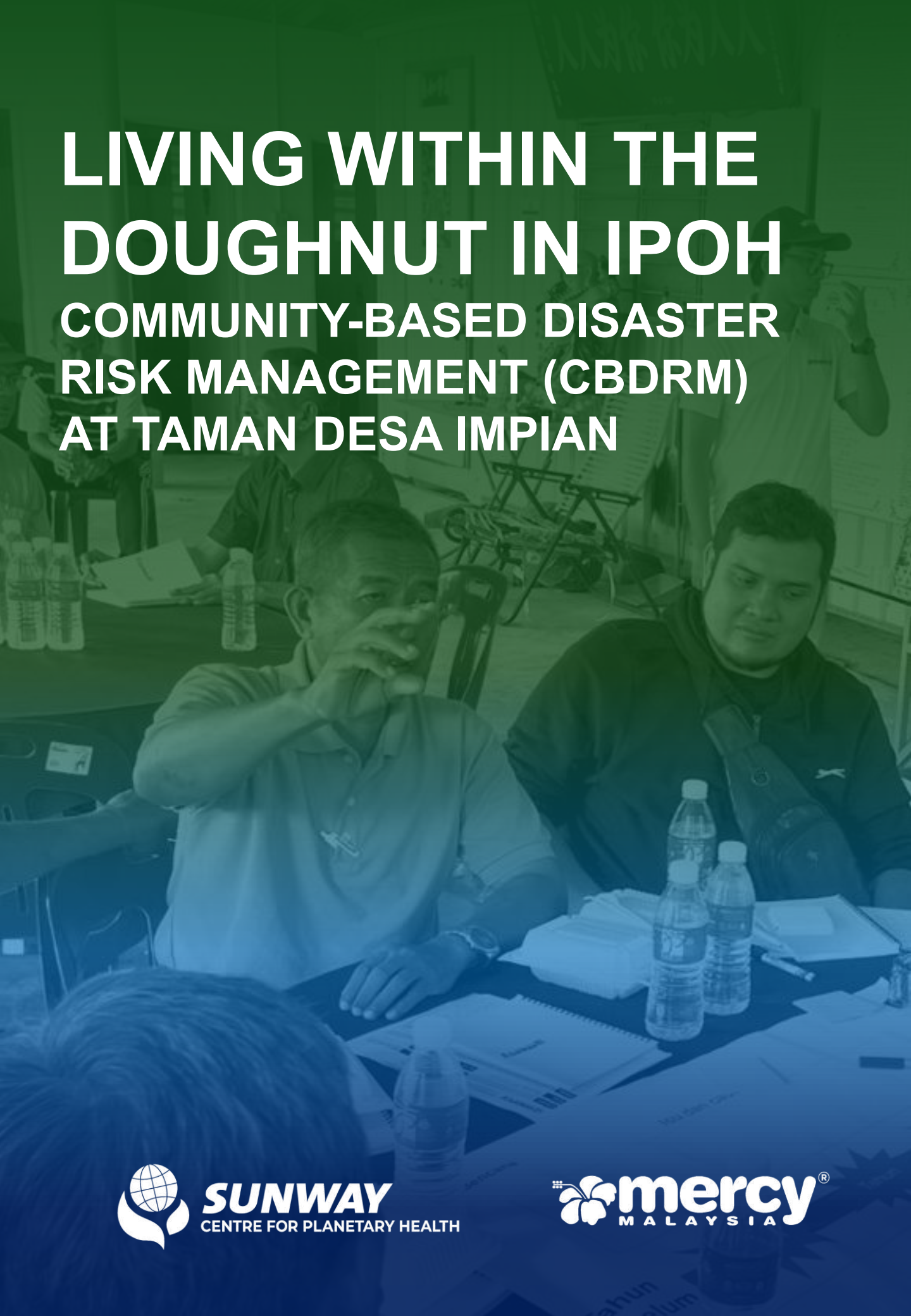
LIVING WITHIN THE DOUGHNUT IN IPOH

COMMUNITY-BASED DISASTER RISK MANAGEMENT (CBDRM) AT TAMAN DESA IMPIAN



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1.0 Background

The "Living Within The Doughnut in Ipoh: Community-Based Disaster Risk Management" project is a collaborative initiative between Sunway Centre for Planetary Health (SCPH) and MERCY Malaysia, aimed at integrating Community-Based Disaster Risk Management (CBDRM) with the Doughnut Economics model. This project supports Ipoh's goal of balancing social and economic well-being with environmental sustainability, aligning with the city's vision to become a "Doughnut Economic City" by 2027.

By integrating CBDRM with the Doughnut Economics model, this project contributes to Ipoh's vision of achieving a sustainable urban environment, positioning it as a pioneering example in Malaysia.

2.0 Objectives

i. Promote Regenerative and Distributive Practices: Develop community-driven initiatives that balance social needs with environmental sustainability by adhering to the principles of Doughnut Economics. These initiatives should aim to create a "safe and just space" for humanity, ensuring that disaster resilience does not compromise planetary boundaries or social foundations

ii. Strengthen Local Capacities: Creating participatory risk maps, engaging vulnerable groups in decision-making, and embedding disaster resilience into local governance structures to ensure long-term sustainability and effectiveness.

