

# FINAL REPORT



**STRENGTHENING THE DISASTER  
 RISK REDUCTION CAPACITY TO  
 IMPROVE THE SAFETY AND  
 SECURITY OF COMMUNITIES  
 BY UNDERSTANDING  
 DISASTER RISK (SeDAR)**



About the Publication:

This publication is documentation and reporting of the activities and results under the JPP SeDAR program to enable replication of CBDRR activities in states throughout Malaysia. This document is intended as reference for DRR planners and implementors.

This publication was developed by Prof. Takako Izumi (IRIDeS, Tohoku University) and Eriko Motoyama (JPP SeDAR Malaysia).

April 2024

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**FINAL REPORT FOR  
JICA PARTNERSHIP PROGRAM (JPP)’S  
‘STRENGTHENING THE DISASTER RISK CAPACITY TO  
IMPROVE THE SAFETY AND SAFETY OF COMMUNITIES  
BY UNDERSTANDING DISASTER RISK’ (SeDAR)**

**APRIL 2024**





## Acknowledgements

The implementation of the JICA Partnership Program (JPP)'s SeDAR initiative would not have been possible without the support and cooperation of numerous agencies, organizations, and individuals. We would like to take this opportunity to thank all those who have worked with the SeDAR team on this long but very fruitful journey into CBDRR in the state of Selangor.

To the SeDAR Project Partners—Selangor Disaster Management Unit (SDMU), Universiti Teknologi Malaysia (UTM) Kuala Lumpur, and the Malaysia Civil Defence Force (APM)—I'd like to express my utmost appreciation for their cooperation and collaboration over the years. From UTM, I'd especially like to thank Dr. Khamarrul Azahari bin Razak of the Disaster Prevention & Preparedness Centre (DPPC), MJIT, and Assoc. Prof. Shohei Matsuura for their invaluable contribution to this project.

I would also like to commend Senior Project Coordinator Eriko Motoyama and the SeDAR Malaysia team members Sa'adah Salleh, Sabrina Basri, Mohd Aliff Ikhwan, and Luqman Md Supar for their hard work and dedication to ensure the fruitful implementation of the project. Likewise, a heartfelt note of appreciation goes to the IRIDeS team, Ms. Sayaka Kobayashi and Ms. Sachiko Kumagai, for their tremendous effort in laying the operational foundation of this project.

SeDAR would also like to thank the Japan International Cooperation Agency (JICA) for providing the funding to give us the opportunity to embark on this project, in particular JICA Tohoku for their constant support, advice, and guidance.

Additional special thanks to:

Chief Minister's Office, Selangor State Government

State Secretary, Selangor State Government

National Disaster Management Agency (NADMA)

APM Training Academy (ALPHA)

Department of Mineral and Geoscience (JMG) Federal Territory/Selangor

Department of Irrigation and Drainage (JPS) Selangor

Slope Engineering Branch, Public Works Department (CKC, JKR)

Selangor Islamic Religious Department (JAIS)

Department of Education (JPN) Selangor

Department of Welfare (JKM) Selangor

Royal Malaysia Police (PDRM) Selangor

Fire and Rescue Department (BOMBA) Selangor

District and Land Office (PDT) Klang

District and Land Office (PDT) Hulu Langat

District and Land Office (PDT) Gombak

Klang Municipal Council (MPK)

Kajang Municipal Council (MPKj)

Ampang Jaya Municipal Council (MPAJ)

Village Leaders and Committees, Kapar sub-district

Village Leaders and Committees, Hulu Langat sub-district

Community Leaders and Members, Ulu Klang

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# 1 Introduction

The program was initiated and led by the International Research Institute of Disaster Science (IRIDeS), Tohoku University. The program started in June 2018 and was completed in April 2024.

## 1.1 About the SeDAR Program

The aim of the SeDAR program was to equip local governments as well as community leaders with the skills and know-how to build a disaster risk reduction program at the grassroots level, from the bottom up. This program takes a unique approach to community by:

- Instilling a science-based understanding of disaster risks among the community leaders, member and local authorities
- Having them work together to develop DRR activities and programs that are best suited to their understanding and needs.

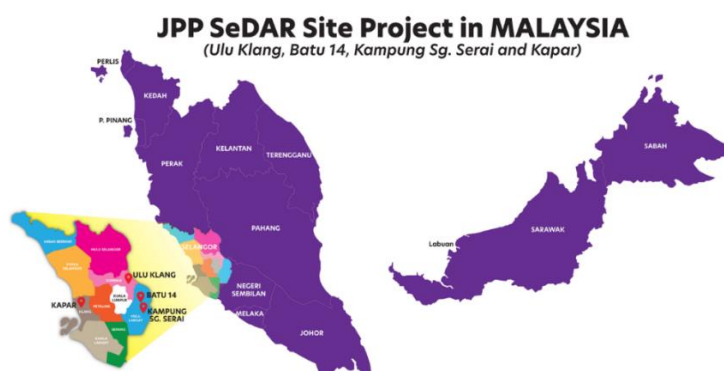
This community-oriented approach towards disaster risk reduction was an important step towards building disaster-resilient communities.

## 1.2 Target Groups within the Program

- Local community leaders
- Local authorities and district officers
- Members of the communities

## 1.3 Program Details

The SeDAR project runs as a 4-year program targeted to four communities in the state of Selangor.



The communities selected as case studies in this report were:

- Ulu Klang, Gombak
- Batu 14, Hulu Langat
- Kampung Sg. Serai, Hulu Langat
- Kampung Tok Muda, Kapar

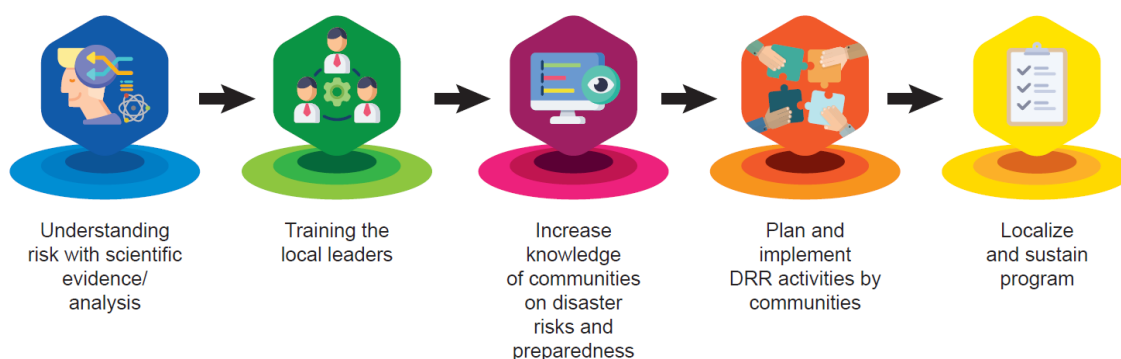
All of these areas have experienced major flooding or landslide incidents at some point in the past. However, their experiences are not unique to these locations. All these sites have characteristics or conditions similar to those found throughout the country. Thus, the lessons to be learned from running programs in these areas can be applied to other locations within Malaysia.

## 1.4 Key Concepts of the SeDAR Program

- Understanding of disaster risks by local government and community stakeholders
- Leadership and ownership by stakeholders to lead DRR projects
- Ensure sustained continuity of the programs

### 1.4.1 SeDAR Program Flow

#### Phases of the SeDAR Program



### 1.4.2 Step-by-Step Methodology for CBDRR under the SeDAR Program

Based on the experience of the 4-year SeDAR program, the following steps have been identified and are recommended for CBDRR programs.

#### SeDAR Process for CBDRR

1. Secure the budget to initiate the CBDRR program and design the course of activities for at least 2-3 years' timeframe.
2. Assign a team or designated office to coordinate, implement, and manage the CBDRR process and program.
3. Ensure the involvement of both community leaders and local government as well as relevant agencies involved in the sciences and emergency response (i.e., civil defence, police, or fire dept) and build relationships between the key players. Enhance their knowledge on DRR and risk management.
4. Train leaders at the local level who can effectively educate on DRR to the public.
5. Conduct science-based risk assessment/ identification and have leaders communicate the risks to the public.
6. Conduct town-watching (familiarizing with the risks surrounding the community), create community maps to identify hotspots, safe zones and other areas of interest, and identify solutions to address the risks.

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7. Have communities understand early warning systems and communicate how it works with the public.
8. Create maps to show evacuation centres and actions to take when warning sirens activate and conduct evacuation drills (make them a regular event yearly or every six months)
9. Plan and implement DRR activities together with the local government and communities with support from experts and ensure sustainability of the activities with local community ownership.
10. Share experience and knowledge with other districts/states.
11. Engage trainers at government and community levels who have been trained throughout the project for DRR activities and use them as an asset.

**Key Success Factors**

1. One of the key success factors under SeDAR was the priority and effort put into building and maintaining a strong partnership with stakeholders to ensure their involvement and collaboration throughout the project's duration. Without a dedicated program team and government agencies such as the Selangor Disaster Management Unit, it would have been challenging to manage and sustain the program.
2. Leadership and coordination at both the government and local levels were also key to the program. It is especially vital to get community involvement and allow community members to take ownership of the program as they play a key role in maintaining the knowledge and managing the DRR activities for the long term.
3. Finally, it was advantageous to obtain guidance and input from DRR experts from time to time to improve the quality of the activities.





## 1.5 Program Partners

SeDAR was a collaboration between the International Research Institute of Disaster Science (IRIDeS) of Tohoku University, Selangor Disaster Management Unit (SDMU) of the Selangor State Government and the Disaster Preparedness and Prevention Centre (DPPC) of the Malaysia-Japan International Institute of Technology (MJIIT), Universiti Teknologi Malaysia, Kuala Lumpur (UTMKL).

In 2019, the Malaysia Civil Defence Force (APM) expressed their desire to become a program partner. In consideration of their valuable contribution and efforts in implementing the SeDAR program, they were promoted in the program as 'Program Partner'.

- **IRIDeS** – is the project proponent that manages and provides direction in the implementation of the SeDAR project, as well as imparting skills and know-how that leverages on its vast experience in disaster management in Japan
- **SDMU** – is the local implementer that serves as the link between the communities, government agencies and academia, thus ensuring smooth implementation
- **DPPC** – is the local technical expert that transforms SeDAR objectives into local content for the communities, merging science and local knowledge for a more comprehensive approach to DRR
- **APM** – provides hands-on, practical experience in implementing the program as well as providing manpower in the various districts through their organizational network

## 1.6 Program Duration

The duration of the SeDAR program was planned for 4 calendar years, from 2018 to 2022. However, due to an interruption caused by the global COVID pandemic in 2020, there was a period of no community activity out of concern of close contact among the community population.

However, during this time, the Training-of-Trainers (TOT) Guidebook on CBDRR was developed and usability tests on the Manual were conducted. Group gathering activities resumed in March 2022 and the program was extended until April 2024.

## 2 Summary of Program Activities

The Summary of Program Activities is a reporting of all the major activities that have taken place within the duration of the program period.

### A. LAUNCH CEREMONY

No.	Date	Event	Venue	Attendance
1.	Jun 29, 2018	Project Launch & Workshop	Concorde Hotel Shah Alam	64

### B. DISASTER RISK REPORT HANDOVER

No.	Date	Event	Venue	Attendance
1.	Aug. 23, 2019	Handover Ceremony to Selangor State Government and Knowledge Sharing Seminar by Flood and Landside Experts	Shah Alam Convention Centre Plenary Hall	70

### C. RISK COMMUNICATION SESSIONS

No.	Date	Sub-District	Event	Venue	Attendance
1.	Oct. 7, 2019	Ulu Klang	Risk Communication to Local Govt & Community Leaders	Hulu Kelang Sub-District Chief Village Leader Complex	39
2.	Oct. 21, 2019	Hulu Langat	Risk Communication to Local Govt & Community Leaders	Hulu Langat District/Land Office	27
3.	Nov. 14, 2019	Kapar	Risk Communication to Local Govt & Community Leaders	Klang District/Land Office	30

### D. TRAINING OF TRAINERS (TOT)

#### D1. TO MASTER TRAINERS (GOVT)

No.	Date	Sub-District	Event	Venue	Total Attended	Certified Trainers
1.	Apr. 21-22, 2022	Ulu Klang, Hulu Langat	TOT to Master Trainers (landslides)	Jubli Perak Hall, Selangor State Govt Building	34	19
2.	May 18-19 2022	Kapar, Hulu Langat	TOT to Master Trainers (floods)	Jubli Perak Hall, Selangor State Govt Building	29	12
<b>TOTAL CERTIFIED GOVT TRAINERS</b>						<b>31</b>

## D2. TO COMMUNITY LEADERS

No.	Date	Sub-District	Event	Venue	Total Attended	Certified Trainers
1.	Aug. 10, 2022	Ulu Klang	TOT to Community Leaders	MPAJ Training Hall, Ampang Jaya Municipal Office	35	13
2.	(a) Aug. 25, 2022 (b) Nov. 29, 2022	Kapar	TOT to Community Leaders	Klang District & Land Office MPKK Hall Bukit Kapar, Kapar	53	23
3.	Oct. 1, 2022	Hulu Langat		Hulu Langat District & Land Office	64	45
<b>TOTAL CERTIFIED COMMUNITY TRAINERS</b>						<b>81</b>

## E. COMMUNITY WORKSHOPS

No.	Date	Sub-District	Event	Venue	Attendance (Community)
1.	(a) Oct. 16, 2022 (b) Dec. 18, 2022	Ulu Klang	Community Workshop	MPAJ Hall, Ukay Perdana Community Hall, Hijauan Apts, Ukay Perdana	104 (73)
2.	Dec. 10, 2022	Kapar	Community Workshop	Kg. Tok Muda Community Hall, Kapar	47 (35)

## F. TOWN WATCHING & COMMUNITY MAPPING

No.	Date	Sub-District	Event	Venue	Attendance (Community)
1.	Feb. 19, 2023	Ulu Klang	Town Watching & Community Mapping	MPAJ Hall, Ukay Perdana	90 (71)
2.	Feb. 26, 2023	Batu 14 & Hulu Langat	Town Watching & Community Mapping	Dato' Nazir Hall, Hulu Langat	53 (30)
3.	Mar. 5, 2023	Kapar	Town Watching & Community Mapping	Kg. Kerayong Community Hall, Kapar	43 (31)
4.	Mar. 12, 2023	Kg. Sg. Serai & Hulu Langat	Town Watching & Community Mapping	Sri Nanding Community Hall, Hulu Langat	57 (35)

## G. WORKSHOP ON PLANNING DRR ACTIVITIES WITH EXPERTS

No.	Date	Sub-District	Event	Venue	Attendance
1.	Mar. 21, 2023	Kapar	Workshop on Activity Planning with Experts	Klang District & Land Office	23

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No.	Date	Sub-District	Event	Venue	Attendance
2.	Mar. 22, 2023	Batu 14 & Hulu Langat	Workshop on Activity Planning with Experts	Demense Hall, Hulu Langat District & Land Office	33
3.	Mar. 22, 2023	Kg. Sg. Serai & Hulu Langat	Workshop on Activity Planning with Experts	Demense Hall, Hulu Langat District & Land Office	28
4.	Mar. 23, 2023	Ulu Klang	Workshop on Activity Planning with Experts	Disaster Preparedness & Prevention Centre, UTM KL	29

## H. SYMPOSIUM

No.	Date	Sub-District	Event	Venue	Attendance
1.	Oct. 19-20, 2023	N/A	Symposium	Geno Hotel, Subang Jaya	Day 1: 134 Day 2: 102

## I. CBDRR ACTIVITIES IN THE FOUR PROJECT AREAS

No.	Date	Sub-District	Event	Venue	Attendance
<b>ULU KLANG, GOMBAK DISTRICT</b>					
1.	Jun. 25, 2023	Ulu Klang	Civil Defence Emergency Response Training (CDERT)	MPAJ Community Hall, Taman Bukit Mulia, Bukit Antarabangsa	41
2.	Feb. 4, 2024	Ulu Klang	Official Opening of DRR Resource Centre	MPAJ Community Hall, Taman Bukit Mulia, Bukit Antarabangsa	66
<b>KG. BATU 14, HULU LANGAT DISTRICT</b>					
3.	Jul. 9, 2023	Batu 14 & Hulu Langat	Visual Slope Monitoring Workshop with JKR and JMG	Dato' Nazir Hall, Hulu Langat	57
4.	Sep. 23, 2023	Batu 14 & Hulu Langat	DRR for Schoolchildren	Abdul Jalil High School	424
<b>KAPAR, KLANG DISTRICT</b>					
5.	Sep 16, 2023	Kapar	Community Evacuation Route Drill	At-Taqwa Mosque, Kapar	55
6.	Dec. 17, 2023	Kapar	PPS Location Poster Distribution event	Kg. Tok Muda Community Hall, Kapar	87
<b>KG. SG. SERAI, HULU LANGAT DISTRICT</b>					
7.	Sep 2, 2023	Kg. Sg. Serai & Hulu Langat	PLOGGING	School KAFAI Kg. Sg. Serai	117
8.	Nov. 18-19, 2023	Kg. Sg. Serai & Hulu Langat	Pre-Drill Briefing Community Evacuation Route Drill	Taman Sri Nanding Community Hall, Taman Sri Nanding, Hulu Langat	(a) 18th: 73 (b) 19th: 125



## 3 Program Activities

### A. PROJECT LAUNCH CEREMONY & WORKSHOP

#### Project Launch Ceremony & Workshop (June 29, 2018)

##### Description:

The one-day Project Kick-Off and Workshop was an event for launching the SeDAR program as well as sharing the experiences of disaster response and DRR in Japan and Malaysia. It was attended by local, state and district government agencies as well as NGOs and community organizations.

