne infectious disease outbreaks due to contamination, impacting affected local communities. Health screening programmes were consistently conducted throughout both years in the sub-district, ensuring ongoing monitoring and healthcare support.

Agricultural and Economic Activities
Agricultural activities, including paddy cultivation and rubber tapping, were active from January to June in 2014, benefiting from favorable weather conditions. In 2024, paddy cultivation experienced low participation, which may be attributed to reduced interest among younger community members or migration to urban areas. Rubber tapping remained a key economic activity during the dry season.

Social and Religious Activities
Community social and religious activities were concentrated mainly between March and May in both 2014 and 2024, serving as an important avenue for social cohesion and cultural engagement despite environmental and health challenges

"The unstable income makes it difficult for us to spend more, especially during the monsoon season."– A resident of Kampung Jias



Evacuation and Emergency Plan Mukim Kota Lama Kiri (Kampung Jias and Kampung Basong)

Legend

- River Flow
- Flood Area
- Proposed PPS
- Existing PPS
- Proposed Evacuation Route
- Economy Activity
- Tourism and Heritage Site

9.0 Community Assessment Summary

The community assessment was conducted using assessment forms collected from respondents who answered a set of questions designed to evaluate the community's level of preparedness and understanding in disaster risk management. The assessment focused on the following key components:

- Pre-Assessment Analysis - To gauge the initial awareness, knowledge, and preparedness level of the community before the engagement activities.
- Post-Assessment Analysis - To measure the improvement in understanding and readiness after participating in the programme.
- Evaluation of Community Experience and DRR Practices - To assess the community's past experiences with disasters and their current practices in reducing disaster risks.

9.1 Pre Assessment Analysis

Table 1: Disaster Risk Awareness in Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri: Before attending Community-Based Disaster Risk Reduction Management Initiative

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	4 (8%)	13 (25%)	18 (34%)	14 (26%)	4 (8%)
2.	I know the importance of effective disaster risk reduction (DRR).	4 (8%)	13 (25%)	14 (26%)	21 (40%)	1 (2%)
3.	I know actions to reduce disaster risks for myself and my community.	6 (11%)	16 (30%)	16 (30%)	13 (25%)	2 (4%)
4.	I understand what outbreaks are and how diseases spread.	4 (8%)	6 (11%)	19 (36%)	19 (36%)	5 (9%)
5.	I know the types of health threats and harmful diseases.	4 (8%)	5 (9%)	17 (32%)	21 (40%)	6 (11%)
6.	I know good practices to maintain personal and community health.	4 (8%)	3 (6%)	17 (32%)	25 (47%)	4 (8%)
7.	I understand the negative impacts of disasters.	15 (28%)	9 (17%)	13 (25%)	14 (26%)	2 (4%)
8.	I know why building personal and community resilience is important.	18 (34%)	9 (17%)	12 (23%)	13 (25%)	1 (2%)
9.	I know effective ways to build resilience.	18 (34%)	11 (21%)	12 (23%)	11 (21%)	1 (2%)
10.	I can identify high-risk or dangerous areas in my community.	17 (32%)	7 (13%)	10 (19%)	16 (30%)	3 (6%)
11.	I know the safe places in my community.	19 (36%)	6 (11%)	9 (17%)	15 (28%)	4 (8%)
12.	I know how to strengthen community capacity to face disasters.	20 (38%)	9 (17%)	10 (19%)	10 (19%)	4 (8%)
13.	I understand the importance of a community-level Disaster Management Committee.	20 (38%)	12 (23%)	7 (13%)	9 (17%)	5 (9%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
14.	I know the key units needed in a Disaster Management Committee.	18 (34%)	13 (25%)	10 (19%)	8 (15%)	4 (8%)
15.	I know the roles of each unit in the Disaster Management Committee.	18 (34%)	15 (28%)	6 (11%)	10 (19%)	4 (8%)
		189 (24%)	**147 (18%)**	**190 (24%)**	**219 (28%)**	**50 (6%)**

Based on the survey of 53 respondents from Kampung Jias and Kampung Basong (Table 1), the results show that most people have a moderate understanding of disaster and health topics before attending Community-Based Disaster Risk Reduction Management (CBDRM) initiative at Masjid Hidayatul Ummah, Kota Lama Kiri. For example, 34% are "Somewhat Clear" and 26% are "Clear" about what disasters are, while 40% feel "Clear" about the importance of disaster risk reduction.

However, there are gaps in knowledge about community resilience and disaster management, with 34–38% saying "Not Clear" about building resilience, knowing safe places, and understanding the Disaster Management Committee. Only 6–9% feel "Very Clear" in these areas. Overall, while general disaster awareness is fair, many respondents are still unsure about specific community-level disaster management and resilience topics.

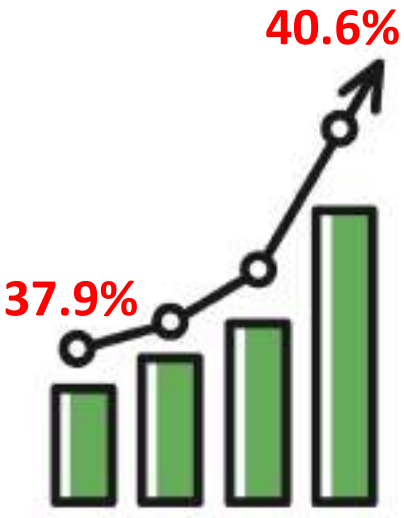
9.2 Post Assessment Analysis

Table 2: Disaster Risk Awareness in Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri: After attending Community-Based Disaster Risk Reduction Management

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	7 (13%)	2 (4%)	12 (23%)	20 (38%)	12 (23%)
2.	I know the importance of effective disaster risk reduction (DRR).	8 (15%)	3 (6%)	11 (21%)	22 (42%)	9 (17%)
3.	I know actions to reduce disaster risks for myself and my community.	9 (17%)	3 (6%)	10 (19%)	22 (42%)	9 (17%)
4.	I understand what outbreaks are and how diseases spread.	9 (17%)	2 (4%)	7 (13%)	25 (47%)	10 (19%)
5.	I know the types of health threats and harmful diseases.	7 (13%)	2 (4%)	10 19(%)	24 (45%)	10 (19%)
6.	I know good practices to maintain personal and community health.	8 (15%)	1 (2%)	9 (17%)	23 (43%)	12 (23%)
7.	I understand the negative impacts of disasters.	20 (38%)	3 (6%)	12 (23%)	12 (23%)	6 (11%)
8.	I know why building personal and community resilience is important.	21 (40%)	2 (4%)	9 (17%)	16 (30%)	5 (9%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
9.	I know effective ways to build resilience.	20 (38%)	4 (8%)	12 (23%)	12 (23%)	5 (9%)
10.	I can identify high-risk or dangerous areas in my community.	21 (40%)	1 (2%)	10 (19%)	14 (26%)	7 (13%)
11.	I know the safe places in my community.	20 (38%)	0 (0%)	11 (21%)	15 (28%)	7 (13%)
12.	I know how to strengthen community capacity to face disasters.	20 (38%)	2 (4%)	10 (19%)	16 (30%)	5 (9%)
13.	I understand the importance of a community-level Disaster Management Committee.	22 (42%)	1 (2%)	9 (17%)	15 (28%)	6 (11%)
14.	I know the key units needed in a Disaster Management Committee.	21 (40%)	3 (6%)	10 (19%)	13 (25%)	6 (11%)
15.	I know the roles of each unit in the Disaster Management Committee.	20 (38%)	4 (8%)	10 (19%)	14 (26%)	5 (9%)
		233 (29%)	**33 (4%)**	**152 (19%)**	**263 (33%)**	**114 (14%)**

The results in Table 2 shows that general awareness about disasters and health is moderate. For example, 38% feel "Clear" and 23% "Very Clear" about understanding disasters, while 42% feel "Clear" about the importance of disaster risk reduction. However, knowledge is weaker in areas like community resilience and disaster management, where 38–42% say "Not Clear" about building resilience, knowing safe places, and understanding the Disaster Management Committee.



On the other hand, 29% of all responses were "Not Clear", while only 14% were "Very Clear". This suggests that while basic disaster knowledge is fair, many people still lack confidence in specific community-level disaster management and resilience topics.

Overall, the percentage increase in community understanding of disaster risk management after participating in the community-based disaster risk management programme, from 37.9% to 40.6%, is 2.7 percentage points. This represents an approximate 7.12% increase relative to the original value of 37.9%.

9.3 Evaluating Community Experience and Disaster Risk Reduction Practices

Table 3: Average score disaster risk management and preparedness among community

	Average Score
Experienced in disaster	(0.60) Moderate
Knowledge in disaster risk management	(0.66) Risky
Losses suffered	(0.63) Moderate
Action and planning in disaster management	(0.54) Moderate
Community recovery strategies and action plan	(0.47) Moderate
Environmental cleanliness and health standards	(0.54) Moderate

A survey involving 53 individual from Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri indicates that the community's preparedness for disaster risk management is at an moderate level, with an average readiness score of 3.5 out of 6.

The assessment covered six (6) key areas:

i. Experience with past disasters
ii. Knowledge of disaster risk management
iii. Losses sustained from disasters
iv. Actions and planning for disaster response
v. Community recovery strategies
vi. Environmental cleanliness and health standards

Table 3 presents the results of an assessment conducted in Kampung Jias and Kampung Basong reveals that both communities have a moderate level of exposure to disaster events, with many residents having experienced flooding in the past (score: 0.60). However, their knowledge of disaster risk management remains low and falls within a risky category (score: 0.66), indicating limited awareness and understanding of appropriate preparedness and response strategies.

The level of losses suffered during past disasters is moderate (score: 0.63), though it is notable that no fatalities have been recorded in either community. In terms of disaster management actions and planning, both communities show a moderate level of preparedness (score: 0.54), but lack formal structures and coordinated efforts. Community recovery strategies are also moderately rated (score: 0.47), reflecting the need for more systematic post-disaster recovery plans.

Lastly, environmental cleanliness and health standards in both villages are at a moderate level (score: 0.54), suggesting that while basic conditions are in place, improvements are necessary to support overall community resilience.These findings indicate the urgent need to strengthen disaster education, promote risk reduction planning, and build local capacity to ensure a more effective and sustainable disaster management framework in both communities.

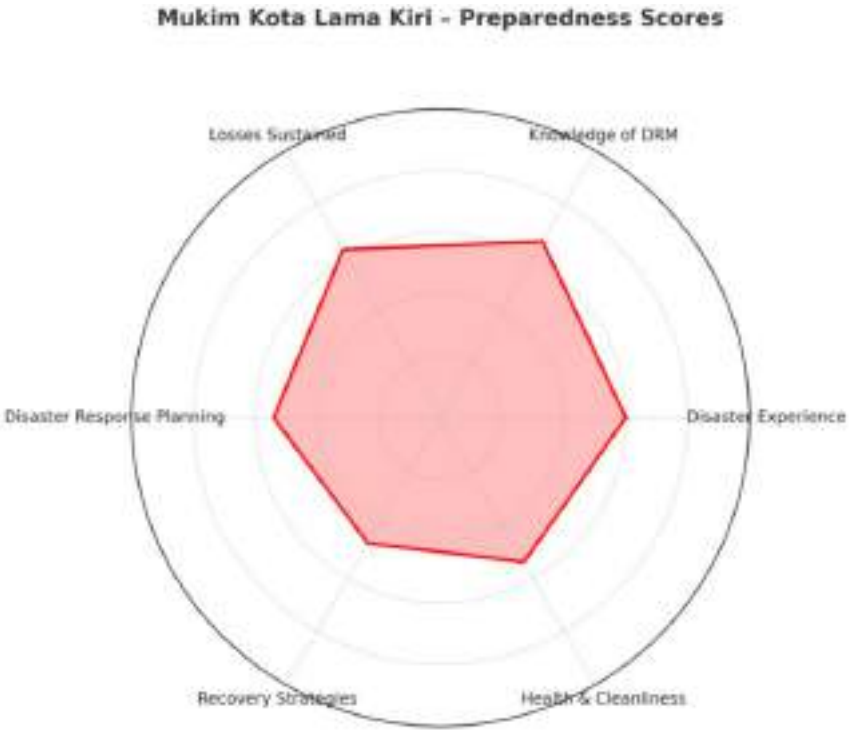


Figure 1: Radar Chart of Average Community Scores on Disaster Risk Management and Preparedness for Mukim Kota Lama Kiri

This figure illustrates the average scores across six key indicators: disaster experience, knowledge in disaster risk management, losses suffered, action and planning in disaster management, community recovery strategies, and environmental cleanliness and health standards. Mukim Kota Lama Kiri scored moderate levels in most areas, with knowledge in disaster risk management scoring the highest and recovery strategies scoring the lowest, indicating a need to enhance long-term recovery capacity and systematic disaster planning.

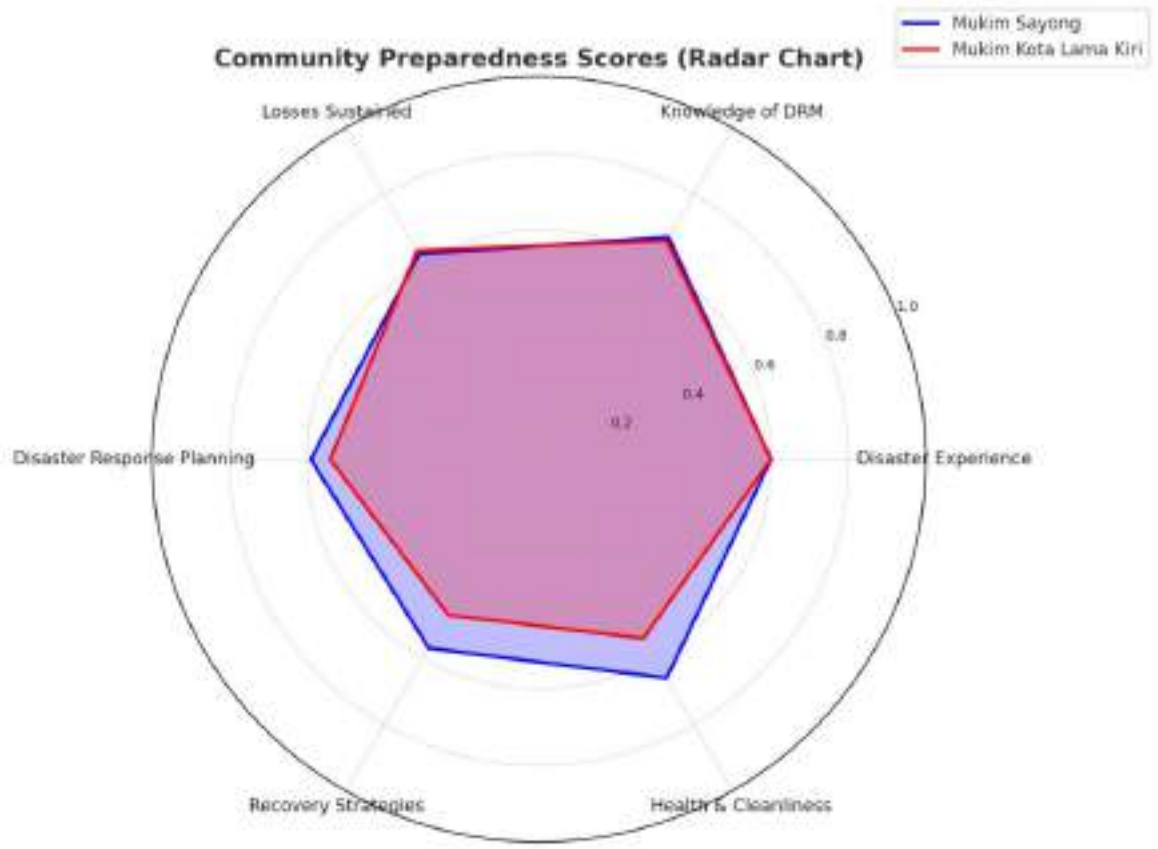


Figure 2: Comparative Radar Chart of Average Community Scores on Disaster Risk Management and Preparedness for Mukim Kota Lama Kiri and Mukim Sayong.

The comparative assessment highlights that Mukim Kota Lama Kiri demonstrates moderate levels of disaster risk management and preparedness, particulary in action and planning, community recovery strategies, and environmental cleanliness and health standards. In these areas, Mukim Kota Lama Kiri consistently scores lower than Mukim Sayong, indicating more limited resilience-building efforts. Although both mukims record similar scores for disaster experience and knowledge in disaster risk management, this knowledge remains categorised as “risky,” underscoring the persistent gap between awareness and effective practice. Mukim Kota Lama Kiri also records slightly higher levels of losses suffered compared to Mukim Sayong, reflecting greater exposure to disaster impacts. Overall, when compared to Mukim Sayong, Mukim Kota Lama Kiri appears less adaptive and resilient, highlighting the urgent need for targeted interventions to strengthen recovery planning, enhance preparedness measures, and build long-term community resilience.

10.0 Respondents Analysis

A total of 53 individuals participated in the community engagement activity. The demographic breakdown by gender and age group is presented below:

Gender Distribution
- Female participants: 30 respondents (57%)
- Male participants: 23 respondents (43%)

This indicates slightly higher engagement from women within the community.

Table 3: Age Group Distribution by Gender

Age Group	Male	Female	Total
13–17	1	2	3
18–24	5	10	15
25–30	6	7	13
31–40	5	6	11
41–50	3	2	5
51 and above	3	3	6

Key Observations
- The 18–24 age group had the highest number of participants (15 respondents, 28% of total), showing strong engagement from youth, particularly young women.
- Females outnumbered males in most age groups under 40, continuing a trend of strong female representation.
- Participation from older adults (aged 51 and above) was modest but gender-balanced.
- The least represented group was 13–17, likely due to school schedules or limited access to the event.

The programme saw active participation from young adults and women, particularly in the 18–30 age range, who make up nearly half of total respondents. These groups may serve as important partners in community resilience planning. Future efforts could focus on enhancing participation from older adults and male residents to ensure broader community representation.

Table 4: List of CBDRM recipients in Mukim Kota Lama Kiri, Kuala Kangsar

No	Name	Gender	Age
1	Baidatulakma Binti Hassan	Female	100
2	Zaimah Binti Ngam Md Ali	Female	80
3	Kamarehan Binti Kamaruddin	Female	63
4	Saidatul Akmar Binti Mohd Mazzalan	Female	39
5	Farrah Nur Amirah Binti Mohamed Ramli	Female	29
6	Mariam Halida Binti Ismail	Female	63
7	Rashidah Binti Hassan	Female	59
8	Maznah Binti Shamsuddin	Female	68
9	Hamidah Binti Abdul Hamid	Female	67
10	Norizan Norkhazimah Binti Baharuddin	Female	40
11	Norhaliza Binti Rejab	Female	61
12	Sadatul Rahimi Binti Mat Rashid	Female	47
13	Mariah Binti Zaili	Female	69
14	Nor Alizan Binti Megat Osman	Female	54
15	Aminah Binti Abdul Rahman	Female	78
16	Noraini Binti Sharif	Female	71
17	Azimah Binti Abdul Hamid	Female	48
18	Salamiah Binti Mohd Ali	Female	60
19	Nur Thaniah Binti Abd Wahid	Female	35
20	Nurul Syafika Binti Anuar	Female	35
21	Madzehan Bin Shamsudin	Male	54
22	Mustafa Bin Mat Som	Male	72
23	Juaidi Bin Yeop Abdullah Aziz	Male	36
24	Mohd Lokman Bin Mohd Hadzil	Male	50
25	Shahrul Nizan Bin Madzelan	Male	25
26	Salehuddin Bin Harun	Male	62
27	Hamidah Binti Zulkifli	Female	46
28	Norafzan Binti Zahari	Female	38
29	Zubaidah	Female	84
30	Yasmin Humaira Binti Mohd Zaki	Female	18
31	Ainul Afwa Binti Mokhtar	Female	36
32	Nor Robiatul Aishah Binti Harunnur	Female	29
33	Nuraini Binti Abdul Aziz	Female	78
34	Andang Rahayu Binti Likirun	Female	53
35	Suhana Binti Shaharuddin	Female	55
36	Khatijah Binti Kamaruddin	Female	56
37	Abd wahab Bin Mahamad Isa	Male	62
38	Noraishah Binti Manaf	Male	54
39	Jamaah Binti Ibrahim	Female	87

40	Amelia Binti Wanab Rahim	Female	53
41	Hamizah Binti Abu Omar	Female	52
42	Mohd Saidan Bin Zainal Abidin	Male	58
43	Shaari Bin Mohd Yunus	Male	74
44	Mohamed Ramli Bin Hassan	Male	70
45	Shafi'a Bin Alang	Male	54
46	Sahruddin Bin Mohd	Male	57
47	Megat Azwa	Male	54
48	Megat Mohd Zuber Bin Megat Abdul Kadir	Male	52
49	Suhaiyudin Bin Abdul Rahman	Male	70
50	Megat Mohd Ridzuan Bin Megat Abdul Kadir	Male	47
51	Mohamad Shukri Bin Abdul Rahman	Male	42
52	Kamal Bahrin Bin Osman	Male	58
53	Hussain Sedily Harun	Male	65

11.0 Appendix



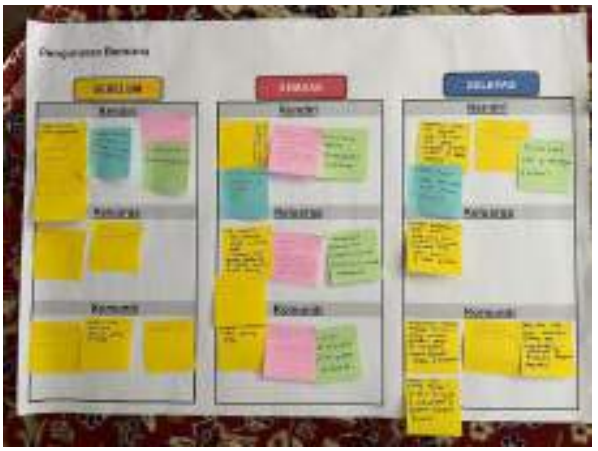


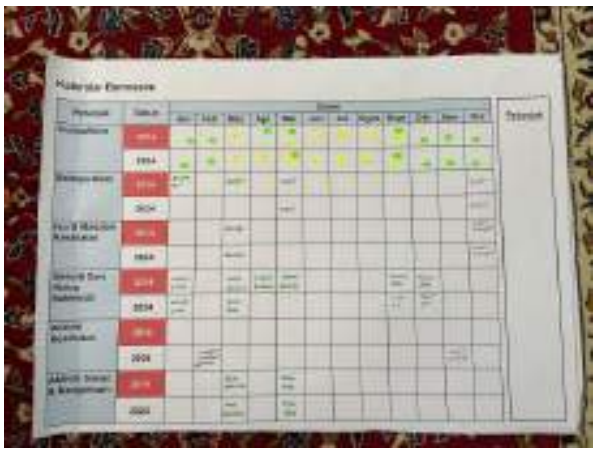


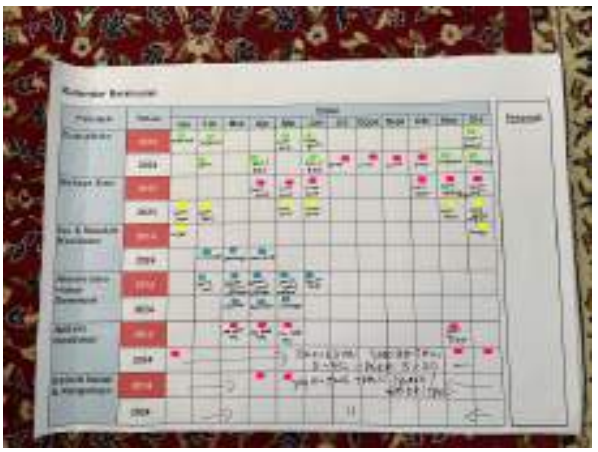


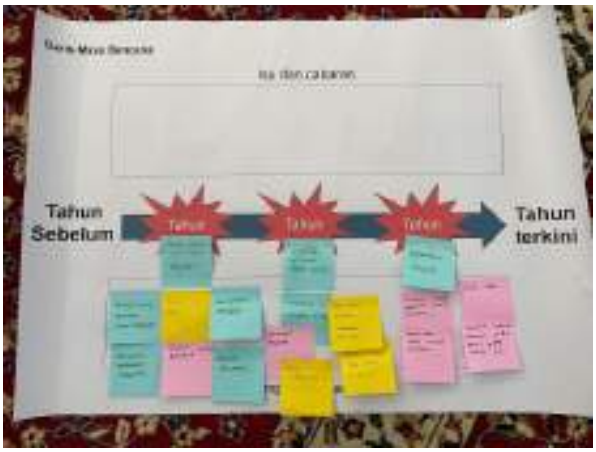
BUILDING RE
COMMUN


mercy
Program Pengurusan Risiko Bencana
Berasaskan Komuniti
(CBDRM)
thinkCITY





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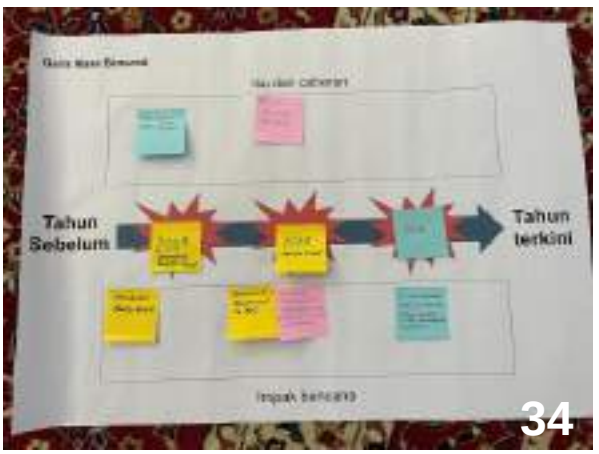
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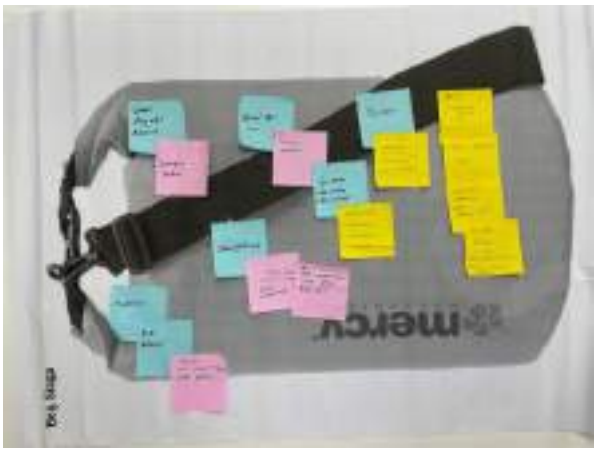


12.0 Appreciation

MERCY Malaysia HQ
Mr Muhammad Akmal Afif Ahmad Subki, Programme Officer

CBDRM Subject Matter Expert
Ms Nur Yasmin Ahmad Jaafar
Ms Nur Mashitah Amaludin
Dr Ruzita Mustaffa
Ts Dr Dzulkarnaen Ismail
Mr Zaidin Ismail
Ts Mohd Nasurudin Hasbullah

Think City
Ms Rose Afrina Binti Mansor, Manager
Ms Alisa Azlan, Manager
Ms Ilana Aqilah Abd Ghafar, Associate

thinkCITY
Bersama Membentuk Bandar Berdaya Huni.

mercy MALAYSIA

YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

COMMUNITY-BASED DISASTER RISK MANAGEMENT (CBDRM) FOR WOMEN

MUKIM SAYONG, KUALA KANGSAR

Table of Contents

1.0 Background

The Community-Based Disaster Risk Management (CBDRM) for Women project is a strategic collaboration between Think City and MERCY Malaysia, aimed at strengthening community resilience through women's empowerment recognising women as central actors in sustaining households, livelihoods, and cultural practices, the initiative seeks to document, highlight and integrate their traditional knowledge, lived experiences, and leadership roles into disaster risk reduction strategies. By systematically documenting women's indigenous practices such as resource management, early warning responses, social support network and community-based approaches, the project not only safeguards cultural heritage but also positions women as key contributors to disaster preparedness and resilience. The knowledge and models developed will serve as valuable references for government agencies, policy-makers, and other vulnerable communities. Ultimately, this approach fosters inclusivity, adaptability, and sustainability in building disaster-ready societies.