3.0 Programme Summary

Programme	Living Within The Doughnut In Ipoh: Community-based Disaster Risk Management Taman Desa Impian
Date	May 18th, 2025 (Sunday)
Time	08:00 am to 13:00 pm
Venue	Dewan Persatuan Keselamatan Sukarelawan Kawasan Bercham (PKSKB), Ipoh
Funder	Sunway Center for Planetary Health
Recipients	21 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 - Sunway Center for Planetary Health (SCPH) - Majlis Bandaraya Ipoh (MBI) - MERCY Malaysia
8:30 am – 8:35 am	CBDRM Pre-Assessment
8:35 am – 12:30 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 by Mr Mohd Nasurudin Hasbullah Fasilitator: 1. Ms Lilawati Ab Wahab 2. Ms Shafikah Saharuddin 3. Ms Syahmimi Ayuni Ramli 4. Ms Nur Athirah Binti Sakah 5. Ms Suzanah Abdullah 6. Ms Izrahayu Che Hashim 7. Mr Zaidin Ismail **Module 2: Community Preparedness in Disaster** (Understanding of the importance and effective preparedness measures in facing disasters) Speaker by Mr Mohd Nasurudin Hasbullah Fasilitator: 1. Ms Lilawati Ab Wahab 2. Ms Shafikah Saharuddin 3. Ms Syahmimi Ayuni Ramli 4. Ms Nur Athirah Binti Sakah 5. Ms Suzanah Abdullah 6. Ms Izrahayu Che Hashim 7. Mr Zaidin Ismail

Module 3: Community-Based Disaster Management

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

Speaker by Mr Zaidin Ismail

Fasilitator:
1. Ms Lilawati Ab Wahab
2. Ms Shafikah Saharuddin
3. Ms Syahmimi Ayuni Ramli
4. Ms Nur Athirah Binti Sakah
5. Ms Suzanah Abdullah
6. Ms Izrahayu Che Hashim
7. Mr 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 Mr Zaidin Ismail

Fasilitator:
1. Ms Lilawati Ab Wahab
2. Ms Shafikah Saharuddin
3. Ms Syahmimi Ayuni Ramli
4. Ms Nur Athirah Binti Sakah
5. Ms Suzanah Abdullah
6. Ms Izrahayu Che Hashim
7. Mr Mohd Nasurudin Hasbullah

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 Ms Lilawati Ab Wahab

Fasilitator:
1. Ms Shafikah Saharuddin
2. Ms Syahmimi Ayuni Ramli
3. Ms Nur Athirah Binti Sakah
4. Ms Suzanah Abdullah
5. Ms Izrahayu Che Hashim
6. Mr Mohd Nasurudin Hasbullah
7. Mr Zaidin Ismail

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 Taman Desa Impian

5.1 Taman Desa Impian: Flood Risks and Community Conditions

Taman Desa Impian is situated within the urban expanse of Ipoh and forms part of a network of established residential neighbourhoods, including Menglembu, Buntong, and Bercham. Its strategic location provides residents with easy access to essential amenities such as schools, commercial centers, and transportation networks, making it an attractive, affordable, and well-connected residential area within the city.

Despite these advantages, Taman Desa Impian is highly prone to flooding. Historical records show that in 2005, the removal of a key flood retention pond significantly reduced the area's capacity to manage floodwaters, resulting in water levels reaching approximately 2.5 feet. More recently, in 2024, the neighbourhood experienced its worst flooding in 28 years, primarily due to prolonged heavy rainfall combined with clogged and inadequate drainage systems. This event displaced residents and caused substantial financial losses, including damage to homes and personal property.

Flooding in Taman Desa Impian continues to be a recurring problem, driven by a combination of hydrometeorological conditions, insufficient drainage infrastructure, and local environmental factors. The frequency and severity of these events highlight systemic weaknesses in current flood management measures. Without targeted interventions, these risks are likely to persist and worsen under changing climate conditions.

Effectively addressing flood risk in Taman Desa Impian requires comprehensive and integrated mitigation strategies. Key measures include upgrading drainage systems to meet national standards, restoring or constructing flood retention facilities, and enhancing coordination among relevant government agencies and local authorities. Additionally, community-level preparedness initiatives and proactive governance are essential to strengthen resilience and reduce the long-term social and economic impacts of flooding.


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6.0 Community Based Disaster Risk Management

The "Living Within the Doughnut in Ipoh: Community-Based Disaster Risk Management (CBDRM)" programme is a joint initiative by the Sunway Centre for Planetary Health (SCPH) and MERCY Malaysia. The project integrates the principles of CBDRM with the Doughnut Economics framework, supporting Ipoh's vision to become a sustainable "Doughnut Economic City" by 2027. In Taman Desa Impian, the programme specifically targeted the link between poor waste management and localised flooding; an increasingly urgent issue in the community. The project aimed to both raise awareness and promote community-driven solutions to improve waste management practices, thereby reducing the risk and impact of floods.