**Attendance:** 64

##### Participants from Japan:

- Prof. Fumihiko Imamura, Director of IRIDeS, Tohoku University
- Prof. Takako Izumi, IRIDeS, Tohoku University
- Assoc. Prof. Shuichi Kure, Toyama Prefectural University
- Mr. Tomoki Suzuki, Sendai City Government
- Ms. Rika Kanazawa, Sendai City Government

##### Special guest (Malaysia):

Datuk Zamani Ahmad Mansor, Deputy State Secretary, Selangor State Government

##### Highlights of the Event:

##### Keynote Presentation

**‘Sharing Experience/Lessons in the 2011 Tohoku Earthquake and Tsunami for Future Disaster Mitigation’** by Prof. Imamura, IRIDeS, Tohoku University. Covered (1) scientific data and information and events on the Earthquake and (2) activities in CBDRM at IRIDeS

##### Session 1, Science and Technology for DRRM

- a) Experiences from Japan: **‘Development of Flood Hazard Maps for Planning DRRM’** by Prof. Shuichi Kure, Toyama Prefectural University. Presented on: (1) flood management in Japan, (2) some river information in Japan, and (3) importance of identification of high-risk zones for implementing CBDRR
- b) Experience from Sendai City, **‘Japan: Disaster Risk Reduction Measures by City of Sendai’** by Mr. Suzuki, City of Sendai. Presented on: (1) damage from the Great East Japan Earthquake in 2011 and the subsequent measures, especially against the tsunami and (2) the damage from the Kanto Tohoku Heavy Rainfall in 2015 and the subsequent measures, especially the creation of a hazard map.
- c) Experience from Malaysia: **‘Landslide Assessment in Malaysia: Progress and Challenges’** by Dr. Khamarrul Azahari Razak. Presented on: (1) Current issues and challenges, (2) National slope initiatives, landslide hazard risk assessment and mainstreaming DRR into development planning in Malaysia, and (3) Landslide community programs

## Session 2: Experiences of Local Government

- a) **‘Briefing on the Smart Selangor Communication Centre’** by Mr. Ahmad Fairuz bin Mohd Yusof, Selangor Disaster Management Unit on: (1) Data gathering and display at control centre, (2) Role & responsibilities in disaster response, and (3) Smart Selangor Communication Centre assets
- b) **‘BOSAI of Sendai’** by Ms. Kanagawa of City of Sendai about: (1) Overview of damage by the Great East Japan Earthquake, (2) Restoration of essential utilities and evacuee count, (3) Operation of evacuation centres, (4) Support measures for vulnerable people, and (5) Awareness & education on disaster prevention and reduction
- c) **‘Understanding Disaster Risk and Community-Led Disaster Risk Reduction using MCDF CDERT for Community’** by Dr. Hj. Norhafifi bin Hj Ismail of Malaysia Civil Defence Agency (APM) on: (1) Disaster response mechanism and (2) What is CDERT for Community
- d) **‘Creating Disaster Resilient Cities in Malaysia’** by Dr. Dzul Khaimi bin Khailani, Plan Malaysia on planning guidelines for disaster resilient cities

## Press Conference

Fifteen members of the print and broadcast media from NHK KL, the New Straits Times, Shin Chew, Radio Television Malaysia, Selangor Kini, and TV Selangor posed questions to the Honorable Hee and Dr. Imamura





## B. DISASTER RISK REPORT HANDOVER CEREMONY

### Handover Ceremony to Selangor State Government and Knowledge Sharing Seminar by Flood and Landside Experts (August 23, 2019)

#### Description:

A one-day ceremony involving official handover to the State Government and press conference at the venue, as well as a handover and press conference with the Chief Minister of Selangor at the Selangor Economic Action Council (MTES) meeting.

#### Attendance: 70

Executive Council Member, Selangor State Government  
National Disaster Management Agency (NaDMA)  
Department of Irrigation and Drainage Malaysia (JPS)  
Department of Survey and Mapping Malaysia (JUPEM)  
Department of Mineral and Geoscience (JMG) Selangor  
Department of Statistic Malaysia (DOSM)  
National Hydraulic Research Institute Malaysia (NAHRIM)  
Dept of Town & Country Planning (PlanMalaysia)  
Selangor Water Management Authority (LUAS)  
Malaysia Remote Sensing Agency (ARSM)  
National Centre for Hydrography Malaysia (PHN)  
Slope Engineering Branch, Public Works Department (CKC, JKR)

JKR Selangor  
District & Land Office (PDT) Hulu Langat  
District & Land Office (PDT) Klang  
District & Land Office (PDT) Gombak  
Klang Municipal Council (MPK)  
Kajang Municipal Council (MPKJ)  
Ampang Jaya Local Council (MPAJ)  
Universiti Kebangsaan Malaysia (UKM)  
Universiti Teknologi Mara (UiTM)  
Village Management Committees (MPKK)  
MERCY Malaysia  
Kapar Energy Ventures (KEV)  
Ministry of Economic Affairs (MEA)  
State Economic Planning Unit (UPEN)  
Embassy of Japan  
JICA Malaysia  
Selangor Disaster Management Unit (SDMU)  
IRIDeS  
UTM KL

#### Highlights of the Event:

##### Official Handover Ceremony

Project Manager Prof. Izumi (IRIDeS) handed over the Disaster Risk Report to the Honorable Hee Loy Sian, Selangor Executive Council member

##### Introduction of the Disaster Risk Report to the State Cabinet Meeting to the Chief Minister

- a) Presentation of the Report by Project Manager, UTM KL, and SDMU to the Chief Minister of Selangor at a cabinet meeting
- b) Press conference where the Chief Minister announced the budget allocation for data gathering in DRR

### Knowledge Sharing Seminar

- a) Presentation 1, '**Science Based Risk Analysis of Landslides in Ulu Klang and Hulu Langat Sites**' by Dr. Khamarrul Azahari Razak, UTM Kuala Lumpur who explained how hazard and risk maps were used to show risk to the general public
- b) Presentation 2, '**Numerical Simulation of Batu 14 Landslide**' by Dr. Shuji Moriguchi, Tohoku University who showed his 3D simulation of the 2011 Hulu Langat Landslide
- c) Presentation 3, '**Science Based Risk Analysis for Floods in Kampung Sg. Serai, Hulu Langat**' by Dr. Shuichi Kure, Toyama Prefectural University who covered his analysis of the flood risk in Kg. Sungai Serai
- d) Presentation 4, '**Science Based Risk Analysis for Kampung Tok Muda, Kapar**' by Dr. Mohamad Hidayat Jamal, UTM Skudai who explained how a digital terrain map was prepared to analyse inundation levels in Kg. Tok Muda



## C. RISK COMMUNICATION SESSIONS

### 1. Risk Communication to Local Govt & Community Leaders – Ulu Klang, Gombak District (October 7, 2019)

#### Description:

One-day session was conducted to communicate landslide risk to the communities within Ulu Klang.

#### Attendance: 39

Selangor State Assemblyperson  
Member of Parliament  
District and Land Office (PDT) Gombak  
Ampang Jaya Municipal Council (MPAJ)

Local Councilor, Zone 4 and 5, MPAJ  
Chief Village Leader, Hulu Kelang  
Village Leaders  
Reps from mosques and temple

#### Highlights of the Event:

**‘Overview of Landslide Disasters in Ulu Klang’** by Mohammad Izzat Haziq, SDMU

**‘Communicating Risks in Ulu Klang’** by Dr. Khamarrul Azahari, UTM KL

Question: Apart from slopes, do risk maps monitor water flows, land clearing?

Answer: Risk maps not only cover slopes, but also geology, geomorphology, underground water

Question: How to verify local government decision on slope development?

Answer: Protesting against slope development must have scientific basis. SeDAR aims to provide more knowledge on the science of risk.

**‘Community-Based Experience from Japan’** by Dr. Shohei Matsuura

Comment from audience: Fully support the SeDAR program. Developers and private slope owners should also create their own hazard map before submitting any development proposal





## 2. Risk Communication to Local Govt & Community Leaders – Batu 14, Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District (October 21, 2019)

### Description:

One-day session to communicate landslide risk to the communities within Kg. Batu 14 and Kg. Sungai Serai, Hulu Langat.

### Attendance: 27

Hulu Langat District & Land Office  
Kajang Local Authority  
Department of Irrigation and Drainage (JPS)  
Hulu Langat

Public Works Department Hulu Langat  
Chief Village Leader Hulu Langat  
Village Leader, Kg. Sungai Serai  
Village Leader, Kg. Batu 14

### Highlights of the Event:

#### ‘Communicating Flood Risks in Hulu Langat’ by Dr. Faizah Che Ros, UTM KL

Question: About whether development within the area that may contribute to the flooding and whether the area is gazetted as water catchment area.

Answer: The area is mostly of natural forest with recreational areas and hiking spots. The flooding is mainly caused by the built-up land being too low and too close to the river bank

Village leaders are aware of the studies undertaken by the government and said they want to focus on actions that can be taken

#### ‘Communicating Landslide Risks in Hulu Langat’ by Dr. Khamarrul, who talked about the effect of bad slope management, questionable land clearing practices, and building homes near slopes

Village Leader Batu 14 commented on the latest incidents of landslides that are occurring frequently with the rainy season. He questioned what are the actions that should the government do for such events. Why should action only come once the damage is done?

#### ‘Community-Based Experience from Japan’ by Prof. Takako Izumi, who conveyed to the village leaders that despite mitigation measures by government, damages and losses by natural disasters is difficult to prevent. Emphasized that importance of everyone being involved in disaster risk reduction.



### 3. Risk Communication to Local Govt & Community Leaders – Kg. Tok Muda & Kapar Sub-District, Klang District (November 14, 2019)

#### Objective:

One-day session to communicate landslide risk to the communities within Kg. Tok Muda and Kapar sub-district, Klang District.

#### Attendance: 30

Member of Parliament Kapar  
State Assembly Sementa District  
Klang District Office  
Public Works Department (JKR) Klang  
Department of Irrigation and Drainage (JPS)  
Klang

Kapar Energy Ventures (KEV)  
Kapar Sub-District Chief Village Leader  
Village leaders of Kapar and Sementa  
Mosque managers

#### Highlights of the Event:

**‘Overview of Flood Disasters in Mukim Sementa, Klang’** by Muhammad Izzat, SDMU

**‘Communicating Flood Risks in Mukim Sementa, Kapar’** by Dr. Mohamad Hidayat Jamal, UTM Skudai. Topics: (1) Coastal bund erosion: Dr Hidayat showed an example of a community activity in Johor Bahru and Semerang, Indonesia to mitigate river pollution and land subsidence. (2) Dr Hidayat also highlighted the importance of conserving the mangrove forests as protection and mangrove planting activities as a community.

Question: If river bunds made from soil erode, is it possible to remake the bund out of other materials, say concrete or rocks?

Answer: Soil bunds are easiest to be sourced and maintained. Concrete or rocks may cost more, especially since bunds stretch along the coast.

Question: Is the environment a concern if the river bunds were to be upgraded with other materials?

Answer: The main concern is costing and practicality to maintain the bund

Izzat SDMU mentioned a projected sea level rise flood map by 2050 that went viral online recently. Dr Hidayat gave a brief explanation behind the flood map also based on statements from JPS and NAHRIM

**‘Community-Based Experience from Japan’** by Eriko Motoyama, SeDAR



## D. TRAINING OF TRAINERS (TOT)

### 1. TOT to Government Master Trainers

A total of 31 Master Trainers were trained in two sessions in April and May 2022.

#### 1-1. April Training (April 21-22, 2022)

##### Description:

One-and-a-half day training session to train the Selangor State agencies to become 'Master Trainers'. This session focused on areas that were affected by landslides.

**Attendance:** 34

**Master Trainers receiving TOT Certificates:** 19

##### Trainees:

District & Land Office (PDT) Gombak  
District & Land Office (PDT) Hulu Langat  
Ampang Jaya Municipal Government (MPAJ)  
Kajang Municipal Council (MPKJ)  
Police Department (PDRM) Hulu Langat  
Police Department (PDRM) Hulu Kelang  
Fire Department (BOMBA) Hulu Langat  
Fire Department (BOMBA) Hulu Kelang  
Malaysia Civil Defence Force (APM)

##### Trainers:

Dr. Khamarrul Azahari  
Dr. Faizah Che Ros  
Dato' Zakaria Mohamad  
Eriko Motoyama  
Col. Ts. Dr. Mohamad Fazli Sardi  
Hafiz Amirrol

##### Highlights of the Event:

Presentations followed the content of the TOT Guidebook:

**'Introduction to the SeDAR Program'** and **'The CBDRR Workflow'** by Eriko Motoyama

**Module 1, 'Understanding DRR Concepts'** by Eriko Motoyama

**Module 2, 'Understanding Local Risks'** by Dr. Khamarrul Azahari and Col. Dr. Fazli Sardi.

Science and evidence-based explanation of landslide hazard and risk using maps in Ulu Klang by Dato' Zakaria Mohamad

Science and evidence-based explanation of floods using flood modelling in Kg. Sungai Serai by Dr. Faizah Che Ros

**Module 3, 'Planning, Implementing and Evaluating CBDRR Programs'** (an exercise in Problem Analysis as a group activity) by Hafiz Amirrol



## 1-2. May Training (May 18-19)

### Description:

One-and-a-half day training session to train the Selangor State agencies to become 'Master Trainers'. This session focused on areas that were affected by floods.

**Attendance:** 29

**Master Trainers receiving TOT Certificates:** 12

### Trainees:

District & Land Office Klang (PDT) Klang  
District & Land Office (PDT) Hulu Langat  
Klang Municipal Government (MPK)  
Fire Department (BOMBA) Klang  
Civil Defence Force Malaysia (APM)  
Department of Irrigation and Drainage (JPS)  
Selangor  
Police Department (PDRM) North Klang  
Department of Mineral and Geoscience  
(JMG) Selangor  
Plus: Four certificates issued to Selangor  
Disaster Management Unit (SDMU)

### Trainers:

Dr. Khamarrul Azahari Razak  
Dr. Faizah Che Ros  
Dato' Zakaria Mohamad  
Eriko Motoyama  
Col. Ts. Dr. Mohamad Fazli Sardi  
Dr. Mohamad Hidayat Jamal  
Hafiz Amirrol

### Highlights of the Event:

Training module presentations followed the content of the TOT Guidebook:

**'Introduction to the SeDAR Program'** and **'The CBDRR Workflow'** by Eriko Motoyama

**Module 1, 'Understanding DRR Concepts'**, by Eriko Motoyama

**Module 2, 'Understanding Local Risks'**, by Col. Dr. Fazli Sardi. Concepts on hazard vs. risk and how to implement using community-based approach were taught.