2.0 Objectives

i. To empower women as leaders and knowledge holders by integrating their cultural heritage, traditional wisdom, and livelihood practices into community-based disaster risk reduction frameworks.

ii. To establish a transferable knowledge model through the documentation of women-led and community-rooted practices, providing references for policy-makers and replication in other vulnerable communities.

3.0 Programme Summary

Programme	Community-Based Disaster Risk Management (CBDRM) Women at Mukim Sayong, Kuala Kangsar
Date	July 20th, 2025 (Sunday)
Time	08:00 am to 1:30 pm
Venue	Dewan Kampung Sayong Tebing, Mukim Sayong
Total Fund	RM196,000
Funder	Think City
Recipients	31 recipients

4.0 Programme Agenda

Time	Activities
8:00 am – 8:15 am	Registration and breakfast
8:15 am – 8:30 am	Welcoming speech and introduction - Think City - MERCY Malaysia
8:30 am – 8:35 am	CBDRM Pre-Assessment
8:35 am – 12:05 pm	**Capacity Building** **Module 1: Introduction to Disaster Risk Management** (Understanding the basic phases of disaster risk reduction, and the concept of disaster risk based on hazard, vulnerability, and capacity) Speaker: Ms Lilawati Ab Wahab, Fasilitator: 1. Ms Shafikah Saharuddin 2. Ms Syahmimi Ayuni Ramli 3. Ms Noradzsyiah Adzhar **Module 2: Community Preparedness in Disaster** (Understanding of the importance and effective preparedness measures in facing disasters) Speaker: Ms Lilawati Ab Wahab, Fasilitator: 1. Ms Shafikah Saharuddin 2. Ms Syahmimi Ayuni Ramli 3. Ms Noradzsyiah Adzhar

8:35 am – 12:05 pm

Module 3: Community-Based Disaster Management

(Exposure of the community to activities and implementation of preparedness measures in facing disasters)

Speaker: Ms Lilawati Ab Wahab,

Fasilitator:
1. Ms Shafikah Saharuddin
2. Ms Syahmimi Ayuni Ramli
3. Ms Noradzsyiah Adzhar

Module 4: Site Observation

(Understanding the local community's awareness in the mitigation and preparedness phases of disaster management to develop their own disaster action plan with a systematic map)

Speaker: Ms Lilawati Ab Wahab,

Fasilitator:
1. Ms Shafikah Saharuddin
2. Ms Syahmimi Ayuni Ramli
3. Ms Noradzsyiah Adzhar

Module 5: Disaster Action Plan

(Basic understanding in community-based disaster action plans, including the formation of committees and methods of information sharing)

Speaker: Ms Lilawati Ab Wahab,

Fasilitator:
1. Ms Shafikah Saharuddin
2. Ms Syahmimi Ayuni Ramli
3. Ms Noradzsyiah Adzhar

12:05 pm – 12:30 pm	**Heatwave Preparedness and Response Planning** (Discussion on community understanding of climate change and extreme heat risks, as well as risk reduction methods for heatwaves at both individual and community levels) Speaker: Ms Syahmimi Ayuni Ramli
12:30 pm – 12:35 pm	CBDRM Post-Assessment
12:35 pm – 13:30 pm	- Lunch - Lucky Draw - Closing Speech by Chief Village Kampung Sayong Tebing - Photography session
13:30 pm	Disperse

5.0 Overview of Mukim Sayong

Based on the Draft Local Plan for Kuala Kangsar District 2035 (Replacement), Mukim Sayong is situated within Planning Block (BP) 1.3, encompassing a land area of 33,148.36 hectares. The report indicates that 12.04% of the area is designated as built-up, while 87.96% remains as non-built-up land, offering ample space for sustainable development and conservation initiatives. Mukim Sayong is blessed with a wealth of unique cultural and heritage assets, such as the traditional art of Labu Sayong carving and heritage homes. These elements contribute to the area's identity and offer strong potential for heritage-based tourism and community empowerment, ensuring that local traditions are preserved and celebrated for generations to come. While the area is located near the Perak River basin, which is susceptible to flooding, this presents an opportunity to strengthen disaster resilience, enhance infrastructure planning, and implement community-based disaster risk management. By embracing proactive strategies, Mukim Sayong can continue to thrive as a culturally rich and resilient community.

5.1 Flood Risks and Community Conditions

Mukim Sayong is a traditional Malay settlement located in the Kuala Kangsar district of Perak, known for its cultural heritage, especially the iconic Labu Sayong pottery. The mukim consists of several villages which lies along the Perak River, making it culturally rich and environmentally vulnerable. The community is predominantly Malay and characterised by strong family ties and a balanced age distribution. Many households rely on traditional livelihoods such as paddy farming, rubber tapping, and small-scale industries. Women are actively involved in home-based economic activities, particularly in craft and food production.

The community is especially vulnerable to seasonal floods due to its low-lying location, highlighting the need for improved disaster preparedness and infrastructure development. Mukim Sayong reflects a blend of tradition and resilience, with ongoing efforts needed to support its sustainable development and protect its cultural identity.

One of the most significant flood events recorded in this area was the Great Flood of 1926, also known as the "Red Flood". As one of the most historic floods in the Malay Peninsula, it had a profound impact on Mukim Sayong. The overflowing river submerged large parts of the villages, causing extensive damage to traditional wooden houses and destroying much of the local agricultural produce.

Several major floods that have significantly shaped community awareness and preparedness. The 1971 flood led to the evacuation of many residents to temporary shelters, with damage to basic infrastructure such as dirt roads and small bridges disrupting mobility and village livelihoods for weeks. In 2003 and 2014, flash floods triggered by prolonged heavy rainfall upstream of the Perak River caused severe damage to traditional homes. Poor drainage systems were identified as a key factor in the slow receding of floodwaters.

Although the 2021 flood was less severe, it heightened local awareness of the need for early warning systems and structured disaster risk management. Over time, these recurring events have fostered a culture of preparedness, including communal clean-ups (gotong-royong), elevated house designs, and the preservation of traditional flood knowledge. They have also encouraged the implementation of community-based disaster risk reduction (CBDRR) initiatives in recent years.

5.2 Community Profile

Mukim Sayong is located in Kuala Kangsar, Perak, along the Perak River. It includes several traditional Malay villages with strong cultural heritage and historical links to the Perak Sultanate. While the river supports farming and tourism, it also causes frequent flooding in the area. The local economy depends on small-scale business, such as traditional crafts and service production. Some families also earn from informal tourism related to the area's history and riverside attractions.

However, these income sources are seasonal and easily affected by floods, leading to financial insecurity. The area is rich in cultural assets, including old wooden houses, mosques, suraus, cemeteries, and village customs. These are important to the community's identity but are at risk due to repeated floods and a lack of proper protection or documentation.

According to the Kuala Kangsar District Local Plan 2035, the population of Mukim Sayong was approximately 32,500 in the year 2025, with a projected annual growth rate of 1.51%. The majority of the population in the area is Malay and resides in rural settings. A significant number of young people have migrated to urban areas in search of better education and employment opportunities, resulting in an ageing population being left behind. This demographic shift impacts the community's capacity to preserve cultural traditions and respond effectively to emerging challenges. Approximately 38 women from Mukim Sayong participated in the Community-Based Disaster Risk Management (CBDRM) for Women initiative held at Dewan Kampung Sayong Tebing, representing around 0.12% of the total population of the mukim.

5.3 Key Issues

i. Many women rely on small-scale farming, traditional crafts, or informal tourism for income.
ii. With younger generations migrating to urban areas, many women especially older ones are left behind in rural villages.

6.0 Community Based Disaster Risk Management (CBDRM) for Women

Kuala Kangsar, renowned for its cultural heritage and traditional livelihoods, faces increasing vulnerability to recurrent flooding that threatens not only lives and infrastructure but also the vital roles women play in sustaining households, heritage crafts, agriculture, and small-scale tourism. Women, often at the forefront of caregiving, economic contribution, and knowledge transmission, are disproportionately affected by these climate-related risks.

In response, the Community-Based Disaster Risk Management (CBDRM) for Women Programme is proposed in Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong, to empower women as agents of resilience. The programme seeks to strengthen women's capacity by equipping them with practical skills and knowledge in disaster preparedness, response, and recovery, while valuing and integrating their traditional practices and lived experiences into community-based strategies.

By placing women at the centre of resilience-building, the initiative promotes leadership, safeguards cultural and economic livelihoods, and ensures their voices are included in decision-making processes. Ultimately, this approach advances gender-responsive disaster risk reduction and supports long-term community sustainability.

7.0 Key Activities and Focus Areas

i. Equip women with practical knowledge and hands-on skills in disaster risk reduction, including early warning systems, household safety measures, evacuation planning, and post-disaster recovery.

ii. Strengthen women's roles in safeguarding traditional crafts, agriculture, and small-scale tourism by integrating livelihood protection and recovery strategies into disaster planning.

iii. Ensure women's active participation in community disaster committees and planning processes, creating opportunities for them to lead resilience initiatives and influence policy at the local level.

8.0 Summary of Women Capacity Building

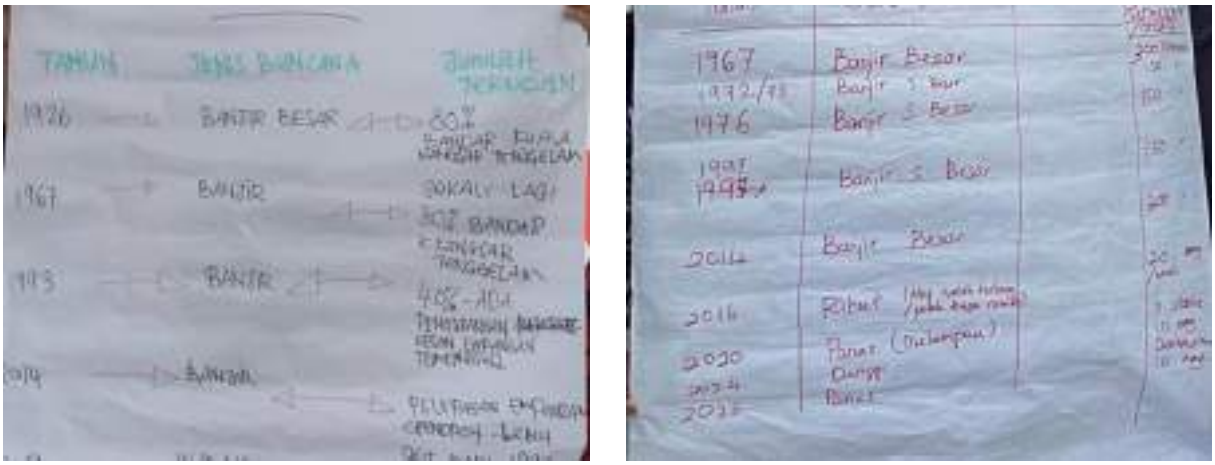
The women capacity-building activity in Mukim Kota Lama Kiri involved a total of 38 female participants from Kampung Sayong Tebing and Kampung Sayong Hulu (for full details, please refer to Section 10.0: Respondents Analysis). This hands-on session was conducted at the Dewan Kampung Sayong Tebing, Mukim Sayong facilitated by a CBDRM Women subject matter expert, who provided exposure, knowledge sharing, and guidance on community-level disaster risk management. Key activities carried out during the session included:

- Disaster timeline-related activities
- Risk Mapping
- Disaster Management Action Plan
- Seasonal Calendar

These participatory exercises aimed to empower the local community with practical tools and strategies to enhance their preparedness and resilience against potential disasters.

8.1 Disaster timeline-related activities

This activity centered on documenting and reflecting on the history of disasters affecting the settlement area in Mukim Sayong, with particular emphasis on their impact on women's daily lives and livelihoods. The session created a safe space for women to share personal experiences, from immediate challenges during disaster events to long-term struggles in recovery and adaptation. Through these discussions, women highlighted the unique burdens they carry, such as caregiving responsibilities and sustaining household economies while also identifying critical issues that continue to shape community resilience.



Picture 1: Outcome of the discussion and information sharing on issues, challenges, and disaster impacts based on the disaster timeline experienced by the women communities of Kampung Sayong Tebing and Kampung Sayong Hulu.

8.1.1 Findings

Between 1926, 1967 and 1976, massive floods forced families—women, children, and the elderly—to leave their homes and seek safety in temporary shelters such as SMK Raja Perempuan Kalsom and Malay College Kuala Kangsar (MCKK). Some were moved as far as Kampung Bukit Lada. The floodwaters rose so high that even half of the town's clock tower was submerged, cutting off roads and forcing boat rescues. Entire homes were destroyed, and busy areas like Pekan Kuala Kangsar, Jalan Besar, and Kampung Sayong Tebing were left in ruins. Beyond the loss of property, families—especially women—struggled with disease outbreaks, food shortages, and the trauma of losing loved ones.

Two decades later, in 1993–1994, the community faced another round of devastating floods. According to local women, the lack of disaster planning left them feeling unprepared and unsafe. Many were hesitant to evacuate, while others waited for aid that was slow to arrive because roads were cut off. Farmers, especially women who depended on small-scale farming, lost their crops and livestock. Yet, in the middle of hardship, women played a vital role—sharing food, caring for children and the elderly, and keeping families together when help was delayed.

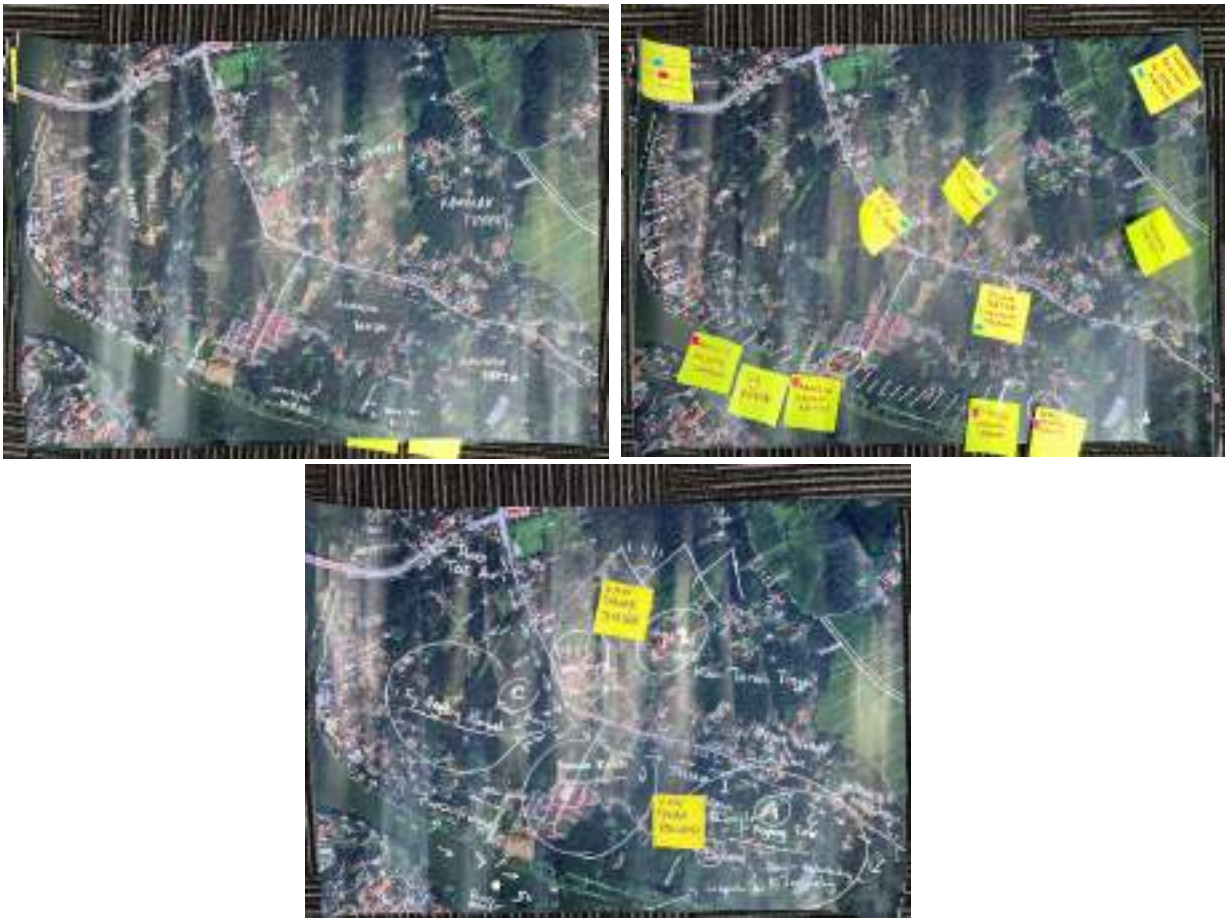
In 2014, the community was once again displaced, this time to SK Sayong and SMK Sayong. While the flood did not reach the iconic clock tower roundabout, the damage was still severe. Women worried most about their children's safety, as few had swimming or rescue skills. Tragically, one drowning was recorded. The loss of livestock and destruction of homes deepened the struggle, with women bearing the brunt of managing household survival under uncertain conditions.

Picture 2: Presentation on disaster timeline-related activities from Kampung Sayong Tebing and Kampung Sayong Hulu.

8.2 Risk Mapping

A community risk mapping exercise was carried out with the aim of documenting local knowledge on hazard-prone areas, vulnerabilities, and community capacities, specifically highlighting the perspectives of women. This initiative was designed to support more inclusive disaster preparedness and response strategies by ensuring women's voices and lived experiences were captured.

During the session, women participants were introduced to basic mapping techniques and actively contributed to identifying key elements in their locality. These included high-risk zones, critical community assets, and vulnerable groups, with particular attention to women, children, and elderly residents. Women also highlighted the importance of protecting cultural and heritage sites in Mukim Sayong, which form part of their community identity and livelihood.



Picture 3: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in Kampung Sayong Tebing and Kampung Sayong Hulu.

8.2.1 Findings

The community risk mapping activity in Mukim Sayong revealed valuable insights into disaster risks, local knowledge, and cultural heritage. Women participants played an important role in identifying both cultural assets—such as Sayong pottery industry—and areas at risk. While many cultural sites are located in safe zones, most residential areas, where women are primarily responsible for family care and household management, remain highly vulnerable to flooding.

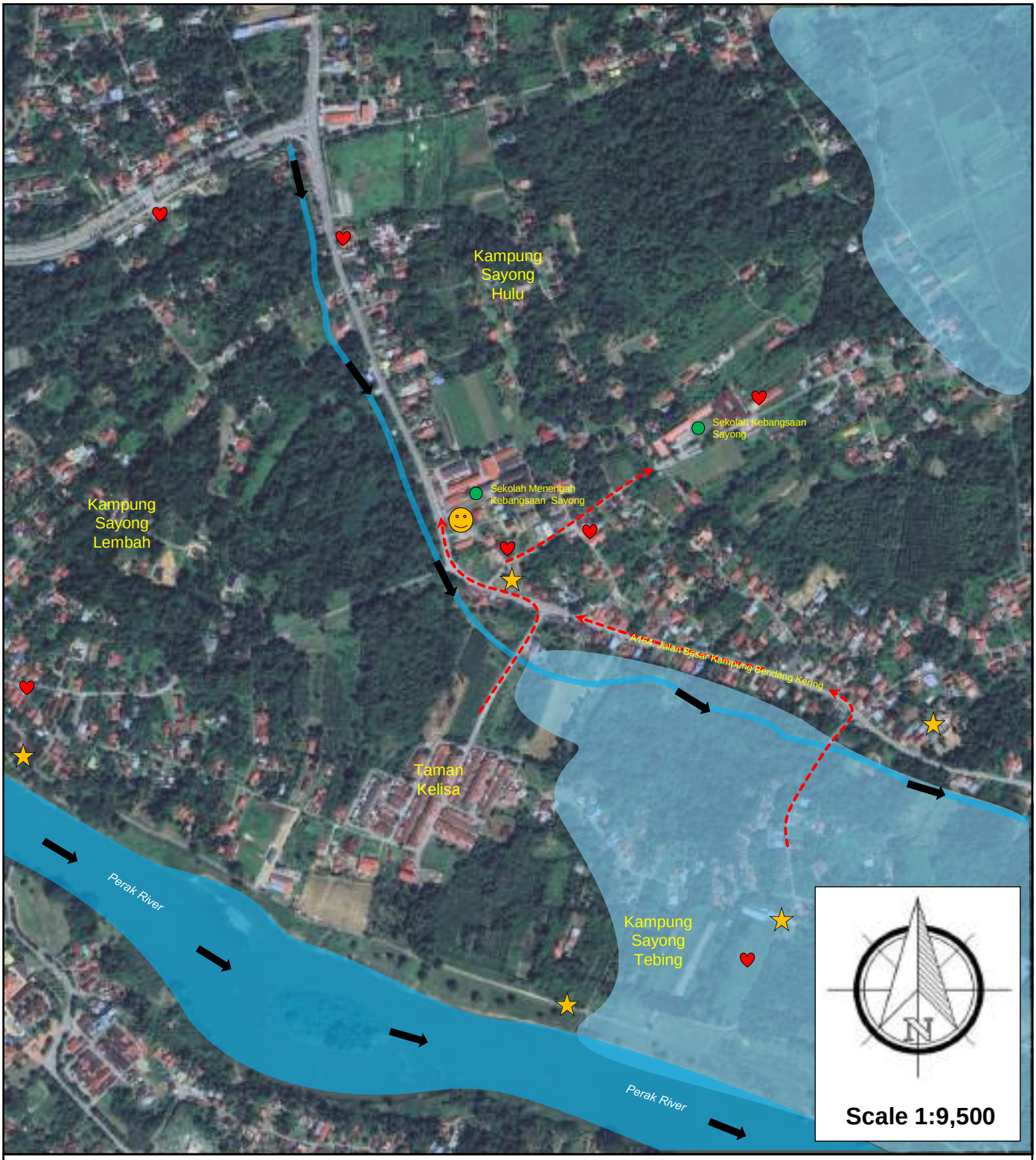
The mapping exercise also empowered women to actively contribute to disaster preparedness. They identified safe zones and evacuation routes that could be used during flood events. Elevated public facilities, including SK Sayong and SMK Sayong, were recognised as suitable locations for temporary evacuation centres (PPS). Women stressed the importance of these centres being accessible and equipped with basic needs, especially for children, the elderly, and pregnant or nursing mothers.

The findings further showed that low-lying areas along the Sungai Perak are at the highest risk of flooding. A flood marker, installed at Kampung Sayong Tebing community hall, serves as a reminder of the devastating flood that once submerged the village. For women, this marker not only represents past hardship but also reinforces the need for preparedness, resilience, and community-led planning to protect families and livelihoods.

The mapping activity highlighted the role of small-scale agriculture, including scattered vegetable plots and paddy fields, as important sources of household income in Kampung Sayong Tebing and Kampung Sayong Hulu. While much of this work is carried out by foreign labor, women in the community remain indirectly affected, as their families rely on these agricultural outputs for food security and supplementary income.

More significantly, the renowned Sayong pottery industry continues to thrive across Mukim Sayong. This traditional craft, handed down through generations of women artisans, not only preserves cultural heritage but also provides a vital source of livelihood and empowerment for local women. Many women are actively involved in pottery production, balancing this work with household responsibilities.

Importantly, these economic activities—particularly pottery-making—are concentrated in areas of relatively lower disaster risk due to their higher elevation, offering women greater stability in sustaining both income and tradition.



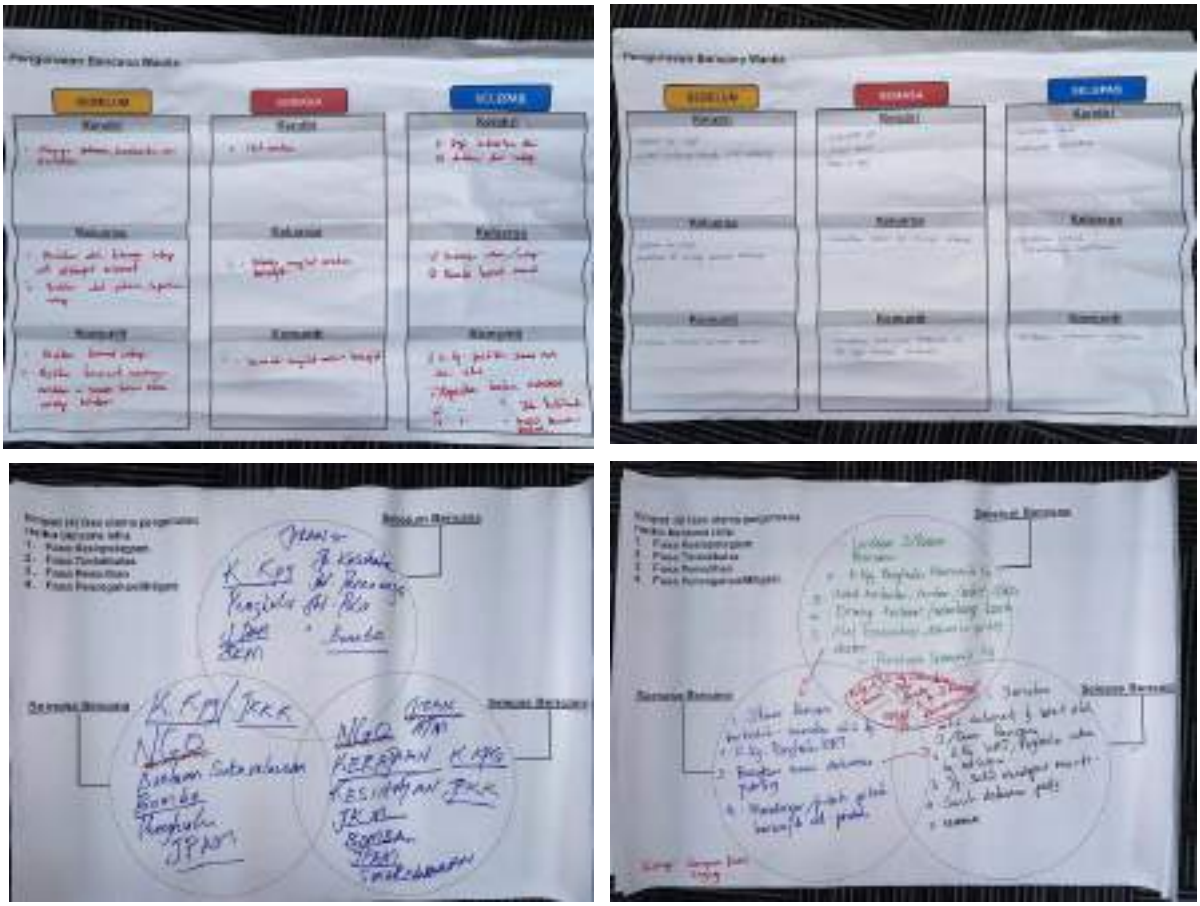
Evacuation and Emergency Response Plan for Mukim Sayong:
Kampung Sayong Tebing and Kampung Sayong Hulu

Legend

- River Flow
- Flood Area
- Proposed PPS
- Existing PPS
- Proposed Evacuation Route
- Economic Activity
- Tourism and Heritage Site
- Health Facility

8.3 Disaster Management Action Plan

The Disaster Management Action Plan activity seeks to establish a women-inclusive community-based disaster organisation that empowers women to play an active role in disaster risk management. The initiative aims to reduce risks while strengthening the capacity and resilience of women and their families across all phases of disaster response, recovery, mitigation, and preparedness. By placing women at the centre of planning and action, the programme ensures their voices, skills, and leadership are integral to building a safer and more resilient community.



