

RESILIENCE LIVING LAB (RLL)



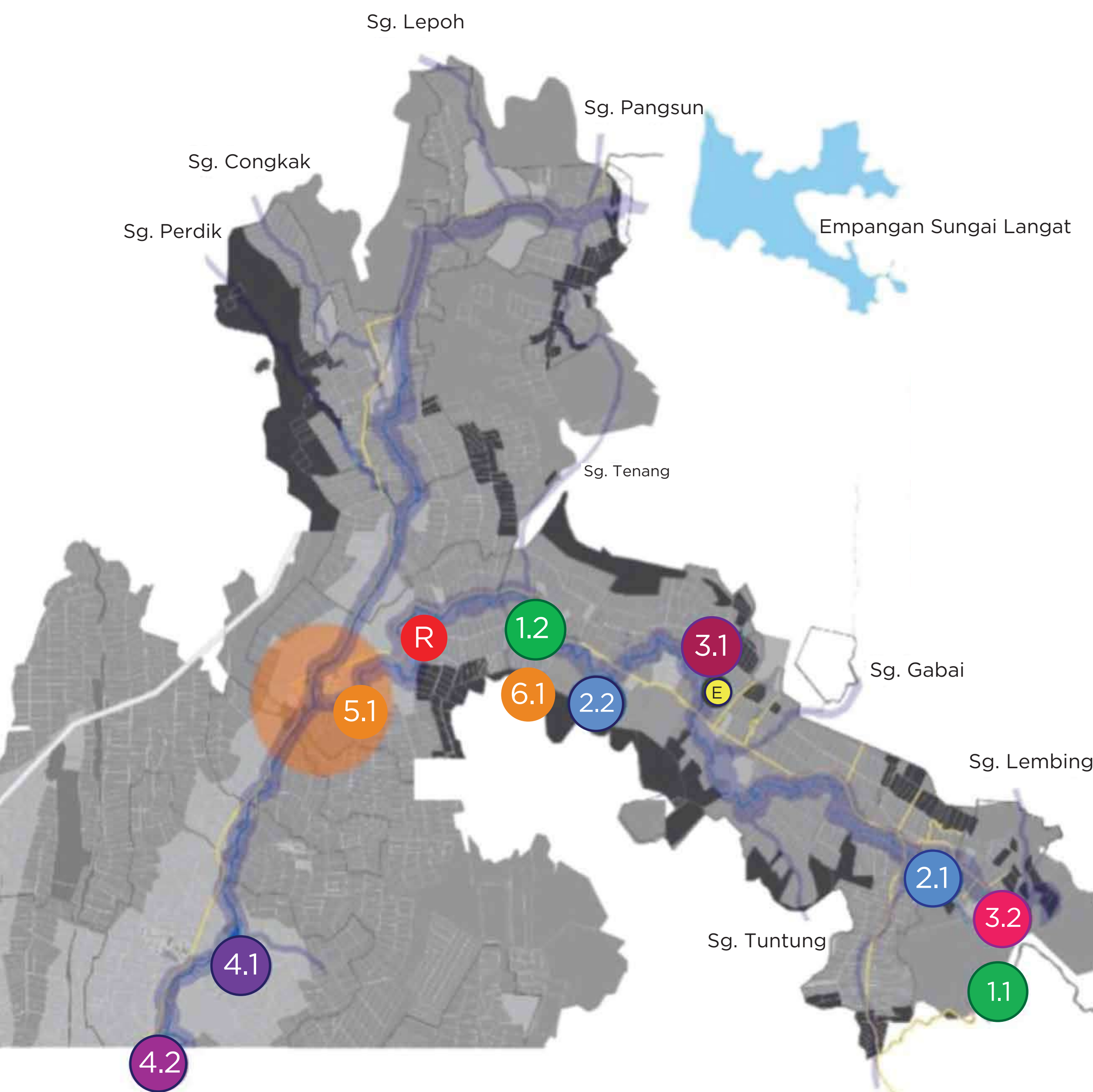
COMMUNITY-LED DRR INITIATIVE

A new place-based experiential learning, knowledge-driven, innovation, and people-centred for local disaster risk reduction (DRR) action. It is grounded in adaptive- and resilient recovery.

COMMUNITY-LED DRR INITIATIVE

- RLL provides new insights into knowledge exploration and building resilience culture through on-site experiential learning and local DRR action
- It supports continuous applied research, smart innovation & education across sectors, and humanitarian-development nexus (HDN) challenges.

COMPONENTS IN RLL



- Flood Prone Area Pekan Batu 18
- Flood Zone
- 1.1 Resilient Infra - Retaining Wall
- 2.1 WASH Community
- 3.1 Elevated Flood Resilient House
- 4.1 Early Warning System - EWS
- 5.1 One-Stop Command Centre (OSCC)
- R DRR Education Hub
- E Evacuation Centre Community Hall Batu 20
- 1.2 Resilient Infra - Rapid Construction of Bailey Bridge
- 2.2 Nature-Based Solution
- 3.2 Resilient Resettlement & Shelter - Payar Lebar Orang Asli Village
- 4.2 Post-Disaster Livelihood - Community Farming
- 6.1 Post-Disaster Livelihood - Pak Tam's Stall