Science and evidenced based explanation of landslide hazard and risk using maps in Ulu Klang by Dato' Zakaria Mohamad

Science and evidenced based explanation of floods using flood modelling in Kg. Sungai Serai by Dr. Faizah Che Ros

Science and evidence based explanation of coastal floods using digital elevation map in Kapar by Ir. Dr. Mohamad Hidayat

**Module 3, 'Planning, Implementing and Evaluating CBDRR Programs'** by Hafiz Amirrol, which included an exercise in Problem Analysis as a group activity





## D2. TOT to Community Leaders

A total of **81 Community Trainers** over 3 sessions were trained.

### 2-1. Community Leaders - Ulu Klang, Gombak District (August 10, 2022)

#### Description:

One-day training session by the Master Trainers to the community leaders in Ulu Klang so that they can become community trainers in CBNDRR.

**Attendance:** 35

**Community Trainers Receiving TOT Certificates:** 13

#### Community Trainees:

Local councilor (representative for local authority)  
Representative for state cabinet member  
Sub-district community leader  
Mosque leaders  
Head of housing subdivisions  
Head of villages

#### Master Trainers:

Ampang Jaya Municipal Government (MPAJ)  
Malaysia Civil Defence Force (APM)  
Selangor  
Klang Municipal Government (MPK)  
APM Training Academy (ALPHA)  
Mineral and Geoscience Department (JMG)  
Police Department (PDRM)  
District & Land Office (PDT) Klang

#### Highlights of the Event:

The contents and flow of the training session followed the ToT Guidebook:

**‘Introduction to the SeDAR Program’** and **‘The CBNDRR Workflow’** by Eriko Motoyama

**Module 1, ‘Understanding DRR Concepts’**, by Ampang Jaya Municipal Council and Malaysia Civil Defence Force

**Module 2, ‘Understanding Local Risks’** by

Concepts on hazard vs. risk and how to implement using community-based approach by Dr. Khamarrul Azahari and Col. Dr. Fazli Sardi.

Science and evidenced based explanation of landslide hazard and risk using maps in Ulu Klang by Dato’ Zakaria Mohamad

Science and evidenced based explanation of floods using flood modelling in Kg. Sungai Serai by Dr. Faizah Che Ros

**Module 3, ‘Planning, Implementing and Evaluating CBNDRR Programs’** by Malaysia Civil Defence Force, APM Academy, Klang District Office. The session included an exercise in Problem Analysis as a group activity



## 2-2. Community Leaders - Kg. Tok Muda & Kapar Sub-District, Klang District (August 25, 2022 & November 29, 2022)

### Description:

One-day training session by the Master Trainers to the community leaders in Kg. Tok Muda & Kapar sub-district so that they can become community trainers in CBDRR.

*Note: This training session was conducted twice for maximum reach and exposure with the Kapar area.*

**Attendance:** 53

**Community Trainers receiving TOT Certificates:** 23

### Community Trainees:

Local councilor  
State Assembly member  
Chief Village Leader  
Village Leaders and committee members  
Mosque leaders

### Master Trainers:

APM Training Academy (ALPHA)  
Malaysia Civil Defence Force (APM)  
Selangor  
Mineral and Geoscience Department (JMG)  
Selangor Disaster Management Unit (SDMU)  
District & Land Office (PDT) Klang

### Highlights of the Event:

The contents and flow of the training session followed the ToT Guidebook:

**‘Introduction to the SeDAR Program’** and **‘The CBDRR Workflow’** by Mohd Azzuan Syah, SDMU

**Module 1, ‘Understanding DRR Concepts’**, was presented by Muhammad Izzat, SDMU and Capt. Dzaifullah, ALPHA

**Module 2, ‘Understanding Local Risks’** by Mohd Khairudin of Ampang Jaya Municipal Council, Muhammad Ramzanee of the Department of Mineral and Geoscience, and Capt. Ruslan of APM Hulu Langat. Technical presenter Dr. Rozaimi of UTM KL gave a brief scenario description of the coastal and upstream river flooding in Kapar

**Module 3, ‘Planning, Implementing and Evaluating CBDRR Programs’** by Lt. Azli, Capt. Alip of ALPHA, and Capt. Ruslan of APM Hulu Langat

During the hands-on **Disaster Timeline exercise**, the participants raised three major issues afflicting the Kapar area, which can be summarized as:

- Coastal and river flooding (major events that occur during seasonal monsoon seasons)
- Flash flooding (caused by inadequate or damaged drainage systems). Some communities experienced flooding every month (every time it rains heavily), causing property damage
- They also cite urban development that causes flooding in adjacent existing housing areas



## 2-3. Community Leaders – Batu 14, Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District (October 1, 2022)

### Objective:

One-day training session by the Master Trainers to the community leaders in Batu 14, Kg. Sungai Serai & Hulu Langat sub-district so that they can become community trainers in CBDRR.

**Attendance:** 64

**Community Trainers Receiving TOT Certificates:** 45

### Community Trainees:

Village heads  
Village committee members  
Chief village heads (Sub-district level)

### Master Trainers:

Malaysia Civil Defence Force (APM)  
Selangor  
APM Training Academy (ALPHA)  
Department of Mineral and Geoscience (JMG) Selangor  
Selangor Disaster Management Unit (SDMU)  
Police Department (PDRM) Ampang Jaya  
District & Land Office (PDT) Gombak

### Highlights of the Event:

The contents and flow of the training session followed the ToT Guidebook:

**‘Introduction to the SeDAR Program’** and **‘The CBDRR Workflow’** by Muhammad Izzat Haziq, SDMU

**Module 1, ‘Understanding DRR Concepts’**, was presented by Azzuan and Muhammad Izzat Haziq, both of SDMU

**Module 2, ‘Understanding Local Risks’** by Mohd Khairudin of Ampang Jaya Municipal Council, Muhammad Ramzanee of the Department of Mineral and Geoscience, and Capt. Ruslan of APM Hulu Langat. Technical presenter Dr. Rozaimi of UTM KL gave a brief scenario description of the coastal and upstream river flooding in Kapar

**Module 3, ‘Planning, Implementing and Evaluating CBDRR Programs’** by Lt. Azli, Capt. Alip of ALPHA, and Capt. Ruslan of APM Hulu Langat

**Special presentation by Batu 13 Village Leader** by Abdul Rashid Ahmad, who had prepared a 15-minute presentation on the December 2021 disaster and how the residents responded to the disaster

During the hands-on **Disaster Timeline exercise**, several challenges were raised by the participants, which are as follows:

Changing people’s mindset to be more proactive and not complacent. The SeDAR activities have to be creative to attract the community to participate. The use of social media could be useful in addition to traditional print media.

Residents in Kg. Sungai Serai have a mindset of not listening to the authorities even though warnings of impending disaster have been announced. Thus, the residents will not move from their respective areas and rather wait and see.

Selfish attitude of the residents. Participants stated that residents do not join to help or be proactive. They wait for the authorities to tell them what to do.

FINAL REPORT  
SeDAR JICA PARTNERSHIP PROGRAM

Received valuable feedback on the participants' understanding of the causes of landslides and floods in Hulu Langat:

- The river is shallow due to illegal development
- Garbage disposal in the river
- River cleaning and river management are not done well
- The construction of Highway EKVE closed the original route of water flow
- Agricultural and housing development does not follow legal and enforcement guidelines
- Cutting the slope of the land and building a house at the foot of the slope
- Slope and urban development sometimes do not get planning permission





## E. COMMUNITY WORKSHOPS

*NOTE: Workshops were conducted for Ulu Klang and Kapar. The two workshops for Hulu Langat (Batu 14 and Kg. Sg. Serai) were combined with the Town Watching events)*

### 1. Community Workshop - Ulu Klang, Gombak District (October 16 & December 18, 2022)

#### Description:

One-day workshop for Community Trainers to present the CBDRR modules to the community-at-large in Ulu Klang.

*Note: This workshop was conducted twice for maximum reach and exposure within the Ulu Klang area.*

**Attendance:** 28 (October) and 89 (December). Total of 104 participants from the communities

#### Community Trainers:

Ngasri Jaafar

Mohamad Arshad Raji

Farid Faiz

Badrulisham Mohd Akhirin

Nazli Idris

How Say Sze

Sa'adah Salleh

#### Highlights of the Event:

The contents and flow of the training session followed the ToT Guidebook:

**'Introduction to the SeDAR Program'** and **'The CBDRR Workflow'** by Eriko Motoyama of SeDAR and Ngasri Jaafar

**Module 1, 'Understanding DRR Concepts'**, was presented by Dato' Mohamad Arshad Raji, Farid Faiz, and Sa'adah Salleh

**Module 2, 'Understanding Local Risks'** by Badrulisham Akhirin

**Module 3, 'Planning, Implementing and Evaluating CBDRR Programs'** by How Say Sze, Sa'adah Salleh and Farid Faiz

The **Question and Answer Session** with the participants raised some issues and challenges in Bukit Antarabangsa and Ukay Perdana, which can be summarized as:

- Distrust and frustration towards the local government and unwillingness of communities to engage in programs involving government agencies
- Thus, efforts such as SeDAR are very much welcomed. It is hoped that SeDAR can get the engagement of representatives from each housing development (*taman*). It is not easy to engage each and every member of the community, so it is important that every *taman* is represented.



## 2. Community Workshop - Kg. Tok Muda & Kapar Sub-District, Klang District (December 10, 2022)

### Description:

One-day workshop for Community Trainers to present the CBDRR modules to the community-at-large in Kg. Tok Muda & Kapar sub-district.

**Attendance:** 47

### Community Trainers:

Md Jamaludin bin Ramlan  
Mohd Fauzi bin Ariffin  
Zulkifli bin Ismail  
Shamsuddin bin Liman

Md Jamaludin bin Ramlan Committee  
Mohd Norhizam bin Hussein  
Umi binti Jumaina

### Highlights of the Event:

The contents and flow of the training session followed the ToT Guidebook:

**‘Introduction to the SeDAR Program’** and **‘The CBDRR Workflow’** by Eriko Motoyama of SeDAR

**Module 1, ‘Understanding DRR Concepts’**, was presented by Mohd Rizan and Umi Jumaina

**Module 2, ‘Understanding Local Risks’** by Zulkifli Ismail and Shamsuddin Liman

**Module 3, ‘Planning, Implementing and Evaluating CBDRR Programs’** by Mohd Norhizam and Md Jamaludin

The **Question and Answer Session** with the participants raised some issues and challenges in Kapar, which were:

- Coastal flooding due to combination of high tide and stormwater runoff from upstream areas (Sungai Kapar Besar)
- Construction/development with inadequate drainage system in the area that causes flash flooding
- Flash flooding due to more development of urban and industrial zones (concrete surface that leads to more runoff into rivers and drainage system)
- Another challenge that the participants cited was the poor attitude of the community members towards community-based DRR
- However, as heads of the villages, the Village Leaders said they will continue to support the SeDAR program and elicit participation from the communities to the best of their ability.



## F. TOWN WATCHING & COMMUNITY MAPPING

## 1. Town Watching & Community Mapping - Ulu Klang, Gombak District (February 19, 2023)

**Description:**

One-day workshop with communities to conduct Town Watching and Community Mapping in Ulu Klang.

**Attendance: 90**

Heads of Residents Associations  
 Mosque members  
 Community-based organizations  
 Police Department

Ampang Jaya Municipal Government (MPAJ)  
District & Land Office (PDT) Gombak  
Department of Mineral and Geoscience  
(JMG) Selangor

### Highlights of the Event:

## Pre-Town Watching

- a) **Technical Briefing: ‘Explanation on Landslide Hazard & Risk’** by Qalam Azad Rosle, JMG Selangor to explain briefly on the geology of Ulu Klang and the kinds of slope failures that occur
- b) **Data Gathering Briefing: ‘Items to Record as Hazard, Safe, Useful and Special Feature’** by Eriko Motoyama
- c) **Logistics Briefing: ‘Rules, Timing, Safety and Roles’** by Col. Dr. Fazli Sardi, ALPHA

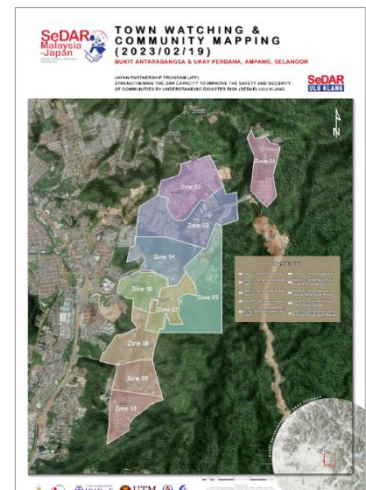
## Town Watching

Groups for each zone walked about and recorded observations of 'danger', 'safe', 'useful' and 'special' spots in their respective zones. Each spot was labeled as 'positive' or 'negative':

- Zone 1: Taman Sierra Ukay
- Zones 2 & 3: Ukay Perdana
- Zone 4: Taman Sering Ukay
- Zone 5: Taman Kelab Ukay
- Zones 6 & 7: Riverdale Park, Villa Ria (Taman Bukit Mulia) and Kg. Sungai Sering
- Zone 9: Taman Bukit Jaya

## Community Mapping

Each group created a map based on the findings (positive/negative) and observations (danger, safe, useful, special) during the town watching.



**SeDaP** COMMUNITY MAP & ISSUES/PROPOSED COMMUNITY ACTIONS (3 ZONES)  
**ULU KLANG, GOMBAK**

**GROUP 1, ZONE 1: TAMAN SIERRA ULUAY**

Members: Nurul Hana Yus (Sec, Nuraina Bin Jannah), Tengku Hafidz Ezzat B, Tengku Mohamad, Iq, Shams, Mohd Usmanawati, Kristianah Ismailiana, et al. Sec, Azwan Nur-Mohamad, Nurul Hana Yus, et al. Youth Member

**NOTES ON COMMUNITY MAP**

No.	Category	Notes	Positive/ Negative
1.	Designation Plans	Water channel at Jalan 101 at back of houses	Negative
2.	Designation Plans	Water project abandoned. Abandoned water supply system (EWS)	Negative
3.	Designation Plans	Designation channel, broken or old water canal. Cannot run water of proper water regulation	Negative
4.	Designation Plans	Water channel in residential village. Cannot run water of proper water regulation	Negative
5.	Designation Plans	Rebuilding waterway waterways blocked. Need to keep straightening	Negative
6.	Designation Plans	Some closed residential community hall. Can use as assembly	Positive
7.	Designation Plans	Natural water flow that flood during heavy rain	Negative
8.	Designation Plans	Public place for car. Access from house during emergencies	Positive
9.	Designation Plans	Water channel	Positive
10.	Designation Plans	Secondary water canal (for walking only)	Positive
11.	Designation Plans	Recess flood during heavy rain	Negative

[illegible]



### Identifying Issues/Problems/Solutions

Participants listed out issues and problems in their zones and proposed possible solutions. Out of the 35 items as issues/problems/solutions, 2 stood out as potential DRR activities:

- a) Issue 1: Lack of community awareness and preparedness for disaster  
Proposed solution 1: Educate with a program, together with communities
- b) Issue 2: Lack of information, dialogues, discussions between local government and communities on slopes for better understanding of decisions made within the communities  
Proposed solution 2: (1) Need better communication between local authorities and communities. (2) Set up a Resource Centre within the community to share and disseminate slope related (and other environmental) matters in the community



## 2. Community Workshop, Town Watching & Community Mapping - Batu 14 & Hulu Langat Sub-District, Hulu Langat District (February 26, 2023)

### Description:

One day for (1) conducting Community Workshop and (2) carry out Town Watching and Community Mapping in Batu 14 and Hulu Langat sub-district

### Attendance: 53

Chief Village Leader	Malaysia Civil Defence Force (APM) Hulu Langat
Village Leaders & Committee Members	Disaster Preparedness & Prevention Centre (DPPC), UTM KL
Residents	
Kajang Municipal Council	
Selangor Disaster Management Unit (SDMU)	

### Highlights of the Event:

#### [Community Workshop]

The contents and flow of the training session followed the ToT Guidebook:

- ‘Introduction to the SeDAR Program’** and **‘The CBDRR Workflow’** by Eriko Motoyama
- Module 1, ‘Understanding DRR Concepts’** by Abdul Rashid Ahmad
- Module 2, ‘Understanding Local Risks’** by Amran Ahmad
- Module 3, ‘Planning, Implementing and Evaluating CBDRR Programs’** by Eriko Motoyama

#### Pre-Town Watching

- Data Gathering Briefing: ‘Items to Record as Hazard, Safe, Useful and Special Feature’** by Eriko Motoyama
- Logistics Briefing: ‘Rules, Timing, Safety and Roles’** by Capt. Ruslan, APM Hulu Langat

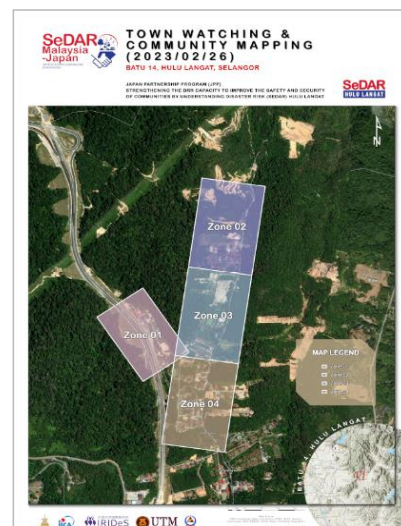
#### Town Watching

Groups for each zone walked about and recorded observations of ‘danger’, ‘safe’, ‘useful’ and ‘special’ spots in their respective zones. Each spot was labeled as ‘positive’ or ‘negative’:

- EKVE Semungkis (Zone 1)
- Jalan Felcra Semungkis (Zone 2)
- Jalan Felcra Semungkis (Zone 3)
- Jalan Felcra Semungkis (Zone 4)

#### Community Mapping

Each group created a map based on the findings (positive/negative) and observations (danger, safe, useful, special) during the town watching.