Picture 4: Outcome of the group discussion on self, family, and community disaster management for scenarios before, during, and after a disaster and emergency actions and responses across four phases—preparedness, response, recovery, and prevention/mitigation—before, during, and after a disaster

8.3.1 Findings

The Disaster Management Action Plan is organised around four key phases — Preparedness, Response, Recovery, and Mitigation — with specific objectives and committees established for each. Women play a central role across these phases, contributing their knowledge, caregiving responsibilities, and leadership to strengthen community resilience and ensure inclusive coordination during flood events.

Preparedness

- Prepare and secure important documents, medicines, clean water, and adequate food supplies.
- Ensure vehicles are maintained and ready for evacuation to safe locations.
- Switch off and relocate essential electrical appliances to higher ground before evacuation to reduce damage risks.
- Strengthen disaster management knowledge by attending briefings or risk reduction programmes.
- Obtain accurate and verified information only from trusted sources.
- Share emergency information with all family members to ensure household readiness.
- Regularly update neighbours and the wider community on safety matters, including evacuation centre locations.
- Plan and coordinate evacuation routes with residents, making use of communication platforms such as WhatsApp.
- Prioritise protection for vulnerable groups, including persons with disabilities, the elderly, children, and pregnant women.
- Identify and maintain contact with relevant individuals or agencies able to provide early assistance during or after an emergency.

Responses

- Switch off electrical sources, secure the house, and bring essential items such as important documents, medicines, and emergency equipment when relocating to a Temporary Evacuation Centre (PPS).
- Confirm that all family members are accounted for, understand the disaster action plan, and follow emergency procedures to minimise risks during relocation.
- Maintain clear communication with family members and neighbours to ensure coordination and mutual support.
- Obtain verified guidance from security agencies on safe routes or designated gathering points, and promptly report emergencies or trapped victims to the relevant authorities.

Recovery and Mitigation

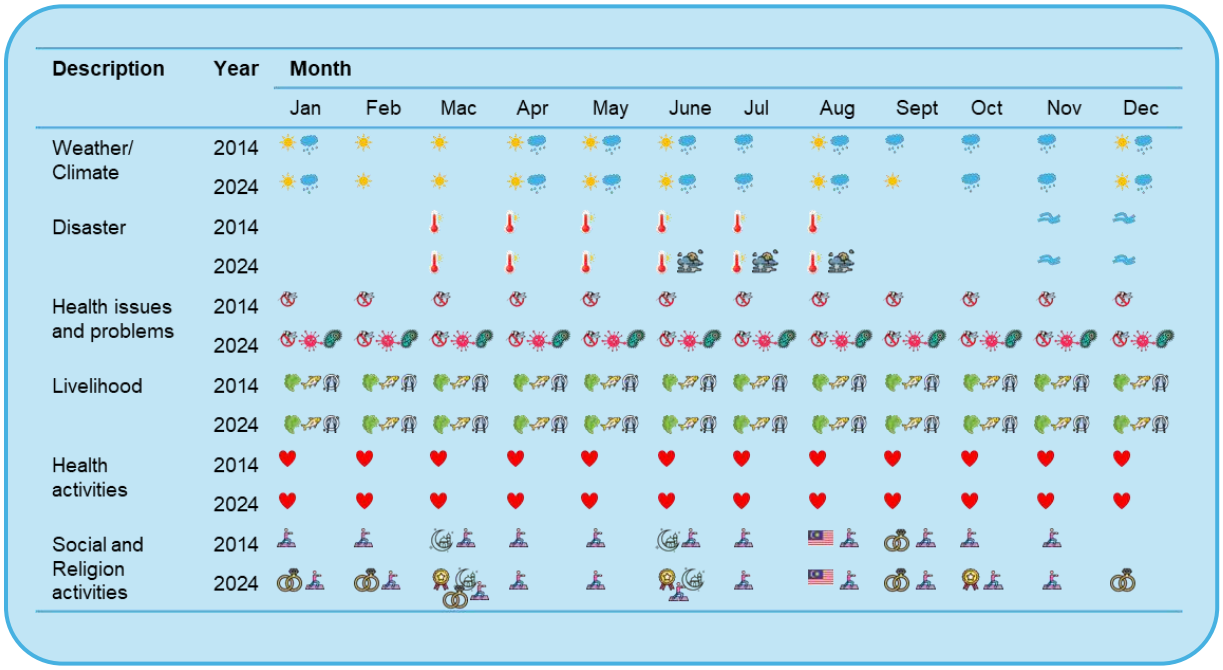
- Ensure the house structure and electrical systems are safe before reoccupying or using appliances, to prevent accidents.
- Engage in community clean-up (gotong-royong) with neighbours to restore the environment, reduce health hazards, and ease the collective recovery burden.

8.4 Seasonal Calendar

A seasonal calendar is a participatory tool that enables women in the community to map and understand the timing of important events, activities, and hazards throughout the year. Built on women's local knowledge and lived experiences, the calendar highlights how seasonal changes, climate patterns, livelihood cycles, and cultural practices intersect with disaster risks such as floods, droughts, and disease outbreaks. By actively engaging women in the process, the tool not only captures their unique perspectives—such as caregiving duties, food security, health, and household management—but also strengthens their capacity to plan and prepare more effectively for recurring challenges that directly affect their families and communities.

Picture 5: Outcome of the seasonal calendar activity based on the experiences of the communities from Kampung Sayong Tebing and Kampung Sayong Hulu, comparing the years 2014 and 2024.

8.4.1 Findings



The seasonal calendar activity provided valuable insights into how women in the community perceive and adapt to changes in climate, health, and livelihood patterns between 2014 and 2024. Women highlighted the following key observations:

Climate and Weather Patterns

Based on information gathered from the CBDRM Women's Group in Mukim Sayong, participants reported that rainfall and unpredictable weather were more frequent in 2014 and 2024 compared to hot weather conditions. However, flooding incidents were only recorded between November and December in both years.

Extreme hot weather occurred between March and August in both 2014 and 2024, with a worsening situation in 2024 when haze affected the area during the dry season (June–August).

Disaster and Health Risks

Health-related challenges were recorded throughout the year in both 2014 and 2024, particularly dengue cases. In 2024, the situation was further aggravated by the emergence of mild disease outbreaks, influenza, and virus-related illnesses, which were likely influenced by environmental factors and unpredictable weather changes in Mukim Sayong.

Livelihood and Economic Activities
Women in Mukim Sayong actively contributed to family income through small-scale farming, livestock rearing, and small businesses in both 2014 and 2024. These livelihood activities not only supplemented household finances but also empowered women to play a stronger economic role in the community.

Such contributions were vital during periods of climate stress (e.g., floods, haze, and drought), demonstrating women's resilience and adaptability.

Health Programmes
The Ministry of Health (KKM) carried out health awareness and prevention activities throughout the year, with strong participation from women. Women were often the primary participants and beneficiaries of these programmes, as they are the key decision-makers in family health practices.Their involvement ensured that health knowledge and preventive measures were extended to their households and communities.

Social and Community Engagement
Women in Mukim Sayong maintained active social and community networks. From January to November in both years, women consistently organised and joined aerobics sessions, contributing to health and social bonding.

In 2024, women were more involved in community-based activities, such as gotong-royong, supporting weddings, and local sports events, which strengthened solidarity among women and across the wider community.

Meanwhile, religious activities involving women were mainly concentrated around Hari Raya Aidilfitri and Hari Raya Haji, showing cultural and spiritual engagement alongside their social roles.

9.0 Community Assessment Summary

The community assessment was conducted using assessment forms collected from respondents who answered a set of questions designed to evaluate the community's level of preparedness and understanding in disaster risk management. The assessment focused on the following key components:

- Pre-Assessment Analysis - To gauge the initial awareness, knowledge, and preparedness level of the community before the engagement activities.
- Post-Assessment Analysis - To measure the improvement in understanding and readiness after participating in the programme.
- Evaluation of Community Experience and DRR Practices - To assess the community's past experiences with disasters and their current practices in reducing disaster risks.

9.1 Pre Assessment Analysis

Table 1: Disaster Risk Awareness in Mukim Sayong: Before attending Community-Based Disaster Risk Management for Women programme

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	1 (5%)	6 (32%)	6 (32%)	4 (21%)	2 (11%)
2.	I know the importance of effective disaster risk reduction (DRR).	1 (5%)	7 (37%)	6 (32%)	1 (5%)	4 (21%)
3.	I know actions to reduce disaster risks for myself and my community.	2 (11%)	7 (37%)	7 (37%)	1 (5%)	2 (11%)
4.	I understand what outbreaks are and how diseases spread.	1 (5%)	8 (42%)	6 (32%)	1 (5%)	3 (16%)
5.	I know the types of health threats and harmful diseases.	2 (11%)	7 (37%)	7 (37%)	1 (5%)	2 (11%)
6.	I know good practices to maintain personal and community health.	2 (11%)	8 (42%)	7 (37%)	1 (5%)	1 (5%)
7.	I understand the negative impacts of disasters.	3 (16%)	8 (42%)	5 (16%)	3 (16%)	0 (0%)
8.	I know why building personal and community resilience is important.	5 (16%)	6 (32%)	6 (32%)	2 (11%)	0 (0%)
9.	I know effective ways to build resilience.	5 (16%)	6 (32%)	4 (21%)	2 (11%)	2 (11%)
10.	I can identify high-risk or dangerous areas in my community.	3 (16%)	8 (42%)	3 (16%)	3 (16%)	2 (11%)
11.	I know the safe places in my community.	4 (21%)	8 (42%)	6 (32%)	1 (5%	0 (0%)
12.	I know how to strengthen community capacity to face disasters.	3 (16%)	8 (42%)	6 (32%)	2 (11%)	0 (0%)
13.	I understand the importance of a community-level Disaster Management Committee.	4 (21%)	8 (42%)	7 (37%)	0 (0%)	0 (0%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
14.	I know the key units needed in a Disaster Management Committee.	4 (21%)	8 (42%)	6 (32%)	1 (5%)	0 (0%)
15.	I know the roles of each unit in the Disaster Management Committee.	4 (21%)	8 (42%)	6 (32%)	1 (5%)	0 (0%)
16.	I understand my role as a woman in supporting my family and community during times of disaster.	1 (5%)	9 (47%)	4 (21%)	4 (21%)	1 (5%)
17.	I know where to access help and support such as food, healthcare services, and shelter during disaster	1 (5%)	8 (42%)	5 (16%)	5 (16%)	0 (0%)
18.	I am aware of the common challenges faced by women during disasters, such as caring for children and dependents, managing menstrual needs, ensuring safety, and accessing medicine.	2 (11%)	6 (32%)	8 (42%)	3 (16%)	0 (0%)
19.	I know what to do in the event of a disaster, even if my husband or other family members are not with me.	1 (5%)	8 (42%)	7 (37%)	3 (16%)	0 (0%)
20.	I understand how women can lead or contribute to disaster preparedness and response efforts.	1 (5%)	8 (42%)	5 (16%)	5 (16%)	0 (0%)

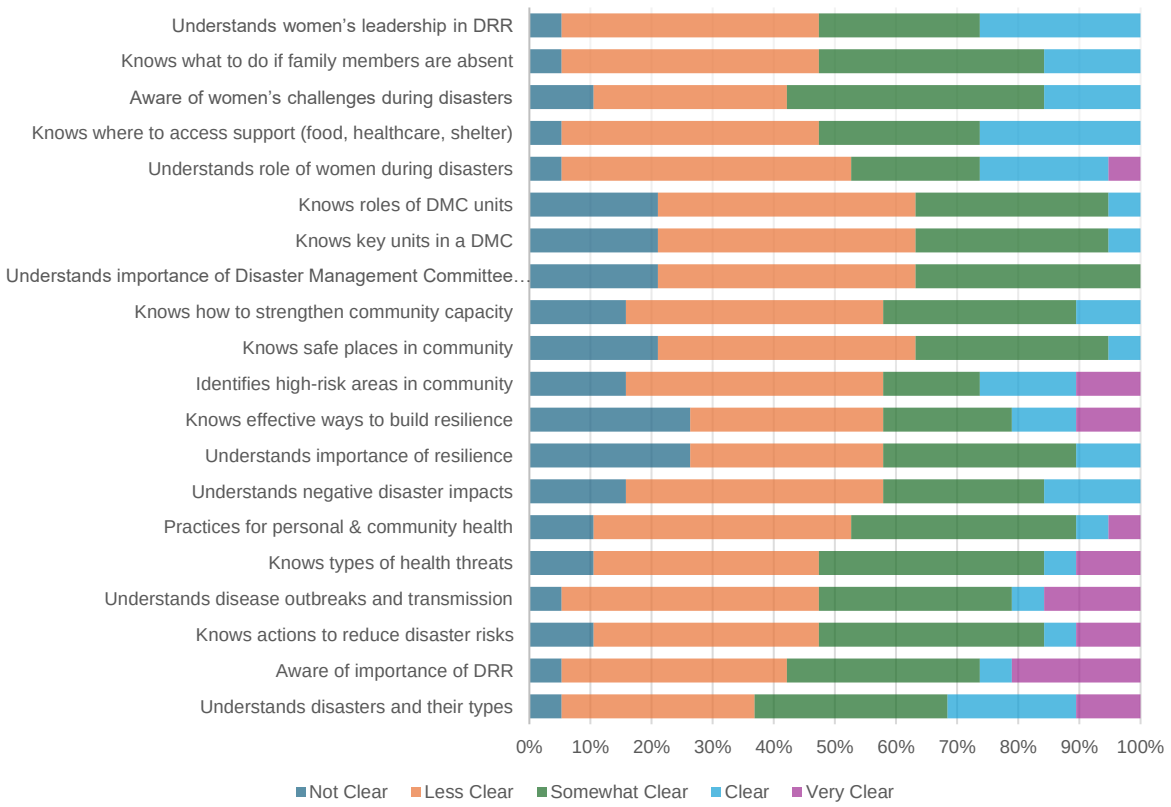


Figure 1: Disaster Risk Awareness in Mukim Sayong: Before attending Community-Based Disaster Risk Management for Women programme

Before attending the Community-Based Disaster Risk Management (CBDRM) for Women programme, disaster risk awareness among women in Mukim Sayong was generally low. Only about 32% clearly understood what disasters are and their impacts, while just 26% recognised the importance of disaster risk reduction. Knowledge of how to reduce disaster risks and maintain community health was limited, with less than 20% feeling confident.

Awareness of disaster management roles and community committees was weak, with very few women understanding their responsibilities or how to support their families during disasters. Only around 16% were clear on where to access essential aid or aware of challenges faced by women during emergencies.

Overall, most women had limited understanding and preparedness before the initiative, highlighting the need for targeted disaster education and empowerment to strengthen community resilience.

9.2 Post Assessment Analysis

Table 2: Disaster Risk Awareness in Mukim Sayong: After attending Community-Based Disaster Risk Management for Women programme

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	0 (0%)	0 (0%)	0 (0%)	7 (37%)	12 (63%)
2.	I know the importance of effective disaster risk reduction (DRR).	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
3.	I know actions to reduce disaster risks for myself and my community.	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
4.	I understand what outbreaks are and how diseases spread.	0 (0%)	1 (5%)	0 (0%)	6 (32%)	12 (63%)
5.	I know the types of health threats and harmful diseases.	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
6.	I know good practices to maintain personal and community health.	0 (0%)	1 (5%)	0 (0%)	8 (42%)	10 (53%)
7.	I understand the negative impacts of disasters.	0 (0%)	1 (5%)	0 (0%)	7 (37%)	11 (58%)
8.	I know why building personal and community resilience is important.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
9.	I know effective ways to build resilience.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
10.	I can identify high-risk or dangerous areas in my community.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
11.	I know the safe places in my community.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
12.	I know how to strengthen community capacity to face disasters.	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
13.	I understand the importance of a community-level Disaster Management Committee.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)

14.	I know the key units needed in a Disaster Management Committee.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
15.	I know the roles of each unit in the Disaster Management Committee.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)
16.	I understand my role as a woman in supporting my family and community during times of disaster.	0 (0%)	1 (5%)	0 (0%)	8 (42%)	10 (53%)
17.	I know where to access help and support such as food, healthcare services, and shelter during disaster	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
18.	I am aware of the common challenges faced by women during disasters, such as caring for children and dependents, managing menstrual needs, ensuring safety, and accessing medicine.	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
19.	I know what to do in the event of a disaster, even if my husband or other family members are not with me.	0 (0%)	0 (0%)	1 (5%)	8 (42%)	10 (53%)
20.	I understand how women can lead or contribute to disaster preparedness and response efforts.	0 (0%)	0 (0%)	1 (5%)	7 (37%)	11 (58%)

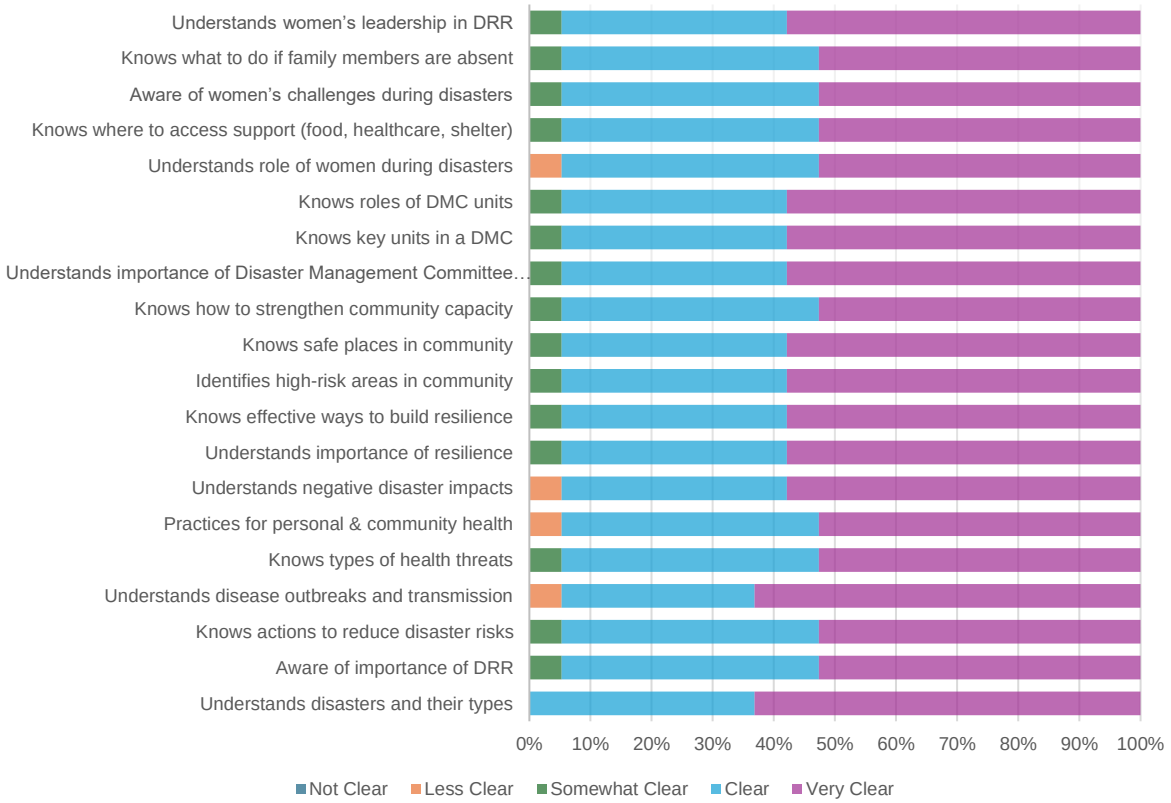


Figure 2: Disaster Risk Awareness in Mukim Sayong: After attending Community-Based Disaster Risk Management for Women programme

After attending the Community-Based Disaster Risk Management (CBDRM) for Women programme, women in Mukim Sayong demonstrated a strong understanding of disaster risks. All participants (100%) clearly understood what disasters are and the types that affect communities, with 63% describing their knowledge as very clear and 37% as clear. This foundation is essential for recognising the importance of disaster risk reduction, which 95% of women understood well (42% clear, 53% very clear), enabling them to take informed action.

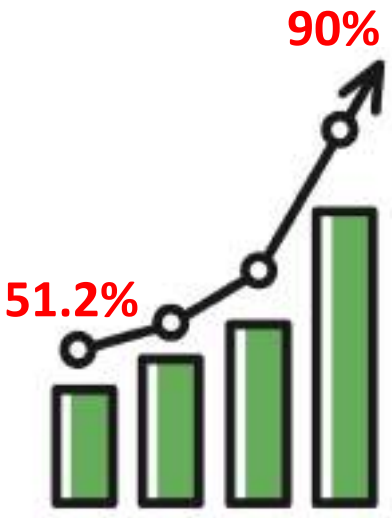
The majority of women, about 95%, expressed confidence in their knowledge of how to reduce disaster risks and understood health threats related to disasters such as disease outbreaks. Specifically, 53% rated their understanding as very clear and 42% as clear. This knowledge extends to good personal and community health practices, which are crucial in preventing illness and ensuring safety during and after disasters. Women also showed a clear understanding of community roles in disaster management. Most (95%) were aware of the functions and responsibilities of Disaster Management Committees, with 58% rating their knowledge as very clear and 37% as clear. They recognised the importance of building resilience in their families and neighborhoods, which supports stronger community networks during crises.

Importantly, women felt confident in their roles during disasters. About 95% knew how to support their families (42% clear, 53% very clear), where to access essential aid like food, healthcare, and shelter (42% clear, 53% very clear), and were aware of challenges faced by women during emergencies such as childcare and menstrual health. This initiative empowered women, boosting their confidence and ability to contribute actively to disaster preparedness and response in their community. Most women (95%) also felt confident about actions to reduce disaster risks and knowledge about health threats and disease outbreaks, with over half rating their understanding as very clear (53%). This awareness is essential for maintaining good personal and community health practices during emergencies.

Women showed a clear grasp of community disaster management roles, with 95% understanding the functions of Disaster Management Committees. Again, the majority rated their knowledge as either clear (37%) or very clear (58%). They appreciated the importance of building community resilience to strengthen their neighborhoods.

Importantly, about 95% of women felt confident supporting their families during disasters and knew where to access help like food, healthcare, and shelter. They also understood common challenges women face during emergencies, such as childcare and health needs, and how to respond even without family support. This initiative has effectively empowered women to play active roles in disaster preparedness and response.

Overall, community understanding of disaster risk management increased from 51.2% before the programme to 90% after participation. This translates to an approximate 38.8% improvement relative to the baseline value.



9.3 Evaluating Community Experience and Disaster Risk Reduction Practices

Table 3: Average score disaster risk management and preparedness among community

	Average Score
Experienced in disaster	(0.67) Risky
Knowledge in disaster risk management	(0.76) Risky
Losses suffered	(0.74) Risky
Action and planning in disaster management	(0.71) Risky
Community recovery strategies and action plan	(0.66) Risky
Environmental cleanliness and health standards	(0.71) Risky

A survey involving 31 individual from Kampung Sayong Tebing and Kampung Sayong Hulu, Mukim Sayong indicates that the women community's preparedness for disaster risk management is at risky level, with an low readiness score of 4.2 out of 6.

The assessment covered six (6) key areas:

i. Experience with past disasters
ii. Knowledge of disaster risk management
iii. Losses sustained from disasters
iv. Actions and planning for disaster response
v. Community recovery strategies
vi. Environmental cleanliness and health standards

Women in disaster-prone communities continue to face considerable risks across several areas of disaster experience and risk reduction practices. The evaluation highlights that many women have direct experiences with disasters and remain vulnerable, as evidenced by consistently high average risk ratings across all assessed categories. Despite having a certain level of knowledge in disaster risk management, women often encounter barriers when translating this knowledge into effective action, which may be due to limited resources, restrictions in community participation, or inadequate access to timely information.

The assessment further underscores that women frequently suffer significant losses during disasters, affecting not just their economic situation but also the overall well-being of their families. Recovery remains a sustained challenge, with many women struggling to participate in or benefit from community recovery strategies and planning processes. The risk scores associated with action and planning in disaster management suggest that women are not yet fully empowered to lead or contribute meaningfully to preparedness and response efforts, often sidelined due to traditional roles or systemic barriers.

Environmental cleanliness and health standards are also highlighted as areas of concern, with risk scores indicating that post-disaster environments may be unsafe or unhealthy, disproportionately impacting women who typically manage household health and sanitation. Taken together, these findings show that while women are resilient and central to disaster response and recovery, they need stronger inclusion, targeted support, and empowerment to transform their knowledge and experience into safer, more resilient communities. Their voices, insights, and leadership are crucial for advancing effective disaster risk reduction that addresses their unique needs and challenges.

10.0 Respondents Analysis

A total of 31 individuals participated in the community engagement activity. However, some entries have missing age values, but every entry is counted for the total. The demographic breakdown by age group is presented below:

Table 3: Age Group Distribution by Ages

Age Group	Total
Below 12	0
13–17	4
18–24	1
25–30	0
31–40	9
41–50	4
51 and above	12

Key Observations

- The largest group is 51 and above, indicating an older demographic predominance in this sample.
- There are no individuals in the age below 12 or 25-30 age group.
- The age 31-40 group is the second largest population after 50 and above.

Participation is strongest among elderly women aged 51 and above, who form the core of the group's active and experienced members. Women aged 31 to 50 are also well represented, showing continued involvement from those who are already established. In contrast, younger women under 25 are less active, and there's a clear absence of those aged 25 to 30. This points to possible challenges in reaching or engaging younger adults. Overall, the group's activities rely largely on the commitment of senior and middle-aged members.