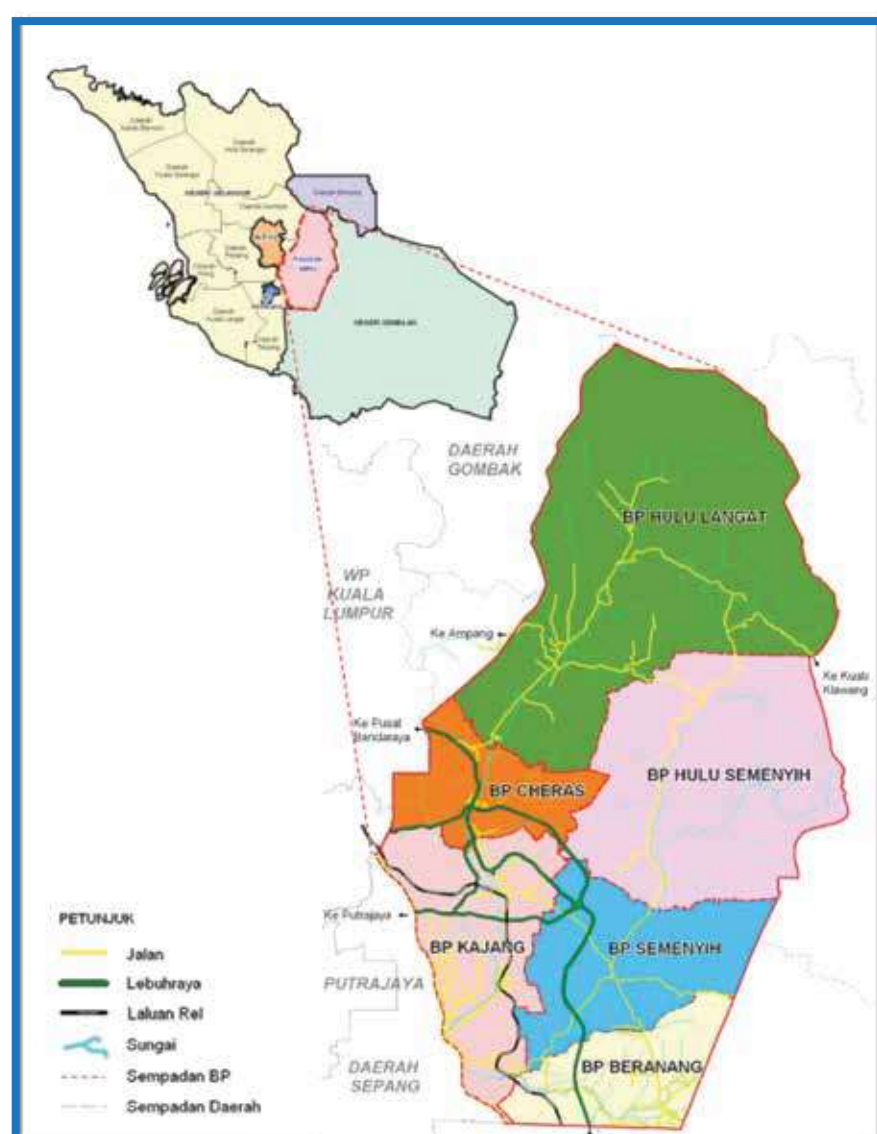
DISTRICT OF HULU LANGAT, SELANGOR



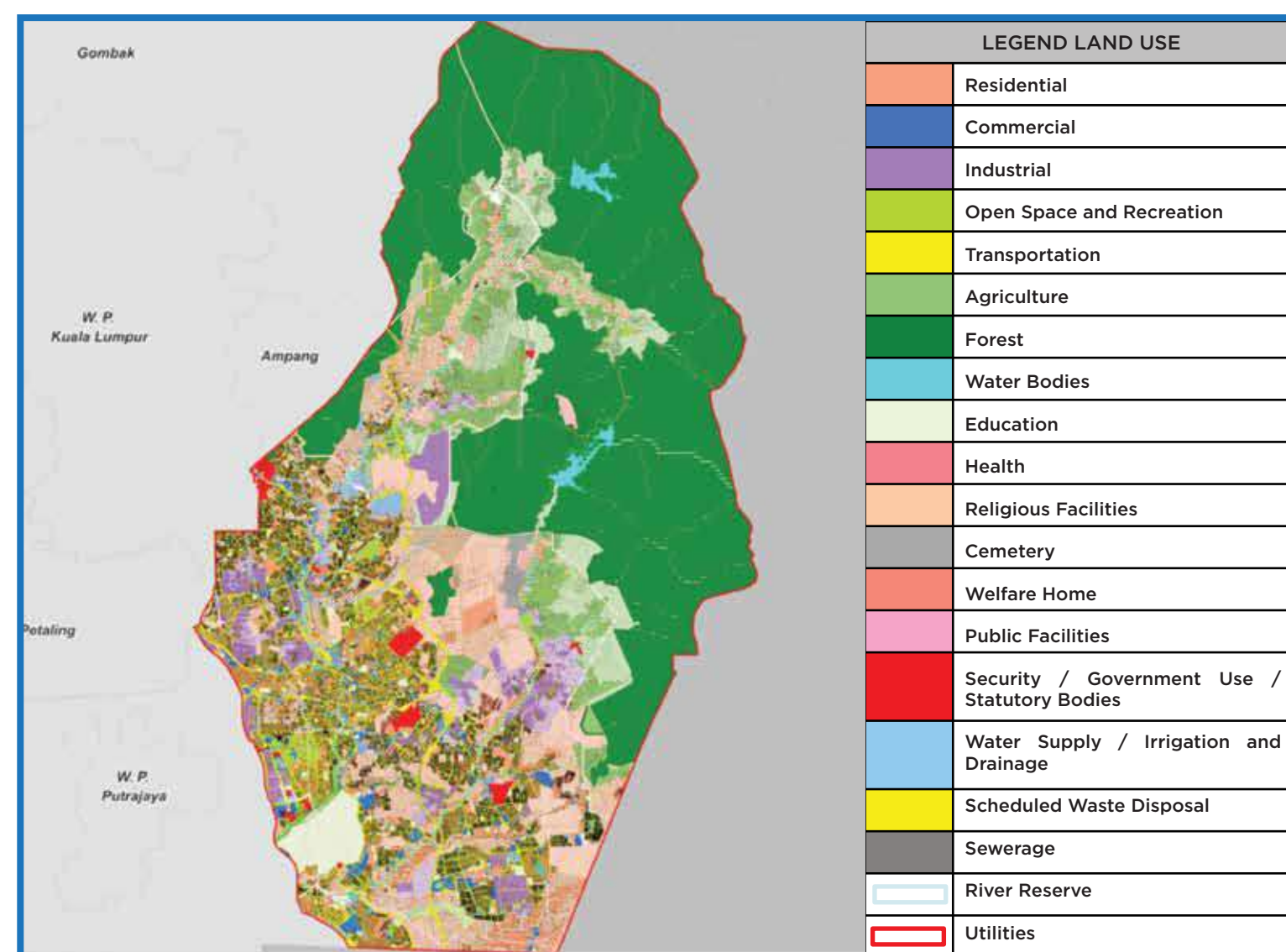
MULTI-HAZARD RISK PROFILE & LANDUSE PLANNING IN HULU LANGAT

Hulu Langat is the 5th largest district in Selangor state, with an area of 840 km² and the second most populous district with a population of 1,400,461 (Census, 2020), covering an area of approximately 840 square kilometres in the southeastern corner of the state, between Kuala Lumpur, Pahang and Negeri Sembilan. It is also the second most densely populated district with approximately 1688 people/km² in Selangor, with most of its administrative divisions now falling under the Kajang Municipal Council (MPKj). Currently, Hulu Langat is under Hulu Langat federal parliamentary constituency and at the state level is under Dusun Tua.