## SeDAR JICA PARTNERSHIP PROGRAM

[illegible]

### Identifying Issues/Problems/Solutions

The participants then drafted a list of issues/problems in their area as well as possible solutions that the communities can do. Out of the 15 items as issues/problems/solutions, 2 stood out as potential DRR activities:

- a) **Issue 1:** Lack of landslide warning siren  
Proposed solution 1: Install siren by either JMG or JKR
- b) **Issue 2:** Risk of landslides  
Proposed solution 2: Cooperate with the local community, hazard warning signs, sirens needed





### 3. Town Watching & Community Mapping - Kg. Tok Muda & Kapar Sub-District, Klang District (March 5, 2023)

#### Description:

One-day workshop day workshop with communities to conduct Town Watching and Community Mapping in Kg. Tok Muda and Kapar sub-district.

#### Attendance: 43

Chief Village Leader  
Village Leaders & Committee Members  
Residents  
Kajang Municipal Council (MPKj)  
Selangor Disaster Management Unit (SDMU)

Malaysia Civil Defence Force (APM) Hulu Langat  
Disaster Preparedness & Prevention Centre (DPPC), UTM KL

#### Highlights of the Event:

##### Pre-Town Watching

- Data Gathering Briefing: 'Items to Record as Hazard, Safe, Useful and Special Feature'** by Eriko Motoyama
- Logistics Briefing: 'Rules, Timing, Safety and Roles'** by Capt. Ruslan, APM Hulu Langat

##### Town Watching

Groups for each zone walked about and recorded observations of 'danger', 'safe', 'useful' and 'special' spots in their respective zones. Each spot was labeled as 'positive' or 'negative':

- Jalan Pencawang Pantai (Zone 1)
- Jalan Janakuasa 1 (Zone 2)
- Jalan Janakuasa 2 (Zone 3)
- Taman Intan & Saga (Zone 4)
- Kampung Bukit Kerayong (Zone 5)
- Kampung Bukit Kapar (Zone 6)

##### Community Mapping

Each group created a map based on the findings (positive/negative) and observations (danger, safe, useful, special) during the town watching.



ISU/PENYELESAIAN			
No	Isu/Kejuruan	Cadangan Pengiraan	Tindakan / Usul Komuniti
1.	Batu-batu/keras	Membuat jalan, mengasingkan 5 meter (5 meter) (Berkas)	Pemerintah berkolaborasi dengan masyarakat
2.	Sungai melintang	Membuatkan jambatan yang sesuai untuk menyeberang	Pemerintah berkolaborasi dengan masyarakat
3.	Kawasan banjir	- Kawasan banjir - Kawasan banjir - Kawasan banjir	Berjasama dengan TNB
4.	Pencapaian Melayu (Melayu) (Melayu)	- Kawasan banjir - Kawasan banjir - Kawasan banjir	Berjasama dengan TNB
5.	Batu-batu/keras	Batu-batu/keras yang menghalang aliran air	APM, KEMAS
6.	Batu-batu/keras	Batu-batu/keras yang menghalang aliran air	APM, KEMAS
7.	Pengaliran air	Membuatkan saluran air yang sesuai untuk mengalirkan air	Pemerintah berkolaborasi dengan masyarakat
8.	Pengaliran air	Membuatkan saluran air yang sesuai untuk mengalirkan air	Pemerintah berkolaborasi dengan masyarakat
9.	Pengaliran air	Membuatkan saluran air yang sesuai untuk mengalirkan air	Pemerintah berkolaborasi dengan masyarakat
10.	Pengaliran air	Membuatkan saluran air yang sesuai untuk mengalirkan air	Pemerintah berkolaborasi dengan masyarakat

### Identifying Issues/Problems/Solutions

The participants drafted a list of issues/problems in their area as well as possible solutions that the communities can do. Out of the 26 items as issues/problems/solutions, 2 stood out as potential DRR activities:

- a) Issue 1: Not all residents know the location of the evacuation centre  
Proposed solution 2: Inform residents where the temporary evacuation centre is located (put up signs)
- b) Issue 2: The sound of the siren is not loud  
Proposed solution 2: Repair sirens or announcements can be made through mosques



#### 4. Community Workshop, Town Watching & Community Mapping - Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District (March 12, 2023)

##### Description:

One day for (1) conducting Community Workshop and (2) carry out Town Watching and Community Mapping in Kg. Sungai Serai and Hulu Langat sub-district.

##### Attendance: 57

Chief Village Leader	Malaysia Civil Defence Force (APM) Hulu Langat
Village Leaders and Committee Members	APM Training Academy (ALPHA)
Residents	Disaster Preparedness & Prevention Centre (DPPC), UTM KL
Kajang Municipal Council	
Dept of Irrigation and Drainage (JPS)	
Selangor State Assemblyman	
Selangor Disaster Management Unit (SDMU)	

##### Highlights of the Event:

###### Community Workshop

The contents and flow of the training session followed the ToT Guidebook:

- 'Introduction to the SeDAR Program'** and **'The CBDRR Workflow'** by Eriko Motoyama
- 'Module 1, Understanding DRR Concepts'** by Mohamad Hanafiah Hussin
- 'Module 2, Understanding Local Risks'** by Sa'adin Ahmad
- 'Module 3, Planning, Implementing and Evaluating CBDRR Programs'** by Eriko Motoyama

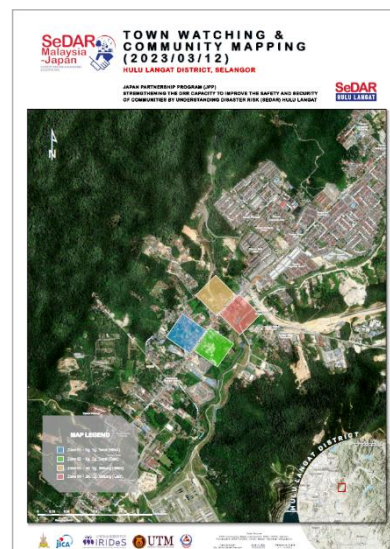
###### Pre-Town Watching

- Data Gathering Briefing: 'Items to Record as Hazard, Safe, Useful and Special Feature'** by Eriko Motoyama
- Logistics Briefing: 'Rules, Timing, Safety and Roles'** by Capt. Ruslan, APM Hulu Langat

###### Town Watching

Groups for each zone walked about and recorded observations of 'danger', 'safe', 'useful' and 'special' spots in their respective zones. Each spot was labeled as 'positive' or 'negative':

- Kampung Sungai Serai (West) (Zone 1)
- Kampung Sungai Serai (East) (Zone 2)
- Jalan Sungai Betung (West) (Zone 3)
- Jalan Sungai Betung (East) (Zone 4)
- (additional site upon request by Village Leader)  
Jalan Kampung Sg. Tekali (about 10 km away)





## Community Mapping

Each group created a map based on the findings (positive/negative) and observations (danger, safe, useful, special) during the town watching.

SeDAR JICA PARTNERSHIP PROGRAM PETA KOMUNITI & ISU/CADANGAN TINDAKAN KOMUNITI (5 ZONE) MUKOM HULU LANGAT, DASARAH HULU LANGAT			
KUMPULAN 1, ZONE 1: KAMPUNG SUNGAI SERAI (BARAT)			
CATATAN ATAS PETA KOMUNITI			
NO	Tinjauan	Isu/Hasil	Penyelesaian
1	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
2	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
3	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
4	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
5	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
6	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
7	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
8	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
9	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
10	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
11	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
12	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
13	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
14	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
15	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
16	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
17	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
18	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
19	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
20	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
21	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
22	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?
23	Tanpa Sirens	Isu: Tidak ada sirens di kawasan ini	ASAP?

## Identifying Issues/Problems/Solutions

The participants drafted a list of issues/problems in their area as well as possible solutions that the communities can do. Out of the 23 items as issues/problems/solutions, four (4) stood out as potential DRR activities:

- Issue 1:** Existing siren does not function/Not enough sirens in the area  
**Proposed solution 1:** Appoint streets rep volunteers to inform about flood warnings
- Issue 2:** Residents do not know the safe alternative evacuation route  
**Proposed solution 2:** Alerts on social media (Whatsapp) and authorities to inform
- Issue 3:** Lack of knowledge on emergency action plan  
**Proposed solution 3:** Increase knowledge at the community level
- Issue 4:** Need temporary warning/safe sign  
**Proposed solution 4:** Request the district office for the preparation of signs



## G. WORKSHOP ON PLANNING DRR ACTIVITIES WITH DRR EXPERTS

### 1. Workshop on Planning DRR Activities - Kg. Tok Muda & Kapar Sub-District, Klang District (March 21, 2023)

#### Description:

Half-day workshop for communities to identify and plan DRR activities for Kg. Tok Muda & Kapar sub-district with input from DRR experts.

#### Attendance: 23

#### Participants:

Chief Village Leader of the Kapar sub-district  
Five (5) Village Leaders  
Klang Municipal Council (MPK)  
Selangor Disaster Management Unit (SDMU)

Universiti Teknologi Malaysia (UTM) KL

#### DRR Experts (Japan and local):

Prof. Rajib Shaw, Keio University  
Dr. Yasutaka Ueda, Niigata University  
Prof. Takako Izumi, Tohoku University  
Assoc. Prof. Shohei Matsuura, JICA (UTM KL)  
Dr. Khamarrul Azahari, UTM KL

#### Highlights of the Event:

#### Presentation on Town Watching/Community Mapping results and Listing of Issues/Problems/Suggested Actions

Presented by Village Leader Jamaluddin

- a) For each zone, he highlighted the issues in the area, as written in the Results summary for Kapar
- b) In particular, he focused on the issue of sedimentation in the streams and drainage system

#### DRR Expert Review: Comments and Feedback

Based on the presentation and inputs from the participants, the DRR Experts summarized the issues into 6 potential actions, which are:

- a) Canal/Drainage System Management
- b) Bund/Dyke Management
- c) Public Warning System
- d) Evacuation (including signage)
- e) Awareness/Monitoring/Capacity
- f) Digital platform for showcasing activities/Reporting to authorities

#### Group Discussion Session Among the Participants

The participants discussed the feasibility of the above 6 potential actions



### Identifying DRR Actions

Out of 6 proposed actions, 4 were shortlisted by the community participants together with the DRR experts: public warning system, evacuation centre (signage), awareness/monitoring/capacity building, and digital platform.

Kapar		
No.	Activity	Specifics
1.	Canal Management	
2.	Bund/Dyke Management	
3.	Public Warning System	
4.	Evacuation Centre (signage)	
5.	Awareness/Monitoring/Capacity	Sendai Bosai Leader (SBL)
6.	Digital platform for showcasing activities/Reporting to authorities	

The participants and the DRR Experts discussed the feasibility of implementing these activities from the standpoint of local capacity, budget and time.

### Final Selection of Community DRR Activities

Out of this, 3 were selected and finalized as community activities:

- Public warning system:** Use mosque loudspeaker systems for public warning system
- Awareness and education:** Use mosques as venue for creating DRR awareness (not just for using as relief centres only)
- Government-community platform:** Create platform for visibility for community efforts



## 2. Workshop on Planning DRR Activities - Batu 14 & Hulu Langat Sub-District, Hulu Langat District (March 22, 2023)

### Description:

Half-day workshop for communities to identify and plan DRR activities for Kg. Tok Muda & Kapar sub-district with input from DRR experts.

**Attendance:** 33

### Participants:

Chief Village Leader  
Nine (9) village leaders  
Selangor Disaster Management Unit (SDMU)  
APM Training Academy (ALPHA)  
Malaysia Civil Defence Force (APM)  
Kajang Municipal Council (MPKj)  
Dept of Irrigation & Drainage (JPS)  
National Security Council (MKN)

### DRR Experts (Japan and local):

Prof. Rajib Shaw, Keio University  
Dr. Yasutaka Ueda, Niigata University  
Prof. Takako Izumi, Tohoku University  
Assoc. Prof. Shohei Matsuura, JICA (UTM KL)  
Dr. Khamarrul Azahari, UTM KL

### Highlights of the Event:

#### Presentation on Town Watching/Community Mapping results and Listing of Issues/Problems/Suggested Actions

By Village Leader Mohamad Hanafiah Hussin, who presented the community maps and list of issues/solutions for the 4 zones created during the previous Town Watching/Community Mapping events. He summarized the issues in the area as follows:

- a) Flash flooding (especially at site of recently constructed expressway)
- b) Inadequate drainage system
- c) Absence of early warning system for slopes

#### DRR Expert Review: Comments and Feedback

Based on the presentation and inputs from the participants, the DRR Experts made several observations and comments:

- a) Lack of Awareness & Education about Slopes - The 2011 landslide at the orphanage took 12 years after slope cutting to occur. The signs were there, but people were not aware of them.
- b) Community Preparedness– Communities have mentioned that there have not been many landslides in this area recently, but they should be aware that disasters can happen when they are least expected
- c) Need for dialogue with stakeholders doing development in the area – There needs to be a dialogue between agencies and communities for resolving issues
- d) Preparedness drills and Inclusivity - The need to include all members of the family in disaster preparedness, including children and mothers; not just the male heads of households

Based on the presentation and inputs from the participants, the DRR Experts summarized the issues into 5 potential actions, which are:

- a) Dialogue with EKVE (Zone 1)
- b) Disaster drill (Evacuation route/early warning/inclusive)

- c) Community-based landslide warning
- d) Waste monitoring
- e) Digital platform for showcasing activities/Reporting to authorities

### Group Discussion Session Among the Participants

The participants discussed each category topic in detail based on existing challenges, constraints and community capability. One point made by a participant was to involve schools in DRR education.

### Identifying DRR Actions

Out of 5 proposed actions, 2 were shortlisted by the community participants together with the DRR experts: community-based landslide warning and digital platform. The participants and the DRR Experts discussed the feasibility of implementing these activities from the standpoint of local capacity, budget and time.

Batu 14

No.	Activity	Specifics
1.	Dialogue with EKVE (Zone 1)	
2.	Disaster drill (Evacuation route/early warning/inclusive)	
3.	Community-based landslide warning	
4.	Waste monitoring	
5.	Digital platform for showcasing activities/Reporting to authorities	

### Final Selection of Community DRR Activities

Out of this, 1 activity was selected and finalized as a community activity, which is the warning system. Another new activity, education and preparedness (not on the list) was proposed and finalized:

- a) **Warning system:** Community-based landslide warning
- b) **Education and preparedness:** DRR for schoolchildren



### 3. Workshop on Planning DRR Activities - Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District (March 22, 2023)

#### Description:

Half-day workshop for communities to identify and plan DRR activities for Kg. Sungai Serai & Hulu Langat sub-district with input from DRR experts.