7.0 Key Activities and Focus Areas

i. Conducted community workshops to educate residents on how improper waste disposal contributes to blocked drains and exacerbates flood risks.

ii. Facilitated information-sharing sessions between residents, local authorities, and waste management service providers to improve communication and coordination.

iii. Organised community clean-up campaigns and promoted good waste segregation practices at household and neighbourhood levels.

iv. Supported the development of local action plans for ongoing waste management improvements and disaster risk reduction.

By engaging residents directly and fostering a sense of ownership, the programme helped lay the foundation for a more resilient and sustainable urban environment in Taman Desa Impian. This project also serves as a model for how targeted community-based interventions can contribute to broader urban resilience goals across Ipoh and beyond.

8.0 Community Profile

The original residents of Taman Desa Impian have largely relocated, with many now renting out their properties to external tenants. A significant portion of the current population consists of lower-income groups (B40 and below), predominantly from the Malay community. Notably, financial aid and relief efforts are typically provided to property owners, not to tenants.

The housing stock primarily consists of low-cost, single-storey terrace houses. Approximately 10 units—mostly located in the last row—are abandoned. Many other houses are rented out, which is evident from the physical condition of the units and the high number of motorcycles parked outside. Permanent residents are mainly family units, predominantly Malay. To mitigate flood risks, many households have reinforced their front entrances with boulders to prevent floodwater ingress.

9.0 Key Issues

i. The low-lying housing area is situated below an adjacent newly elevated road, causing rainwater to flow downhill into the neighbourhood.

ii. The existing pump house and overall maintenance of drainage and flood prevention infrastructure are inadequate and poorly maintained.

iii. Persistent infrastructure deficiencies contribute to the area's ongoing vulnerability to floods.

10.0 Summary of Capacity Building

10.1 Disaster timeline-related activities

This activity focused on documenting and discussing the history of disasters that have impacted the settlement area, 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.

10.1.2 Findings

Based on discussions and collected information, Taman Desa Impian was developed around 1994 and is predominantly occupied by its original homeowners. The first documented flood occurred in 1996, with water levels reaching just below knee height. At that time, the community was caught off guard due to the absence of early warnings or guidance. The flood led to the loss and damage of important personal documents, and no external aid—such as food or clothing—was provided.

Between 2017 and 2022, the frequency and severity of flooding increased markedly, with water levels recorded at over one metre, surpassing chest height. Despite the growing impact, immediate assistance remained lacking, and no nearby temporary evacuation centres (Pusat Pemindahan Sementara, PPS) were activated. Consequently, property damage was significantly more extensive during this period.

A key concern reported by residents is the rapid onset of flooding. On average, it takes less than two hours for floodwaters to rise and inundate the residential area.

"Some of us had no choice but to spend the night in our cars along the roadside, as no nearby temporary evacuation centres (PPS) were opened to provide shelter during the recent flood," shared one local community member, who preferred to remain anonymous.

Similarly, it takes approximately two hours for the water to fully recede after the rainfall subsides. This short response window leaves little time for residents to react or evacuate, further increasing the community's vulnerability.

As a result of repeated flooding, many original homeowners have chosen to move out and rent their homes at low rates. The most recent flood, which occurred on 27 April 2025, again saw water levels exceed one metre. In addition to extensive property damage, the flood led to the spread of waterborne diseases, with residents reporting health issues such as skin rashes and diarrhoea.

"Despite numerous flood mitigation projects, there has been no noticeable improvement in reducing flood risks in our neighbourhood," said a frustrated resident, who preferred to remain anonymous.

10.2 Risk Mapping

The risk mapping activity was designed to systematically capture local knowledge related to hazard exposure, community vulnerabilities, and existing response capacities, with the objective of strengthening evidence-based disaster risk management and enhancing local safety planning. As part of the methodology, community participants were engaged in structured site visits to identified high-risk locations. During these visits, technical briefings were delivered by representatives of the Ipoh City Council (MBI) on critical flood mitigation infrastructure. This included a flood retention pond located adjacent to Gunung Tambun, which functions as a structural measure to attenuate surface runoff and reduce the incidence of flash flooding. Next, a flood pump station which to facilitate the controlled discharge of accumulated floodwater from Taman Desa Impian into Sungai Pinji, thereby improving drainage efficiency and minimizing flood impacts on the surrounding residential areas.

10.2.1 Findings

Taman Desa Impian, Ipoh, is situated at an elevation approximately 1.5 metres lower than the adjacent primary roadway, Lebuh Bercham Selatan. Owing to this relatively low-lying topography, the area effectively serves as a natural catchment for surface runoff and hillside drainage originating from surrounding higher elevations. Currently, flood mitigation measures in the area include at least one pump station operated by the Department of Irrigation and Drainage (JPS), located at Lebuh Bercham Selatan 2/1, as well as a flood retention pond designed to reduce the risk of severe flooding within Taman Desa Impian and its surrounding vicinity.