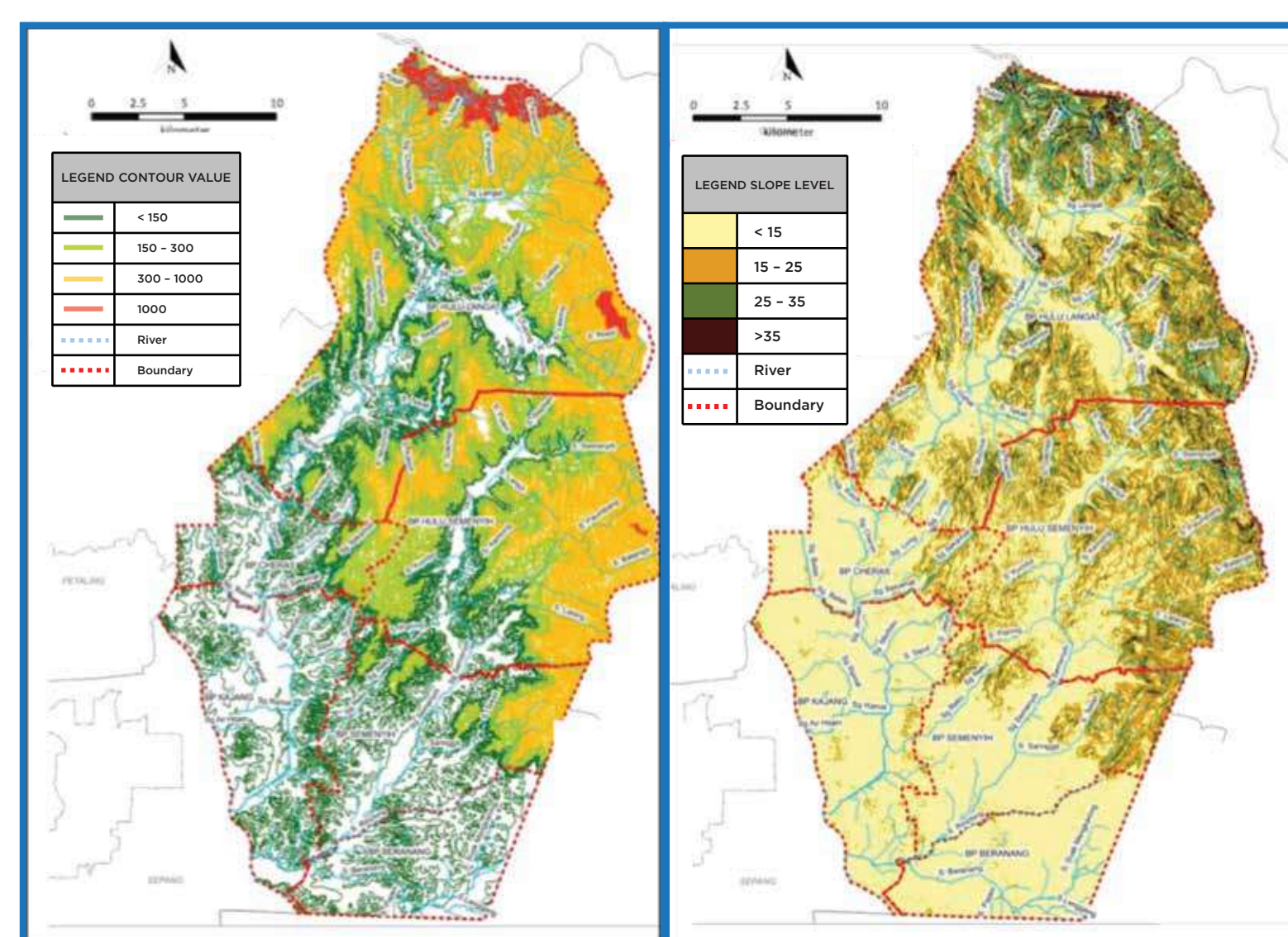
KEY PLAN OF HULU LANGAT



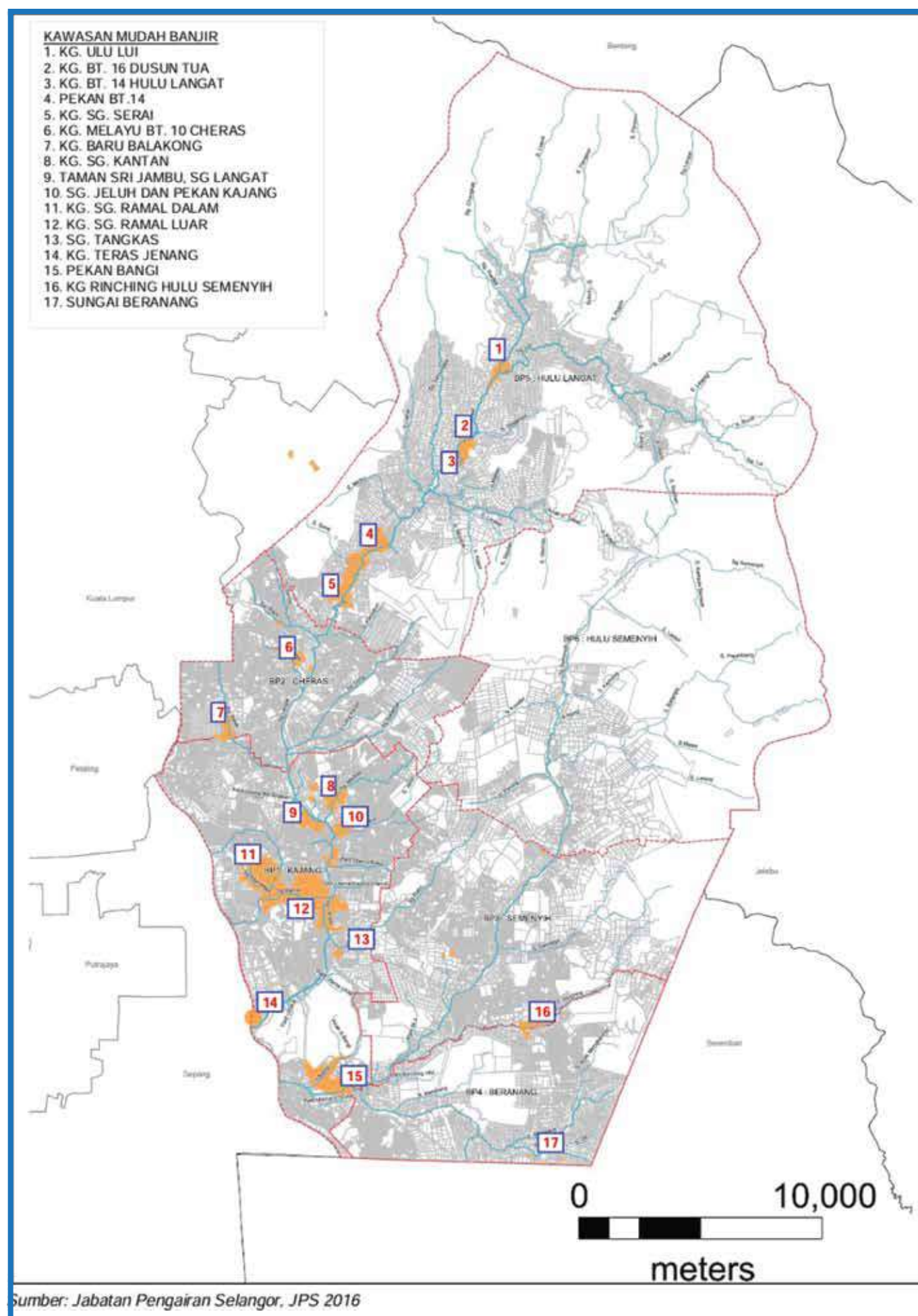
LAND USE PLAN OF HULU LANGAT



TOPOGRAPHY AND SLOPE PLAN OF HULU LANGAT



HISTORY OF FLOOD-AFFECTED AREAS IN HULU LANGAT BEFORE TRAGEDY 2021



POPULATION PROJECTIONS 2015 - 2035

Mukim	2015	2016	2017	2020	2025	2030	2035	KPPT (%)
Beranang	73,70	76,700	81,200	105,70	111,60	131,70	166,00	4.14
Cheras	283,80	291,80	301,40	308,80	325,70	340,00	351,10	1.07
Kajang	397,90	412,40	422,10	433,30	457,30	480,00	499,50	1.14
Semenyih	124,30	128,50	131,90	146,20	154,30	184,60	247,00	3.49
Hulu Langat	60,50	60,900	61,100	62,300	65,900	72,800	81,000	1.47
Hulu Semenyih	3,800	3,800	3,800	3,800	4,000	4,500	5,500	1.87
Jumlah	944,00	974,10	1,001,50	1,060,10	1,118,80	1,213,60	1,350,10	1.81