**Attendance:** 28

#### Participants:

Chief Village Leader  
Village leaders  
Selangor Disaster Management Unit (SDMU)  
APM Training Academy (ALPHA)  
Civil Defence Force (APM)  
Kajang Municipal Council (MPKj)  
Dept of Irrigation & Drainage (JPS)  
National Security Council (MKN)

#### DRR Experts (Japan and local):

Prof. Rajib Shaw, Keio University  
Dr. Yasutaka Ueda, Niigata University  
Prof. Takako Izumi, Tohoku University  
Assoc. Prof. Shohei Matsuura, JICA (UTM KL)  
Dr. Khamarrul Azahari, UTM KL

#### Highlights of the Event:

##### Presentation on Town Watching/Community Mapping results and Listing of Issues/Problems/Suggested Actions

By Village Leader Zainuddin Mohamad Tasar, who presented the community maps and list of issues/solutions for the four (4) zones created during the previous Town Watching/Community Mapping events. The main issues were:

- Siren – there is a flood warning siren but coverage is limited
- Temporary evacuation centre – not enough capacity and difficult to access
- Signage – there are none, and thus there is a need for directions showing how to get to it
- Knowledge – overall knowledge on actions to take when flooding occurs is lacking. Such knowledge needs to be more inclusive.
- Lack of official authorization given to the village leaders in emergencies – the village leaders have tried to give instructions to the communities but the community members question the directives. They need higher-up authorities to back them up.

##### DRR Expert Review: Comments and Feedback

The DRR Experts made observed that since the sirens cannot be heard (early warning), the community could focus on public warning. Which is to extend coverage of warning and relay warning alert through community dissemination.

Based on the presentation and inputs from the participants, the DRR Experts summarized the issues into 6 potential actions, which are:

- Plogging
- Public warning system
- Knowledge
- Monitoring
- Preparedness
- Digital platform for showcasing activities/Reporting to authorities



### Group Discussion Session Among the Participants

Mr. Zainuddin stated that he would be interested in re-engaging his community for clean-up activities. He mentioned a form of clean-up called ‘plogging’

### Identifying DRR Actions

Out of 6 proposed actions, 3 were shortlisted by the community participants together with the DRR experts.

Kg. Sungai Serai

No.	Activity	Specifics
1.	Plogging	a. Community clean-up b. Reduce plastic waste
2.	Public warning system	a. Appoint street rep for warning b. Social media for warning c. Signage
3.	Knowledge	a. Education
4.	Monitoring	a. Report blocked drains b. Development
5.	Preparedness	c.
6.	Digital platform for showcasing activities/Reporting to authorities	

### Final Selection of Community DRR Activities

Out of this, 2 were finalized as community activities:

- Plogging:** Community clean-up
- Public warning system:** signage and social media for warning/community evacuation drill



## 4. Workshop on Planning DRR Activities - Ulu Klang, Gombak District (March 23, 2023)

### Description:

Half-day workshop for communities to identify and plan DRR activities for Kg. Tok Muda & Kapar sub-district with input from DRR experts.

**Attendance:** 29

### Participants:

Six (6) volunteer residents in Bukit Antarabangsa and Ukay Perdana APM Training Academy (ALPHA)  
Civil Defence Force (APM)  
Ampang Jaya Municipal Council (MPAJ)  
Department of Irrigation & Drainage (JPS)  
Department of Mineral & Geoscience (JMG)  
Public Works Dept (JKR)  
National Security Council (MKN)  
Selangor Disaster Management Unit (SDMU)

### DRR Experts from Japan and local:

Dr. Yasutaka Ueda, Niigata University  
Prof. Takako Izumi, Tohoku University  
Assoc. Prof. Shohei Matsuura, JICA (UTM KL)  
Dr. Khamarrul Azahari, UTM KL

### Highlights of the Event:

#### Presentation on Town Watching/Community Mapping results and Listing of Issues/Problems/Suggested Actions

By resident Farid Faiz, who presented the community maps and list of issues/solutions for the 9 zones created during the previous Town Watching/Community Mapping events. The issues fell under the categories of:

- a) Maintenance (drainage, slopes)
- b) Land use (new development, abandoned land)
- c) Knowledge (on emergency preparedness, signage)
- d) Monitoring of slopes
- e) Early warning systems

#### DRR Expert Review: Comments and Feedback

The DRR Experts made several observations:

- a) Risk communication needs science communication to grasp real risk and not just perceived risk
- b) Government system approach – communities must understand how the government system works. They need to understand the limitations of government based on budget available and scope of work/responsibilities
- c) Sustainability – the ability of the community to sustain and continue DRR activities
- d) Value addition – community doing DRR activities will add value to the process of place or city making

Based on the presentation and inputs from the participants, the DRR Experts summarized the issues into 7 potential actions, which are:

- a) Maintenance (buildings, roads)
- b) Land use
- c) Maintenance (drainage system, slopes)
- d) Knowledge

- e) Emergency Preparedness
- f) Slope Monitoring
- g) Early Warning System

### Group Discussion Session Among the Participants

The participants and the DRR experts discussed on the above topics in details, with the purpose of including the above items into the DRR actions

### Identifying DRR Actions

Out of 7 proposed actions, 1 activity with several actions for spreading and sharing knowledge was shortlisted.

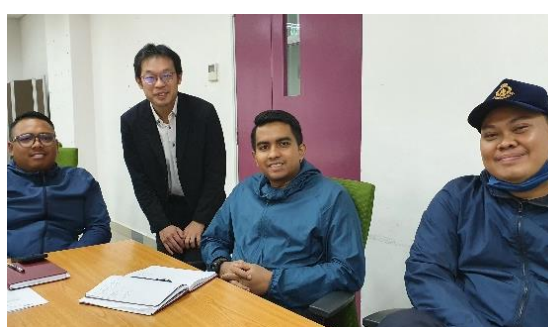
#### Ulu Klang

No.	Activity	Specifics
1.	Maintenance (buildings, roads)	Clear drains (gotong royong) Reduce plastic waste
2.	Land use (new development, abandoned brownfield)	Monitoring
3.	Maintenance (drainage system, slopes)	Clear drains
4.	Knowledge	CDERT Education Community Resource Centre Community network and structure
5.	Emergency Preparedness	Development
6.	Slope Monitoring	Observe, report signs
7.	Early Warning System	Doesn't have to be equipment-based. Can be community-based.

### Final Selection of Community DRR Activities

Two were finalized as community activities:

- a) **Knowledge:** Civil Defence Emergency Response Training (CDERT)
- b) **Knowledge:** Set-up of a Community DRR Resource Centre



## H. SYMPOSIUM

### Localizing DRR Actions: Public, Private, Academic & Community Collaboration in Reducing Disaster Risk (October 19-20, 2023)

#### Description:

One-and-a-half day symposium to officially wrap up and share the 5-year results. The event consisted of:

- a) Key presentations by IRIDeS; SDMU; ALPHA; UTM KL
- b) 4 sessions (presentations and panel discussions)
- c) Project Handover to Selangor State by SeDAR team

**Attendance:** 134 (Day 1) and 102 (Day 2)

Selangor agencies

Federal agencies

Out-of-state agencies

Community

Local Govt & District

Private sector

Institutes, agencies and government bodies

- Japan

Academia

NGO

#### Highlights of the Event:

#### DAY 1 (19 OCTOBER 2023)

##### Key Presentations

- a) **'Achievements of JPP SeDAR Program'** by IRIDeS, Tohoku University
- b) **'CBDRR in Malaysia/DRR Initiatives by SDMU'** by Selangor Disaster Management Unit
- c) **'From Community-Based Response to Community-Based Mitigation'** by ALPHA (APM Training Academy)
- d) **'Local Disaster Resilience Strategies in Malaysia: Best Practices & Prospective Agenda'** by UTM Kuala Lumpur

##### Session 1, 'Community Leadership'

#### 1. PRESENTATIONS

Community leaders and local champions in the 4 project areas presented on (1) the history of local disasters, (2) description of their DRR activities, (3) what was the benefit of the SeDAR program, and (4) what will they do to continue the program.

#### Kg. Tok Muda & Kapar Sub-District, Klang District (Floods)

Presented by Md Jamaludin bin Ramlan and Shamsuddin bin Liman





**Changes within the Communities as a Result of the SeDAR Program:**

- a) **Increased knowledge** - 'Increased knowledge about disaster risk reduction' and 'Understand the causes of flood disasters'
- b) **Change in mindset** - 'Increased community awareness about preparedness for major flood disasters'

**Future Plans in DRR:**

- a) **Outreach** - Would like to reach out to communities outside of Kapar sub-district for DRR
- b) **Spread awareness of DRR to others** - Useful knowledge will help all levels of society
- c) **Maintain close relationship with government agencies** - Hope to keep lines of communication open with the communities. Want to work together, not against each other.
- d) **Funding** - Need solid financial support to continue running this kind of program

## **Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District (Floods)**

Presented by Mohd Yusof bin Abd Manan and Saadin bin Ahmad



**Changes within the Communities as a Result of the SeDAR Program:**

- a) **Change in mindset** - 'Opened our eyes to collaboration between residents & community leaders'
- b) **Communal effort** - The entire community needs to cooperate and be committed (not just the village leaders)
- c) **Change in behavior** - Taught the communities to act more systematically and accurately

**Future Plans in DRR:**

- a) **Continued learning** – Have benefited from the knowledge sharing from the government agencies on floods and disasters and would like to continue more
- b) **Continued technical support from government** – Would like continued technical advice from government agencies on DRR
- c) **Continued funding support from government** – Would like continued funding from government agencies to carry out DRR activities

## Batu 14 and Hulu Langat Sub-District (Landslides)

Presented by Noor Azam bin Mohammad Isa and Amran bin Ahmad



### ***Changes within the Communities as a Result of the SeDAR Program:***

- a) **Change in mindset** - Started SeDAR program with mindset of ad-hoc program involvement in DRR (as usual). But in the end, the communities felt a sense of ownership in DRR initiatives.
- b) **Heightened sensitivity to environment** - Aware of changes in the environment landscape, especially slopes
- c) **Deepened community-government working relationship** - Established a deeper level of working relationship with government agencies, such as APM, JPS, JKR, JMG and the Hulu Langat District Office. Prior to SeDAR, there was no platform to work with agencies at this level

### ***Future Plans in DRR:***

- a) **Continued learning** – Have benefited from the knowledge sharing from the government agencies on floods and disasters and would like to continue more
- b) **Continued technical support from government** – Would like continued technical advice from government agencies on DRR
- c) **Continued funding support from government** – Would like continued funding from government agencies to carry out DRR activities

## Ulu Klang, Gombak District (Landslides)

Presented by Badrulisham bin Mohd Akhrin and Nazli binti Idris



**Changes within the Communities as a Result of the SeDAR Program:**

- a) Developed human capital in DRR
- b) Benefited from use of scientific data in explaining landslide risk
- c) SeDAR program was platform for education by technical experts/Reduce false understanding by residents
- d) Set up a physical DRR centre

**Future Plans in DRR:**

- a) **Reach Out to Schools and Other Sectors in Society** – Can reach out to schools, NGOs, etc. with the help of local authorities to promote and advocate the awareness of DRR actions
- b) **Connect climate change to disasters** – People need to understand the implication of climatic change and disasters. This is real and in future will affect more lives and incur economic losses if not managed well by authorities and supported by communities.

**2. PANEL DISCUSSION - ‘CBDRR Practices: Challenges and Future’**

Moderated by: Dr. Khamarrul Azahari, UTM KL. Panelists: Community leaders, APM Selangor, SDMU

- i. Challenges Faced: Communities want to wait until too late to take action. But SeDAR has changed the awareness of community to take proactive action
- ii. Expectations: Risk communication (especially showing the scientific risk maps) was effective in getting the communities to realize that they were in a high-risk area. Need to increase the number of exercises for preparation before a disaster and ensure funding for these activities
- iii. On Developing Culture of Resilience: Request SDMU to have the village heads / village volunteers to continue the efforts in the future by providing funding
- iv. On Future Aspirations: Extend the implementation of programs in other schools

<b>Session 2: DRR INITIATIVES and ITS FUTURE IN MALAYSIA</b>
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- 1. **PRESENTATION - ‘NADMA’s Disaster Management System in Malaysia’** by National Disaster Management Agency (NADMA)

**2. PANEL DISCUSSION - ‘DRR Experience in Malaysia and Lessons Learned’**

Moderated by Assoc. Prof. Shohei Matsuura of National Research Institute for Earth Science and Disaster Resilience (NIED). Panelists: APM HQ, SDMU and State Secretary Offices of Penang, Sarawak and Kelantan.

## DAY 2 (20 OCTOBER 2023)

### Session 3: SCIENCE AND TECHNOLOGY IN DRR

1. **PRESENTATION - 'Role of Science and Technology for Building Disaster Resilience in Japan'** by NIED
2. **PANEL DISCUSSION - 'Application of Science and Technology in CBDRR in Malaysia'**  
Moderated by Prof. Takako Izumi, IRIDeS. Panelists: JMG Selangor; UTM KL, NAHRIM, NIED and Dr. Nik & Associates

### Session 4: POLICY RECOMMENDATIONS AND PROJECT HANDOVER

1. **PRESENTATION - 'Policy Recommendations and Brief'** by Prof. Takako Izumi, IRIDeS
2. **PROJECT HANDOVER TO SELANGOR STATE:** Handover of plaque from Prof. Takako Izumi to Mohd Najwan bin Halimi, Selangor State Executive Council Member and Chairman of State Disaster Committee

### Media Coverage

Publishing of articles about the JPP SeDAR Program and its achievements in 5 media outlets and 7 articles



## Agenda of the Event:

### DAY 1

TIME	DURATION	AGENDA	ACTIVITY
8:30 am	60 min	Registration	Participant arrival and registration
9:30 am	10 min	Prayer recital	Prayer recital
		Welcoming speech	Undersecretary, Management Services Division, Selangor State Government
		Speech	Senior Representative, Japan International Cooperation Agency (JICA)
9:40 am	10 min		Group Photo
9:50 am	10 min		<b>Video Presentation</b> of JPP SeDAR Program
10:00 am	50 min		<b>Key Presentations</b> <b>‘Achievements of JPP SeDAR Program’</b> by: International Research Institute of Disaster Science (IRIDeS), Tohoku University <b>‘CBDRR in Malaysia / DRR Initiatives by SDMU’</b> by: Selangor Disaster Management Unit <b>‘From Community-Based Response to Community-Based Mitigation’</b> by: APM Training Academy (ALPHA) <b>‘Local Disaster Resilience Strategies in Malaysia: Best Practices &amp; Prospective Agenda’</b> by: Disaster Preparedness & Prevention Centre (DPPC), Universiti Teknologi Malaysia (UTM) Kuala Lumpur
10:50 am	20 min	Break	
<b>SESSION 1: COMMUNITY LEADERSHIP</b>			
11:10 am	20 min	Presentation	Community DRR Presentation by: Local champions/village leaders of Pekan Kapar, Klang District
11:30 am	20 min	Presentation	Community DRR Presentation by: Local champions/village leaders of Kampung Sg. Serai, Hulu Langat District
11:50 am	20 min	Presentation	Community DRR Presentation by: Local champions/village leaders of Batu 14, Hulu Langat District
12:10 pm	20 min	Presentation	Community DRR Presentation by: Local champions/village leaders of Ulu Klang, Gombak District
12:30 pm	10 min	Certificate handout	Certificates of Recognition and Appreciation to be awarded to village leaders and local champions
12:40 pm		BREAK	Lunch
2:15 pm	45 min	Panel discussion 1	<b>‘CBDRR Practices: Challenges and Future’</b> Moderated by: DPPC, UTM KL  Panelists: Local champions/village leaders, SeDAR Coordinator, APM Selangor, SDMU



SESSION 2: DRR INITIATIVES AND ITS FUTURE IN MALAYSIA			
3:00 pm	20 min	Presentation	‘NADMA’s Disaster Management System in Malaysia’ by: National Disaster Management Agency (NADMA)
3:20 pm	15 min	Afternoon Break	
3:35 pm	45 min	Panel discussion 2	‘DRR Experience in Malaysia and Lessons Learned’ Moderated by: NIED  Panelists: APM HQ, SDMU and State Secretary Offices for Penang, Sarawak and Kelantan
4:20 pm		END DAY 1	

## DAY 2

TIME	DURATION	AGENDA	ACTIVITY
8:30 am	60 min	Registration	Participant arrival and registration
9:30 am	10 min	Briefing	Briefing of day’s agenda
SESSION 3: SCIENCE AND TECHNOLOGY IN DRR			
9:40 am	15 min	Presentation	‘Role of Science and Technology for Building Disaster Resilience in Japan’ by: National Research Institute for Earth Science and Disaster Resilience (NIED)
9:55 am	40 min	Panel discussion 3	‘Application of Science and Technology in CBDRR in Malaysia’ Moderated by: IRIDeS Panelists: Dept of Mineral and Geoscience Malaysia, DPPC, National Water Research Institute of Malaysia (NAHRIM), Dr Nik & Associates, and NIED
10:35 am	15 min	Break	
SESSION 4: POLICY RECOMMENDATIONS AND PROJECT HANDOVER			
10:50 am	10 min	Policy Recommendations	‘Policy Recommendations and Brief from the SeDAR Program’ by IRIDeS
11:00 am	30 min	Moving Forward in DRR	Open Floor Directed Discussion Facilitated by: DPPC UTM
11:30 am	10 min	Project Handover ceremony	<b>Project Handover to Selangor State</b> Presented to: YB Tuan Mohd Najwan bin Halimi, Selangor State Executive Council Member Presented by: SeDAR Project Partners
11:40 am	10 min	Speech	Closing comments by YB Tuan Mohd Najwan bin Halimi
11:50 am		End of program	For symposium participants
11:50 am	30 min	Press Conference	For press conference participants
12:20 pm		End Press Conference	

FINAL REPORT  
SeDAR JICA PARTNERSHIP PROGRAM





## 4 CBDRR Activities in the Four Project Areas

### 4.1 Ulu Klang, Gombak District

Two activities for this project area: (1) Civil Defence Emergency Response Training and (2) Setting Up of the Community DRR Resource Centre.