Nevertheless, representatives from the Ipoh City Council (MBI) highlighted that improper solid waste management, particularly the disposal of garbage into drainage systems, poses a significant operational risk to the pump station infrastructure by potentially damaging mechanical components and compromising system performance, especially during high-intensity rainfall events. Furthermore, illegal dumping of waste into drains and open areas diminishes the functional capacity of the retention pond, as accumulated debris obstructs stormwater conveyance from the drainage network into the pond, thereby reducing overall flood mitigation efficiency.

Through the community mapping activity, residents were able to share valuable information about the local stormwater flow patterns in and around their neighbourhood. They also proposed suitable locations for a temporary evacuation centre (PPS) close to their residential area, suggesting either the Huat Tian Keong Temple or the Bercham Community Volunteer Safety Association Hall (Persatuan Keselamatan Sukarelawan Kawasan Bercham, PKSKB) in Ipoh.

"We hope that the residents of Taman Desa Impian can help us by keeping an eye out and reporting any irresponsible activities, such as illegal dumping of waste into drains, open spaces, or overgrown areas around the neighbourhood," said a representative from the Ipoh City Council (MBI) pump house team.

"We had to spend quite a lot of money to raise the floor at the front and back of our house, just to try and protect our belongings when the floods come," said one resident, who preferred not to be named.

10.3 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.

10.2.1 Findings

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

Response Phase

Early actions focus on alerting relevant authorities and activating community warning systems to mitigate the immediate impact of flooding. This includes:

- Issuing early notifications to the pump house operators from the Department of Irrigation and Drainage (JPS) and Ipoh City Council (MBI) to regulate rainwater flow within the residential area.
- Activating early warning mechanisms such as sirens and local communication channels, including WhatsApp groups.
- Compiling and maintaining a register of residents most vulnerable to flooding to prioritize assistance.

Recovery Phase

Efforts during this phase aim to facilitate community-led support and emotional recovery following flood incidents. Key activities include:

- Formation of a Food and Basic Aid Committee to coordinate timely distribution of essential supplies.
- Establishment of a Volunteer Coordination Committee to manage external volunteer participation in community clean-up efforts.
- Creation of a Counselling Committee dedicated to providing psychosocial support to affected individuals, helping to alleviate stress and anxiety resulting from property loss.

Mitigation Phase

To reduce future risks and promote community health, the following committees are formed:

- A Health Committee, in collaboration with the Ministry of Health (KKM), responsible for conducting post-flood health screenings.
- A Patrol Committee tasked with monitoring and preventing illegal waste disposal activities within the community, addressing a common contributor to flooding.

Preparedness Phase

Preparatory measures focus on ensuring efficient shelter management and community readiness:

- Establishment of a Management Committee responsible for the organisation and operation of the nearest Temporary Evacuation Centre (Pusat Pemindahan Sementara, PPS).
- This structured approach ensures that community roles and responsibilities are clearly defined, enabling effective disaster risk management and enhancing the community's capacity to respond to flood-related hazards.

"The last time we received assistance from a government agency was in 2022, which was in the form of grocery supplies," expressed a community representative.

"We did not receive any early information from the relevant agencies; the only notification about the rising floodwaters was shared in our WhatsApp group," said a community representative.


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Tambun
Water Runoff
Evacuation route
Evacuation route
Evacuation route
Lebuh Bercham Selatan 2
Proposed
PPS
Evacuation route
Evacuation route
Evacuation route
Evacuation route
Lebuh Bercham Selatan
Water Runoff
JPS
Pump
House

11.0 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.

11.1 Pre Assessment Analysis

Table 1: Disaster Risk Awareness in Taman Desa Impian, Ipoh 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.	3 (6%)	2 (4%)	11 (21%)	0 (0%)	5 (9%)
2.	I know the importance of effective disaster risk reduction (DRR).	3 (6%)	2 (4%)	11 (21%)	4 (8%	1 (2%)
3.	I know actions to reduce disaster risks for myself and my community.	3 (6%)	2 (4%)	11 (21%)	2 (4%)	3 (6%)
4.	I understand what outbreaks are and how diseases spread.	2 (4%)	2 (4%)	12 (23%)	1 (2%)	4 (8%
5.	I know the types of health threats and harmful diseases.	2 (4%)	2 (4%)	11 (21%)	1 (2%)	5 (9%)
6.	I know good practices to maintain personal and community health.	2 (4%)	2 (4%)	11 (21%)	1 (2%)	5 (9%)
7.	I understand the negative impacts of disasters.	3 (6%)	2 (4%)	11 (21%)	2 (4%)	3 (6%)
8.	I know why building personal and community resilience is important.	3 (6%)	7 (13%)	5 (9%)	4 (8%	2 (4%)
9.	I know effective ways to build resilience.	3 (6%)	7 (13%)	5 (9%)	4 (8%	2 (4%)
10.	I can identify high-risk or dangerous areas in my community.	3 (6%)	7 (13%)	5 (9%)	3 (6%)	3 (6%)
11.	I know the safe places in my community.	3 (6%)	7 (13%)	5 (9%)	2 (4%)	4 (8%
12.	I know how to strengthen community capacity to face disasters.	3 (6%)	7 (13%)	7 (13%)	2 (4%)	2 (4%)
13.	I understand the importance of a community-level Disaster Management Committee.	3 (6%)	8 (15%)	5 (9%)	2 (4%)	3 (6%)