Table 4: List of CBDRM Women recipients in Mukim Sayong, Kuala Kangsar

No	Name	Gender	Age
1	Wan Zaitul Akhmar Bt Hj Meor	Female	44
2	Azidah Bt Abd Wahab	Female	62
3	Lela Wati Bt Mad Zahari	Female	58
4	Nor Fazilah Bt Mohd Hanifah	Female	37
5	Adrianna Resshqaleesya	Female	12
6	Rosliza	Female	39
7	Amarul	Female	39
8	Aqeelah Reeshzzati	Female	16
9	Zaleha Bt Sabri	Female	37
10	Rahaidah Bt Isa	Female	49
11	Noor Shamsiah Bt Abd Bakak	Female	62
12	Khairiah Osman	Female	61
13	Rahmah Bt Abd Manap	Female	59
14	Yong Azami	Female	68
15	Norsiah	Female	67
16	Salmi	Female	54
17	Farahain	Female	33
18	Razak	Female	20
19	Normah Mohd Yussof	Female	65
20	Nurkumblasmi Ab Mdnan	Female	48
21	Siti Mariam Bt M. Asrul	Female	n/a
22	Siti Balqis Bt M. Asrul	Female	16
23	Rohana	Female	66
24	Nur Zuliana Ramli	Female	40
25	Nur Dania Qaseh	Female	12
26	Hamah Mat Ali	Female	47
27	Nur Atikah	Female	17
28	Izzara	Female	16
29	Nur Nazirah Badri	Female	38
30	Aisyah Umairah Bt Zainuddin	Female	39
31	Nurzahra Nisa Bt Zaiddin	Female	35

11.0 Appendix









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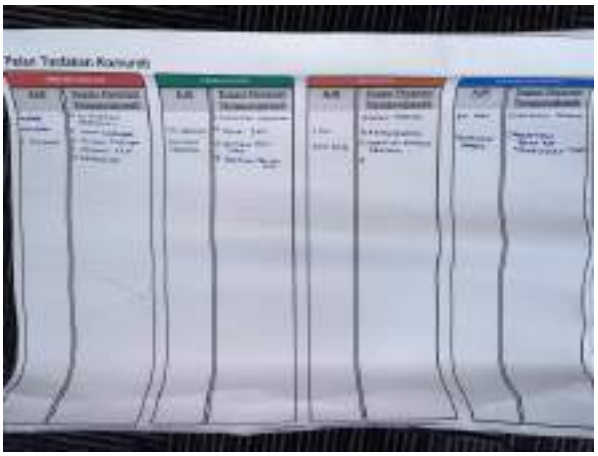
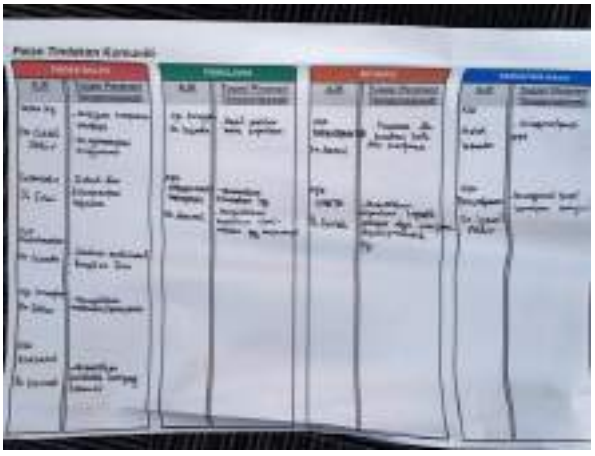
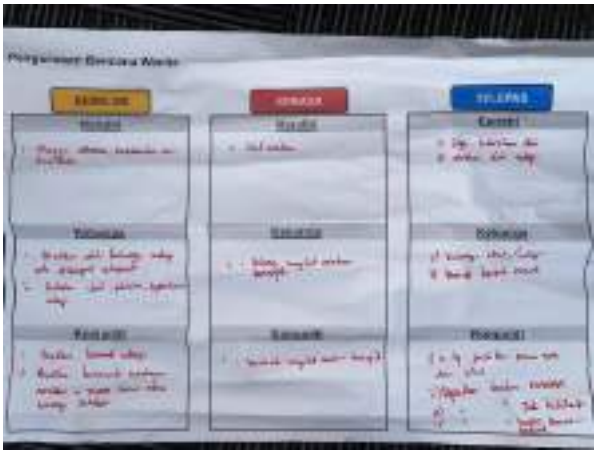
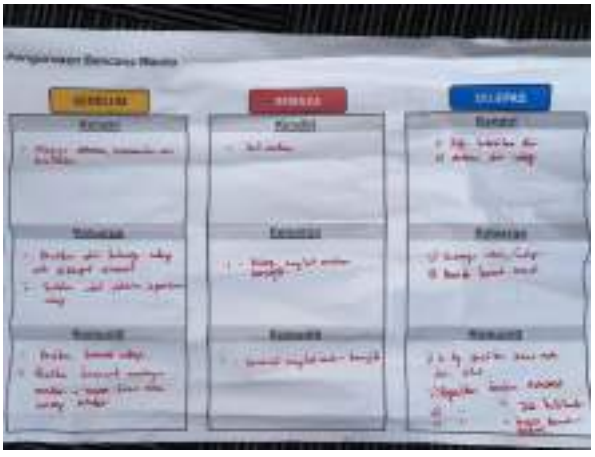
1926
BANJIR BESAR
1967
BANJIR
1993
BANJIR
2014
BANJIR
2021
BANJIR
COVID-19


TAHUN
JENIS BENCANA
TINDAKAN TERHADAP
1967
Banjir besar
1972
Banjir
2014
Banjir


Pelan Tindakan Komuniti


Pelan Tindakan Komuniti


Pengurusan Bencana Alamiah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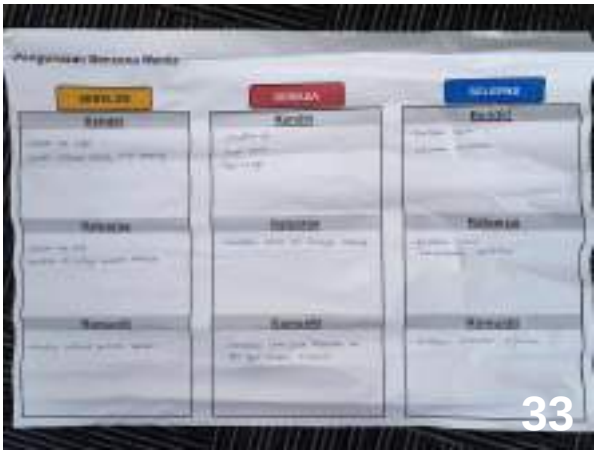
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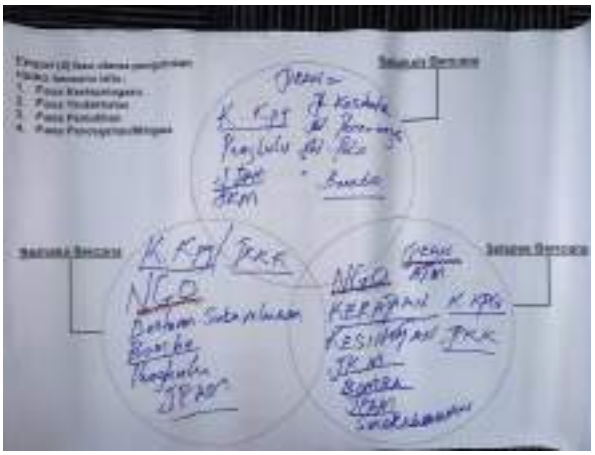

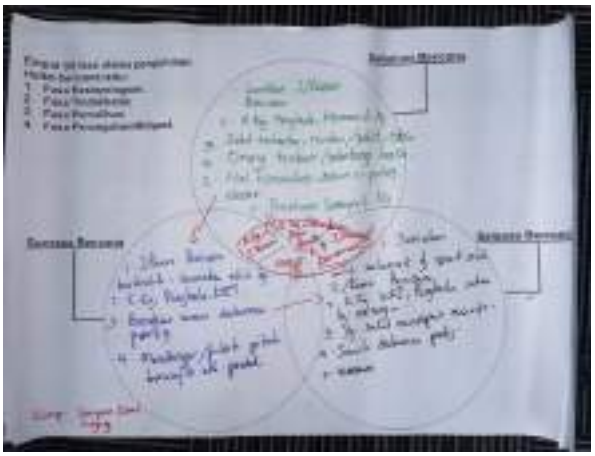


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12.0 Appreciation

MERCY Malaysia HQ
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CBDRM Subject Matter Expert
Ms Lilawati Ab Wahab,
Ms Shafikah Saharuddin
Ms Syahmimi Ayuni Ramli
Ms Noradzsyiah Adzhar

Think City
Dr Yogeswary Chellapan, Senior Manager
Ms Ilana Aqilah Abd Ghafar, Associate

thinkCITY
Bersama Membentuk Bandar Berdaya Huni.

mercy MALAYSIA

YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

COMMUNITY-BASED DISASTER RISK MANAGEMENT (CBDRM) FOR WOMEN

MUKIM KOTA LAMA KIRI, KUALA KANGSAR

Table of Contents

1.0 Background

The Community-Based Disaster Risk Management (CBDRM) for Women project is a strategic collaboration between Think City and MERCY Malaysia, aimed at strengthening community resilience through women's empowerment. Recognising women as central actors in sustaining households, livelihoods, and cultural practices, the initiative seeks to document, highlight and integrate their traditional knowledge, lived experiences, and leadership roles into disaster risk reduction strategies. By systematically documenting women's indigenous practices such as resource management, early warning responses, social support network and community-based approaches, the project not only safeguards cultural heritage but also positions women as key contributors to disaster preparedness and resilience. The knowledge and models developed will serve as valuable references for government agencies, policy-makers, and other vulnerable communities. Ultimately, this approach fosters inclusivity, adaptability, and sustainability in building disaster-ready societies.

2.0 Objectives

i. To empower women as leaders and knowledge holders by integrating their cultural heritage, traditional wisdom, and livelihood practices into community-based disaster risk reduction frameworks.

ii. To establish a transferable knowledge model through the documentation of women-led and community-rooted practices, providing references for policy-makers and replication in other vulnerable communities.

3.0 Programme Summary

Programme	Community-Based Disaster Risk Management (CBDRM) for Women at Mukim Kota Lama Kiri, Kuala Kangsar
Date	July 20th, 2025 (Sunday)
Time	08:00 am to 1:30 pm
Venue	Dewan Kampung Jias, Kota Lama Kiri
Total Fund	RM196,000
Funder	Think City
Recipients	54 recipients

4.0 Programme Agenda

Time	Activities
8:00 am – 8:15 am	Registration and breakfast
8:15 am – 8:30 am	Welcoming speech and introduction - Think City - MERCY Malaysia
8:30 am – 8:35 am	CBDRM Pre-Assessment
8:35 am – 12:05 pm	**Capacity Building** **Module 1: Introduction to Disaster Risk Management** (Understanding the basic phases of disaster risk reduction, and the concept of disaster risk based on hazard, vulnerability, and capacity) Speaker: Ms Yuhainis Abdul Talib Fasilitator: 1. Ms Nur Athirah Binti Sakah 2. Ms Nor Asiah binti Hashim 3. Ms Siti Zaleha Abdullah **Module 2: Community Preparedness in Disaster** (Understanding of the importance and effective preparedness measures in facing disasters) Speaker: Ms Yuhainis Abdul Talib Fasilitator: 1. Ms Nur Athirah Binti Sakah 2. Ms Nor Asiah binti Hashim 3. Ms Siti Zaleha Abdullah

8:35 am – 12:05 pm	**Module 3: Community-Based Disaster Management** (Exposure of the community to activities and implementation of preparedness measures in facing disasters) Speaker: Ms Nur Athirah Binti Sakah Fasilitator: 1. Ms Yuhainis Abdul Talib 2. Ms Nor Asiah binti Hashim 3. Ms Siti Zaleha Abdullah **Module 4: Site Observation** (Understanding the local community's awareness in the mitigation and preparedness phases of disaster management to develop their own disaster action plan with a systematic map) Speaker: Ms Nur Athirah Binti Sakah Fasilitator: 1. Ms Yuhainis Abdul Talib 2. Ms Nor Asiah binti Hashim 3. Ms Siti Zaleha Abdullah **Module 5: Disaster Action Plan** (Basic understanding in community-based disaster action plans, including the formation of committees and methods of information sharing) Speaker: Ms Yuhainis Abdul Talib Fasilitator: 1. Ms Nur Athirah Binti Sakah 2. Ms Nor Asiah binti Hashim 3. Ms Siti Zaleha Abdullah

12:05 pm – 12:30 pm	**Heatwave Preparedness and Response Planning** (Discussion on community understanding of climate change and extreme heat risks, as well as risk reduction methods for heatwaves at both individual and community levels) Speaker: Ms Nor Asiah binti Hashim
12:30 pm – 12:35 pm	CBDRM Post-Assessment
12:35 pm – 13:30 pm	- Lunch - Lucky Draw - Closing Speech by Chief Village Kampung Basong - Photography session
13:30 pm	Disperse

5.0 Overview of Mukim Kota Lama Kiri

Based on the Draft Local Plan for Kuala Kangsar District 2035 (Replacement), Mukim Kota Lama Kiri is situated within Planning Block (BP) 1.3, encompassing a land area of 33,148.36 hectares. The report indicates that 12.04% of the area is designated as built-up, while 87.96% remains as non-built-up land, offering ample space for sustainable development and conservation initiatives. Mukim Kota Lama Kiri is blessed with a wealth of unique cultural and heritage assets, such as forest-based crafts, and traditional heritage homes. These elements contribute to the area's identity and offer strong potential for heritage-based tourism and community empowerment, ensuring that local traditions are preserved and celebrated for generations to come. While the area is located near the Perak River basin, which is susceptible to flooding, this presents an opportunity to strengthen disaster resilience, enhance infrastructure planning, and implement community-based disaster risk management. By embracing proactive strategies, Mukim Kota Lama Kiri can continue to thrive as a culturally rich and resilient community.

5.1 Flood Risks and Community Conditions

The flood history of Mukim Kota Lama Kiri mirrors the broader pattern of riverine flood vulnerability in the Kuala Kangsar district. Significant flood events in 1967, 1993, 2014, and most recently in May 2024 have had substantial social and economic consequences for the local communities. These recurring incidents highlight the persistent exposure of the area to flood risks, particularly due to its geographical location along the Perak River.

Flooding in Mukim Kota Lama Kiri is primarily driven by intense monsoonal rainfall and the overflow of the Perak River. The low-lying topography of the riverbanks makes the area particularly susceptible to rapid rises in water levels, especially during periods of heavy rain or when water is released from upstream reservoirs such as the Cenderoh Dam. The 2024 flood was further exacerbated by dam water releases, necessitating the activation of temporary relief centers to accommodate displaced residents.

According to residents of Kampung Jias and Kampung Basong, during the flash flood on May 18, 2024, approximately 28 individuals from 16 families were evacuated and temporarily relocated to the relief centres at Sekolah Kebangsaan Clifford, Kuala Kangsar. The repeated occurrence of severe floods over the decades underscores the urgent need for continued investment in flood risk reduction measures, including enhanced monitoring, early warning systems, and sustainable flood mitigation infrastructure. The persistent vulnerability of Mukim Kota Lama Kiri demands a coordinated and proactive approach to strengthen community resilience against future flood events.

5.2 Community Profile

Mukim Kota Lama Kiri is located in Kuala Kangsar, Perak, along the Perak River. It includes several traditional Malay villages with strong cultural heritage and historical links to the Perak Sultanate. While the river supports farming and tourism, it also causes frequent flooding in the area. The local economy depends on small-scale farming, such as paddy and fruit planting, and traditional crafts. Some families also earn from informal tourism related to the area's history and riverside attractions.

However, these income sources are seasonal and easily affected by floods, leading to financial insecurity. The area is rich in cultural assets, including old wooden houses, mosques, suraus, cemeteries, and village customs. These are important to the community's identity but are at risk due to repeated floods and a lack of proper protection or documentation.

According to the Kuala Kangsar District Local Plan 2035, the population of Mukim Kota Lama Kiri was approximately 27,200 in the year 2025, with a projected annual growth rate of 0.41%. The majority of the population in the area is Malay and resides in rural settings. A significant number of young people have migrated to urban areas in search of better education and employment opportunities, resulting in an ageing population being left behind. This demographic shift impacts the community's capacity to preserve cultural traditions and respond effectively to emerging challenges. Approximately 54 women from Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri participated in the Community-Based Disaster Risk Management (CBDRM) for Women initiative held at Dewan Kampung Jias, Kota Lama Kiri representing around 0.19% of the total population of the mukim.

5.3 Key Issues

i. Many women rely on small-scale farming, traditional crafts, or informal tourism for income.
ii. With younger generations migrating to urban areas, many women, especially older ones are left behind in rural villages.

6.0 Community Based Disaster Risk Management (CBDRM) Women

Kuala Kangsar, renowned for its cultural heritage and traditional livelihoods, faces increasing vulnerability to recurrent flooding that threatens not only lives and infrastructure but also the vital roles women play in sustaining households, heritage crafts, agriculture, and small-scale tourism. Women, often at the forefront of caregiving, economic contribution, and knowledge transmission, are disproportionately affected by these climate-related risks.

In response, the Community-Based Disaster Risk Management (CBDRM) Women Programme is proposed in Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri, to empower women as agents of resilience. The programme seeks to strengthen women's capacity by equipping them with practical skills and knowledge in disaster preparedness, response, and recovery, while valuing and integrating their traditional practices and lived experiences into community-based strategies.

By placing women at the centre of resilience-building, the initiative promotes leadership, safeguards cultural and economic livelihoods, and ensures their voices are included in decision-making processes. Ultimately, this approach advances gender-responsive disaster risk reduction and supports long-term community sustainability.

7.0 Key Activities and Focus Areas

i. Equip women with practical knowledge and hands-on skills in disaster risk reduction, including early warning systems, household safety measures, evacuation planning, and post-disaster recovery.

ii. Strengthen women's roles in safeguarding traditional crafts, agriculture, and small-scale tourism by integrating livelihood protection and recovery strategies into disaster planning.

iii. Ensure women's active participation in community disaster committees and planning processes, creating opportunities for them to lead resilience initiatives and influence policy at the local level.

8.0 Summary of Women Capacity Building

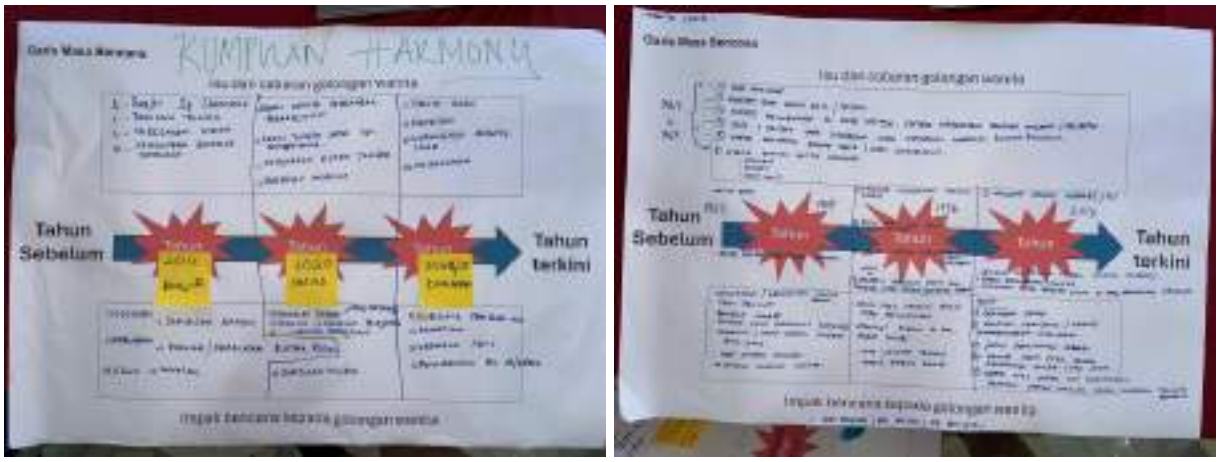
The women capacity-building activity in Mukim Kota Lama Kiri involved a total of 54 female participants from Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong (for full details, please refer to Section 10.0: Respondents Analysis). This hands-on session was conducted at the Dewan Kampung Jias, Kota Lama Kiri facilitated by a CBDRM Women subject matter expert, who provided exposure, knowledge sharing, and guidance on community-level disaster risk management. Key activities carried out during the session included:

- Disaster timeline-related activities
- Risk Mapping
- Disaster Management Action Plan
- Seasonal Calendar

These participatory exercises aimed to empower the women community with practical tools and strategies to enhance their preparedness and resilience against potential disasters.

8.1 Disaster timeline-related activities

This activity centered on documenting and reflecting on the history of disasters affecting the settlement area in Mukim Kota Lama Kiri, with particular emphasis on their impact on women's daily lives and livelihoods. The session created a safe space for women to share personal experiences, from immediate challenges during disaster events to long-term struggles in recovery and adaptation. Through these discussions, women highlighted the unique burdens they carry, such as caregiving responsibilities and sustaining household economies while also identifying critical issues that continue to shape community resilience.



Picture 1: Outcome of the discussion and information sharing on issues, challenges, and disaster impacts based on the disaster timeline experienced by the women communities of Kampung Jias and Kampung Basong.

8.1.1 Findings

Discussions with community members revealed that between 1967 and 1970, a major flood submerged almost the entire Kuala Kangsar District, causing extensive damage to properties and local livelihoods. At that time, no early warning systems or preparedness measures were in place, as communication technologies were limited. The only active temporary evacuation centre was the Malay College Kuala Kangsar (MCKK). Assistance provided by security agencies, particularly the army and police, was limited to food supplies, basic medical support, and security control. The community also faced outbreaks of flood-borne diseases such as malaria, dengue, and skin infections. In response to this disaster, many residents, especially those living near the Perak River, began keeping boats at home as a precautionary measure.

In 1974, another major flood struck the district. This time, early evacuation notices and preparedness measures were disseminated through radio broadcasts. Community halls were opened as temporary shelters, while the Kuala Kangsar Hospital served as the main healthcare base for the district. The army and police played a central role in ensuring public safety and assisting with relocation efforts.

A significant flood event occurred again in 2014, affecting settlements in Sungai Chempias, Mukim Lubuk Merbau, and Mukim Kota Lama Kiri. Severe damage was reported, including destruction of houses, livestock deaths, and heavy losses to economic activities such as fisheries, livestock rearing, and agriculture. Floodwaters also increased the risk of waterborne diseases, including leptospirosis. Community representatives from Kampung Kolam and Kampung Banjir reported that flash floods occurred due to the area's low-lying terrain and overflow from a large village drain. Residents also highlighted frequent encounters with venomous animals during the flood season. However, due to a well-maintained drainage system, the flood impact in Kampung Kolam was less severe compared to neighbouring villages. During evacuations, residents of Kampung Kolam relocated to designated Temporary Evacuation Centres (PPS), namely Sekolah Kebangsaan Datin Khadijah or Sekolah Kebangsaan Clifford, while residents of Kampung Basong and Kampung Jias were directed to Dewan Kampung Jias.

Mukim Kota Lama Kiri was also heavily affected by the COVID-19 pandemic, which recorded a high number of deaths within families. Many women, including single mothers, lost their livelihoods, particularly those involved in small-scale businesses essential for daily household income. Pregnant women faced difficulties accessing healthcare, especially in rural areas, where routine medical check-ups were limited. Additionally, economic strain from loss of income contributed to a rise in domestic violence cases within families.

In 2023, strong winds accompanied by heavy rainfall struck Kampung Basong and Kampung Jias, causing damage to the roofs of many homes. Small-scale entrepreneurs were also affected, with facilities and business assets destroyed by the storm.

In 2024, Mukim Kota Lama Kiri experienced extreme heat conditions. Community members reported cases of heatstroke-related deaths, particularly among elderly residents and children. Women in the community took precautionary measures by reducing outdoor activities during midday and afternoon hours. The extreme heat also disrupted water supply and led to increased household electricity usage, raising utility expenses.

Table 1: Summary of Disasters, Impacts, and Community Responses in Kuala Kangsar District (1967–2024)

Year / Period	Type of Disaster	Main Impacts	Community Responses
1967–1970	Major Flood	• Extensive flooding submerging almost the entire Kuala Kangsar District. • Severe property and livelihood damage. • Outbreaks of malaria, dengue, and skin infections. • Lack of early warning systems or preparedness due to limited communication technology.	• Malay College Kuala Kangsar (MCKK) served as the only temporary evacuation centre. • Assistance from the army and police limited to food, basic medical aid, and security. • Residents began keeping boats at home as a precautionary measure.
1974	Major Flood	• Property damage and displacement across the district. • Public health concerns due to stagnant water and disease risk.	• Early evacuation notices broadcast via radio. • Community halls opened as temporary shelters. • Kuala Kangsar Hospital served as the main healthcare base. • Army and police coordinated evacuation and safety operations.
2014	Severe Flood	• Flooding affected Sungai Chempias, Mukim Lubuk Merbau, and Mukim Kota Lama Kiri. • Destruction of houses, livestock deaths, and severe economic losses to agriculture, livestock, and fisheries. • Outbreaks of waterborne diseases such as leptospirosis. • Frequent encounters with venomous animals during flood season.	• Evacuation to designated Temporary Evacuation Centres (PPS): SK Datin Khadijah, SK Clifford, and Dewan Kampung Jias. • Kampung Kolam experienced less severe impact due to effective drainage maintenance. • Post-disaster recovery supported by local community coordination.
2023	Strong Winds & Heavy Rain	• Roofs of houses damaged in Kampung Basong and Kampung Jias. • Loss of small business assets and facilities. • Economic setback for local entrepreneurs.	• Community-led house repair and recovery efforts. • Assistance requested from local authorities for structural rehabilitation. • Entrepreneurs sought support to rebuild business assets.
2024	Extreme Heat	• Prolonged high temperatures and heatstroke-related fatalities, especially among elderly and children. • Water supply disruption and increased electricity usage. • Economic strain from higher utility costs.	• Women and vulnerable groups reduced outdoor activities during peak heat hours. • Adoption of water-saving and energy conservation practices. • Community awareness raised on heat risk prevention and health precautions.

Picture 2: Presentation on disaster timeline-related activities from Kampung Basong.

“The flood swept away our fish cages and with them the years of sacrifice we had poured into building our livelihood. The loss was almost RM120,000, but no amount of money can compare to the relief I feel knowing my children and family are still alive. For that, I remain truly grateful,” shared a woman from Kampung Jias.

8.2 Risk Mapping

A community risk mapping exercise was carried out with the aim of documenting local knowledge on hazard-prone areas, vulnerabilities, and community capacities, specifically highlighting the perspectives of women. This initiative was designed to support more inclusive disaster preparedness and response strategies by ensuring women's voices and lived experiences were captured.

During the session, women participants were introduced to basic mapping techniques and actively contributed to identifying key elements in their locality. These included high-risk zones, critical community assets, and vulnerable groups, with particular attention to women, children, and elderly residents. Women also highlighted the importance of protecting cultural and heritage sites in Mukim Kota Lama Kiri, which form part of their community identity and livelihood.

Picture 3: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong.

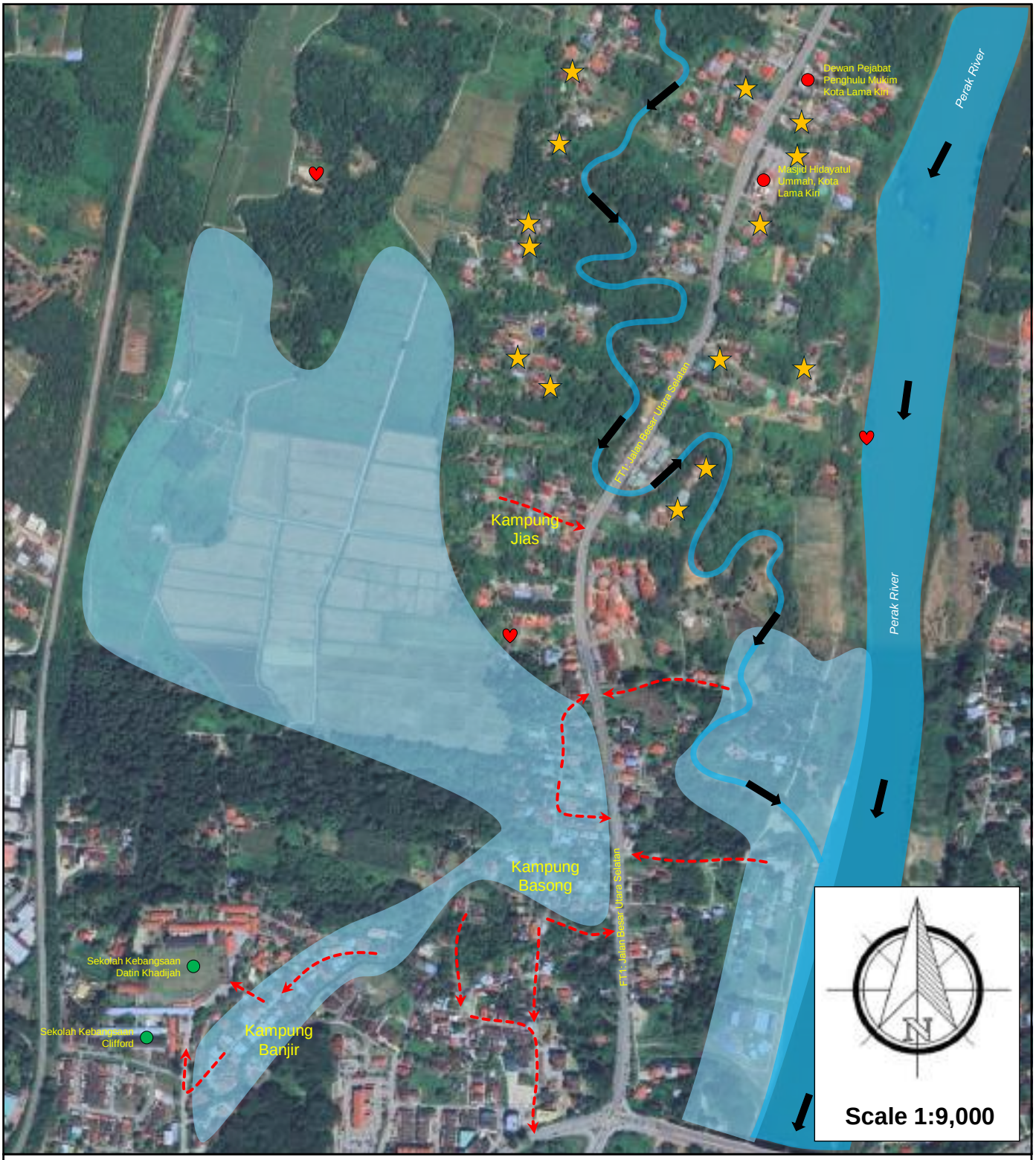
8.2.1 Findings

The participatory mapping exercise in Mukim Kota Lama Kiri revealed key insights into disaster risk, local knowledge, and cultural heritage. Residents identified flood-prone areas along the Perak River, safe zones, and evacuation routes, while also documenting culturally significant sites such as old tombs and heritage homes located within vulnerable zones. The findings highlight the need to balance flood risk management with the preservation of local livelihoods and cultural identity.