Sumber: i) Jabatan Perangkaan Malaysia (data penduduk bagi tahun 2015 dan 2020)
b) Kajian RT MPKj Selangor 2035 (Penggantian)

RURAL SETTLEMENT IN DISTRICT HULU LANGAT

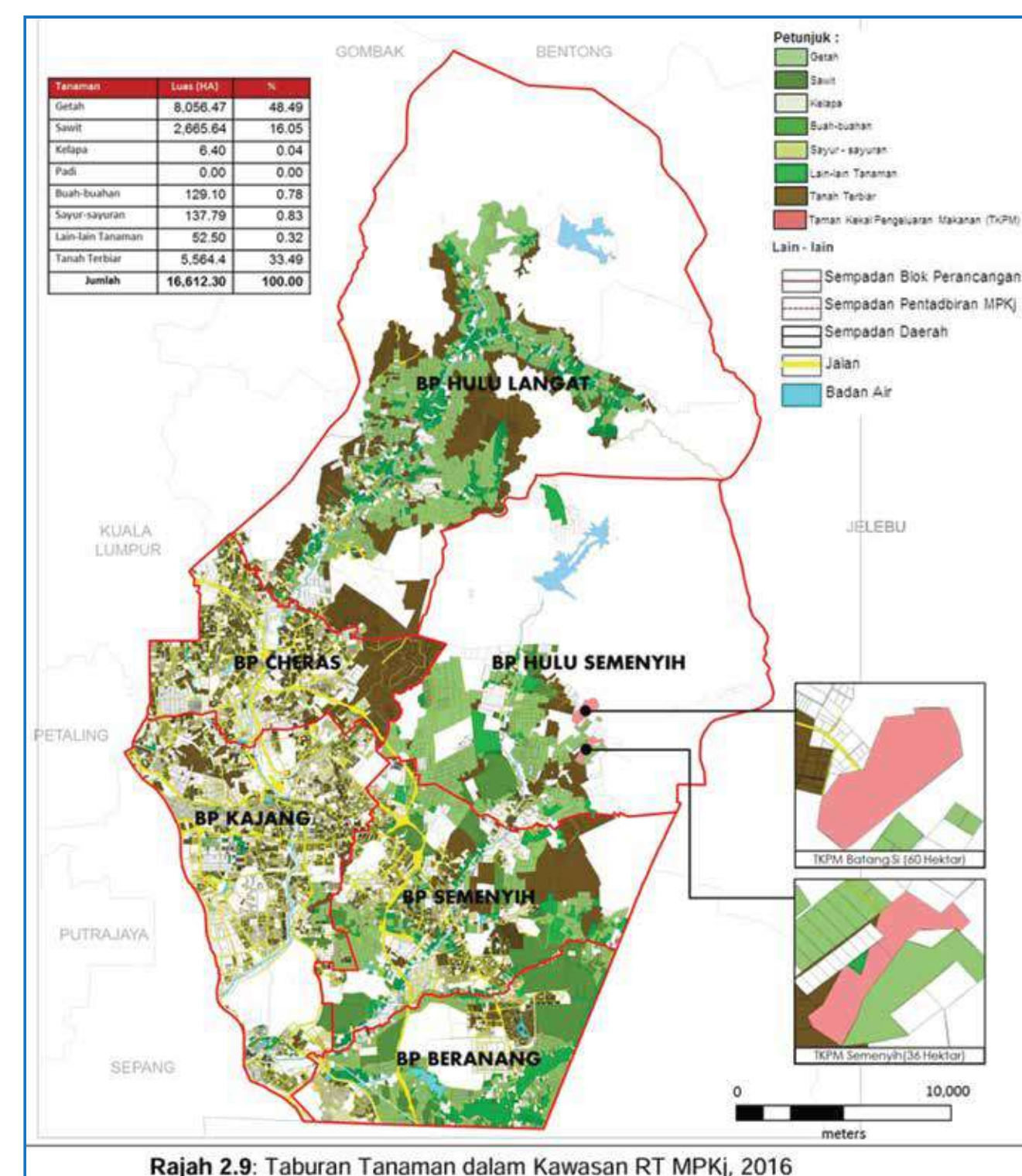
Blok Perancangan	Jumlah Kampung Mengikut Jenis Petempatan Desa			
	Kg. Tradisi	Kg. Baru Cina	Kg. Org Asli	Petempatan Ladang
BP1 Kajang	10	3	-	1
BP2 Cheras	5	3	-	-
BP3 Semenyih	7	2	1	4
BP4 Beranang	11	-	-	1
BP5 Hulu Langat	14	2	6	-
BP6 Hulu Semenyih	1	-	2	-
JUMLAH	48	10	9	6

Sumber: i) Pejabat Tanah Daerah Hulu Langat, 2016
ii) Pejabat Kemajuan Orang Asli Daerah Hulu Langat, 2016