No.	Statement	Not Clear	Less Clear	Somewhat Clear	Clear	Very Clear
14.	I know the key units needed in a Disaster Management Committee.	3 (6%)	8 (15%)	7 (13%)	1 (2%)	2 (4%)
15.	I know the roles of each unit in the Disaster Management Committee.	5 (9%)	8 (15%)	7 (13%)	0 (0%)	1 (2%)
		44 (14%)	**73 (23%)**	**124 (39%)**	**29 (9%)**	**45 (14%)**

Table 1 summarises the level of disaster risk awareness among 21 respondents from the Taman Desa Impian community prior to their participation in the Community-Based Disaster Risk Management (CBDRM) initiative. The assessment provides an overview of baseline knowledge and understanding related to disaster concepts, health risks, community resilience, and local disaster management structures.

Overall, the results indicate that the respondents possessed a moderate but largely superficial level of disaster risk awareness before the intervention. The distribution of responses shows a clear concentration in the “Somewhat Clear” category (39%), followed by “Less Clear” (23%) and “Not Clear” (14%). In contrast, responses reflecting a higher level of understanding—namely “Clear” (9%) and “Very Clear” (14%)—were comparatively limited. This pattern suggests that while respondents had some familiarity with disaster-related issues, comprehensive and confident knowledge was generally lacking.

Higher levels of awareness were observed in statements related to general disaster concepts and health-related issues, including understanding the types of disasters, disease outbreaks, health threats, good health practices, and the negative impacts of disasters. These findings likely reflect the influence of prior public health messaging and general exposure to disaster-related information.

Conversely, lower levels of clarity were evident in areas concerning community-based preparedness and institutional arrangements. Statements addressing community resilience, identification of high-risk and safe areas, community capacity strengthening, and the structure, roles, and functions of a Disaster Management Committee recorded higher proportions of “Not Clear” and “Less Clear” responses. This indicates limited awareness of organised disaster risk governance and collective preparedness mechanisms at the community level.

In summary, prior to the CBDRM initiative, the Taman Desa Impian community demonstrated basic awareness of disaster risks but insufficient understanding of practical preparedness, community resilience, and formal disaster management structures. These findings underscore the relevance and necessity of the CBDRM initiative in enhancing local knowledge, strengthening institutional capacity, and promoting a more coordinated and community-driven approach to disaster risk reduction.

11.2 Post Assessment Analysis

Table 2: Disaster Risk Awareness in Taman Desa Impian, Ipoh : 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.	6 (29%)	0 (0%)	7 (33%)	1 (5%)	7 (33%)
2.	I know the importance of effective disaster risk reduction (DRR).	6 (29%)	0 (0%)	7 (33%)	1 (5%)	7 (33%)
3.	I know actions to reduce disaster risks for myself and my community.	6 (29%)	0 (0%)	7 (33%)	1 (5%)	7 (33%)
4.	I understand what outbreaks are and how diseases spread.	5 (24%)	0 (0%)	7 (33%)	2 (10%)	7 (33%)
5.	I know the types of health threats and harmful diseases.	5 (24%)	0 (0%)	7 (33%)	1 (5%)	8 (38%)
6.	I know good practices to maintain personal and community health.	5 (24%)	0 (0%)	7 (33%)	1 (5%)	8 (38%)
7.	I understand the negative impacts of disasters.	5 (24%)	0 (0%)	7 (33%)	2 (10%)	7 (33%)
8.	I know why building personal and community resilience is important.	5 (24%)	5 (24%)	2 (10%)	2 (10%)	7 (33%)
9.	I know effective ways to build resilience.	5 (24%)	6 (29%)	1 (5%)	2 (10%)	7 (33%)
10.	I can identify high-risk or dangerous areas in my community.	5 (24%)	6 (29%)	1 (5%)	1 (5%)	8 (38%)
11.	I know the safe places in my community.	5 (24%)	6 (29%)	1 (5%)	1 (5%)	8 (38%)
12.	I know how to strengthen community capacity to face disasters.	5 (24%)	6 (29%)	1 (5%)	2 (10%)	7 (33%)
13.	I understand the importance of a community-level Disaster Management Committee.	5 (24%)	6 (29%)	1 (5%)	1 (5%)	8 (38%)
14.	I know the key units needed in a Disaster Management Committee.	5 (24%)	6 (29%)	1 (5%)	2 (10%)	7 (33%)
15.	I know the roles of each unit in the Disaster Management Committee.	5 (24%)	6 (29%)	3 (14%)	1 (5%)	6 (29%)
		78 (25%)	**47 (15%)**	**60 (19%)**	**21 (7%)**	**109 (35%)**

Table 2 illustrates the level of disaster risk awareness among 21 respondents from Taman Desa Impian after participation in the Community-Based Disaster Risk Management (CBDRM) initiative. Overall, the findings indicate a clear improvement in awareness levels compared to the pre-intervention assessment.