#### 1. Civil Defence Emergency Response Training (CDERT) (June 25, 2023)

**Description:** Half-day workshop on emergency response training for community members. Living in a landslide-prone area, the community members wanted to gain knowledge on how to respond in a landslide disaster.

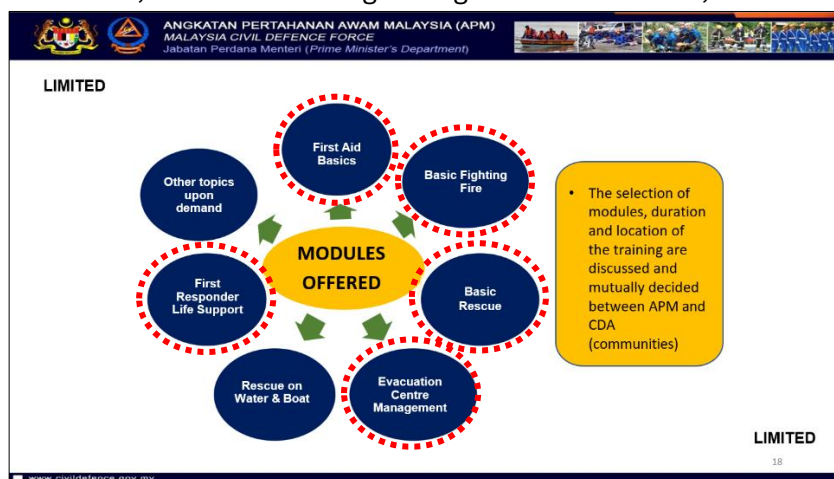
**Attendance:** 41

Communities within Ulu Klang  
Civil Defence Force Malaysia (presenter)  
Selangor Disaster Management Unit (SDMU)

#### Highlights of the Event:

The training was provided by the Malaysia Civil Defence Force (Gombak).

- Introduction Module to Malaysia Civil Defence Force
- Basic First Aid: circulatory system and the epidermis layers (skin), identifying shock due to loss of blood, types of wounds, choking and breathing difficulties
- Overview of Evacuation Centre Management: operations of a centre, roles of agencies, set-up, food preparation, counseling, safety, amenities
- Basic on Emergency Rescue: methods of removing and carrying victims in various scenarios
- Basic on Firefighting: causes and types of fires, movement and dispersion of heat and flames, methods of extinguishing based on material, hands-on exercise



*Modules selected for the Ulu Klang communities (in red dotted lines)*

The entire session was a combination of theory, tips, demonstration, and hands-on practice.

**Result:** This activity had a profound effect on setting the right mindset of the community members. They learned some essential skills in responding to emergency situations and how community members can help each other in a disaster.





## 2. Setting Up of the Community DRR Resource Centre

**Description:** The residents of Ulu Klang had a need for a centre to be set up to have access to information and resources related to DRR, landslides and the environment. Thus, a Community DRR Resource Centre was conceptualized, designed, set up and is now entirely run by community members. The Resource Centre features a gallery of colourful and informative posters, 3D terrain model of Ulu Klang, audio/visual displays, mini-library of resource books and pamphlets, and hands-on displays.

### About the Centre:

The Centre was formerly a municipal government community hall that was donated to SeDAR and the community of Ulu Klang for the purpose of setting up an educational centre on DRR. Resource material such as posters and maps on scientific information has been donated by the technical government agencies. As such, it is truly a collaboration between the local government, the communities, and the technical government agencies.

A Committee of the Resource Centre was set up and consists of 17 members who actively set up the Centre with guidance from SeDAR.

The Resource Centre was handed over by SeDAR to the Ulu Klang communities in February 2024 and is now completely managed by community volunteers.

Mission Statement of the Community DRR Resource Centre:

- Providing a communal space for learning about the physical environment within the community
- Building local capacity through training



- c) Providing access to science-based material and resources
- d) Serving as a meeting place for discussions and dialogues between technical agencies and communities



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**Official Launch:**

Centre was launched on February 4, 2024 with attendance of 66. Participants included:

Ampang Jaya Municipal Government (MPAJ)  
Gombak District and Land Office (PDT  
Gombak)  
Civil Defence Force (APM)  
Department of Mineral and Geoscience  
(JMG) Selangor  
Public Works Department (JKR)

Royal Malaysia Police (PDRM)  
Department of Fire and Safety (BOMBA)  
Department of Education (JPN) Selangor  
Civil Defence Force Malaysia (APM)  
Selangor Disaster Management Unit  
(SDMU)  
Universiti Teknologi Malaysia (UTM)

**Result:** It is a physical legacy and showcase of the knowledge imparted through the SeDAR program. It is run and managed entirely by community volunteers, as well as a team of tour guides to show visitors around the Centre gallery



## 4.2 Batu 14 & Hulu Langat Sub-District, Hulu Langat District

Two activities for this project area: (1) Community Slope Monitoring Workshop and (2) DRR for Schoolchildren.

### 1. Community Slope Monitoring Workshop (July 9, 2023)

**Description:** One-day workshop to teach communities on how to monitor slopes as a visual inspection and early warning of the signs of landslides. As there are no early warning systems for landslides set up in this project area, community members were educated about a visual inspection system of the signs of landslides that can be valuable in detecting potential landslides.

**Attendance:** 57

Communities within Hulu Langat sub-districts  
Public Works Department (JKR)  
Department of Mineral and Geoscience (JMG)

Civil Defence Force (APM)  
Selangor Disaster Management Unit (SDMU)  
Universiti Teknologi Malaysia (UTM)

#### Highlights of the Event:

The workshop consisted of a series of talks in the morning, followed by site inspections in the afternoon.

#### Morning Session

JMG provided basic knowledge on the geology of the Hulu Langat area and why it was prone to landsliding.

JKR provided engineering/geotechnical explanation on the causes of landslides and basic knowledge about slopes.

#### Afternoon Session

Participants divided into 2 groups and headed out to 2 sites in Batu 14 for visual inspection. Observations made at the site were:

- Site 1: EKVE Expressway - Flash flooding occurs in the area, where there are residential homes and religious schools.
- Site 2: Former orphanage location of the 2011 landslide – JMG engineers explained how the unengineered cut slope caused a landslide that killed 16 children and teachers.

Upon returning from the site visits, a speaker from each group presented the findings and engaged in discussion with the two agencies.

- The participants from each group showed their observations and explained the cause and nature of the problem.
- The participants concluded the session by saying that the session was useful in giving them awareness of signs to prevent landslides from occurring.

**Result:** Routine visual inspection and monitoring of slopes as a form of early warning against potential landslides is an activity that communities can engage in and not be entirely dependent on local government action.

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## 2. DRR for Schoolchildren – (1) DRR Workshop (September 23, 2023) and (2) Design, Print and Install DRR Mural Poster (April 4, 2024)

Two activities for this project area: (1) DRR Workshop for Students and (2) Design, Print and Install a DRR Mural Poster

### ACTIVITY 1: DRR Workshop

**Description:** A DRR Workshop for Students was carried out at the Abdul Jalil High School to introduce and teach DRR concepts to students. The response was very positive and there was a sense that programs in DRR such as this were needed, especially in areas that are hard hit by landslides and floods.



**Attendance:** 424

Level 1, 2 and 3 Students (15-, 16, and 17-year olds)  
Teachers  
Parent-Teacher Association  
Department of Mineral and Geoscience (JMG) Selangor

Malaysia Civil Defence Force (APM) Hulu Langat  
Selangor Disaster Management Unit (SDMU)

### Highlights of the Activity:

The workshop format was a combination of presentation/lecture and hands-on activity/game. It was important to keep the lecture short and include hands-on activities to keep the student audience focused and engaged.

Presentation topics were:

- 'Understanding Landslides and Floods'** by JMG Selangor
- 'Concepts in Disaster Risk Reduction (DRR)'** by the SeDAR team
- 'Preparation and Response'** by APM Hulu Langat

The hands-on activity was a **"Ready To Go Game"** involving a contest among student groups to pack emergency grab bags conducted by APM Hulu Langat

**Result:** Schoolchildren were equipped with the knowledge of DRR and what they can do to prepare for future disasters. The District Department of Education showed a strong interest in conducting similar programs in other schools in the Hulu Langat district.

## ACTIVITY 2: Design, Print and Install DRR Mural Poster

**Description:** A handover ceremony was conducted to pass the mural poster to the headmistress of the high school, accompanied by SDMU, JMG, APM and the Kajang Municipal Council. DRR Mural Poster for Schoolchildren is a wall poster measuring 7 metres x 1.8 metres to cover the length of a corridor within the premises of the Abdul Jalil High School in Batu 14, Hulu Langat. The poster is divided into 3 sections: (1) Hazards becoming disasters because of high vulnerability and low capacity, (2) how to reduce vulnerability and increase capacity, and (3) DRR actions that students can take.



**Result:** The mural poster has become a showcase piece in a hallway that has been converted as 'Environment Corridor' that will feature material and resources with an environment theme.





### 4.3 Kg. Tok Muda & Kapar Sub-District, Klang District

Three activities for this project area: (1) Community evacuation drill, (2) Development and distribution of information sharing materials, and (3) Handover ceremony of information sharing materials to communities.

#### 1. Community Evacuation Drill (September 13 & 16, 2023)

**Description:** A two-day event to have communities (1) become familiarized with community evacuation drill procedures and (2) find out whether the flood sirens can be heard within the community area. Although Kapar and the surrounding area is prone to coastal, river, and flash flooding, there have never been any drills or DRR activities conducted in the past. Hence, there was a need to carry out the community evacuation drill in the project area.

**Attendance:** 55

- Community members within Kapar sub-district
- Village leaders
- Local NGO for disaster response

#### Highlights of the Event:

##### Pre-Drill Briefing and Orientation (13 September)

Briefing and orientation on:

- a) upcoming activities for the drill
- b) description of the sirens to be sounded
- c) what actions to take
- d) explanation of the logistics on the day of the drill

##### Evacuation Drill (19 September)

- a) Implementation of the drill – leaving from home to reaching the evacuation centre
- b) Registration
- c) Participate in Feedback Session conducted by SeDAR team

##### Feedback Session

- a) Extent of the flood siren sound - the flood siren can only be heard for approximately 500 metres, whereas the mosque announcement can be heard for almost 1 kilometre
- b) Arrival to evacuation centre - Most of the participants came by vehicle (67%) rather than by foot (33%). Majority of them (74%) came directly from their homes
- c) Flood experience - An overwhelming majority (93%) experienced flood disaster before
- d) Flood warnings and sirens – Most of the participants (83%) have never heard sirens before and 35% said they receive alerts from their community leaders (others by various media and sources)
- e) Location of evacuation centre – A majority said they knew of the evacuation centre location prior to the drill exercise (this could be because the participants had a briefing a few days prior to the drill)
- f) Potentially dangerous locations along evacuation route – many identified open drains that they can fall into and get swept away in the current

- g) Potential obstacles or challenges in a real flood situation – roads that are impassable due to rushing waters, floating debris and live electricity cables in the floodwaters, strong currents to wade through
- h) Knowledge of the flood evacuation process – Before this drill, 70% said they knew very little or knew a little about the evacuation process

**Result:** (1) The communities and the state government agencies have established a stronger working relationship, (2) community leaders realized they can conduct drills on their own initiative without initiation from the government, and (3) the community members realized the needs of vulnerable groups during the evacuation drill process.



## 2. Development and Distribution of Information Sharing Materials: (1) Evacuation Centre Location & (2) Public Warning System Procedures

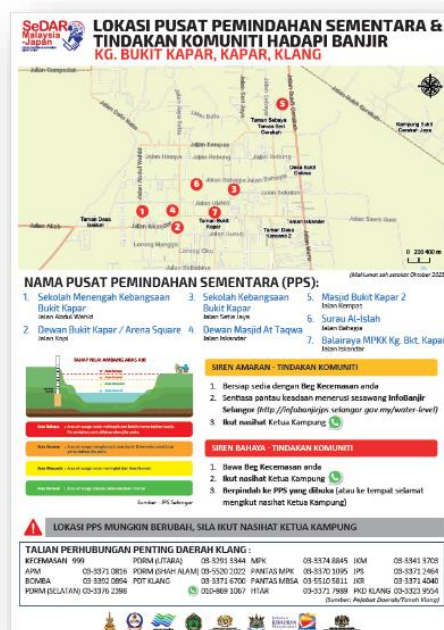
**Description:** Posters and fridge magnets showing the names and locations of the evacuation centres in the villages and public warning system procedures were created.

Many residents in Kapar did not know or vaguely knew the locations of the evacuation centres in their communities. They also did not know the course of action to take when the flood siren or alert is activated.

Public warning procedures for communities had not been formally established by the government. Therefore, in collaboration with the chief village leaders, community leaders, district offices, and the state/district Department of Irrigation and Drainage, the public warning steps were identified. The locations of the evacuation centres were also confirmed and verified with the help of the agencies. These posters are put up in public places such as community halls, schools, and mosques.

### Development of Posters, Fridge Magnets, and Signage

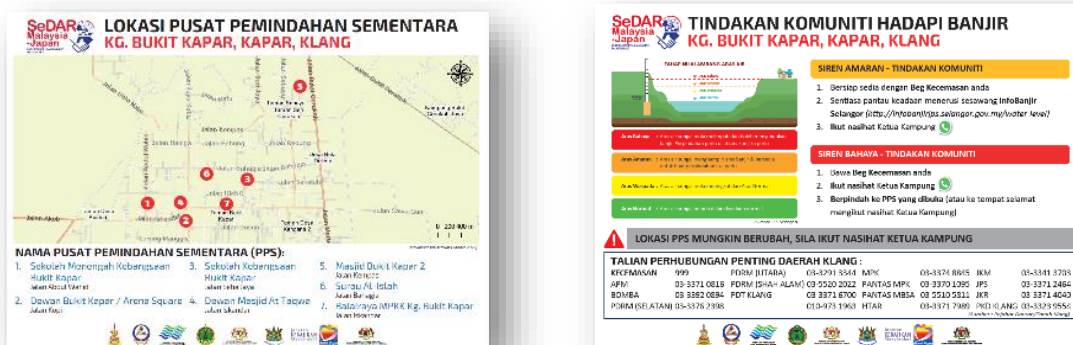
## Posters and Fridge Magnets for Evacuation Centre Locations and Public Warning System Procedures



Examples of A0 and A1-sized evacuation centre location poster

**Output:** 6 poster designs for villages in Kapar showing evacuation centre locations in each village. A total of 150 posters were produced in Kapar, with each village receiving 5 A0-sized posters and 20 A1-sized posters.