HULU LANGAT DISTRICT FLOOD AREA

Bil	Lokasi	Punca Banjir
1.	Kg. Ulu Lui	• Kawasan tanah rendah • Limpahan air dari Sg. Langat dan Sg. Lui
2.	Kg. Bt. 16 Dusun Tua	• Tidak benteng penahan banjir di sepanjang sungai • Kawasan tanah rendah dan terletak di muara tebing Sg. Langat • Banjir kilat jika hujan lebat melebihi 2 jam • Limpahan dari Sg. Langat
3.	Kg. Bt. 14 Hulu Langat	• Kawasan tanah rendah di sepanjang Sg. Langat, Sg. Tekali dan Sg. Semunggis • Limpahan air dari sungai-sungai berdekatan • Sistem perparitan tidak mampu menampung kadar aliran air yang tinggi
4.	Pekan Bt. 14	• Kawasan tanah rendah sepanjang Sg. Langat • Limpahan air dari Sg. Langat • Penyempitan sungai akibat jambatan yang melintasi Sg. Langat ke Sg. Tekali
5.	Kg. Sg. Serai	• Keadaan Sungai Serai yang sempit • Kawasan tanah rendah dan limpahan air dari Sg. Langat • Limpahan air dari Sg. Langat ketika hujan lebat • Sistem perparitan yang tidak menyeluruh
6.	Kg. Melayu Bt. 10 Cheras	• Kawasan tanah rendah di tebing Sg. Langat • Limpahan air dari Sg. Langat ketika hujan lebat • Sistem perparitan yang tidak menyeluruh
7.	Kg. Baru Balakong	• Kawasan tanah rendah dan penduduk yang padat • Sistem perparitan yang tidak menyeluruh dan sempurna • Laluan aliran yang tidak teratur
8.	Kg. Sg. Kantan	• Kawasan tanah rendah dan limpahan air dari Sg. Langat • Limpahan air dari Sg. Langat • Sistem perparitan yang tidak menyeluruh
9.	Tmn Sri Jambu	• Kawasan tanah rendah dan limpahan air dari Sg. Langat • Limpahan air dari Sg. Langat
10.	Sg. Jeluh Dan Pekan Kajang	• Pembentukan kekotak yang kecil melintasi lautan keretapi • "Twin Box Culvert" yang tidak mencukupi untuk menampung aliran air Sg. Jeluh
11.	Kg. Sg. Ramal Dalam	• Penyelenggaraan yang tidak sempurna di Sg. Ramal • Limpahan air Sg. Ramal ketika banjir lebat
12.	Kg. Sg. Ramal Luar	• Sistem perparitan yang tidak menyeluruh • Longkang-longkang kecil tidak mampu menampung air larian yang tinggi
13.	Sg. Tangkas	• Limpahan dari kawasan hulu Sungai Reko yang sempit • Penyelenggaraan yang tidak sempurna di Hulu Sungai Reko • Sistem perparitan yang tidak menyeluruh
14.	Kg. Teras Jenang	• Kawasan tanah rendah terletak di tebing Sg. Langat • Limpahan air dari Sg. Langat • Sistem perparitan yang tidak menyeluruh • Sistem penyelenggaraan yang tidak menyeluruh
15.	Pekan Bangi	• Kawasan tanah rendah terletak di tebing Sg. Langat • Limpahan air dari Sg. Langat • Pencemaran di sistem perparitan yang tersumbat menyebabkan banjir • Sistem penyelenggaraan yang tidak menyeluruh
16.	Kg. Rinching Hulu Semenyih	• Kawasan tanah rendah terletak di tebing Sg. Rinching • Limpahan air dari Sg. Rinching • Tidak benteng penahan banjir di sepanjang sungai • Sistem perparitan yang tidak menyeluruh
17.	Sungai Beranang	• Pembangunan yang pesat dari kawasan bersempadan • Penyelenggaraan yang tidak sempurna di Sg. Beranang • Sistem perparitan yang tidak menyeluruh

AGRICULTURAL AREA IN DISTRICT HULU LANGAT



MAIN TOURISM PRODUCTS IN DISTRICT HULU LANGAT

1. Bukit Broga
2. Gunung Nuang
3. Hutan Lipur Sungai Congkak, Hulu Langat
4. Hutan Lipur Sungai Gabai, Hulu Langat
5. Hutan Lipur Sungai Tekala, Semenyih
6. Kolam Air Panas Dusun Tua, Hulu Langat
7. Kolam Air Panas Sungai Serai, Hulu Langat
8. Ostrich Wonderland, Semenyih
9. Galeri Sate Kajang
10. KPJ Kajang Specialist Hospital
11. Fish Valley, Semenyih
12. Sate Kajang Hj. Samuri, Kajang
13. Bangi Wonderland Theme Park & Resort
14. Superkart Indoor Karting, Semenyih
15. Impian Golf & Country Club, Kajang
16. Taman Tasik Cempaka, Bangi
17. Kem Latihan & Rekreasi Sungai Congkak, Hulu Langat
18. Nur Lembah Pangsoo Eco Resort, Hulu Langat
19. Universiti Kebangsaan Malaysia (UKM), Bangi
20. Universiti Nottingham Kampus Malaysia, Semenyih
21. Universiti Kuala Lumpur Malaysia France Institute (UniKLMFI), Bangi
22. Institut Kemahiran Belia Negara, Hulu Langat

SOURCE OF LOCAL PLAN MAJLIS PERBANDARAN KAJANG:



VOLUME 1



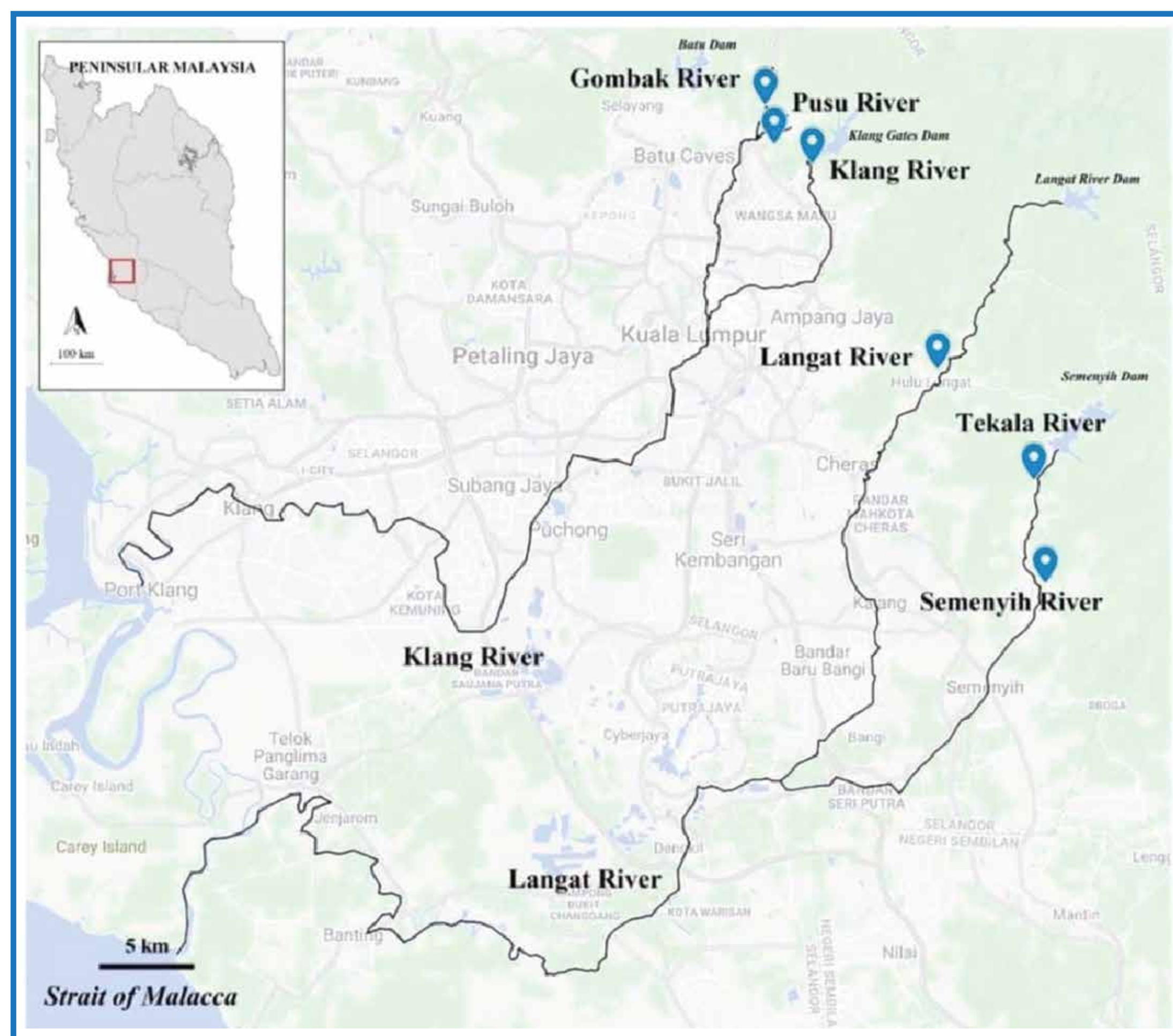
VOLUME 2

UNDERSTANDING TRANSBOUNDARY RISK



Transboundary risk, extreme climate and emerging hazards induced by Typhoon Rai in December 2021 triggered many large-scale, compounding & urban disasters with significant economic losses in Selangor State and its vicinity.

RIVER BASIN IN SELANGOR

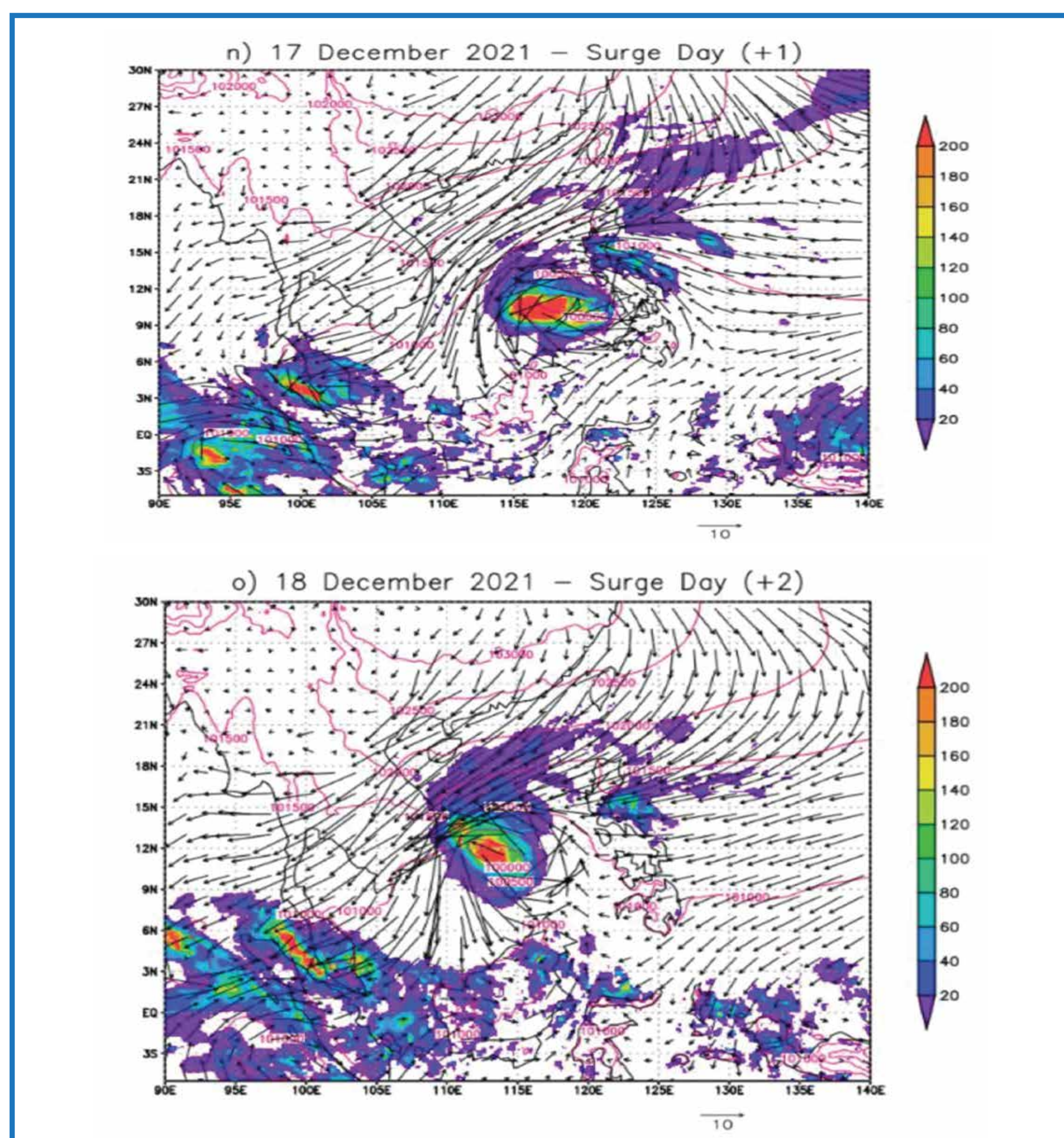


Located in Hulu Langat District (Selangor), the impacted area lies adjacent to Pahang and Negeri Sembilan resulted in many sediment-related disaster & cascading impacts