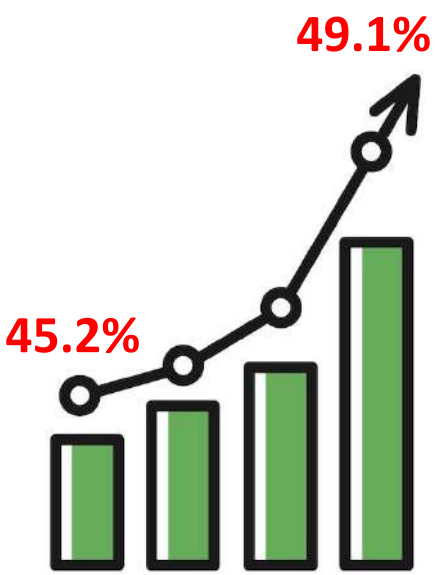
A substantial increase was observed in the “Very Clear” category (35%), alongside a reduction in lower-confidence responses. Improved understanding was particularly evident in general disaster concepts, disaster risk reduction, health-related issues, and personal preparedness, where a large proportion of respondents reported high levels of clarity.

Importantly, areas previously identified as weak—such as community resilience, identification of high-risk and safe areas, and knowledge of Disaster Management Committee roles and structures—also demonstrated noticeable gains, with increased “Clear” and “Very Clear” responses. This suggests that the CBDRR initiative effectively addressed gaps in community-level and institutional disaster preparedness.

Nevertheless, the persistence of some “Not Clear” and “Less Clear” responses indicates that certain aspects of disaster management may require sustained engagement and follow-up training. Overall, the post-intervention results confirm the positive impact of the CBDRR initiative in enhancing disaster risk awareness and community preparedness in Taman Desa Impian.

An evaluation was conducted involving 21 community of the Taman Desa Impian in Ipoh to assess their level of knowledge on disaster risk management prior to and after attending the Community-Based Disaster Risk Management (CBDRM) workshop.

The initial assessment revealed that the community’s knowledge level on disaster risk management was at a moderate level, with an average score of 45.2%. This indicates a basic awareness, but limited understanding and preparedness regarding disaster-related risks.



Following participation in the CBDRM workshop, the community demonstrated a notable improvement in their knowledge. The post-assessment scores reflected an increase of at least 3.9%, indicating the effectiveness of the workshop in enhancing community awareness and capacity in disaster risk management.

The significant increase in knowledge scores post-workshop suggests that targeted community engagement and capacity-building efforts such as the CBDRM workshop can effectively improve disaster preparedness and resilience at the grassroots level.

11.2 Evaluating Community Experience and Disaster Risk Reduction Practices

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

	Average Score
Experienced in disaster	(0.55) Moderate
Knowledge in disaster risk management	(0.79) Risky
Losses suffered	(0.52) Moderate
Action and planning in disaster management	(0.73) Risky
Community recovery strategies and action plan	(0.74) Risky
Environmental cleanliness and health standards	(0.79) Risky

A survey involving 21 individual from Taman Desa Impian, Ipoh indicates that the community's preparedness for disaster risk management is at risky level, with a low readiness score of 4.1 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 findings indicate that the Taman Desa Impian community demonstrates moderate levels of experience and preparedness in managing flash flood risks. Most respondents reported having some prior awareness and exposure to flash flood events, which has contributed to a basic understanding of flood risks and associated impacts. This suggests that lived experience plays a role in shaping community perception of disaster risk.

In terms of preparedness practices, the community shows partial engagement in risk reduction measures, such as awareness of flood-prone areas and general response actions during flood events. However, preparedness remains largely reactive rather than proactive, with limited evidence of systematic planning, early warning utilisation, or coordinated response mechanisms at the community level.

Community participation in organised disaster risk reduction activities, including training, drills, or formal preparedness planning for flash floods, appears to be uneven and insufficiently institutionalised. This reflects gaps in collective action, particularly in areas related to community-based flood preparedness planning, role allocation, and coordinated response.

Overall, the table suggests that while the community possesses experiential knowledge of flash floods, this has not yet been fully translated into structured preparedness and risk management practices. Strengthening community-based flash flood preparedness through targeted training, early warning dissemination, and the formalisation of local disaster management roles would be essential to enhance resilience and reduce future flood-related impacts in Taman Desa Impian.

12.0 Respondents Analysis

A total of 21 individuals participated in the community engagement activity. The demographic breakdown by gender and age group is presented below:

Gender Distribution
- Female participants: 7 respondents (33%)
- Male participants: 14 respondents (67%)

This indicates slightly higher engagement from man within the community.