In addition, the contents of the posters were made into A5-sized fridge magnets to be placed at handy, prominent place within the residents' homes, such as a refrigerator door. The magnets at the back of the mini-posters will ensure that such information would not get lost or misplaced.



**A5-sized fridge magnets to be put in homes of affected residents**

**Result:** 6 magnet designs for villages in Kapar. Altogether a total of 1,200 pieces were printed for Hulu Langat, with each village receiving fridge magnets for 100 households.

## Signage for Evacuation Centres

**Description:** Signages measuring 2 feet x 3 feet for evacuation centres (PPS) were designed, printed, and distributed for installation at evacuation centre facilities.

Many community members in the Kapar sub-district were unaware of the locations of the evacuation within their areas.

The signage was co-designed with considerable input from the village leaders. The signage was reviewed and verified by the agencies that own/manage the evacuation centre premises such as the Klang District and Land Office, Klang Municipal Council, Selangor Department of Education, and Selangor Islamic Religious Department. The signage has also been endorsed by the National Disaster Management Agency (NADMA).



**Result:** A total of 21 signages was distributed for all the evacuation centres in Kapar

#### Distribution of Posters and Fridge Magnets

### Handover Ceremony of Posters and Fridge Magnets to Communities (December 17, 2023)

**Description:** Official handover of the information sharing material (posters and fridge magnets) to each village leaders in Kapar was carried out, marking the end of the DRR activities in this project area.

**Attendance:** 87

Representative from the Member of Parliament (Kapar)  
Chief Village Leader of Kapar sub-district  
Head of villages and the council members from 6 villages in Kapar  
Residents from housing developments  
Klang District and Land Office (PDT Klang)  
Department of Irrigation and Drainage (JPS) Selangor  
Klang Municipal Government (MPK)

Department of Islamic Religion Selangor (JAIS)  
District Office of Islamic Religion (PAID)  
Department of Education (JPN) Selangor  
District Office of Education (PPD) Klang  
Department of Welfare (JKM) Selangor  
Malaysia Civil Defence Force (APM)  
Selangor Disaster Management Unit (SDMU)  
Universiti Teknologi Malaysia (UTM)

#### Highlights of the Event:

Briefing was conducted on (1) flood early warning system in Kapar, (2) community actions to take when sirens activate, and (3) how to prepare for evacuation.

Certificates of Appreciation to the government agencies that had participated and given support to the SeDAR program were distributed.



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Official handing over of the PPS Location Maps and Fridge Magnets by Prof. Izumi to each village leader.



## 4.4 Kg. Sungai Serai & Hulu Langat Sub-District, Hulu Langat District

Three activities for this project area: (1) Plogging, (2) Community evacuation drill, and (3) Development and distribution of information sharing materials.

### 1. Plogging: Trash Clean-Up to Prevent Flash Floods (September 2, 2023)

**Description:** One-day family day event, which included quizzes, interactive games, and light physical activities to teach how DRR actions such as ‘plogging’ can help mitigate flash floods caused by trash littering and drainage clogging

**Attendance:** 117

Students

Parents

Village leaders

School principal and teachers

Selangor Disaster Management Unit  
(SDMU)

Malaysia Civil Defence Force (APM)

#### Highlights of the Event:

**Plogging field activity** was facilitated by APM, SDMU, Kg. Sg. Serai Village Committee, and SeDAR team

**Briefing on Disaster Risk Reduction & Pop Quiz** was conducted by SeDAR team.

**Prize Giveaway** was carried out for the most volume of trash collected by team.

As the event was family-themed, the families were enthusiastic to take part and thoroughly enjoyed the plogging activity. They were also interested in learning about DRR as it was a new concept to most of them and beneficial as they lived in flood-prone areas.

The DRR briefing was interactive and well received by the participants. Both students and parents enthusiastically took part in the Q&A sessions, which tested the knowledge of the participants from the briefing. Overall, participants understood the DRR briefing and answered the questions well.

**Result:** Participants learned the value of drainage system maintenance and trash clean-up to prevent flash floods.



## 2. Community Evacuation Drill (November 18-19, 2023)

**Description:** A two-day event to have communities (1) become familiarized with community evacuation drill procedures and (2) find out whether the flood sirens can be heard within the community area. Unlike Kapar, the communities in Hulu Langat have conducted evacuation drills but they have been government response drills. Thus, the community evacuation drill is the first such exercise for Hulu Langat.

**Attendance:** 125

- Community members
- Village leaders
- Local NGO for disaster response
- Malaysia Civil Defence Force (APM)
- Selangor Disaster Management Unit (SDMU)

### Highlights of the Event:

#### Pre-Drill Exercise Briefing and Orientation (18 November 2023)

Briefing and orientation on:

- a) upcoming activities for the drill
- b) description of the sirens to be sounded
- c) what actions to take
- d) explanation of the logistics on the day of the drill

#### Community Evacuation Drill Exercise (19 November 2023)

- a) Implementation of the drill – leaving from home to reaching the evacuation centre
- b) Registration
- c) Participate in Feedback Session conducted by SeDAR team

#### Feedback Session

- a) Finding on the flood siren - Found out that the flood siren nor the mosque announcement **cannot be clearly heard** by the drill participants
- b) Arrival at evacuation centre - Most of the participants came by foot (97%) rather than by foot (2%). Majority of them (98%) came directly from their homes
- c) Flood experience – Almost all participants (99%) have experienced flood disaster before
- d) Flood warnings and sirens – Most of the participants (92%) have never heard sirens before and 14% said they only knew about the flooding when water entered the home, 18% said visual observation of river and drains, 12% said social media such as WhatsApp, 4% said neighbours informed them, and 1% said emergency first responders came to their homes.
- e) Location of evacuation centre – Fifty percent (50%) said they did not know the location of the evacuation centre prior to the drill exercise.
- f) Potentially dangerous locations along evacuation route – many identified open drains that they can fall into and get swept away in the current
- g) Potential obstacles or challenges in a real flood situation – not wanting to evacuate over concerns over loss of valuable or personal items, floating debris, strong currents to wade through, lack of support for the elderly, physically disabled or people with children



- h) Knowledge of the flood evacuation process – Before this drill, 90% said they knew very little or knew a little about the evacuation process
- i) Residents requiring assistance - Families with elderly and disabled reported that they had difficulties to evacuate and needed outside assistance
- j) Protection of Belonging and Assets - Also, during an actual flood, most would prioritize transferring their vehicles to higher ground beforehand
- k) Resistance to evacuation - It was further noted that some community members would only evacuate if they thought the flood was inevitable.
- l) Overall, the community was very engaged as they had all experienced flood disasters and had been interested in participating in the exercise.

**Result:** All member of the community understood the importance of pro-active, community-led actions in DRR. Since the drill event, leaders have initiated actions of their own to solve issues and obstacles that prevent them from better preparedness towards flood disasters, such as preparing a list of residents requiring assistance during evacuation.



### 3. Development and Distribution of Information Sharing Materials: (1) Evacuation Centre Location & (2) Public Warning System Procedures

**Description:** Posters and fridge magnets showing the names and locations of the evacuation centres in the villages and public warning system procedures were created. Similar to Kapar, residents in Hulu Langat did not know or vaguely knew the locations of the evacuation centres in their communities. They also did not know the course of action to take when the flood siren or alert is activated.

Public warning procedures for communities had not been formally established by the government. Therefore, in collaboration with the chief village leaders, community leaders, district offices, and the state/district Department of Irrigation and Drainage, the public warning steps were identified. The locations of the evacuation centres were also confirmed and verified with the help of the agencies. These posters are put up in public places such as community halls, schools, and mosques.

#### Development of Posters, Fridge Magnets, and Signages

### Posters and Fridge Magnets for Evacuation Centre Locations and Public Warning System Procedures

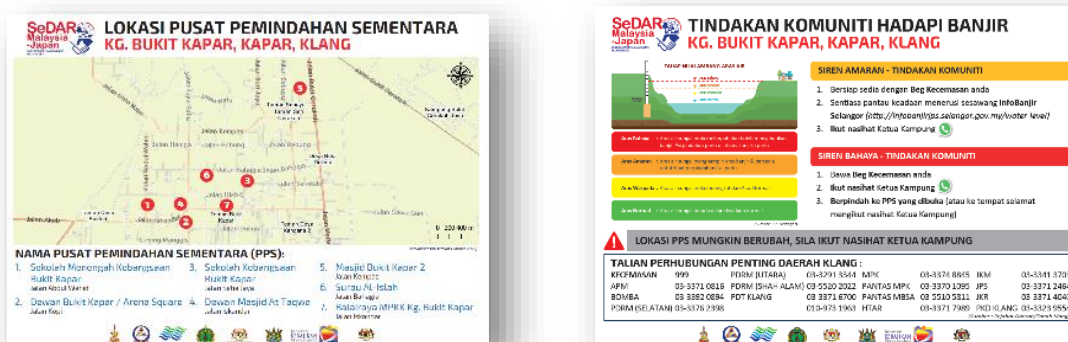


Examples of A0 and A1-sized evacuation centre location posters

**Output:** 14 poster designs for villages in Hulu Langat showing evacuation centre locations in each village. A total of 182 posters were produced in Hulu Langat, with each village receiving 3 A0-sized posters and 10 A1-sized posters.



In addition, the contents of the posters were made into A5-sized fridge magnets to be placed at handy, prominent place within the residents' homes, such as a refrigerator door.



*A5-sized fridge magnets to be put in homes of affected residents*

**Result:** 14 magnet designs for villages in Hulu Langat. Altogether a total of 1,400 pieces were printed for Hulu Langat, with each village receiving fridge magnets for 50 households.

## Signage for Evacuation Centres

**Description:** Signages measuring 2 feet x 3 feet for evacuation centres (PPS) were designed, printed, and distributed for installation at evacuation centre facilities.

Many community members in the Hulu Langat sub-district were unaware of the locations of the evacuation within their areas.

The signage was co-designed with considerable input from the village leaders. The signage was reviewed and verified by the agencies that own/manage the evacuation centre premises such as the Hulu Langat District and Land Office, Kajang Municipal Council, Selangor Department of Education, and Selangor Islamic Religious Department. The signage has also been endorsed by the National Disaster Management Agency (NADMA).



**Result:** 28 signages for all the evacuation centres in Hulu Langat sub-district



## 5 Reports, Publications and Videos

### 5.1 DRR Risk Report

The ‘Disaster Risk Report: Understanding Landslide and Flood Risks for Science-Based Disaster Risk Reduction in the State of Selangor’ explains the role of science in risk analysis and describes the disaster scenario in the state of Selangor as well as the country. The Report then goes into detail on science-based risk identification for each of the 4 project area identified for this project, which are: Ulu Klang (Gombak District), Batu 14 (Hulu Langat District), Kg. Sungai Serai (Hulu Langat District), and Kg. Tok Muda, Kapar (Klang District).

Because of this report, communities understood the reason behind the natural disaster incidents happening in their area and the government agencies realized the importance of a publicly available risk report as a tool for communicating risk to affected communities.



### 5.2 TOT Guidebook

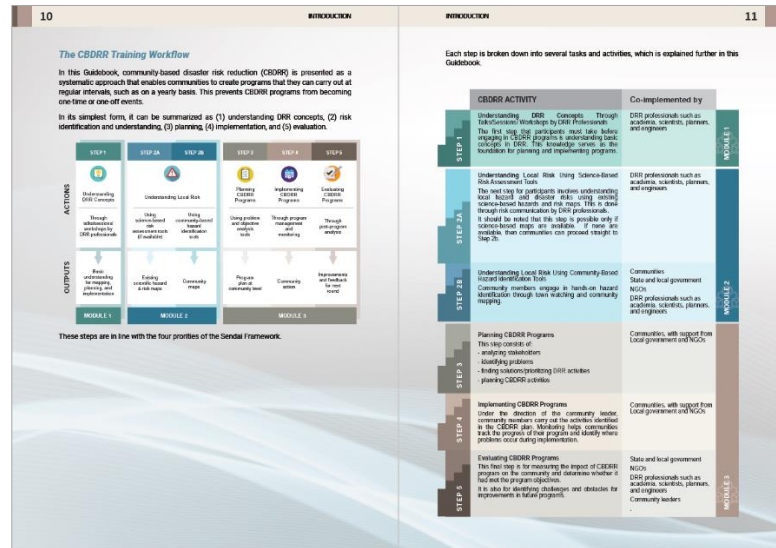
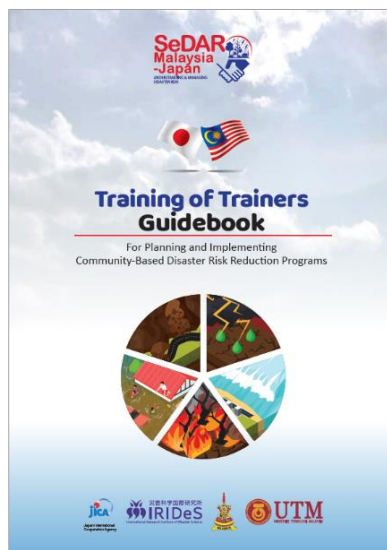
To carry out Training-of-Trainers activity in this Program, a guidebook had to be created. The ‘Training of Trainers Guidebook for Planning and Implementing Community-Based Disaster Risk Reduction Programs’ is a step-by-step manual comprising three modules: (1) Understanding DRR Concepts, (2) Understanding Local Risks, and (3) Planning, Implementing and Evaluating CBDRR Programs. Module 3 is particularly useful as it states the key success factors of CBDRR programs and how to sustain CBDRR programs.

There are also annexes that contain useful information. Annex 1 provides step-by-step instructions on how to plan CBDRR activities while Annex 4 provides a toolkit of CBDRR exercises and games.

This publication describes the first systematic, step-by-step approach to the CBDRR process introduced in the state of Selangor. It has crystallized into one publication all the steps, the training tool aids and guidelines needed for an integrated approach to CBDRR.

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## 5.3 Brochures

Three sets of brochures were produced under the SeDAR Program. One brochure explains the JPP SeDAR Program, another explains what is CBDRR and how to carry out CBDRR programs, and the last is about the Community DRR Resource Centre. All are available in English and Malay languages.