In addition, the mapping exercise enabled participants to identify safe zones and evacuation routes that could be used during flood events. Elevated areas and public facilities, such as Sekolah Kebangsaan Datin Khadijah and Sekolah Kebangsaan Clifford, were recognised as suitable locations for temporary evacuation centres (PPS). Through participatory mapping activities, the community also mapped nearby water bodies and improving their understanding of safe evacuation pathways that could be used in the event of a disaster.

Further analysis indicates that low-lying areas along the Perak River, particularly within Kampung Banjir and Kampung Kolam, are highly susceptible to flooding. Flash floods in these locations are typically triggered by intense rainfall and can develop rapidly—within a few hours—lasting for several days depending on river flow conditions and the capacity of local drainage systems. Floodwater depths are generally estimated between 0.6 and 1.2 metres, equivalent to knee- to waist-level.

The mapping activity also documented the presence of small, medium enterprise (SMEs) and small-scale agricultural activities, including scattered vegetable farming and paddy cultivation, which are common livelihood sources for many households in the mukim. Additionally, cage fish farming (ikan sangkar) in the Perak River was identified as a significant local economic activity. These sectors are especially vulnerable to flooding and extreme weather events, which can result in loss of income and damage to crops and aquaculture infrastructure.



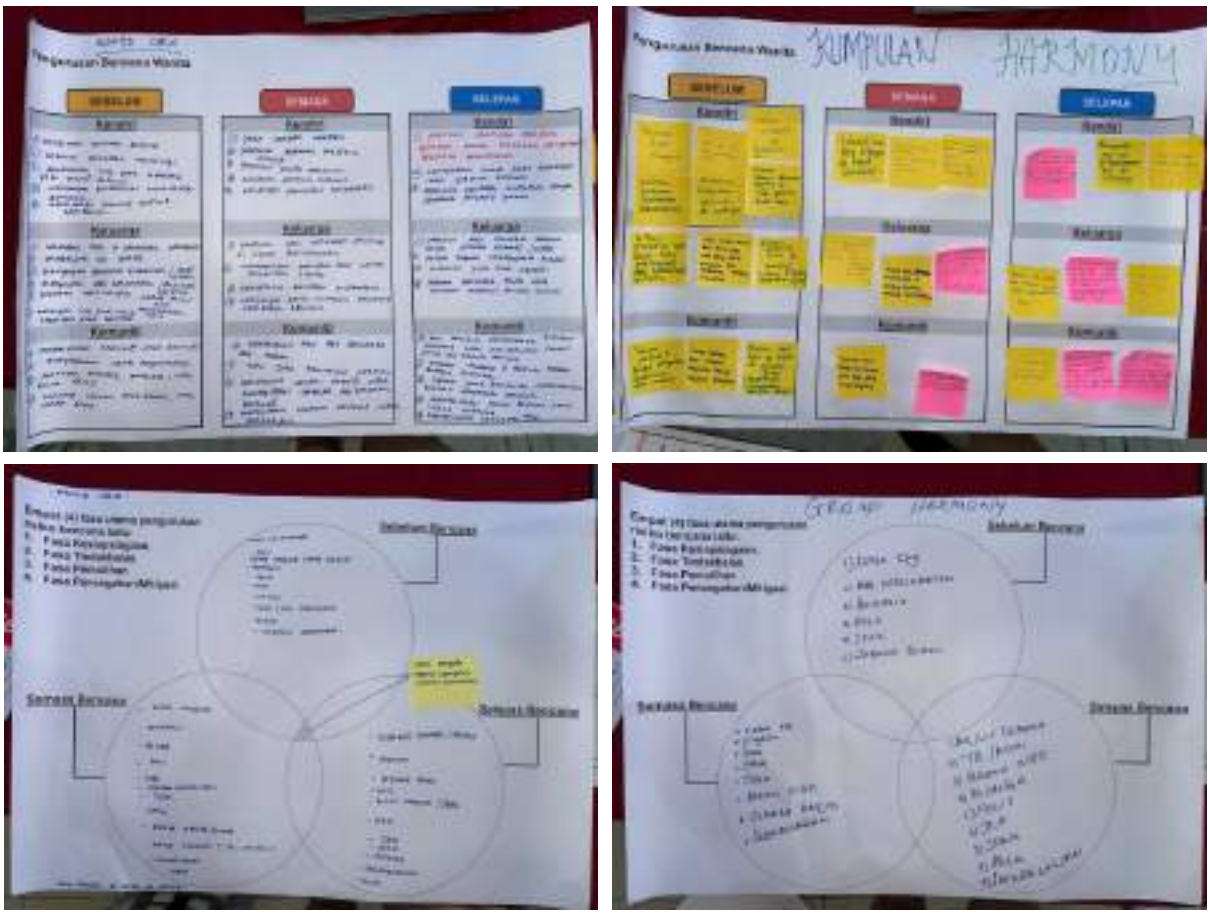
Evacuation and Emergency Response Plan for Mukim Kota Lama Kiri:
Kampung Jias and Kampung Basong

Legend

- River Flow
- Flood Area
- Proposed PPS
- Existing PPS
- Proposed Evacuation Route
- Economic Activity
- Tourism and Heritage Site

8.3 Disaster Management Action Plan

The Disaster Management Action Plan activity seeks to establish a women-inclusive community-based disaster organisation that empowers women to play an active role in disaster risk management. The initiative aims to reduce risks while strengthening the capacity and resilience of women and their families across all phases of disaster response, recovery, mitigation, and preparedness. By placing women at the centre of planning and action, the programme ensures their voices, skills, and leadership are integral to building a safer and more resilient community.



Picture 4: Outcome of the group discussion on self, family, and community disaster management for scenarios before, during, and after a disaster and emergency actions and responses across four phases—preparedness, response, recovery, and prevention/mitigation—before, during, and after a disaster

8.3.1 Findings

The Disaster Management Action Plan is organised around four key phases — Preparedness, Response, Recovery, and Mitigation — with specific objectives and committees established for each. Women play a central role across these phases, contributing their knowledge, caregiving responsibilities, and leadership to strengthen community resilience and ensure inclusive coordination during flood events.

Preparedness

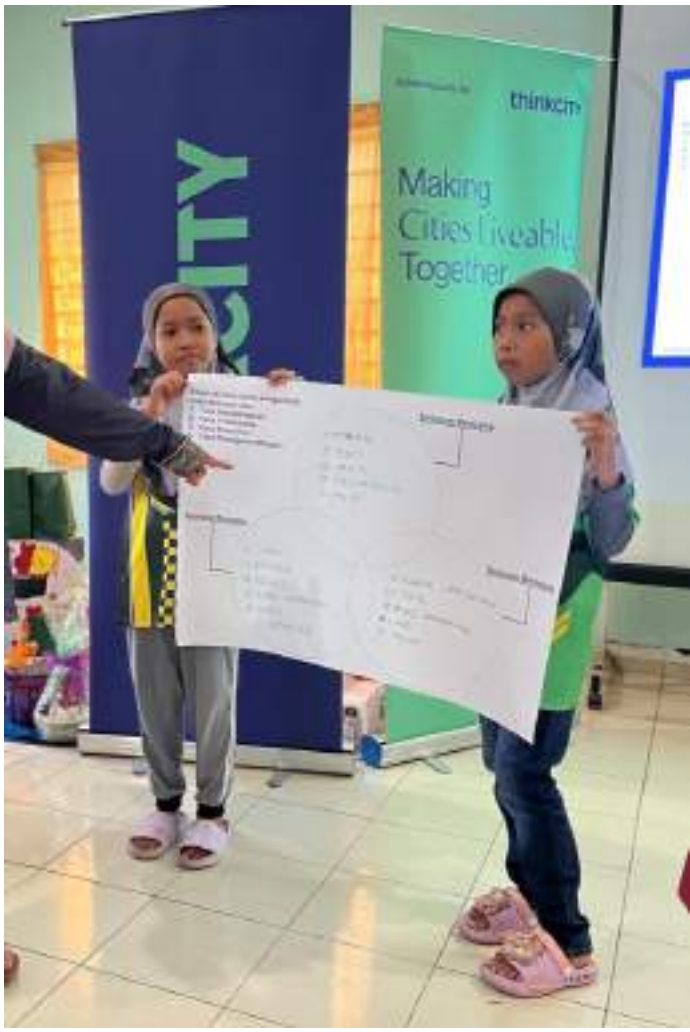
- Prepare and secure important documents, medicines, clean water, and adequate food supplies.
- Ensure vehicles are maintained and ready for evacuation to safe locations.
- Switch off and relocate essential electrical appliances to higher ground before evacuation to reduce damage risks.
- Strengthen disaster management knowledge by attending briefings or risk reduction programmes.
- Acquire basic first aid skills, including CPR, to serve as first responders during emergencies.
- Obtain accurate and verified information only from trusted sources.
- Share emergency information with all family members to ensure household readiness.
- Regularly update neighbours and the wider community on safety matters, including evacuation centre locations.
- Plan and coordinate evacuation routes with residents, making use of communication platforms such as WhatsApp.
- Encourage planting activities along riverbanks and slopes to reduce soil erosion and landslide risks.
- Prioritise protection for vulnerable groups, including persons with disabilities, the elderly, children, and pregnant women.
- Identify and maintain contact with relevant individuals or agencies able to provide early assistance during or after an emergency.

Responses

- Remain calm, ensure family members stay alert, and follow instructions from security agencies throughout the evacuation process.
- Switch off electrical sources, secure the house, and bring essential items such as important documents, medicines, and emergency equipment when relocating to a Temporary Evacuation Centre (PPS).
- Confirm that all family members are accounted for, understand the disaster action plan, and follow emergency procedures to minimise risks during relocation.
- Maintain clear communication with family members and neighbours to ensure coordination and mutual support.
- Obtain verified guidance from security agencies on safe routes or designated gathering points, and promptly report emergencies or trapped victims to the relevant authorities.

Recovery and Mitigation

- Ensure the house structure and electrical systems are safe before reoccupying or using appliances, to prevent accidents.
- Monitor the physical health of family members to prevent waterborne diseases during recovery.
- Pay attention to mental health and emotional well-being to support one another through the recovery process.
- Engage in community clean-up (gotong-royong) with your neighbours to restore the environment, reduce health risks, and support community recovery.
- Prioritise and manage incoming aid to match community needs and minimise wastage.
- Consider obtaining personal and family insurance to reduce future medical and health-related costs.

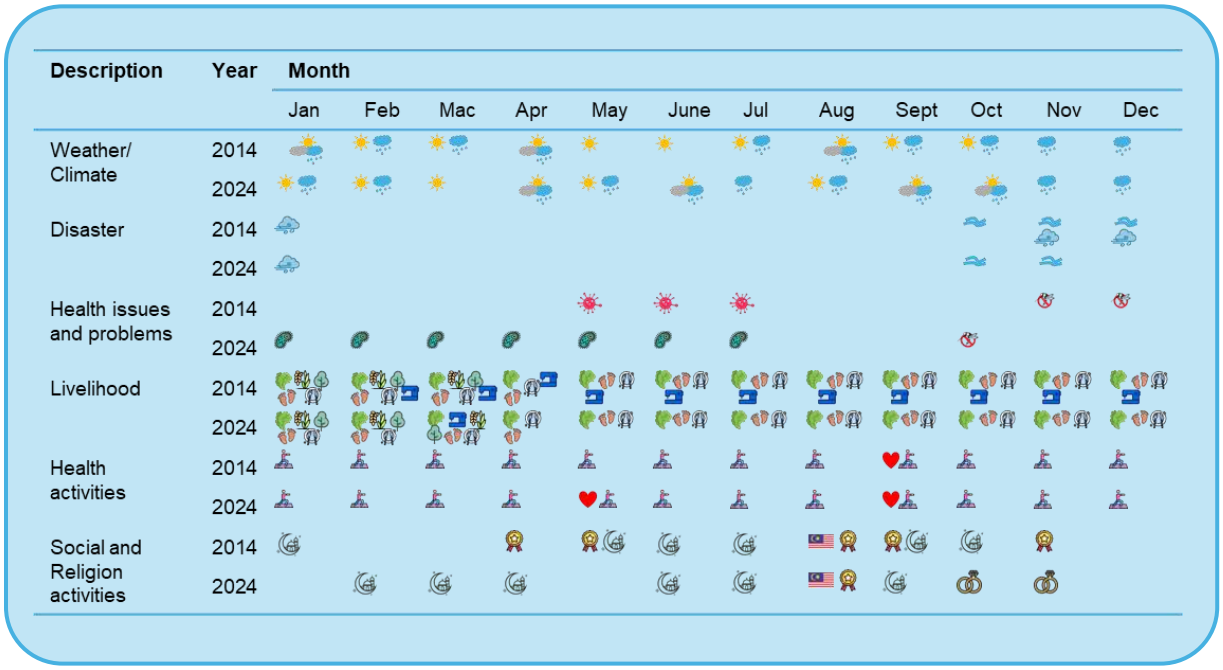


8.4 Seasonal Calendar

A seasonal calendar is a participatory tool that enables women in the community to map and understand the timing of important events, activities, and hazards throughout the year. Built on women's local knowledge and lived experiences, the calendar highlights how seasonal changes, climate patterns, livelihood cycles, and cultural practices intersect with disaster risks such as floods, droughts, and disease outbreaks. By actively engaging women in the process, the tool not only captures their unique perspectives—such as caregiving duties, food security, health, and household management—but also strengthens their capacity to plan and prepare more effectively for recurring challenges that directly affect their families and communities.

Picture 5: Outcome of the seasonal calendar activity based on the experiences of the communities from Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong, comparing the years 2014 and 2024.

8.4.1 Findings



The seasonal calendar activity provided valuable insights into how women in the community perceive and adapt to changes in climate, health, and livelihood patterns between 2014 and 2024. Women highlighted the following key observations:

Climate and Weather Patterns

Women noted a significant increase in unpredictable weather in 2024 compared to 2014, with longer rainy seasons and sudden changes in temperature. Flood events that previously occurred between October and December in 2014 were still present in 2024, mostly in October–November, though women observed improvements in water drainage in low-lying areas such as Kampung Banjir and Kampung Kolam.

Disaster and Health Risks

Health issues were a strong concern among women. In 2014, influenza (May–July) and dengue (November–December) were most common. By 2024, however, women reported that HFMD (Hand, Foot and Mouth Disease) became the most pressing health issue, particularly affecting children, with cases recorded from January to July. Dengue was less widespread, appearing only in October.

Livelihood and Economic Activities
Women observed that livelihood activities remained consistent across both years, with rice planting and rubber tapping concentrated in January–March due to favourable weather. However, they expressed concern that sewing services, which many women depended on as an income source, were no longer in demand in 2024 except briefly in March for festive preparations. This decline directly affected women's opportunities for economic participation.

Community Health Initiatives
Women also emphasized the importance of health screenings. In 2014, screenings were only conducted in September, while in 2024, they took place in both May and September. Women welcomed this improvement, noting that it helped them monitor family health more effectively.

" I support my family by providing massage treatments for mothers, sometimes traveling as far as Taiping and Ipoh. Life is no longer as easy as it used to be, but I continue this work with determination for the sake of my family," shared a woman from Kampung Basong.

9.0 Community Assessment Summary

The community assessment was conducted using assessment forms collected from respondents who answered a set of questions designed to evaluate the community's level of preparedness and understanding in disaster risk management. The assessment focused on the following key components:

- Pre-Assessment Analysis - To gauge the initial awareness, knowledge, and preparedness level of the community before the engagement activities.
- Post-Assessment Analysis - To measure the improvement in understanding and readiness after participating in the programme.
- Evaluation of Community Experience and DRR Practices - To assess the community's past experiences with disasters and their current practices in reducing disaster risks.

9.1 Pre Assessment Analysis

Table 2: Disaster Risk Awareness in Mukim Kota Lama Kiri: Before attending Community-Based Disaster Risk Management Women Initiative

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	5 (11%)	6 (14%)	15 (34%)	10 (23%)	8 (18%)
2.	I know the importance of effective disaster risk reduction (DRR).	5 (11%)	10 (23%)	15 (34%)	10 (23%)	4 (9%)
3.	I know actions to reduce disaster risks for myself and my community.	6 (14%)	7 (16%)	20 (45%)	8 (18%)	3 (7%)
4.	I understand what outbreaks are and how diseases spread.	6 (14%)	11 (25%)	12 (27%)	12 (27%)	3 (7%)
5.	I know the types of health threats and harmful diseases.	7 (16%)	6 (14%)	14 (32%)	13 (30%)	4 (9%)
6.	I know good practices to maintain personal and community health.	6 (14%)	5 (11%)	15 (34%)	14 (32%)	4 (9%)
7.	I understand the negative impacts of disasters.	11 (25%)	2 (5%)	15 (34%)	10 (23%)	6 (14%)
8.	I know why building personal and community resilience is important.	12 (27%)	3 (7%)	17 (39%)	7 (16%)	5 (11%)
9.	I know effective ways to build resilience.	11 (25%)	9 (20%)	16 (36%)	5 (11%)	3 (7%)
10.	I can identify high-risk or dangerous areas in my community.	14 (32%)	6 (14%)	13 (30%)	7 (16%)	4 (9%)
11.	I know the safe places in my community.	12 (30%)	6 (14%)	12 (27%)	9 (20%)	5 (11%)
12.	I know how to strengthen community capacity to face disasters.	13 (32%)	9 (20%)	11 (25%)	6 (14%)	5 (11%)
13.	I understand the importance of a community-level Disaster Management Committee.	12 (27%)	6 (14%)	15 (34%)	6 (14%)	5 (11%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
14.	I know the key units needed in a Disaster Management Committee.	15 (34%)	5 (11%)	14 (32%)	8 (18%)	2 (5%)
15.	I know the roles of each unit in the Disaster Management Committee.	15 (34%)	5 (11%)	16 (36%)	5 (11%)	3 (7%)
16.	I understand my role as a woman in supporting my family and community during times of disaster.	11 (25%)	3 (7%)	17 (39%)	8 (18%)	5 (11%)
17.	I know where to access help and support such as food, healthcare services, and shelter during disaster	13 (30%)	6 (14%)	14 (32%)	7 (16%)	4 (9%)
18.	I am aware of the common challenges faced by women during disasters, such as caring for children and dependents, managing menstrual needs, ensuring safety, and accessing medicine.	13 (30%)	2 (5%)	14 (32%)	9 (20%)	6 (14%)
19.	I know what to do in the event of a disaster, even if my husband or other family members are not with me.	12 (27%)	3 (7%)	16 (36%)	6 (14%)	7 (16%)
20.	I understand how women can lead or contribute to disaster preparedness and response efforts.	12 (27%)	5 (11%)	13 (30%)	8 (18%)	6 (14%)
		211 (24%)	**115 (13%)**	**294 (33%)**	**168 (19%)**	**92 (10%)**

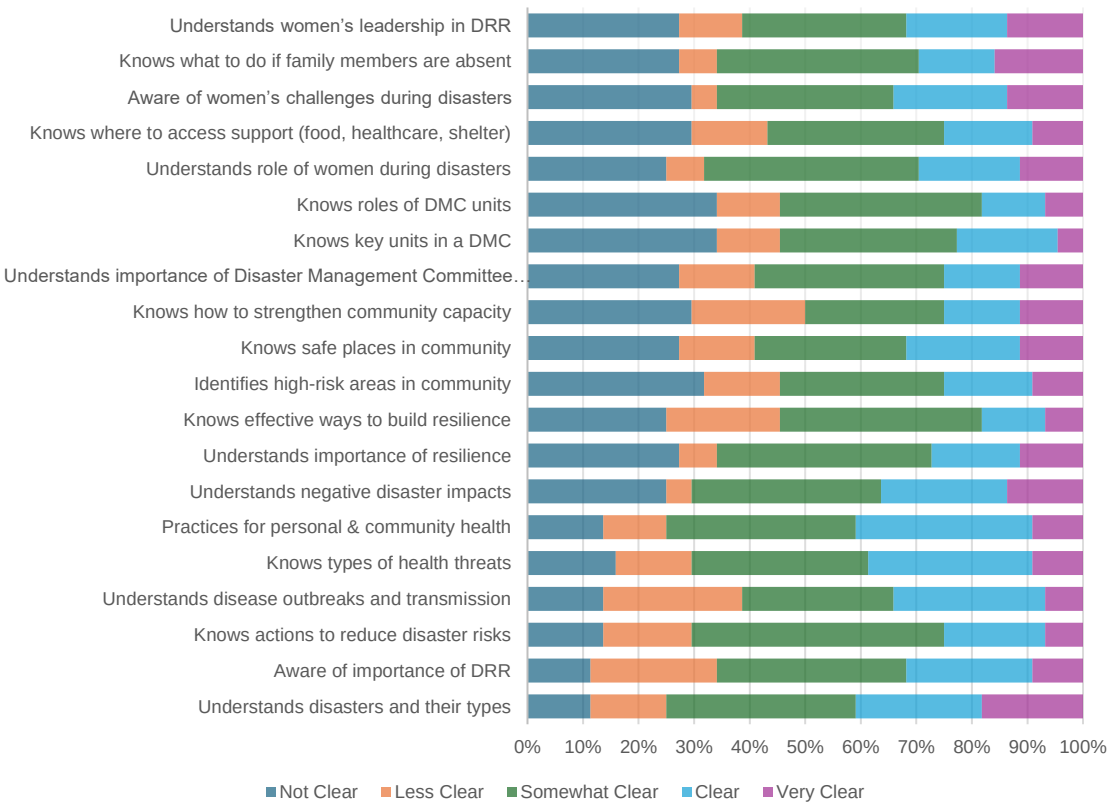


Figure 1: Disaster Risk Awareness in Mukim Kota Lama Kiri: Before attending Community-Based Disaster Risk Management Women Initiative

The baseline assessment of disaster risk awareness among women in Mukim Kota Lama Kiri shows varied levels of understanding prior to attending the Community-Based Disaster Risk Management Women Initiative. Overall, 24% of responses indicated "Not Clear" and 13% were "Less Clear," amounting to a combined 37% of uncertainty, while 33% were "Somewhat Clear" and 29% felt either "Clear" (19%) or "Very Clear" (10%). General knowledge about disasters and their impacts was relatively strong, with 79% of participants being at least somewhat clear on actions to reduce disaster risks and 62% clear on outbreak and disease spread. Health-related topics such as types of health threats and good personal and community health practices also showed higher clarity, with over 60% selecting "Clear" or "Very Clear." However, awareness declined with more specific disaster management topics. For example, 45% expressed lack of clarity regarding roles and key units of the Disaster Management Committee, and 52% were uncertain about strengthening community capacity for disasters. Similarly, 46% were unclear about identifying high-risk areas in the community, and 44% were unsure about safe places. Women's understanding of their roles during disasters and related challenges revealed that around 35%-37% were unclear or less clear, with only about 45%-50% indicating some level of clarity. These findings highlight foundational disaster awareness but also identify clear knowledge gaps — particularly in disaster governance and women's contributions — that should be prioritised in forthcoming trainings to better equip the community for disaster preparedness and resilience.