Table 4: Age Group Distribution by Gender

Age Group	Male	Female	Total
Below 29	0	0	0
30 – 39	1	1	2
40 – 49	2	1	3
50 – 59	4	2	6
60 – 69	5	2	7
Above 70	2	1	3

Key Observations
- The 60–69 age group forms the largest proportion of recipients.
- More than 75% of participants are aged 50 and above, indicating strong involvement from senior community members.
- Representation from younger adults (below 40) is limited.

The programme saw strong engagement from experienced older community members, which supports leadership and local knowledge in programme implementation. However, limited participation from younger adults and women presents challenges to inclusivity and long-term sustainability. Targeted strategies to increase youth and female involvement offer opportunities to strengthen intergenerational learning and community ownership, while over-reliance on senior participants may pose continuity risks in the future.

Table 5: List of CBDRM recipients in Taman Desa Impian

No	Name	Gender	Age
1	Lawiya Binti Pandak Mat Piah	Female	78
2	Faridah Binti Abdullah	Female	64
3	Shahirah Ikmah Binti Sharom Shah	Female	34
4	Zainal Bin Mohd Hanafi	Male	58
5	Mohd Azrufadli	Male	42
6	Syed Nazarudin Bin Syed Mohamed Taib	Male	52
7	Sharina Binti Sharom Shah	Female	45
8	Muhamad Rizuan Bin Roslan	Male	44
9	Hasnah Bibi Binti Mohamed Yusof	Female	60
10	Lai Choy Mun	Female	59
11	Muhammad Ferdaus	Male	32
12	Madzlan Bin Ismail	Male	60
13	Muhammad Fairulizam	Male	39
14	Muhammad Akmal Bin Abdul Kadir	Male	37
15	Rosman Bin Zulkafli	Male	61
16	Wahab Bin Mat	Male	70
17	Ahmad tarmizi Ismail	Male	68
18	Moon Siew Cheong	Male	73
19	Chew Yone Kwai	Female	75
20	Choong Yew Seng	Male	78
21	Lew Kuai Nam	Male	66

13.0 Appendix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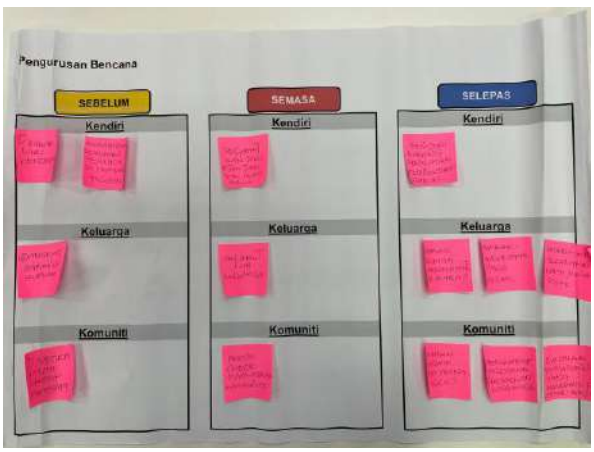
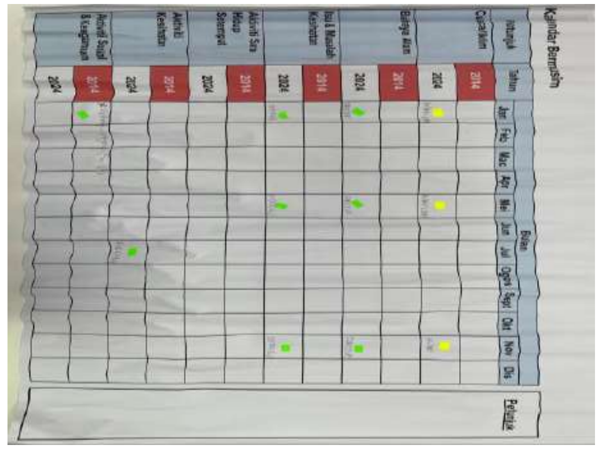
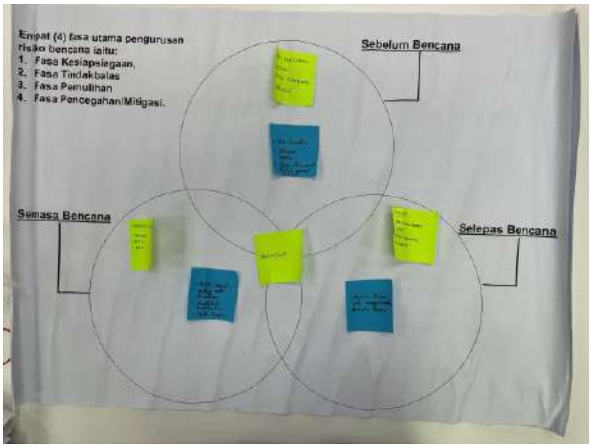
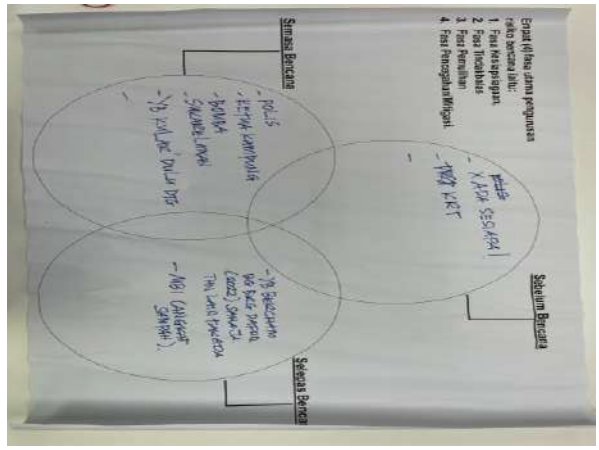
SEBELUM
SEMASA
SELEPAS
Kendiri
Keluarga
Komuniti