About the JPP SeDAR Program (English)



About the JPP SeDAR Program (Malay)



# FINAL REPORT

## SeDAR JICA PARTNERSHIP PROGRAM



On CBDRR (English and Malay)



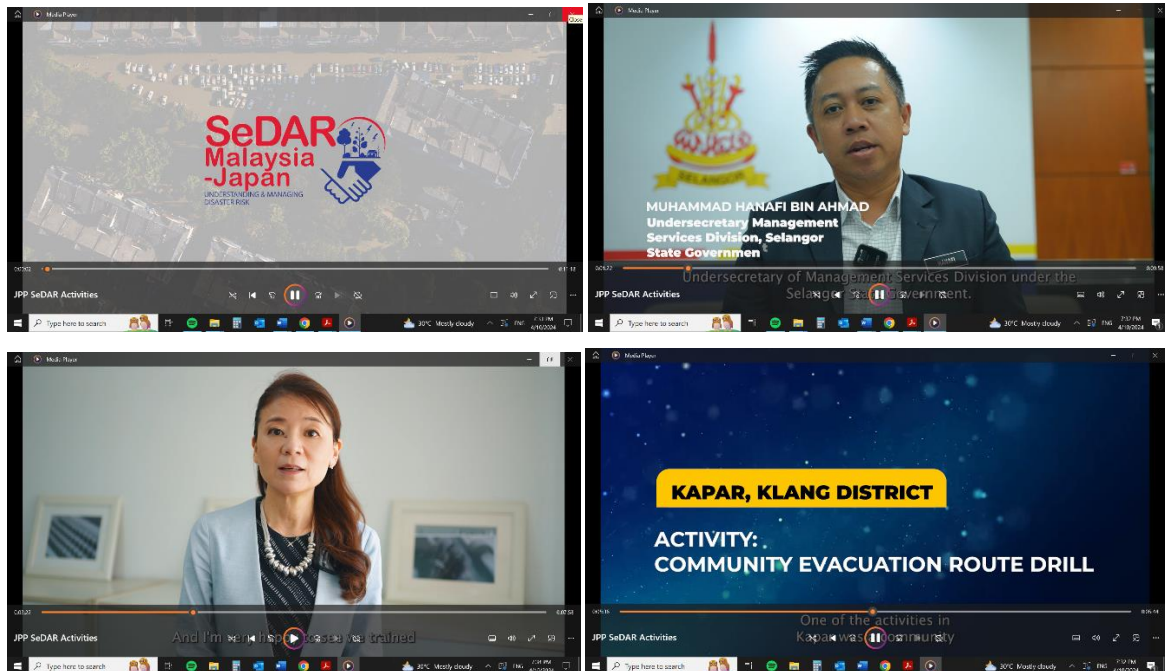
About the Community DRR Resource Centre (English and Malay)



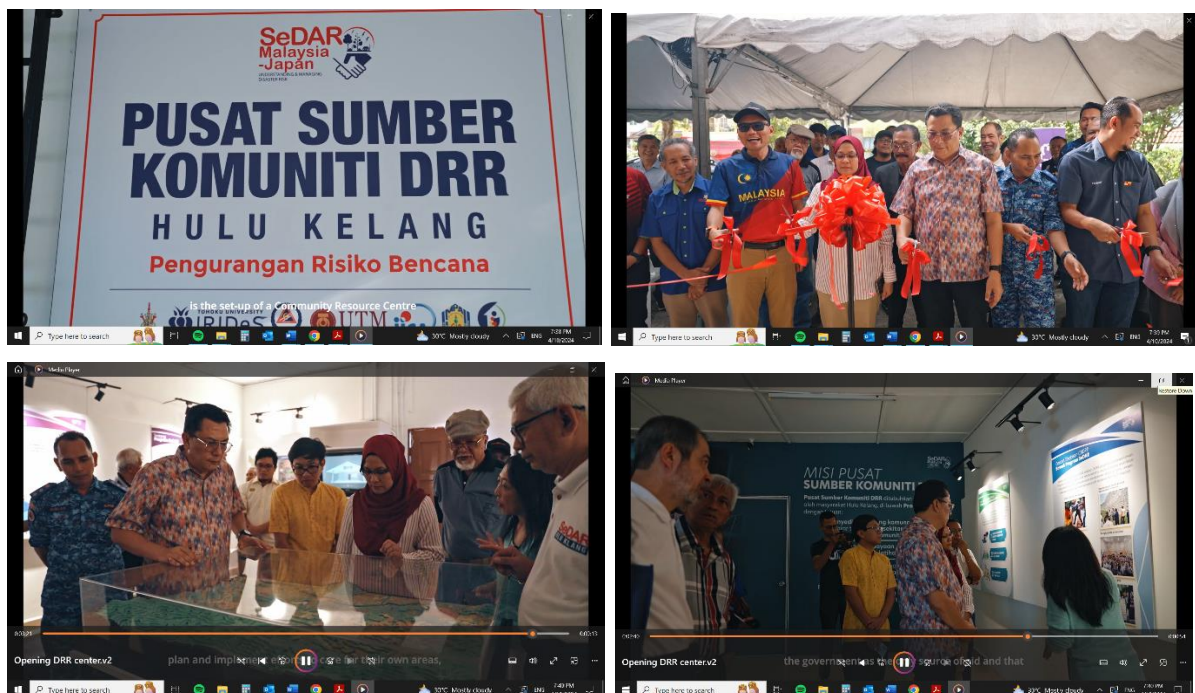
## 5.4 Videos

A total of 3 videos were produced under the SeDAR Program, which are (1) CBDRR Activities in the Four Project Areas, (2) Introduction to the Community DRR Resource Centre, and (3) Instructional Video on How to Conduct a Community Evacuation Drill.

### CBDRR Activities in the 4 Project Areas



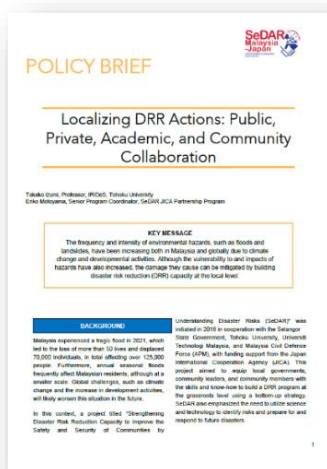
### Introduction to the Community DRR Resource Centre



## Instructional Video on How to Conduct a Community Evacuation Drill



## 5.5 Policy Brief



Towards the end of the SeDAR Program, a Policy Brief that summarized the project's achievements, challenges and policy recommendations was drafted. It draws upon the experiences and observations made during the course of project implementation as well as outlining the SeDAR methodology for CBDRR process. The recommendations provide direction for future CBDRR initiatives in the state of Selangor moving forward. The Policy Brief was presented at the DRR Symposium in October 2023 and distributed to various state agencies.

Eight (8) recommendations were made in the Brief, which are:

1. Set up a data hub to ensure the collection and storage of data, sharing them for risk analysis and identification, and strengthening the application of science and technology.
2. Increase disaster education at schools and public awareness raising on DRR.
3. Strengthen early warning systems and risk communication.
4. Government to support communities to initiate CBDRR and communities to combine DRR into their everyday lives.
5. Increase communication between local governments and communities.
6. Allocate a budget for or invest in DRR activities for both structure and non-structural measures.
7. Design a DRR program with a timeframe at least for 2-3 years.
8. For future consideration: incorporate the concept of 'Inclusivity' into the CBDRR program.



## 6 Challenges

There have been a number of challenges faced during the course of the implementation of the SeDAR program. They are listed as follows.

### 1. Collecting and accessing the data necessary for risk identification and modelling

- i. Identifying, analysing, and understanding risks through collection of relevant data is the first step of DRR. The results from these data can be used to make decisions on how best to prepare for, respond to, and recover from disasters.
- ii. Disaster risks can be understood through the lens of science and technology, for instance through the application of remotely sensed and real-time digital data.
- iii. However, countries have difficulties tracking and maintaining records of disasters and damage from these disasters, as well as sharing the data among policy makers and government agencies due to the lack of resources and staff turnover.

### 2. Changing the mindset that DRR and management is solely the responsibility of the government

- i. Governments are responsible for taking the initiative to reduce and manage disaster risks, allocating budgets for DRR activities, training human resources, adopting science and technology for improvement, establishing networks and coordination mechanisms among various stakeholders, installing early warning systems, implementing disaster awareness and education programs, among others.
- ii. However, it is not possible for governments to carry out all these activities on their own.
- iii. Communities can also take the initiative on numerous activities as they are familiar with the local situation and are therefore in the best position to propose solutions.

### 3. Access to early warning and clear risk communication

- i. Early warning is a major element in DRR, as it could help in making the decision to evacuate and take timely action to protect lives. Early warning systems are integrated systems for hazard monitoring, forecasting, prediction, disaster risk assessment, communication, and preparedness activities and processes. Therefore, it is essential for government agencies to collaborate in issuing timely and accurate warning signs.
- ii. However, warning alerts often do not reach the communities at risk, owing to technical problems and a general lack of knowledge of what these alerts mean.
- iii. Thus, early warning systems are more effective when implemented through effective risk communication using multiple and clear communication channels and steps.

### 4. Understanding the relationship between environmental issues and disasters

- i. Climate-related hazards such as floods and landslides have been increasing recently due to climate change. However, the link between environmental issues and DRR is not clearly understood by the public.
- ii. One of the target communities in the project identified solid waste dumping and the accumulation of dumped garbage, which increases flood risk by blocking flood water from receding. There is also the possibility of small fires in the garbage.
- iii. By properly disposing garbage and maintaining a clean and safe environment, they could reduce these disaster risks.

**5. Low interest in pre-disaster (DRR) and high interest in post-disaster (rescue and relief efforts) by government agencies**

- i. It is essential for governments to respond urgently and effectively to any emergency. They must also strengthen their capacity to save lives and provide immediate support.
- ii. However, they need to understand that investing in and conducting DRR before an emergency occurs are an effective means of reducing its impact. Merely strengthening response capacity is not sufficient to mitigate damage or save people's lives from future disasters. DRR efforts require a varied, multi-prong approach, and risk reduction is a long-term process.
- iii. Therefore, it is important for governments to understand the importance of DRR, initiate efforts urgently, lead related processes, and establish a platform or mechanism for effective collaboration among stakeholders.



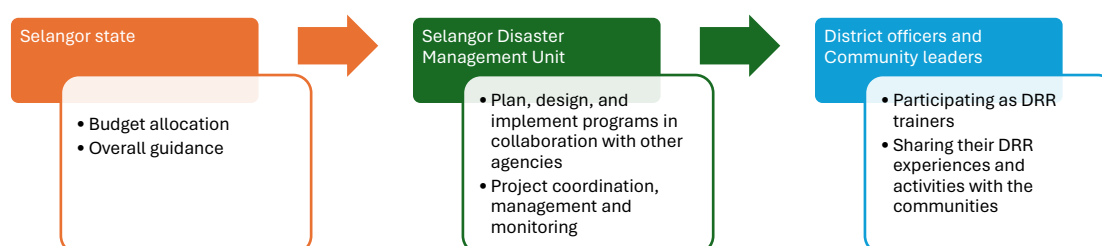
## 7 Project Impact

The SeDAR program has resulted in 3 major impacts.

### 7.1 Established a Mechanism for Enabling Local Governments and Communities to Plan and Implement CBDRR

This project has established a mechanism to plan and implement CBDRR in Selangor by local stakeholders. Towards the end of the project, the State Government announced its commitment to an annual budget to replicate the CBDRR activities in other districts in Selangor using the same process and methodology developed under the SeDAR project. The Selangor Disaster Management Unit (SDMU) plans, designs, and implements the activities in collaboration with other government agencies such as the Malaysia Civil Defense Force. The district government officials and the community leaders trained as DRR trainers through the SeDAR project play an important role as trainers at future trainings and workshops in other areas in Selangor.

The institutionalization of DRR at the state level and the involvement of local government and agencies and the community leaders ensured sustainability and continuity of DRR activities, which was one of the goals of the SeDAR program.



Prior to the SeDAR program, disaster management in the state of Selangor had focused predominantly on disaster response and recovery. While pre-disaster actions (disaster risk reduction) were carried out, they were not done within the context of an established and systematic framework.

The SeDAR program has been instrumental in setting up such a framework. SeDAR has created a pathway for the Selangor State Government to institutionalize and formalize a DRR infrastructure at the state level.

**Impact:** In light of the achievements made under the program, the Selangor State Government has designated the program as a model for future DRR initiatives in the state.

To maintain continuity and sustainability of the SeDAR program, the Chief Minister of Selangor has committed to allocate a budget for training-of-trainers programs to be carried out in 9 districts within the state at the 2024 Budget State Assembly Conference. According to the Selangor Disaster Management Unit, this will be followed by the next phase of the DRR program in the following year.

This financial commitment by the Selangor State Government is testament to the success of the SeDAR program.



## 7.2 Change in Mindset/DRR Becoming a Part of Everyday Life

After 5 years of the SeDAR project, the community members have changed their mindset and attitudes, which have resulted in proactive behavior and practices that incorporate DRR into their regular community activities. These changes were presented at the 2023 Symposium by the community leaders who spoke about the changes made in their communities in mindset and action. The changes made included (1) increased knowledge about DRR, (2) understanding the causes of the disasters in their communities, (3) importance of inclusive, communal effort, (4) strengthening the collaboration between residents and community leaders and between the authorities and the communities, (5) increasing awareness on environmental changes and issues, and (6) understanding the effectiveness and benefit of the use of the scientific data in explaining disaster risks.

A constant theme throughout the course of the SeDAR program has been the need to change the mindset of the community members so that DRR becomes a part of everyday life. In discussions and surveys taken among the community members, they said that prior to SeDAR, they had not heard of DRR as a concept, let alone conduct activities in DRR. Time and time again, community leaders bemoaned the fact that community members were apathetic and indifferent to any proactive actions that would prevent or mitigate the impacts of disasters in their areas.

Examples of the changes are:

1. **Community leaders are able to share DRR knowledge to their communities –** Increased knowledge about DRR and understanding the causes of the disasters in their communities have enabled community leaders and local champions to present and teach others.



2. **Communities' proactive abilities to come up with DRR actions and solutions to address issues and problems**– Community leaders have started engaging in proactive actions. An example is the preparation of a list of people requiring assistance during evacuation such as the physically disabled and the elderly residents, which they identified as a need after conducting the community evacuation drill.

### Forms for Residents Requiring Assistance during Community Evacuation

The image shows two forms used for identifying residents who need assistance during community evacuation. The left form, titled 'DATA PROFIL PENUNJUT PENDUDUK JALAN', is a table for recording personal and household information. The right form, titled 'SENARAI NAMA PENDUDUK ZON BENCANA 130', is a list of names for residents in a specific disaster zone.

NO.	NAMA KELUARGA	NO. KP	NO. TELEFON	BANGSA	BL. DP	UMUR	SEKSU	STATUS
1.								
2.								
3.	YUSUF BIN HALLAN	640121-20-5768	03-220476	MY	3	63-31	SEKOR	MERTUAKA
4.								
5.								
6.								
7.								
8.								

NO.	NAMA JALAN	NAMA KOTA	NO. HP
1.	Jalan Lenggong	Intan	
2.	Jalan Intan 8		
3.	Jalan Intan 9		
4.	Jalan Intan 10		
5.	Jalan Intan 11		
6.	Jalan Intan 12		
7.	Jalan Intan 13		
8.	Jalan Intan 14		

NO.	NAMA JALAN	NAMA KOTA	NO. HP
1.	Jalan Intan 15		
2.	Jalan Intan 16		
3.	Jalan Intan 17		
4.	Jalan Intan 18		
5.	Jalan Intan 19		
6.	Jalan Intan 20		
7.	Jalan Intan 21		
8.	Jalan Intan 22		

3. **Resource centre management** – The concept/idea of establishing a DRR resource center came from the community members themselves. They then proceeded to develop and manage the Centre on their own. A group of volunteers from the community have been trained as tour guides to the poster gallery at the DRR Resource Centre. They are well-equipped for this role as they are also community trainers under the SeDAR program. They are eager for more workshops and training related to DRR at the Centre and further develop it as a knowledge hub within the community.

**Impact:** Community members have an increased awareness and understanding of local risks and DRR practices, which has resulted in behavioural changes

## 7.3 Created a Network of DRR Collaborators at the Government and Community Level

The SeDAR program has created a DRR network of many players with diverse profiles and skills to contribute to a synergy of DRR planning and implementation. Although the SeDAR project initially involved only a few players—IRIDeS, SDMU, UTM and APM—many other agencies have joined such as the Department of Mineral and Geoscience, Department of Irrigation and Drainage, the Public Works Department, Department of Education, Selangor Islamic Religious Department, and others.

Likewise, at the community level, community leaders have realized the importance of communal effort such that the entire community needs to cooperate and be committed, not just the community leaders. Inclusivity was one of the key points that they have realized.

And under SeDAR, these two groups—government agencies and communities—have worked together to forge a deepened community-government working relationship. Prior to SeDAR, there was no platform for these two groups to collaborate at this level. It is anticipated that communities shall maintain the close relationship with government agencies by keeping lines of

communication open and working together. Additionally, it is vital for communities to continue receiving technical and funding support from the government to sustain DRR at the community level.

Government agencies have expressed similar aspirations during the course of the project, and with the continued collaboration between government and communities, DRR activities can be sustained and continued long after the SeDAR program has ended.

**Impact:** Beyond the program partners (IRIDeS, Selangor Disaster Management Unit, Malaysia Civil Defence Force and Universiti Teknologi Malaysia), more government agencies became involved in the SeDAR program, resulting in a network of DRR experts. The DRR experts were also encouraged to further engage with communities and utilize their technical knowledge to increase the community's awareness. SeDAR succeeded in enabling the development of strong ties and relationships between the local government and the communities, and this will significantly contribute to planning, implementation, and continuity of DRR activities into the future.





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