9.2 Post Assessment Analysis

Table 3: Disaster Risk Awareness in Mukim Kota Lama Kiri: After attending Community-Based Disaster Risk Management Women Initiative

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
1.	I understand what disasters are and the types that can affect people and communities.	5 (11%)	0 (0%)	3 (7%)	14 (32%)	22 (50%)
2.	I know the importance of effective disaster risk reduction (DRR).	5 (11%)	0 (0%)	7 (16%)	18 (41%)	14 (32%)
3.	I know actions to reduce disaster risks for myself and my community.	6 (14%)	2 (5%)	10 (23%)	14 (32%)	12 (27%)
4.	I understand what outbreaks are and how diseases spread.	8 (18%)	1 (2%)	5 (11%)	16 (36%)	14 (32%)
5.	I know the types of health threats and harmful diseases.	6 (14%)	1 (2%)	4 (9%)	17 (39%)	16 (36%)
6.	I know good practices to maintain personal and community health.	7 (16%)	1 (2%)	5 (11%)	17 (39%)	14 (32%)
7.	I understand the negative impacts of disasters.	14 (32%)	0 (0%)	1 (2%)	15 (34%)	14 (32%)
8.	I know why building personal and community resilience is important.	14 (32%)	0 (0%)	2 (5%)	17 (39%)	11 (25%)
9.	I know effective ways to build resilience.	13 (30%)	1 (2%)	3 (7%)	17 (39%)	10 (23%)
10.	I can identify high-risk or dangerous areas in my community.	13 (30%)	0 (0%)	1 (2%)	18 (41%)	12 (27%)
11.	I know the safe places in my community.	13 (30%)	0 (0%)	4 (9%)	15 (34%)	12 (27%)
12.	I know how to strengthen community capacity to face disasters.	14 (32%)	0 (0%)	6 (14%)	13 (30%)	11 (25%)
13.	I understand the importance of a community-level Disaster Management Committee.	14 (32%)	0 (0%)	5 (11%)	13 (30%)	12 (27%)
14.	I know the key units needed in a Disaster Management Committee.	14 (32%)	3 (7%)	4 (9%)	12 (27%)	11 (25%)
15.	I know the roles of each unit in the Disaster Management Committee.	13 (30%)	1 (2%)	8 (18%)	10 (23%)	12 (27%)
16.	I understand my role as a woman in supporting my family and community during times of disaster.	11 (25%)	0 (0%)	4 (9%)	11 (25%)	18 (41%)
17.	I know where to access help and support such as food, healthcare services, and shelter during disaster	12 (27%)	0 (0%)	6 (14%)	11 (25%)	15 (34%)
18.	I am aware of the common challenges faced by women during disasters, such as caring for children and dependents, managing menstrual needs, ensuring safety, and accessing medicine.	12 (27%)	0 (0%)	5 (11%)	10 (23%)	17 (39%)
19.	I know what to do in the event of a disaster, even if my husband or other family members are not with me.	12 (27%)	0 (0%)	6 (14%)	11 (25%)	15 (34%)
20.	I understand how women can lead or contribute to disaster preparedness and response efforts.	12 (27%)	0 (0%)	6 (14%)	11 (25%)	15 (34%)
		218 (25%)	**10 (1%)**	**95 (11%)**	**280 (32%)**	**277 (31%)**

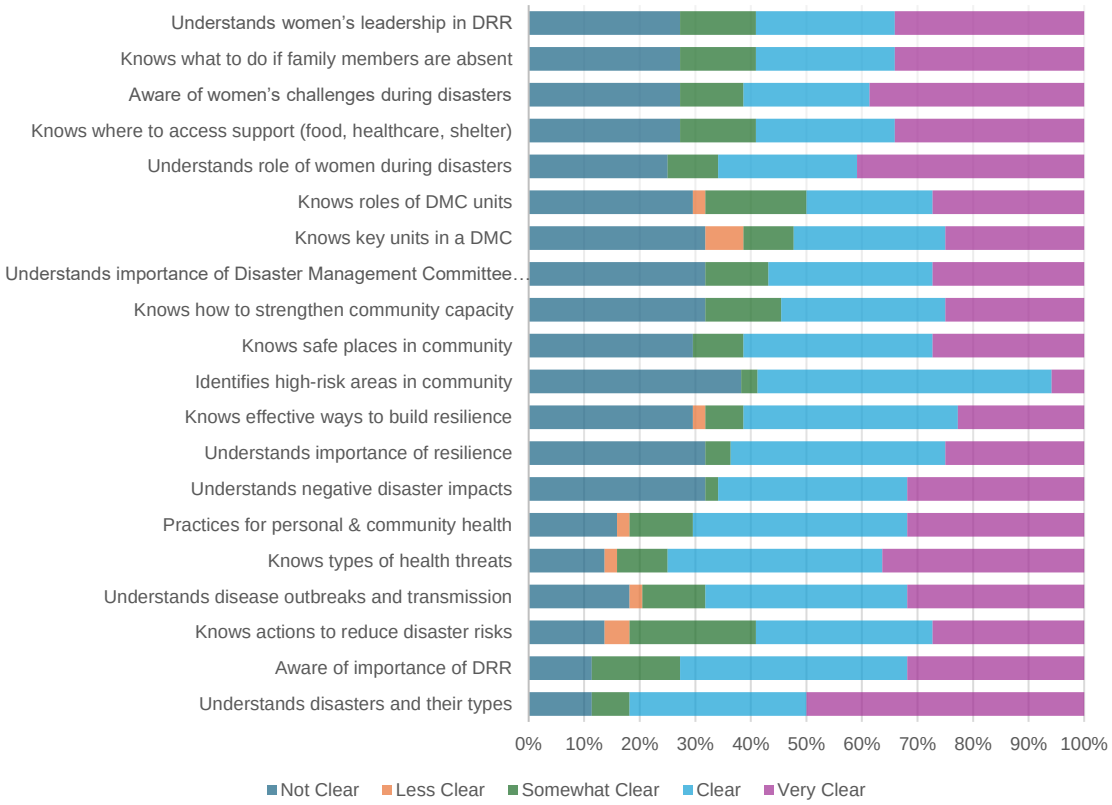
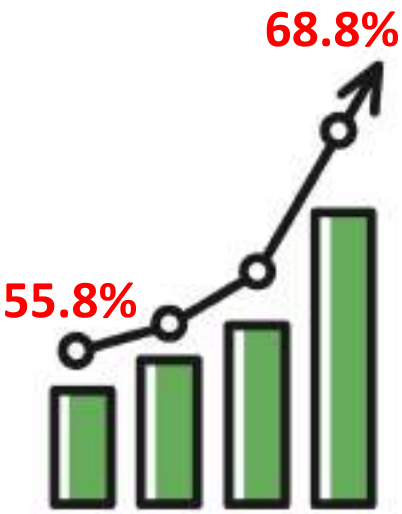


Figure 2: Disaster Risk Awareness in Mukim Kota Lama Kiri: After attending Community-Based Disaster Risk Management Women Initiative

The post-training assessment of disaster risk awareness among women in Mukim Kota Lama Kiri reveals a significant improvement following participation in the Community-Based Disaster Risk Management Women Initiative. The data shows that 25% of respondents reported being "Not Clear," and only 1% chose "Less Clear," indicating a low overall level of uncertainty.

Conversely, 32% indicated they had a "Clear" understanding, and an additional 31% reported being "Very Clear," with 11% selecting "Somewhat Clear." High levels of clarity were observed in fundamental disaster knowledge, such as understanding what disasters are and the types affecting communities, where 82% responded "Clear" or "Very Clear."

Similarly, strong awareness was seen in the importance of disaster risk reduction, knowledge of disease outbreaks, health threats, and good practices for personal and community health, with combined "Clear" and "Very Clear" responses ranging from 68% to 75%.



Understanding of resilience building and identifying high-risk areas also improved, each with approximately 64%-68% clarity. Knowledge regarding the roles and structures of Disaster Management Committees increased, with around 57% of respondents expressing clear understanding.

Importantly, women's roles in supporting families and communities during disasters, accessing aid, and responding to challenges specific to women showed significant awareness gains, with 65% or more reporting clear knowledge in these areas. Overall, the results demonstrate that the initiative successfully enhanced disaster risk literacy and empowered women with the necessary knowledge and skills to contribute effectively to disaster preparedness and resilience within their community.

Overall, community understanding of disaster risk management increased from 55.8% before the programme to 68.8% after participation, reflecting a gain of 13.0 percentage points. This translates to an approximate 23.34% improvement relative to the baseline value.

9.3 Evaluating Community Experience and Disaster Risk Reduction Practices

Table 4: Average score disaster risk management and preparedness among community

	Average Score
Experienced in disaster	(0.66) Risky
Knowledge in disaster risk management	(0.72) Risky
Losses suffered	(0.67) Risky
Action and planning in disaster management	(0.60) Moderate
Community recovery strategies and action plan	(0.58) Moderate
Environmental cleanliness and health standards	(0.54) Moderate

A survey involving 54 individuals from Kampung Kolam, Kampung Banjir, Kampung Jias and Kampung Basong, Mukim Kota Lama Kiri indicates that the women community's preparedness for disaster risk management is at moderate level, with an average readiness score of 3.8 out of 6.

The assessment covered six (6) key areas:

i. Experience with past disasters
ii. Knowledge of disaster risk management
iii. Losses sustained from disasters
iv. Actions and planning for disaster response
v. Community recovery strategies
vi. Environmental cleanliness and health standards

The average scores for disaster risk management and preparedness among women in the community show a mix of challenges and strengths. Women scored in the "risky" range when it comes to their experience with disasters, knowledge of disaster risk management, and the losses they have suffered, with scores of 0.66, 0.72, and 0.67 respectively. This suggests that many women still face significant vulnerabilities and need more support to better understand and handle disasters.

On the other hand, areas such as disaster action and planning, community recovery strategies, and maintaining environmental cleanliness and health standards received moderate scores, ranging from 0.54 to 0.60. This means some efforts and awareness are in place, but there is still room for improvement when it comes to actively preparing for and recovering from disasters.

In short, these findings highlight the need to focus on empowering women through education and skill-building around disaster management. Strengthening both their knowledge and their ability to plan and respond will help reduce risks and build stronger, more resilient communities. Supporting women in these ways is key to better protecting the whole community when disasters strike.

10.0 Respondents Analysis

A total of 54 individuals participated in the community engagement activity. The demographic breakdown by age group is presented below:

Table 5: Age Group Distribution by Ages

Age Group	Total
Below 12	2
13–17	2
18–24	3
25–30	0
31–40	8
41–50	9
51 and above	26

Key Observations

- The largest group is 51 and above, comprising just under half of the listed individuals.
- There are no individuals in the 25-30 age group.
- Younger age groups (below 24) are much less represented, with just 2-3 individuals each.
- The presence per group steadily increases into middle and senior ages, suggesting a predominantly older composition in this list.

Participation is strongest among elderly women aged 51 and above, who form the core of the group's active and experienced members. Women aged 31 to 50 are also well represented, showing continued involvement from those who are already established. In contrast, younger women under 25 are less active, and there's a clear absence of those aged 25 to 30. This points to possible challenges in reaching or engaging younger adults. Overall, the group's activities rely largely on the commitment of senior and middle-aged members.

Table 6: List of CBDRM Women recipients in Mukim Kota Lama Kiri, Kuala Kangsar

No	Name	Gender	Age
1	Lely Bt Hashim	Female	59
2	Hasnah Shari	Female	65
3	Fauziah Hussein	Female	69
4	Naharizan Abd Rashid	Female	71
5	Faridah Hanim	Female	62
6	Zaharah Shari	Female	68
7	Noor Hayati Bt Zulkifli	Female	39
8	Nor Julaika Bt Alnoman	Female	47
9	Hamidah Bt Zulkifli	Female	46
10	Nur Afzan Bt Zahari	Female	38
11	Nurul Aini Mohd Daud	Female	61
12	Roshita Awang	Female	66
13	Hayani Bt Ramli	Female	62
14	Teh Hamizah Bt Noordin	Female	62
15	Saidatul Akmar Bt Mohd Mazzalan	Female	39
16	Azizan Bt Hamid	Female	51
17	Rakiah Bt Ali	Female	67
18	Habsah Bt Ali	Female	62
19	Kamarehan Kamarudin	Female	63
20	Zaiton Mohd Idris	Female	65
21	Khatijah Kamarudin	Female	56
22	Kalsom Bt Kamruddin	Female	57
23	Norruniza Bt Mohd Yusop	Female	36
24	Nur Damia Qisina Binti Juaidi	Female	24
25	Noormah Bt Harun	Female	19
26	Nur Fartini Bt Suhanuddin	Female	32
27	Jamaah Bt Ibrahim	Female	87
28	Zainurul Athirah Bt Zulkefli	Female	31
29	Saidatul Akma Bt Hassan	Female	60
30	Manah Zaili	Female	n/a
31	Rosemeda Abu Bakar	Female	n/a
32	Saidatul Rahimi Bt Mat Rashid	Female	47
33	Zarehan	Female	58
34	Nur Nadira Hamidi	Female	40
35	Nur Iman Solehah	Female	16
36	Nur Ilmu Syahadah	Female	12
37	Nur Indah Safiyyah	Female	9
38	Norkhiamierti Bt Amrizal	Female	35
39	Rabiah Bibi	Female	56

40	Rabiatul	Female	16
41	Norhaliza Bt Rejab	Female	61
42	Normah Bt Yusof	Female	42
43	Nor Alawiyah Bt HA.	Female	44
44	Azimah Bt Abdul Hamid	Female	48
45	Khairul Asma Hassan	Female	50
46	Roslida Bt Zabri	Female	54
47	Jamaayah Bt Othamn	Female	77
48	Nurin Jazlina Ahmad Zahir	Female	18
49	Siti Fatimah Zuki	Female	50
50	Noraini Bt Sharif	Female	71
51	Badakiah Bt Bidin	Female	74
52	Zieraiyayu Liliran	Female	46
53	Rehan Bt Muhiyuddin	Female	n/a
54	Wan Aazliyaton Wan Ismail	Female	n/a

11.0 Appendix





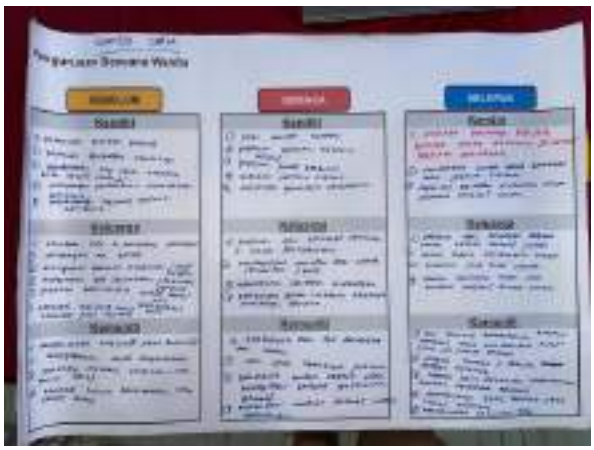




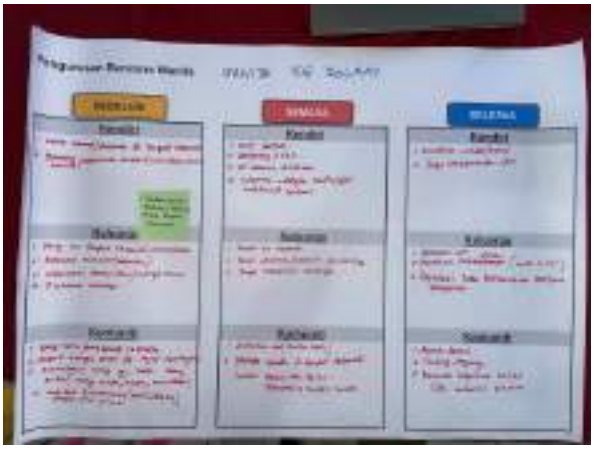


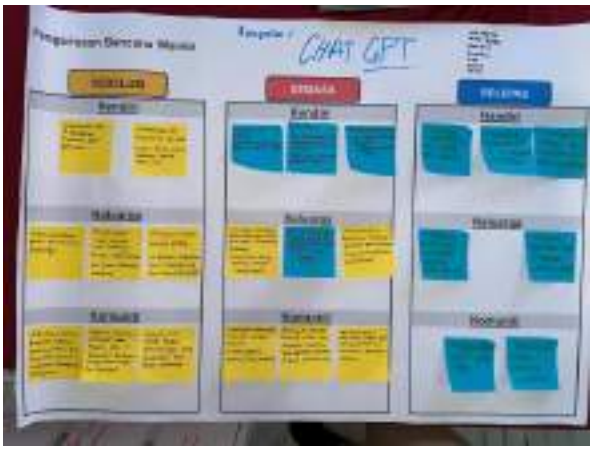







KUMPULAN HARMONY

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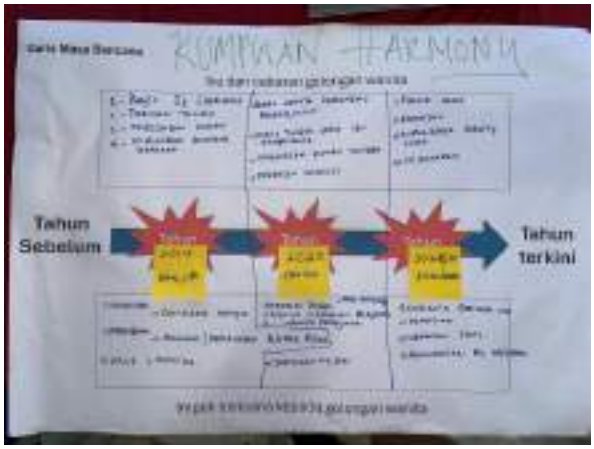
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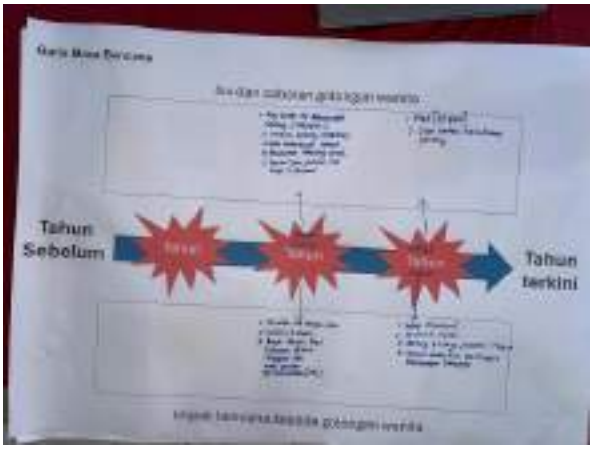
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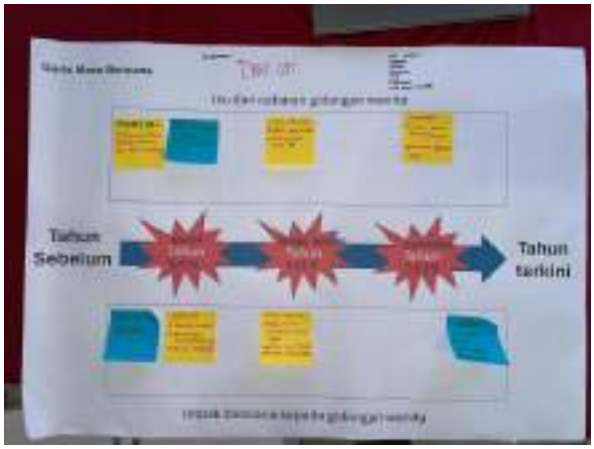
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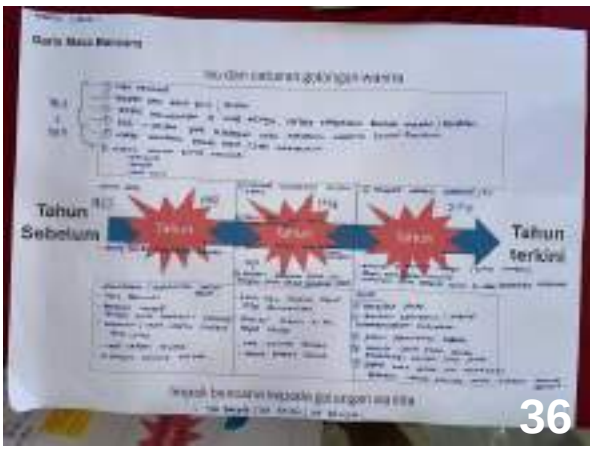
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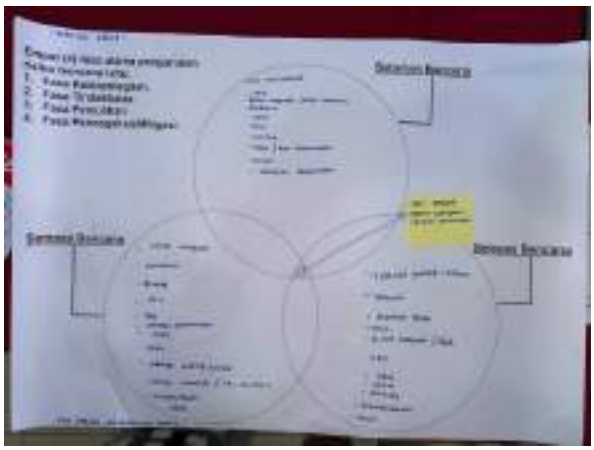

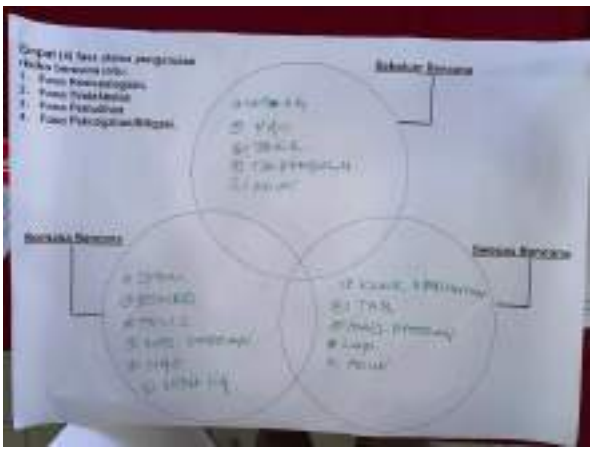


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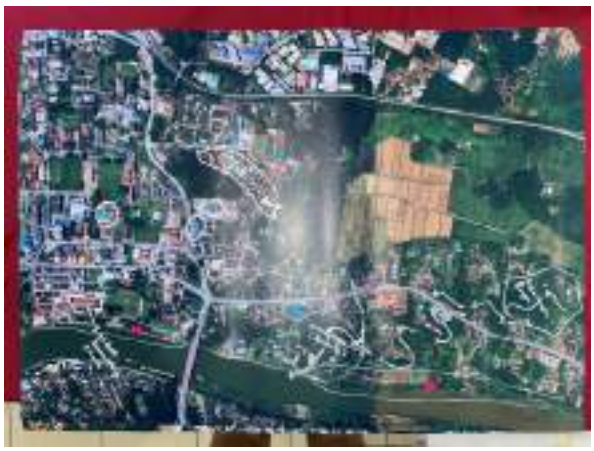


12.0 Appreciation

MERCY Malaysia HQ
Mr Muhammad Akmal Afif Ahmad Subki, Programme Officer

CBDRM Subject Matter Expert
Ms Yuhainis Abdul Talib
Ms Nur Athirah Binti Sakah
Ms Nor Asiah binti Hashim
Ms Siti Zaleha Abdullah

Think City
Ms Pooveneswary Nagaiah, Associate
Mr Faeedz Saidi, Associate

thinkCITY
Bersama Membentuk Bandar Berdaya Huni.

mercy MALAYSIA

YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

SCHOOL PREPAREDNESS PROGRAMME (SPP)

SEKOLAH MENENGAH KEBANGSAAN SAYONG

Table of Contents

1.0 Background

The School Disaster Preparedness Programme (SPP), a strategic collaboration between Think City and MERCY Malaysia, plays a vital role in protecting the younger generation by equipping school communities with essential disaster risk reduction knowledge and skills. By integrating disaster preparedness and climate resilience education into the school environment, the programme empowers students, teachers, and staff to act effectively during emergencies while fostering a culture of safety and awareness.

As part of this initiative, Sekolah Menengah Kebangsaan Sayong (SMK Sayong) has been selected as the pilot school for the SPP programme. The school was jointly recommended by the Mukim Kota Lama Kiri and Mukim Sayong Penghulu Offices, as it is officially gazetted as a Temporary Evacuation Centre (PPS). This strategic selection positions SMK Sayong as an ideal setting to implement disaster preparedness efforts. By empowering its students and staff, the school community will serve as a key agent in disseminating knowledge and building resilience—not only within the school but also among families and local communities.

2.0 Objectives

i. To build disaster preparedness and climate resilience among students, teachers, and school staff through education and training, enabling them to respond effectively during emergencies and reduce disaster-related risks within the school environment.

ii. To empower SMK Sayong as a disaster knowledge hub by leveraging its role as a gazetted flood evacuation centre (PPS), enabling the school community to act as local agents in spreading disaster awareness and preparedness to families and communities.

3.0 Programme Summary

Programme	School Preparedness Programme (SPP) at Mukim Sayong, Kuala Kangsar
Date	May 25th, 2025 (Friday)
Time	07:45 am to 12:15 pm
Venue	Sekolah Menengah Kebangsaan Sayong
Total Fund	RM196,000
Funder	Think City
Recipients	46 recipients

4.0 Programme Agenda

Time	Activities
7:45 am – 8:00 am	Registration and breakfast
8:00 am – 8:30 am	Welcoming speech and introduction - Think City - MERCY Malaysia
8:30 am – 10:10 am	**Capacity Building** **Module 1: School Preparedness Programme** (Understanding the basic concept of disaster risk reduction (DRR) based on hazard, vulnerability, and capacity) Speaker by Ms Atiqah Alias Fasilitator: 1. Mr Satheesh a/l Nadaraja 2. Ms Jufiza A. Wahab 3. Ms Najma Azman 4. Ms Lizawati Abdullah 5. Mr Mohd Nasurudin Hasbullah **Module 2: School Risk Mapping** (To identify, understanding and measuring the types of hazards, vulnerabilities, and capacities present in and around the school environment) Speaker by Mr Shahril Idris Fasilitator: 1. Mr Satheesh a/l Nadaraja 2. Ms Jufiza A. Wahab 3. Ms Najma Azman 4. Ms Lizawati Abdullah 5. Mr Mohd Nasurudin Hasbullah

10:10 am – 10:25 am	Break
10:25 am – 12:15 pm	**Module 3: Action During Disaster** (Learning and understanding the roles and responsibilities of safety and health agencies during disaster situations through simulation exercises) Speaker by Ms Atiqah Alias Fasilitator: 1. Mr Satheesh a/l Nadaraja 2. Ms Jufiza A. Wahab 3. Ms Najma Azman 4. Ms Lizawati Abdullah 5. Mr Mohd Nasurudin Hasbullah **Module 4: Climate Change** (Basic understanding the environmental and health risks associated with the reduction of green vegetation) Speaker by Mr Shahril Idris Fasilitator: 1. Mr Satheesh a/l Nadaraja 2. Ms Jufiza A. Wahab 3. Ms Najma Azman 4. Ms Lizawati Abdullah 5. Mr Mohd Nasurudin Hasbullah
12:15 pm – 12:30 pm	- Lunch - Question and answer session
12:30 pm	Disperse

5.0 School Preparedness Programme (SPP)

SMK Sayong has been officially designated as a Temporary Evacuation Centre (PPS) to provide shelter and protection for residents affected by disasters. In line with this role, the school has been selected to implement the School Preparedness Programme (SPP), an initiative aimed at enhancing disaster readiness within the school community.

The primary objective of the programme is to strengthen the capacity of students and school personnel in preparing for and responding to disasters, particularly floods and climate-related hazards such as heatwaves. Through a series of structured activities and training sessions, the programme equips participants with essential knowledge and skills in disaster risk management.

In addition to building internal resilience, the SPP also emphasizes the role of students as catalysts for change. By empowering students with practical knowledge and awareness, the programme encourages them to share and promote disaster preparedness practices within their households and surrounding communities, particularly among family members and close relatives. This initiative represents a proactive step toward cultivating a culture of preparedness and resilience at both the school and community levels.

6.0 Key Activities and Focus Areas

i. Conduct training sessions on disaster prevention, preparedness, and response for school children and school staff.

ii. Empowered students to become disaster awareness ambassadors by encouraging them to share preparedness knowledge with their families and communities through campaigns and creative materials.

iii. Conducted evacuation drills and safety simulations to enhance readiness among students and school staff in responding to disasters such as floods, earthquakes and fire outbreak.

7.0 Summary of Capacity Building

The capacity-building session at SMK Sayong engaged a total of 46 students, comprising 20 male and 26 female participants, all aged 15 (refer to Section 7.0: Respondents Analysis for full demographic details). The session was held at the school's Open Hall and facilitated by a subject matter expert from the School Preparedness Programme (SPP), who led the participants through knowledge sharing, interactive discussions, and practical guidance on disaster risk management. The key focus areas of the session included:

- School Preparedness
- School Risk Mapping
- Action During Disaster
- Climate Change

These participatory activities were designed to equip students with essential knowledge, practical skills, and strategies to enhance their personal preparedness and contribute to overall school and community resilience in the face of potential disasters.

7.1 School Preparedness

As part of the SPP, an interactive group activity was conducted to introduce and deepen students' understanding of key disaster risk concepts: exposure, vulnerability, and capacity. This session aimed not only to build awareness but also to encourage critical thinking about how these elements relate to disaster impacts and community resilience.

This activity helped students make connections between real-life situations and theoretical disaster concepts in an engaging and relatable way. It also served as a platform for students to reflect on their own school and community's preparedness levels, fostering a sense of responsibility and proactive mindset toward disaster risk reduction.

7.1.1 Methodology

Students were divided into 5 groups (each group 9 to 10 students) and provided with illustrated image sheets, each depicting various disaster-related scenarios. Based on the images selected, students discussed and interpreted how each scene represented aspects of exposure (who or what is at risk), vulnerability (why they are at risk), and capacity (what strengths or resources can reduce risk). Each group then presented their findings to the class, promoting peer-to-peer learning and dialogue.