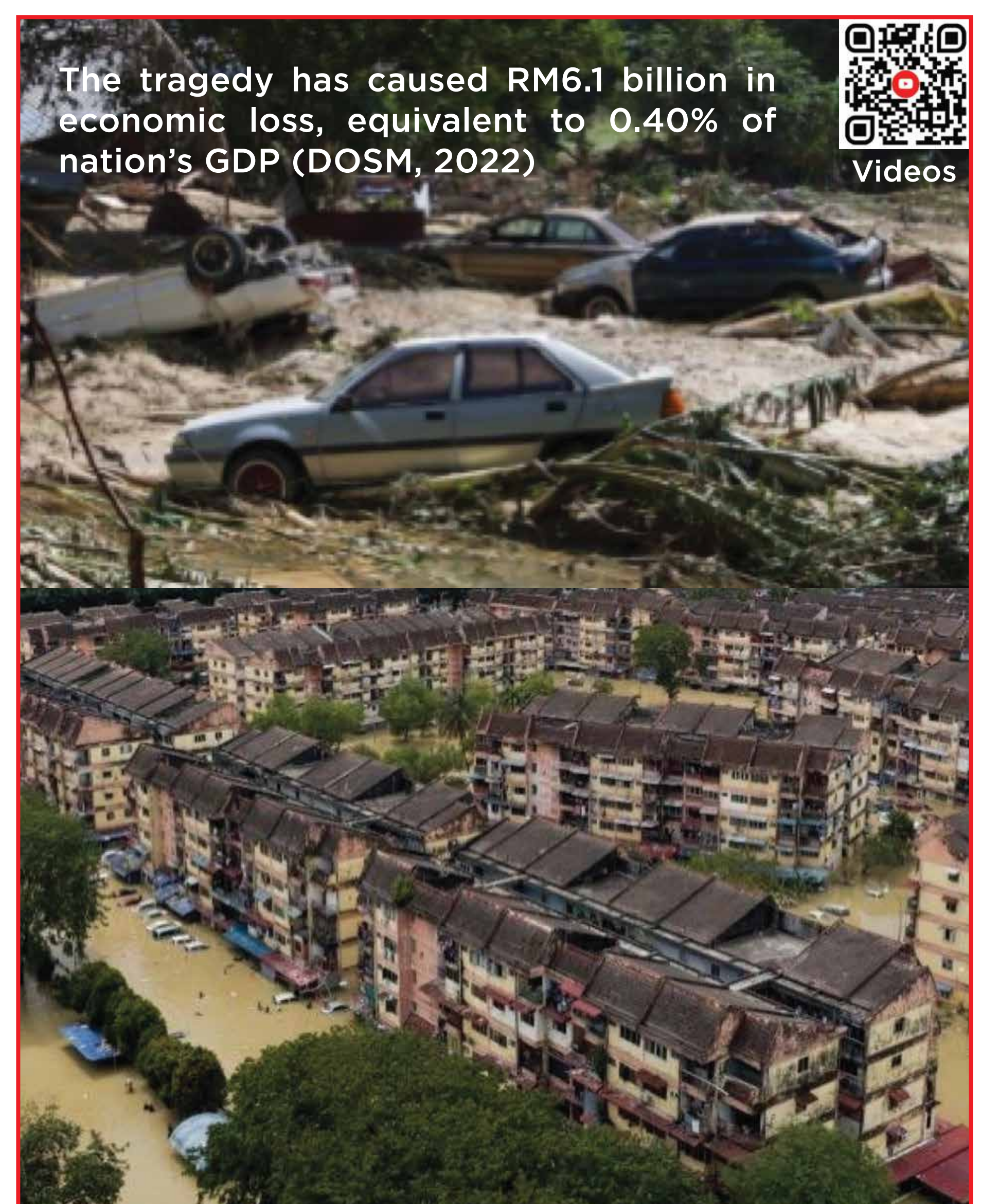
CHRONOLOGY & DISASTER IMPACTS

- DEC 17-18, 2021** Heavy rain with cumulative precipitation of 160mm
- DEC 18, 2021** Heavy rain with recorded rainfall 269.5mm
- DEC 19, 2021** Sg Langat Basin surpass 321.0mm
- DEC 20, 2021** Recovery begins except Kg Sg Lui & Serai
- DEC 21, 2021** Floodwaters in all affected localities completely receded

TYPHOON RAI



DURING DISASTER



The tragedy has caused RM6.1 billion in economic loss, equivalent to 0.40% of nation's GDP (DOSM, 2022)