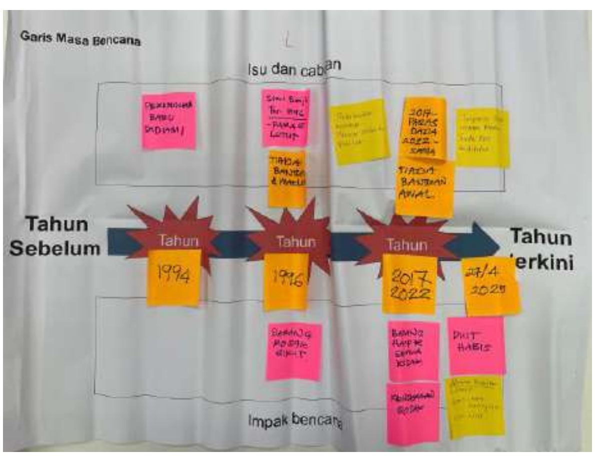

Pengurusan Bencana
SEBELUM
SEMASA
SELEPAS
Kendiri
Keluarga
Komuniti


Kendar Bermusim
Petunjuk
Tahun
Bulan
Jan
Feb
Mac
Apr
Mei
Jun
Jul
Ogos
Sept
Okt
Nov
Dis
Petunjuk
Cica/Iklim
Bencana Alam
Isu & Masalah Kesihatan
Aktiviti Sara Hidup Semasa
Aktiviti Kesihatan
Aktiviti Sosial & Keagamaan
2014
2024

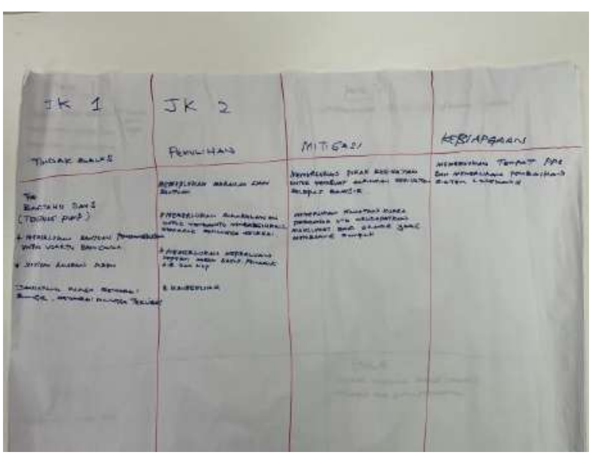



Empat (4) fasa utama pengurusan risiko bencana iaitu:
1. Fasa Kesiapsiagaan,
2. Fasa Tindakbalas
3. Fasa Pemulihan
4. Fasa Pencegahan/Mitigasi.
Sebelum Bencana
Semasa Bencana
Selepas Bencana




Garis Masa Bencana
Isu dan cabaran
Tahun Sebelum
Tahun
Tahun
Tahun
Tahun terkini
1994
1996
2017 2022
27/4 2023
Impak bencana


Beg Siaga
TELEFON
DOKUMEN PENTING
CHARGER TELEFON
BISKUT & MAKANAN TAHAN LAMA
TORCHLIGHT



14.0 Appreciation

MERCY Malaysia HQ
Mr Muhammad Akmal Afif Ahmad Subki
Mr Shahril Idris

Sunway Center for Planetary Health (SCPH)
Ms Sharifah Husna Syed Zainal Yussof
Mr Muhammad Norman Fikri Muhamad Anhar
Ms Nurul Hafizah Dayana Shaharudin
Ms Nur Aqilah Ra'isah Nor Azman
Mr Shahrul Hisham Jaafar
Mr Muhammad Nadzir Rosli
Ms Hanis Azemi
Ms Nurul Hamizah Nor Ahmad Kefli
Ms Radin Nasuhakamar Radin Shamsulkamar
Ms Selvakumari A/p Subramaniam

MERCY Malaysia Volunteers
Ms Lilawati Ab Wahab
Ms Shafikah Saharuddin
Ms Syahmimi Ayuni Ramli
Ms Nur Athirah Binti Sakah
Ms Suzanah Abdullah
Ms Izrahayu Che Hashim
Mr Zaidin Ismail
Mr Mohd Nasurudin Hasbullah


SUNWAY
CENTRE FOR PLANETARY HEALTH
mercy
MALAYSIA