7.1.2 Objective

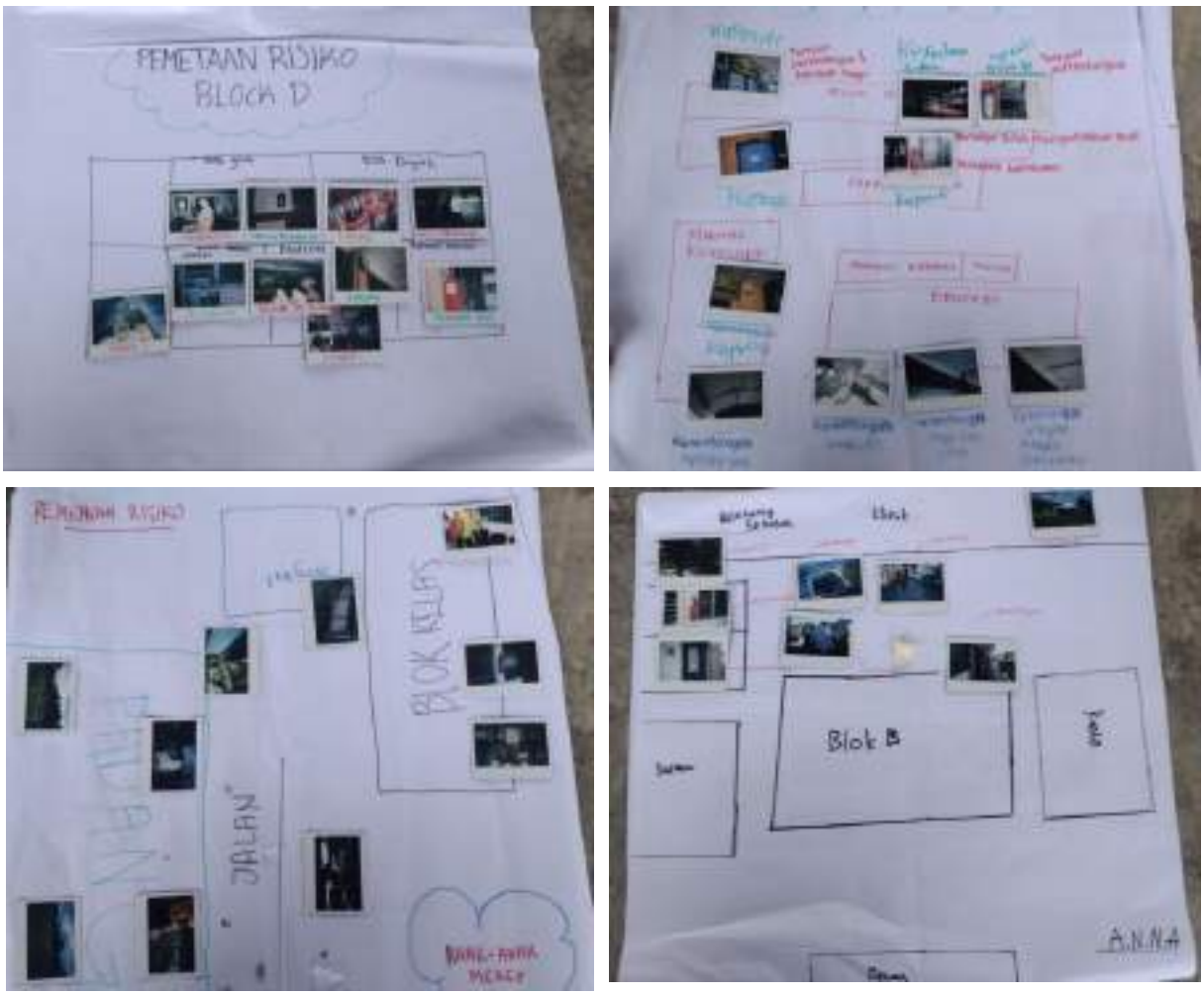
To equip students with a foundational understanding of disaster risk by exploring the concepts of exposure, vulnerability, and capacity through interactive group activities, while promoting critical thinking, teamwork, and communication.

7.1.3 Outcome

Students will be able to identify and explain key disaster risk components, analyse real-life scenarios, and effectively communicate their ideas—strengthening individual awareness and fostering a culture of preparedness within the school community.

7.2 School Risk Mapping

Risk mapping activity was conducted to actively engage students in identifying disaster risks within their immediate environment. This activity served as a practical extension of the classroom-based learning from the SPP module, allowing students to apply their knowledge in a real-world context. This activity proved to be a valuable learning experience, fostering a deeper sense of awareness among students about their surroundings and equipping them with basic tools to identify and communicate potential hazards. It also laid the groundwork for the school community to begin thinking about long-term improvements to school safety infrastructure and disaster readiness. By combining theory with practice, the activity successfully transformed students into active participants in their own safety and resilience—aligning with the broader goal of the SPP to empower young people as agents of change within their communities.



Picture 1: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in SMK Sayong.

7.2.1 Methodology

Students were divided into 5 groups (each group 9 to 10 students). This activity involved on-site observation around the school grounds, where students were tasked with documenting visual evidence of exposure, vulnerability, and capacity. Using mobile devices or cameras, students captured images of areas or elements that could contribute to risk during a disaster—for example, low-lying flood-prone areas (exposure), blocked drainage or weak infrastructure (vulnerability), and available resources such as fire extinguishers or designated evacuation routes (capacity).

7.2.2 Objective

To enhance students' practical understanding of disaster risk concepts by engaging them in identifying and analysing real-life examples of exposure, vulnerability, and capacity within their school environment.

7.2.3 Outcome

Students are able to critically assess their surroundings, identify potential hazards and available resources, and effectively communicate their findings. This empowers them to become active contributors to school safety initiatives and disaster preparedness efforts within their wider community.

7.3 Action During Disaster

An interactive disaster simulation was conducted, featuring three critical scenarios, flood, earthquake, and fire. This dynamic and hands-on activity provided students with valuable exposure to emergency response protocols, while highlighting the vital role of safety and health agencies during real-life disaster situations. More than just a simulation, the activity served as a platform to cultivate leadership, teamwork, and accountability among students.

7.3.2 Methodology

Students were strategically divided into groups, with each team assigned specific roles and responsibilities to manage the scenarios as realistically as possible. Below designated student emergency response teams and their roles:

- Info-guard (4 members): Responsible for managing information flow and ensuring effective communication during emergencies.
- Search and rescue (5 members): Tasked with locating and rescuing victims in need of assistance.
- Firefighter (5 members): Ensures fire safety by identifying and responding to any fire-related risks.
- Medical (5 members): Provides first aid and emergency medical assistance to those injured or unwell.
- Evacheroes (4 members): Leads and coordinates the evacuation process to ensure safe and orderly movement.
- Carebuddies/ support squad (4 members): Offers emotional support and psychological first aid to affected individuals during and after the crisis.

Importantly, the exercise also emphasised the need to assist vulnerable groups, such as the elderly or individuals with limited mobility, by teaching students the correct evacuation techniques and early response strategies according to each type of disaster.

7.3.3 Objective

To strengthen students' practical understanding of emergency roles and coordination through scenario-based disaster simulations that reflect real-life risks.

7.3.4 Outcome

Students demonstrated improved confidence and readiness in handling emergency situations, including effective communication, role execution, and the ability to support vulnerable individuals during evacuation procedures.

7.4 Climate Change

As part of an environmental education initiative, this activity was designed to expose students to the vital role of green plants in supporting human and ecological health. The focus was on understanding the balance between oxygen production and carbon emissions in everyday environments.

7.4.1 Methodology

As part of an interactive learning activity, students were divided into five groups consisting of 9 to 10 members each. Their challenge was to design and build a model of a residential area using two key environmental ratios as guidelines:

- 1:3 Ratio – One human or animal requires three trees to offset carbon emissions.
- 1:6 Ratio – One motor vehicle requires six trees to compensate for carbon monoxide emissions.

These ratios served as a visual and hands-on demonstration of the vital role greenery plays in maintaining air quality and protecting respiratory health. More than a conventional science lesson, the activity emphasized the importance of trees as natural defenders against the urban heat island effect and global warming. Students gained insights into how insufficient vegetation can elevate health risks—such as heatstroke—particularly in densely developed and climate-sensitive areas. By connecting concepts of urban planning, public health, and environmental sustainability, the exercise successfully encouraged students to think critically about designing future communities that are not only livable but also climate-resilient and environmentally conscious.

5.4.2 Objective

To encourage students to develop an understanding of the environmental impact of urban development by simulating the relationship between human activity and green coverage in a planned space.

5.4.3 Outcome

Students demonstrated increased awareness of sustainable land-use planning by incorporating adequate vegetation to mitigate air pollution and temperature rise in their model settlements.

6.0 Student Assessment Analysis

An evaluation was carried out with the participation of 46 students from SMK Sayong to measure their knowledge and understanding of disaster risk management before and after attending the School Preparedness Programme (SPP) workshop. A total of 41 students responded to the survey—comprising 20 male and 21 female students—while 5 did not provide any feedback. This represents a response rate of 89.1%, demonstrating strong student engagement and active participation in the programme.

6.1 Accessibility of Telecommunication and Information Networks

Table 1: Students' Preference in Using Media Platforms for Communication

Media	Frequency	Percentage
Television	33	38%
Radio	0	0%
Computer	15	17%
Social Media	39	45%

Social Media was the most common platform, chosen by 45% of respondents. This was followed by television at 38% and computer at 17%. Radio received no responses, indicating it is the least used medium among the participants. This suggests a strong preference for digital and visual media, particularly social media, as the primary channel for receiving information.

6.2 Past Experiences with Disasters

Table 2: Proportion of students who have experienced in different type of disaster

Media	Frequency	Percentage
Flood	34	47%
Storm	4	5%
Haze	35	48%
Fire, typhoon, earthquake, tsunami	0	0%

Based on the collected data (Table 2), the majority of students reported having experienced haze (48%) and floods (47%), indicating these are the most common disasters affecting their area. A smaller percentage, 5%, reported experiencing storms. Notably, there were no reported experiences (0%) of fires, typhoons, earthquakes, or tsunamis, suggesting that these types of disasters are either rare or have not occurred in the students' local environment during their lifetime.This distribution highlights the need for targeted disaster preparedness programmes focusing primarily on haze and flood-related risks, which are the most relevant to students' lived experiences.

6.3 Pre-Assessment Analysis

Table 3: Students' preparedness level before participating in the SPP

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Ready to face disasters	2	4	25	10	0
Know what action to take during a disaster	0	2	23	16	0
Know the assembly point during a disaster	0	2	24	19	3
Know the important numbers to contact	0	6	25	10	0

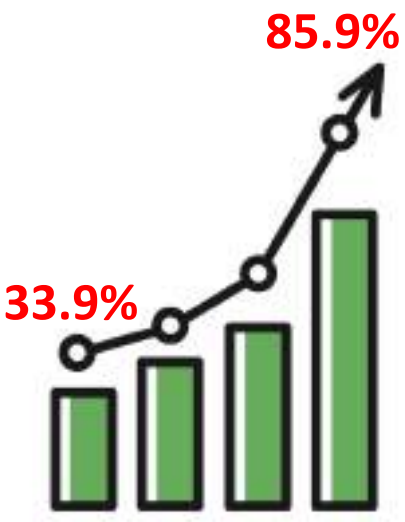
Table 3 summarises the self-assessment responses of 41 students regarding their level of preparedness and knowledge in the event of a disaster. The responses are categorised into five levels: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The findings indicate that none of the students reported owning a grab bag. Furthermore, 87% of students from SMK Sayong stated they had never participated in any school-based disaster preparedness drills. These results highlight a significant gap in awareness and understanding among students regarding the importance of preparedness kits and disaster risk reduction education.

6.4 Post-Assessment Analysis

Table 4: Students' preparedness level after participating in the SPP

	Strongly Disagree	Disagree	Neautral	Agree	Strongly Agree
Ready to face disasters	0	4	2	20	15
Know what action to take during a disaster	0	0	9	19	13
Know the assembly point during a disaster	0	0	5	20	16
Know the important numbers to contact	0	0	3	19	19

Table 4 demonstrates a positive improvement in the preparedness level of SMK Sayong students after participating in the SPP programme. All students expressed a willingness to share their experiences and the knowledge gained through the activities and training provided. They also showed interest in encouraging their peers to take part in future programmes. However, only 95% indicated a strong interest in participating in similar programmes again in the future. Among the modules offered, the most preferred was Module 4 – Climate Change (92.6%) mennwhile while the least favoured was Module 2 – School Risk Mapping (68.3%).



Overall, the post-assessment shows a substantial improvement in student preparedness for disaster risk reduction and management compared to the pre-assessment. The average percentage of students who feel prepared increased from about 34% in the pre-assessment to approximately 86% in the post-assessment, indicating that most students gained confidence and knowledge after the intervention.

Table 5: Summary table students' preparedness level before and after participating in the SPP

	Before Program (Knowledge) – % Agree & Strongly Agree	After Program (Attitude) – % Agree & Strongly Agree	Increase (%)
Ready to face disasters	39%	78%	+39%
Know what action to take during a disaster	46%	88%	+42%
Know the assembly point during a disaster	24%	93%	+69%
Know the important numbers to contact	39%	78%	+39%

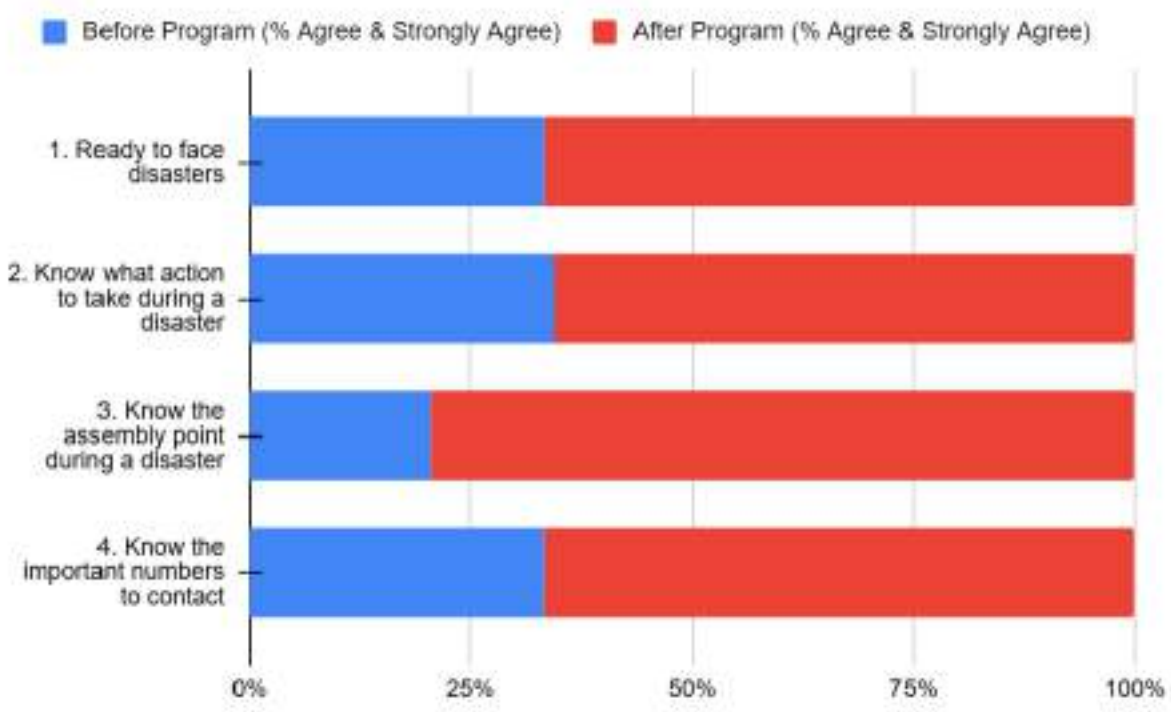


Figure 1: Program impacts on SMK Sayong students' disaster preparedness levels before and after the School Preparedness Programme (SPP).

The survey findings indicate a strong positive impact of the programme in enhancing students' disaster preparedness. Before the programme, less than half of the students felt ready to face disasters (39%) or knew the appropriate actions to take (46%). After the programme, these figures rose substantially to 78% and 88% respectively, showing that students gained clearer understanding and confidence in handling emergency situations. The most notable improvement was in knowing the assembly point during a disaster, which increased by 69% (from 24% to 93%), suggesting that the programme successfully clarified evacuation procedures and safety protocols. Additionally, knowledge of important emergency contact numbers improved from 39% to 78%, reflecting increased awareness of communication channels during crises. These outcomes collectively demonstrate that the SPP programme not only increased students' knowledge but also strengthened their overall readiness and response attitude towards disasters.

6.5 Key Takeaways

i. Student disaster preparedness increased dramatically by 52 percentage points on average.

ii. Most students moved from uncertainty or lack of readiness to strong confidence in responding to disaster situations.

iii. The educational or training intervention was highly effective in building disaster risk reduction capacity among students.

6.6 Suggestion

i. Revamp Risk Mapping Module - Make Module 2 more engaging through hands-on mapping activities and digital tools.

ii. Shorten and Diversify Sessions - Break sessions into shorter, interactive formats to maintain student interest.

iii. Follow-Up Activities - Include post-programme projects or peer-sharing to reinforce learning.

iv. Introduce Incentives - Use certificates or recognition to boost motivation and participation.

7.0 Respondents Analysis

Out of the 46 students, the majority were female. All individuals in the dataset are 15 years old. Table 1 below shows the percentage between male and female students attending the School Preparedness Programme (SPP) in Sekolah Menengah Kebangsaan Sayong, Kuala Kangsar.

Table 5: Age Group Distribution by Gender

Gender	Number of Participants	Percentage
Male	20	43.5%
Female	26	56.5%

Table 6: List of SPP recipients in SMK Sayong, Kuala Kangsar

No	Name	Gender	Age
1	Ahmad Muas Bin Ibrahim	Male	15
2	Ammar Zulqarnain Bin Anas	Male	15
3	Ainin Syifa Binti Salehuddin	Female	15
4	Anis Shafinas Binti Abdul Jamil	Female	15
5	Dinie Muhaimin Zin Bin Mukhriz	Male	15
6	Iman Hasif Bin Abdul Jabbar	Male	15
7	Irdina Maisarah Binti Mohd Burhanuddin	Female	15
8	Khairunnisa Binti Khairuddin	Female	15
9	Mohamad Danish Bin Maamor	Male	15
10	Mohamad Hadzril Rayyan Bin Hadzlin	Male	15
11	Mohd Izz Iman Afzan Bin Mohd Khir	Male	15
12	Muhammad Adam Aliff Bin Mohamad Khusairi	Male	15
13	Muhammad Afiq Amadi Bin Azman	Male	15
14	Muhammad Faharul Akhil Bin Baharuddin	Male	15
15	Muhammad Nur Usaili Bin Jamil Ro Rashid	Male	15
16	Muhammad Shahir Bin Rosli	Male	15
17	Muhammad Wafiq Ikhwan Bin Shuzairi	Male	15
18	Nur Amilia Sara Binti Jamaludin	Female	15
19	Nur Imanina Hannim Binti Ahmad Nasri	Female	15
20	Nur Kaisara Zulaikha Binti Farid	Female	15
21	Nur Umairah Batrisyia Binti Azrul Izuan	Female	15
22	Nurul Aisyah Binti Adnan	Female	15
23	Nurul Anisa Balqis Binti Zulkifli	Female	15
24	Alif Ismail Bin Azih	Male	15
25	Bilqis Deena Islami Binti Mohd Razali	Female	15

26	Khalida Binti Roslan	Female	15
27	Muhammad Affiq Damian Bin Abdullah	Male	15
28	Muhammad Aril Putra Bin Abdullah	Male	15
29	Muhammad Hazim Danial Bin Mohd Haten	Male	15
30	Muhammad Mustaqim Bin Amran	Male	15
31	Muhammad Nafis Iqbal Bin Mohd Sabri	Male	15
32	Muhammad Nur Hazim Bin Ahmad Jamal	Male	15
33	Muhammad Syakir Bin Zaharuddin	Male	15
34	Nazuriyatul Aina Maisurah Binti Nazuri	Female	15
35	Nur Aina Najwa Binti Mohd Zamin Shukri	Female	15
36	Nur Umairah Binti Mustaffa	Female	15
37	Nur Zulaika Binti Ahmad Shahidan	Female	15
38	Nur Dania Qaisara Areesya Binti Azizan	Female	15
39	Nur Fitri Binti Musa	Female	15
40	Nur Maisarah Husna Binti Hasny	Female	15
41	Nur Syuhada Binti Nasir	Female	15
42	Nurathikah Binti Mohamad Zainal	Female	15
43	Nurul Balqis Batrisyia Binti Najmudin	Female	15
44	Nurul Madiehah Husna Binti Hairinusri	Female	15
45	Saidatul Husna Binti Sharizal	Female	15
46	Wan Shamizan Bin Hisham	Male	15

8.0 Appendix
















PEMETAAN RISIKO
BLOCK D


JALAN


PEMETAAN RISIKO
Blok E

12.0 Appreciation

MERCY Malaysia HQ
Ms Atiqah Alias, Senior Programme Officer
Mr Muhammad Akmal Afif Ahmad Subki, Programme Officer
Mr Shahril Idris, Programme Officer

CBDRM Subject Matter Expert
Mr Satheesh a/l Nadaraja
Ms Jufiza A. Wahab
Ms Najma Azman
Ms Lizawati Abdullah
Ts Mohd Nasurudin Hasbullah

Think City
Ms Rose Afrina Binti Mansor, Manager
Ms Pooveneswary Nagaiah, Associate

thinkCITY
Bersama Membentuk Bandar Berdaya Huni.

mercy MALAYSIA

YAYASAN HASANAH
Sebuah yayasan milik Khazanah Nasional

SCHOOL PREPAREDNESS PROGRAMME (SPP)

SEKOLAH RENDAH ISLAM AL FURQAN

Table of Contents

1.0 Background

The School Disaster Preparedness Programme (SPP), a strategic partnership between Think City and MERCY Malaysia, is designed to safeguard the younger generation by equipping school communities with critical disaster risk reduction knowledge and practical skills. By embedding disaster preparedness and climate resilience education into the school setting, the programme empowers students, teachers, and staff to respond effectively during emergencies while cultivating a lasting culture of safety and awareness.

As part of this initiative, Sekolah Rendah Islam Al Furqan (SRI Al Furqan) was selected as the pilot school due to its vulnerability to flooding caused by overflow from the Perak River during the monsoon season, as well as its location in a low-lying flood-prone area. This strategic choice makes SRI Al Furqan an ideal environment to implement disaster preparedness measures. By strengthening the capacity of its students and staff, the school community is positioned to become a catalyst for spreading knowledge and fostering resilience—not only within the school itself, but also among families and the wider local community.

2.0 Objectives

i. To build disaster preparedness and climate resilience among students, teachers, and school staff through education and training, enabling them to respond effectively during emergencies and reduce disaster-related risks within the school environment.

ii. To empower SRI Al Furqan as a disaster knowledge hub by leveraging its role as a gazetted flood evacuation centre (PPS), enabling the school community to act as local agents in spreading disaster awareness and preparedness to families and communities.

3.0 Programme Summary

Programme	School Preparedness Programme (SPP) at Mukim Kota Lama Kiri, Kuala Kangsar
Date	August 6th, 2025 (Wednesday)
Time	08:30 am to 1:15 pm
Venue	SRI Al Furqan
Total Fund	RM196,000
Funder	Think City
Recipients	100 recipients

4.0 Programme Agenda

Time	Activities
8:30 am – 9:00 am	Registration and breakfast
9:00 am – 9:30 am	Welcoming speech and introduction - School Headmaster - Think City - MERCY Malaysia
9:30 am – 10:20 am	**Capacity Building** **Module 1: School Preparedness Programme** (Understanding the basic concept of disaster risk reduction (DRR) based on hazard, vulnerability, and capacity) Speaker by Mr Muhammad Aidil Najmi Mohd Fairus and Mr Muhammad Firdaus Irfan Mohd Fauzi Fasilitator: 1. Ms Nur Sabrina Muhammad Nawi 2. Ms Nur Izah Mohd Asri 3. Ms Sumayyah Ahmad Basri 4. Mr Izzul Kauthar Sahrul Anuar 5. Mr Aidil Anuar 6. Mr Muhammad Nazhan Azhar 7. Ms Nur Fatin Audryna Azhar 8. Mr Muhammad Thaqif Roslan 9. Ms Qistina Balqis Azman 10. Ms Izzatul Aliah Ahmad Syarifuddin 11. Mr Syed Ameer Aiman Syed Azri 12. Ms Nurrahil Amani Badrulhisham 13. Ms Nur Sakeena Khairul Ezwan 14. Ms Nur Hasinah Iwani Mohd Fazil 15. Ms Nurin Aqeelah Mohd Khairunasai 16. Ms Nur Afiqah Hadhirah Irwan 17. Mr Mohd Fazli Mohd Roshidi 18. Ms Wan Nur Ainmardhiah Wan Noh 19. Ms Fatini Izzati Ismail
10:20 am – 10:35 am	Break

10:35 am – 11:35 am **Module 2: School Risk Mapping**

(To identify, understanding and measuring the types of hazards, vulnerabilities, and capacities present in and around the school environment)

Speaker by Ms Nur Sakeena Khairul Ezwan and Mr Muhammad Nazhan Azhar

Fasilitator:
1. Mr Muhammad Aidil Najmi Mohd Fairus
2. Mr Muhammad Firdaus Irfan Mohd Fauzi
3. Ms Nur Sabrina Muhammad Nawi
4. Ms Nur Izah Mohd Asri
5. Ms Sumayyah Ahmad Basri
6. Mr Izzul Kauthar Sahrul Anuar
7. Mr Aidil Anuar
8. Ms Nur Fatin Audryna Azhar
9. Mr Muhammad Thaqif Roslan
10. Ms Qistina Balqis Azman
11. Ms Izzatul Aliah Ahmad Syarifuddin
12. Mr Syed Ameer Aiman Syed Azri
13. Ms Nurrahil Amani Badrulhisham
14. Ms Nur Hasinah Iwani Mohd Fazil
15. Ms Nurin Aqeelah Mohd Khairunasai
16. Ms Nur Afiqah Hadhirah Irwan
17. Mr Mohd Fazli Mohd Roshidi
18. Ms Wan Nur Ainmardhiah Wan Noh
19. Ms Fatini Izzati Ismail

11:35 am – 12:15 pm **Module 3: Climate Change**

(Basic understanding the environmental and health risks associated with the reduction of green vegetation)

Speaker by Mr Muhammad Aidil Najmi Mohd Fairus and Mr Muhammad Firdaus Irfan Mohd Fauzi

Fasilitator:
1. Ms Nur Sabrina Muhammad Nawi
2. Ms Nur Izah Mohd Asri
3. Ms Sumayyah Ahmad Basri
4. Mr Izzul Kauthar Sahrul Anuar
5. Mr Aidil Anuar
6. Mr Muhammad Nazhan Azhar
7. Ms Nur Fatin Audryna Azhar
8. Mr Muhammad Thaqif Roslan

10:25 am – 12:15 pm

9. Ms Qistina Balqis Azman
10. Ms Izzatul Aliah Ahmad Syarifuddin
11. Mr Syed Ameer Aiman Syed Azri
12. Ms Nurrahil Amani Badrulhisham
13. Ms Nur Sakeena Khairul Ezwan
14. Ms Nur Hasinah Iwani Mohd Fazil
15. Ms Nurin Aqeelah Mohd Khairunasai
16. Ms Nur Afiqah Hadhirah Irwan
17. Mr Mohd Fazli Mohd Roshidi
18. Ms Wan Nur Ainmardhiah Wan Noh
19. Ms Fatini Izzati Ismail

12:15 am – 1:15 pm

Module 4: Action During Disaster

(Explanation of actions to take in different disaster situations, such as during floods, tsunamis, earthquakes, and fires)

Speaker by Mr Muhammad Aidil Najmi Mohd Fairus and Mr Muhammad Firdaus Irfan Mohd Fauzi

Fasilitator:

1. Ms Nur Sabrina Muhammad Nawi
2. Ms Nur Izah Mohd Asri
3. Ms Sumayyah Ahmad Basri
4. Mr Izzul Kauthar Sahrul Anuar
5. Mr Aidil Anuar
6. Mr Muhammad Nazhan Azhar
7. Ms Nur Fatin Audryna Azhar
8. Mr Muhammad Thaqif Roslan
9. Ms Qistina Balqis Azman
10. Ms Izzatul Aliah Ahmad Syarifuddin
11. Mr Syed Ameer Aiman Syed Azri
12. Ms Nurrahil Amani Badrulhisham
13. Ms Nur Sakeena Khairul Ezwan
14. Ms Nur Hasinah Iwani Mohd Fazil
15. Ms Nurin Aqeelah Mohd Khairunasai
16. Ms Nur Afiqah Hadhirah Irwan
17. Mr Mohd Fazli Mohd Roshidi
18. Ms Wan Nur Ainmardhiah Wan Noh
19. Ms Fatini Izzati Ismail

1:15 pm

- Lunch
- Question and answer session
- Disperse

5.0 School Preparedness Programme (SPP)

SRI Al Furqan, a private religious primary school, was selected to implement the School Disaster Preparedness Programme (SPP) due to its location in a low-lying area near the Perak River, which makes it highly vulnerable to flooding. Past flood events have inundated parts of the school, causing significant damage to school property.

The programme's primary goal is to enhance the ability of students and school communities to prepare for and respond to disasters, particularly floods and climate-related hazards such as heatwaves. Through structured activities and targeted training sessions, participants gain essential knowledge and practical skills in disaster risk management.

Beyond strengthening internal preparedness, the SPP highlights the role of students as agents of change. By equipping them with practical awareness and response strategies, the programme encourages students to share disaster preparedness practices with their families and communities, especially among close relatives. This initiative represents a proactive effort to foster a culture of readiness and resilience both within the school and in the surrounding community.

6.0 Key Activities and Focus Areas

i. Conduct training sessions on disaster prevention, preparedness, and response for school children and school staff.

ii. Empowered students to become disaster awareness ambassadors by encouraging them to share preparedness knowledge with their families and communities through campaigns and creative materials.

iii. Conducted evacuation drills and safety simulations to enhance readiness among students and school staff in responding to disasters such as floods, earthquakes and fire outbreak.

7.0 Summary of Capacity Building

The capacity-building session at SRI Al Furqan engaged a total of 100 students, comprising 66 male and 34 female students, all aged between 11 to 12 years old (refer to Section 7.0: Respondents Analysis for full demographic details). The session was held at the school's Open Hall and facilitated by a subject matter expert from the School Preparedness Programme (SPP), who led the participants through knowledge sharing, interactive discussions, and practical guidance on disaster risk management. The key focus areas of the session included:

- School Preparedness
- School Risk Mapping
- Climate Change
- Action During Disaster

These participatory activities were designed to equip students with essential knowledge, practical skills, and strategies to enhance their personal preparedness and contribute to overall school and community resilience in the face of potential disasters.

7.1 School Preparedness

As part of the SPP, an interactive group activity was conducted to introduce and deepen students' understanding of key disaster risk concepts: exposure, vulnerability, and capacity. This session aimed not only to build awareness but also to encourage critical thinking about how these elements relate to disaster impacts and community resilience.

This activity helped students make connections between real-life situations and theoretical disaster concepts in an engaging and relatable way. It also served as a platform for students to reflect on their own school and community's preparedness levels, fostering a sense of responsibility and proactive mindset toward disaster risk reduction.

7.1.1 Methodology

Students were divided into 10 groups (each group 10 students) and provided with illustrated image sheets, each depicting various disaster-related scenarios. Based on the images selected, students discussed and interpreted how each scene represented aspects of exposure (who or what is at risk), vulnerability (why they are at risk), and capacity (what strengths or resources can reduce risk). Each group then presented their findings to the class, promoting peer-to-peer learning and dialogue.

7.1.2 Objective

To equip students with a foundational understanding of disaster risk by exploring the concepts of exposure, vulnerability, and capacity through interactive group activities, while promoting critical thinking, teamwork, and communication.

7.1.3 Outcome

Students will be able to identify and explain key disaster risk components, analyse real-life scenarios, and effectively communicate their ideas—strengthening individual awareness and fostering a culture of preparedness within the school community.

7.2 School Risk Mapping

Risk mapping activity was conducted to actively engage students in identifying disaster risks within their immediate environment. This activity served as a practical extension of the classroom-based learning from the SPP modules, allowing students to apply their knowledge in a real-world context. This activity proved to be a valuable learning experience, fostering a deeper sense of awareness among students about their surroundings and equipping them with basic tools to identify and communicate potential hazards. It also laid the groundwork for the school community to begin thinking about long-term improvements to school safety infrastructure and disaster readiness. By combining theory with practice, the activity successfully transformed students into active participants in their own safety and resilience—aligning with the broader goal of the SPP to empower young people as agents of change within their communities.

Picture 1: Outcome of the group discussion and information sharing on risk area mapping and existing capacities in SRI Al Furqan.

7.2.1 Methodology

Students were divided into 10 groups (each group 10 students). This activity involved on-site observation around the school grounds, where students were tasked with documenting visual evidence of exposure, vulnerability, and capacity. Using polaroid camera, students captured images of areas or elements that could contribute to risk during a disaster—for example, low-lying flood-prone areas (exposure), blocked drainage or weak infrastructure (vulnerability), and available resources such as fire extinguishers (capacity).

7.2.2 Objective

To enhance students' practical understanding of disaster risk concepts by engaging them in identifying and analysing real-life examples of exposure, vulnerability, and capacity within their school environment.

7.2.3 Outcome

Students are able to critically assess their surroundings, identify potential hazards and available resources, and effectively communicate their findings. This empowers them to become active contributors to school safety initiatives and disaster preparedness efforts within their wider community.

7.3 Action During Disaster

An interactive disaster simulation exercise was conducted, encompassing four scenarios: flood, tsunami, earthquake, and fire. The programme aimed to equip primary school students with practical knowledge and skills to seek protection and respond effectively to disasters, whether occurring within the school premises or in external environments. In addition, the exercise provided guidance on risk reduction strategies and personal safety measures to enhance their preparedness and resilience.

7.3.2 Methodology

Students will be divided into 10 groups, each comprising 10 participants. A lead speaker will provide overall guidance on basic self-protection methods during different types of disasters — floods, tsunamis, earthquakes, and fires — supported by facilitators assigned to each group.

a. Flood

Students will be introduced to evacuation procedures through a localised movement activity: “Move belongings to higher ground.”

Purpose: To train students to secure important items and documents by moving them to a safe elevated location when a siren sounds or an evacuation order is issued by authorities.

b. Tsunami

Students will practice evacuation through a localised movement activity: “Run to higher ground.”

Purpose: To prepare students to quickly move to higher ground upon hearing a tsunami warning siren.

c. Earthquake

Students will learn to protect themselves using the “Drop, Cover, and Hold On” technique.

Purpose: To provide basic training on self-protection inside buildings during an earthquake by reducing injury risks from falling objects or structural damage.

d. Fire

Students will be introduced to two key protective movements:
“Stop, Drop, and Roll” — to protect themselves if clothing catches fire.
“Crawl Low Under Smoke” — to avoid inhalation of thick smoke during evacuation.

Purpose: To equip students with fundamental self-protection skills in fire emergencies.

7.3.3 Objective

To equip primary school students with fundamental knowledge of disaster risk reduction, train them in practical self-protection techniques during floods, tsunamis, earthquakes, and fires, and build their confidence to respond effectively in emergency situations.

7.3.4 Outcome

Students will be able to demonstrate appropriate evacuation movements and safety actions for each disaster scenario, enhancing their overall preparedness and resilience.

7.4 Climate Change

As part of an environmental education initiative, this activity was designed to expose students to the vital role of green plants in supporting human and ecological health. The focus was on understanding the balance between oxygen production and carbon emissions in everyday environments.

7.4.1 Methodology

As part of an interactive learning activity, students were divided into 8 groups consisting of 12 to 13 members each. Their challenge was to design and build a model of a residential area using two key environmental ratios as guidelines:

- 1:3 Ratio – One human or animal requires three trees to offset carbon emissions.
- 1:6 Ratio – One motor vehicle requires six trees to compensate for carbon monoxide emissions.

These ratios served as a visual and hands-on demonstration of the vital role greenery plays in maintaining air quality and protecting respiratory health. More than a conventional science lesson, the activity emphasized the importance of trees as natural defenders against the urban heat island effect and global warming. Students gained insights into how insufficient vegetation can elevate health risks—such as heatstroke—particularly in densely developed and climate-sensitive areas. By connecting concepts of urban planning, public health, and environmental sustainability, the exercise successfully encouraged students to think critically about designing future communities that are not only livable but also climate-resilient and environmentally conscious.

5.4.2 Objective

To encourage students to develop an understanding of the environmental impact of urban development by simulating the relationship between human activity and green coverage in a planned space.

5.4.3 Outcome

Students demonstrated increased awareness of sustainable land-use planning by incorporating adequate vegetation to mitigate air pollution and temperature rise in their model settlements.

6.0 Student Assessment Analysis

An evaluation was carried out with the participation of 100 students from SRI Al Furqan to measure their knowledge and understanding of disaster risk management before and after attending the School Preparedness Programme (SPP) workshop. A total of 98 students responded to the survey comprising 61 (61%) male and 34 (34%) female students and 3 (3%) prefer not to say while 2 (2%) did not provide any feedback. This represents a response rate of 98%, demonstrating strong student engagement and active participation in the programme.

6.1 Accessibility of Telecommunication and Information Networks

Table 1: Students' Preference in Using Media Platforms for Communication

Media	Frequency	Percentage
Television	79	35%
Radio	16	7%
Computer	54	24%
Social Media	77	34%

Television was the most common platform, chosen by 35% of respondents. This was followed by social media at 34% and computer at 24%. Radio received about 7%, indicating it is the least used medium among the participants. This suggests a strong preference for digital and visual media, particularly television and social media, as the primary channel for receiving information.

6.2 Past Experiences with Disasters

Table 2: Proportion of students who have experienced in different type of disaster

Media	Frequency	Percentage
Flood	25	21%
Storm	16	13%
Haze	67	55%
Fire, typhoon, earthquake, tsunami and landslide	13	11%

Based on the collected data (Table 2), the majority of students reported having experienced haze (55%) and floods (21%), indicating these are the most common disasters affecting their area. A smaller percentage, 13%, reported experiencing storms. Notably, there were reported experiences (11%) of fires, typhoons, earthquakes, or tsunamis, suggesting that these types of disasters are either rare or have not occurred in the students' local environment during their lifetime. This distribution highlights the need for targeted disaster preparedness programmes focusing primarily on haze and flood-related risks, which are the most relevant to students' lived experiences.

6.3 Pre-Assessment Analysis

Table 3: Students' preparedness level before participating in the SPP

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Ready to face disasters	10	13	45	5	2
Know what action to take during a disaster	5	23	43	3	3
Know the assembly point during a disaster	3	13	25	17	2
Know the important numbers to contact	4	11	25	25	3

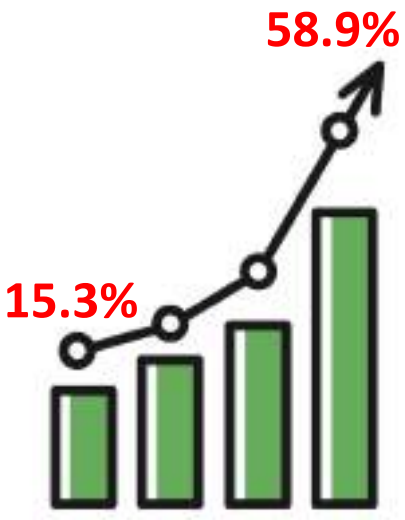
Table 3 summarises the self-assessment responses of 98 students regarding their level of preparedness and knowledge in the event of a disaster. The responses are categorised into five levels: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The survey results show that most students feel neutral about their readiness to face disasters and knowing what actions to take during one, suggesting many are unsure or not confident in their preparedness. Only a small number strongly agree that they are ready or know what to do, highlighting a gap in disaster readiness. More students feel positive about knowing the assembly point during a disaster, but there's still a mix of opinions. When it comes to knowing important contact numbers, responses are split evenly between agreement and neutrality, meaning many people are somewhat aware but there's room to improve overall knowledge and confidence in handling disasters.

6.4 Post-Assessment Analysis

Table 4: Students' preparedness level after participating in the SPP

	Strongly Disagree	Disagree	Neautral	Agree	Strongly Agree
Ready to face disasters	3	10	35	41	9
Know what action to take during a disaster	1	9	33	42	12
Know the assembly point during a disaster	0	4	32	45	17
Know the important numbers to contact	3	4	27	37	26

Table 4 demonstrates a positive improvement in the preparedness level of SRI Al Furqan students after participating in the SPP programme. All students expressed a willingness to share their experiences and the knowledge gained through the activities and training provided. They also showed interest in encouraging their peers to take part in future programmes. However, only 86% indicated a strong interest in participating in similar programmes again in the future. Among the modules offered, the most preferred was Module 4 - Action During Disaster (68.4%) meanwhile the least favoured was Module 2 – School Risk Mapping (38.78%)



Overall, the average percentage of students who felt prepared increased from about 15.3% on pre-assessment to 58.9% on post-assessment, representing an average improvement of approximately 43.6 percentage points. This significant gain demonstrates that most students gained both confidence and knowledge in disaster risk reduction and management after the SPP intervention, supporting the effectiveness of such educational programs in school-based disaster preparedness efforts.

Table 5: Summary table students' preparedness level before and after participating in the SPP

	Before Program (Knowledge) – % Agree & Strongly Agree	After Program (Attitude) – % Agree & Strongly Agree	Increase (%)
Ready to face disasters	7.1%	51.0%	+43.9%
Know what action to take during a disaster	6.1%	55.1%	+49.0%
Know the assembly point during a disaster	19.4%	63.3%	+43.9%
Know the important numbers to contact	28.6%	64.3%	+35.7%

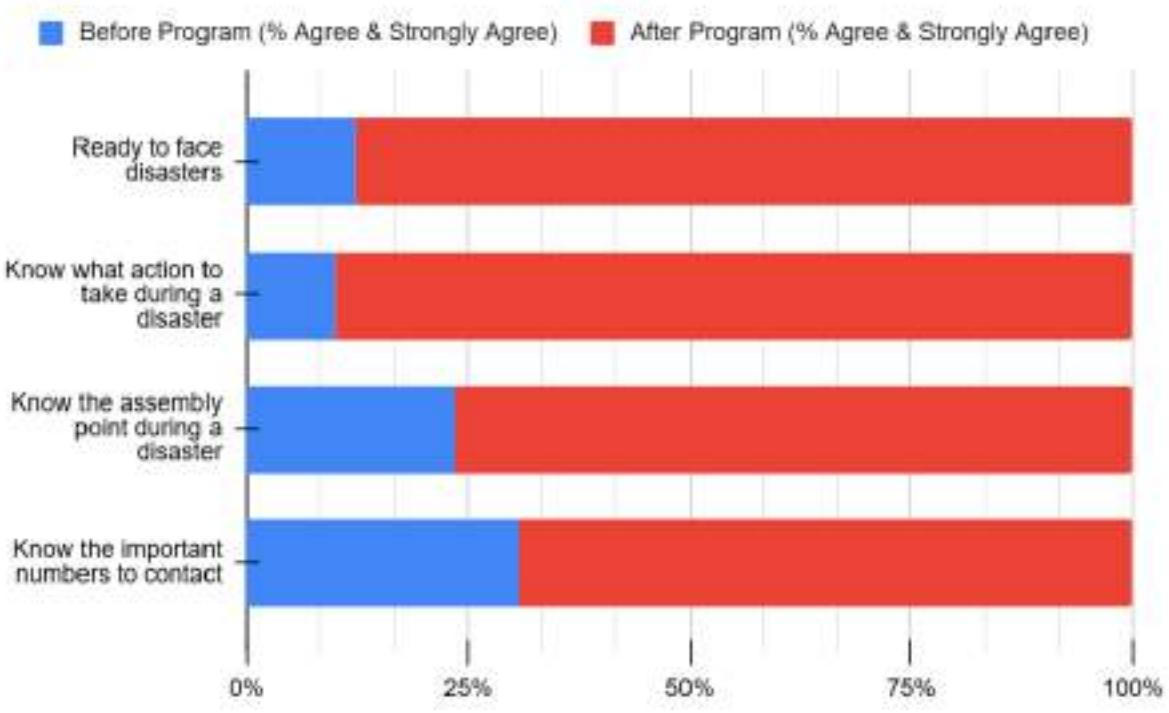


Figure 1: Program impacts on SRI Al Furqan students' disaster preparedness levels before and after the School Preparedness Programme (SPP).

The results show that the School Preparedness Programme (SPP) significantly improved SRI Al Furqan students' disaster preparedness. Before the programme, very few students felt ready to face disasters or knew the appropriate actions to take, with agreement levels ranging from 6.1% to 28.6%, suggesting limited prior knowledge or awareness of emergency procedures. After participating in the programme, these figures increased substantially, with over half of the students reporting readiness and knowledge across all measures, reflecting the programme's effectiveness in providing clear guidance and practical information. The greatest improvement was in knowing what actions to take during a disaster (49.0%), indicating that students gained practical skills for responding safely in emergencies. This was followed closely by readiness to face disasters and awareness of assembly points (43.9% each), demonstrating that the programme helped students feel more confident and informed about evacuation procedures. Knowledge of important contact numbers also increased by 35.7%, highlighting enhanced awareness of communication channels crucial for coordinating help during crises. Overall, the SPP effectively strengthened students' knowledge, confidence, and preparedness, equipping them with both the understanding and attitude necessary to respond appropriately in disaster situations.

6.5 Key Takeaways

i. Students showed a substantial average improvement of 43.6% in feeling prepared for disaster risk reduction and management after the intervention, indicating that the SPP program was highly effective in boosting their confidence and skills for disaster situations.

ii. The large positive shift from pre-assessment to post-assessment highlights that most students benefited from the educational intervention, supported by international research that such programs can meaningfully strengthen disaster resilience and should be prioritized in vulnerable settings.

6.6 Suggestion

i. Revamp Risk Mapping Module - Make Module 2 more engaging through hands-on mapping activities and digital tools.

ii. Shorten and Diversify Sessions - Break sessions into shorter, interactive formats to maintain student interest.

iii. Rotational Question Rounds - Call on each group in rotation, ensuring every group gets at least one turn before moving to the next round.

iv. Introduce Incentives - Use certificates or recognition to boost motivation and participation.

7.0 Respondents Analysis

Out of the 100 students, the majority were male. All individuals in the dataset are between 11 to 12 years old. Table 1 below shows the percentage between male and female students attending the School Preparedness Programme (SPP) in SRI Al Furqan, Kuala Kangsar.

Table 5: Age Group Distribution by Gender

Gender	Number of Participants	Percentage
Male	66	66%
Female	34	34%

Table 6: List of SPP recipients in SRI Al Furqan, Kuala Kangsar

No	Name	Gender	Age
1	Muhammad Adam Ashfaq Abdul Basit	Male	11
2	Noor Mikhaila Sofea Ismail	Female	11
3	Nurfathiah Iman Md Rozam	Female	11
4	Mai Uzma Zhafirah Khairul Anuar	Female	11
5	Muhammad Hazim Abdul Halim Abdul Rauf	Male	11
6	‘Ulya Nasuha Solehah Ubaidah	Female	11
7	Muhammad Irfan Zafran Mohd Khairizal	Male	11
8	Anis Faizal	Female	11
9	Muhammad Afiq Muzhaffar Mod Izwan	Male	11
10	Ahmad A’rfan Hasgif Omar	Male	11
11	Wan Syadiyah Sumayyah Meor Abdul Razak	Female	11
12	Nur ’Aisyah Humaira Sharif	Female	11
13	Muhammad Hafizuddin Amir Hamzah	Male	11
14	Muhammad Ahmad Anuar Mushaddad	Male	11
15	Izzah Nabilah Muhammad Ikhwan	Female	11
16	Harraz Umar Hafizuddin	Male	11
17	Muhammad Umar Zahin Arizan	Male	11
18	Syakirah Hayani Roslan	Female	11
19	Muhammad Mifzal Iman Mohd Rizalmi	Male	11
20	Muhammad Ammar Falah Muhamad Faisal	Male	11
21	Nur Afrina Syamimi Ahmad Shahril	Female	11
22	Muhammad Wathiq Hamkamarul	Male	11
23	Muhammad Al Fatih Mohd Tahrizil Adli	Male	11
24	Maleekah Mahfudzah Zamzamir	Female	11
25	Nurdeeni Aufa Sofiuddin	Male	11

26	Muhammad Rais Amsyar Syaiful Azizi	Male	11
27	Adam Daniyal Abdus Salam	Male	11
28	Muhammad Firas Zuhair Mohd Helmi	Male	11
29	Syed Muhammad Danish Adam Syed Ali	Male	11
30	Mohammad Abdul Salam Arimin	Male	11
31	Haziq Farhan Nur Fadzlan	Male	11
32	Nur Iffah Mahirah Amir Nordin	Female	11
33	Muhammad Dzulfarzrul Zulhaimi	Male	11
34	Muhammad ‘Afiat Fatih Ahmad Fairoz	Male	11
35	Nawal Insyirah Mohd Faizal	Female	11
36	Ahmad Baihaqi Muhammad Naim	Male	11
37	Zarif Atiya Mohd Zailani	Female	11
38	Mohammad Niyaz Fahim Mohamad Nasrol	Male	11
39	Muhammad Hadif Zhafri Muhammad Zaid	Male	11
40	Muhammad Nur Ammar Zubir	Male	11
41	Jannatun Nuha Mohd Faizul	Female	11
42	Wan Nur Safiyyah Nasrul Hakime	Female	11
43	Muhammad Fattah Shahafiz	Male	11
44	Nurhanania Khalishah Kamarularifin	Female	11
45	Muhammad Fitri Arsyad Mohd Nasharudin	Male	11
46	Muhammad Syauqi Rayyan Saleh	Male	11
47	Nur Amnina Adli	Female	11
48	Muhamamd Thohir Md Helmi Edi	Male	11
49	Nik Husamuddin Ardae Masakaree Ardae	Male	11
50	Aimy Putri Abdul Halim	Female	11
51	Arieq Aryan Zulkifli	Male	11
52	Muhammad Qhalif Al-durraf Abdul Hak	Male	11
53	Hafiz Zikri Ahmad Khusaini Fikri	Male	11
54	Areeqa Ayeesha Hishamuddin	Female	12
55	Amiruddin Anuar	Male	12
56	Nur Adriana Iklil Mohd Faizal	Female	12
57	Muhammad Firas Mursi Safei	Male	12
58	Muhammad Haziq Mifdhal Murad	Male	12
59	Muhammad Abbas Ahmad Zahidi	Male	12
60	Abdul Fattah Khairi Abdul Jabbar	Male	12
61	Nurin A’iesya Damia Omar	Female	12
62	Syed A’alim Fadl-lurrahman Syed Ahmad Ridzuan	Male	12
63	Nurul Zara Aurora Shahnizam Aizat	Female	12
64	Syarifah Asyfa Amna Wafa Syed Mohd Afnan Wafa	Female	12
65	Nurin Tihani Hamkamarul	Female	12

66	Nurul Afiqah Aly	Female	12
67	Nurul Alisya Ariffin Him	Female	12
68	Nurul Damia Ezwan Achmady	Female	12
69	Nur Iman Surfina Arizan	Female	12
70	Nur Umairah Qisya Ahmad Daud	Female	12
71	Muhsin Izzuddin Zulkefly	Male	12
72	Muhammad Izhar Afiq Syaiful Azizi	Male	12
73	Muhammad Tsaqif Mohammad Iswandy	Male	12
74	Muhammad Umar Fakhry Mohd Hapni	Male	12
75	Muhammad Faris Rizqi Abdul Khafidh	Male	12
76	Muhammad Hafiz Iman Mustafa	Male	12
77	Muhammad Haziq Hasbullah	Male	12
78	Muhammad Aqil Khalish Syamsul Izwan	Male	12
79	Muhammad Asyraf Shaiful Azhar	Male	12
80	Muhammad Dzaheen Shahrizal	Male	12
81	Muhammad Alif Izzat Mohd Syahrul Azwan	Male	12
82	Muhammad Alif Muiz Zainal Abidin	Male	12
83	Muhammad Amnan Hafizuddin Nurul Halil	Male	12
84	Muhammad Anas Amir Hamzah	Male	12
85	Muhammad Ilman Uqayl Mohd Aidil Farid	Male	12
86	Muhammad Adil Hadif Ismail	Male	12
87	Muhammad Al-fateh Mohd Syahid	Male	12
88	Mior Ahmad Naufal Mior Nor Khairi	Male	12
89	Mirza Zahran Mohd Noorifaizal	Male	12
90	Iman Nur Iqbal Abdul Malek	Male	12
91	Khairul Amirin Khalil	Male	12
92	Maisarah Surfina Peintkowsky Abdullah	Female	12
93	Harraz Nuriman Mohd Abd Jamal	Male	12
94	Che Muhammad Che Muhsin	Male	12
95	Annur Sofia Mohd Hanafi	Female	12
96	Amira Adawiyah Mahir Abdul Rahman	Female	12
97	Aisyah An Najihah Mohd Helmi	Female	12
98	Amal Hadil Mohd Azhar	Male	12
99	Ahmad ‘Ammar Shuaib Ahmad Bakhtiar	Male	12
100	Ahmad Mu’iz Mohd Kamaludin	Male	12

8.0 Appendix







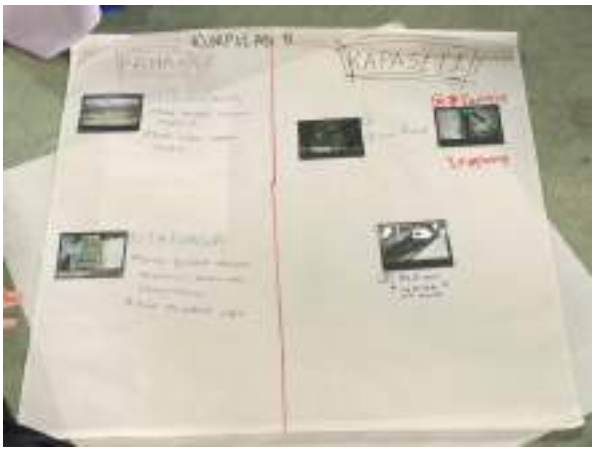









Bahaya
Kapasiti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HARAPAN


Harapan/ Peraturan

12.0 Appreciation

MERCY Malaysia HQ
Ms Atiqah Alias, Senior Programme Officer
Mr Muhammad Akmal Afif Ahmad Subki, Programme Officer
Mr Shahril Idris, Programme Officer

SPP Subject Matter Expert
Mr Mohd Nasurudin Hasbullah

SPP MERCY Malaysia Volunteer
Mr Muhammad Aidil Najmi Mohd Fairus
Ms Nur Sabrina Muhammad Nawi
Ms Nur Izah Mohd Asri
Ms Sumayyah Ahmad Basri
Mr Izzul Kauthar Sahrul Anuar
Mr Aidil Anuar
Mr Muhammad Nazhan Azhar
Ms Nur Fatin Audryna Azhar
Mr Muhammad Thaqif Roslan
Mr Muhammad Firdaus Irfan Mohd Fauzi
Ms Qistina Balqis Azman
Ms Izzatul Aliah Ahmad Syarifuddin
Mr Syed Ameer Aiman Syed Azri
Ms Nurrahil Amani Badrulhisham
Ms Nur Sakeena Khairul Ezwan
Ms Nur Hasinah Iwani Mohd Fazil

Ms Nurin Aqeelah Mohd Khairunasai
Ms Nur Afiqah Hadhirah Irwan
Mr Mohd Fazli Mohd Roshidi
Ms Wan Nur Ainmardhiah Wan Noh
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Ms Pooveneswary Nagaiah, Associate
Ms Ilana Aqilah Abd Ghafar, Associate

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