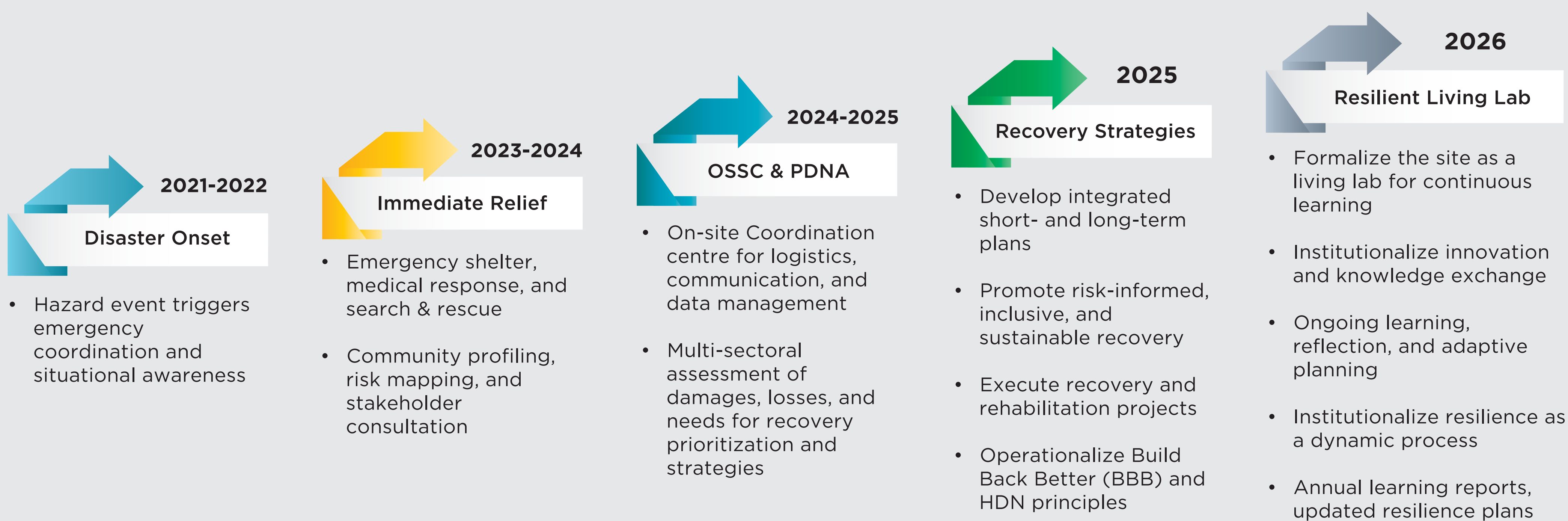


Videos

HUMANITARIAN DEVELOPMENT NEXUS (HDN) 2021 - 2026



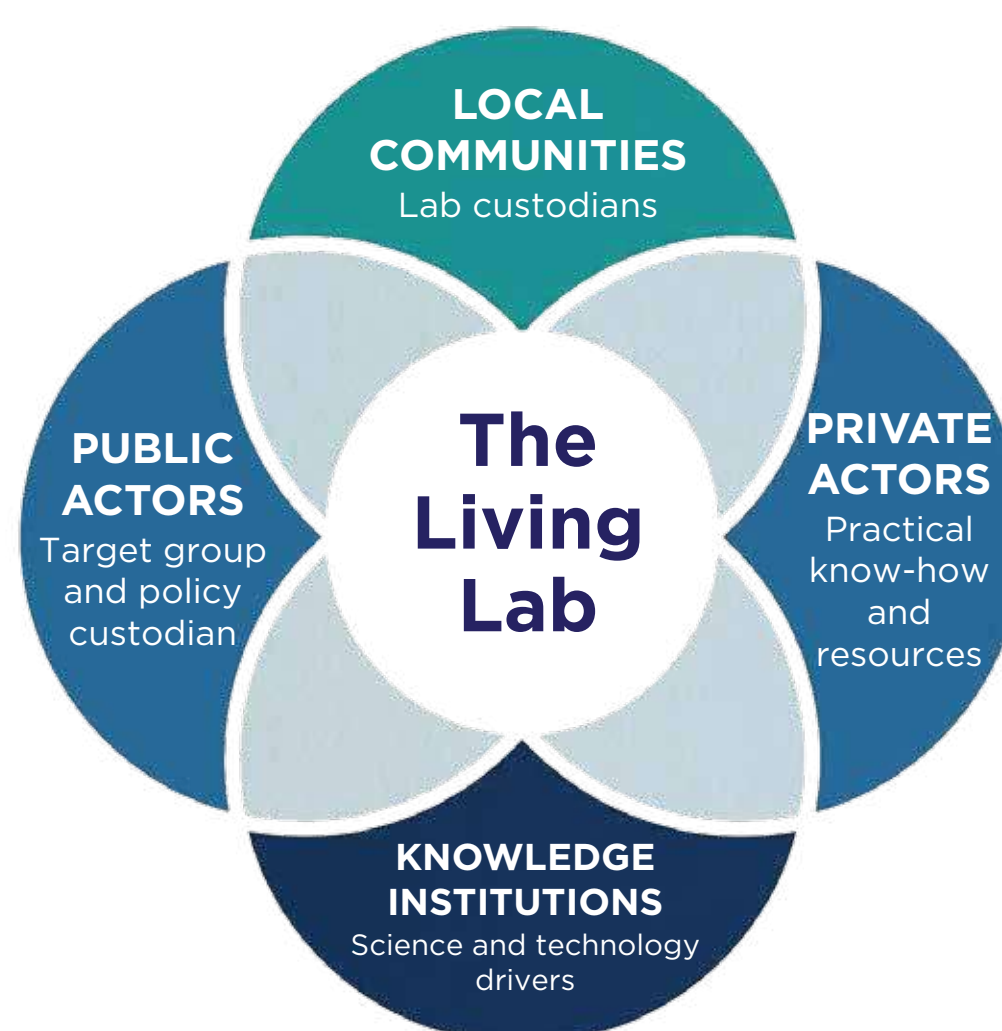
The Resilience Living Lab promotes the Humanitarian-Development Nexus (HDN) agenda led by MERCY Malaysia and its strategic partners. The large-scale disaster unites immediate disaster relief, with long-term, risk-informed development action. Spanning 2021-2026, this multi-scale efforts support disaster resilient ecosystems, multi-risk adaptation, and promote a transdisciplinary approach for building resilience culture.



Lab custodies and participants are involved in the development process through co-creation & co-ownership

Public actors in close consultation with other actors co-create outputs of the Lab, allowing improvements in policy and decision-making process

The Lab aims at developing new ideas, knowledge and product to find new solutions to existing & future problems



The Lab conducts its activities in real-life use of context, with direct inputs from local communities & collaborators

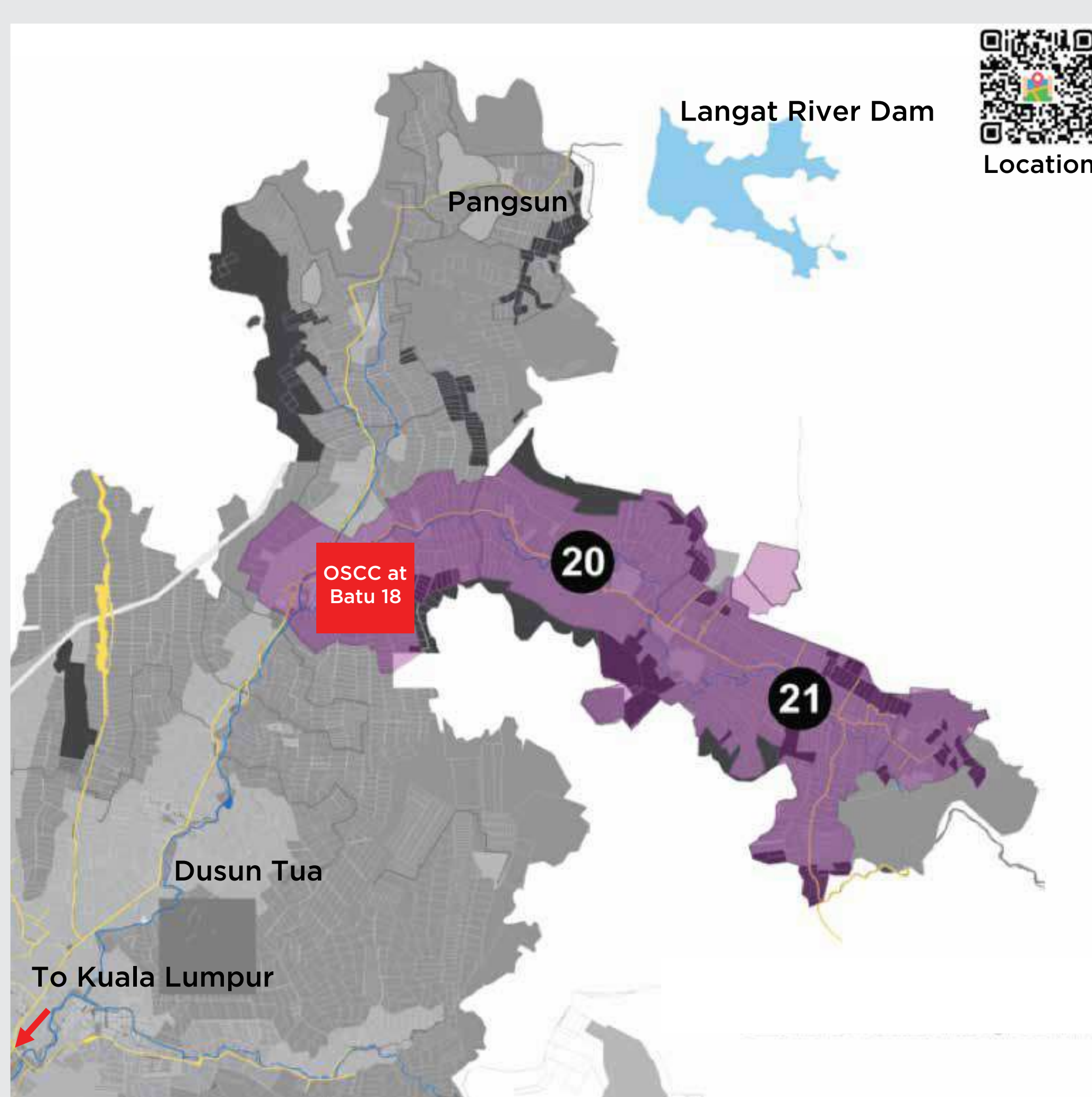
The quadruple helix collaboration model drives the Lab - forging partnerships between the public-NGO-private-local communities and knowledge institutions

The Lab encourages iterative process, implying findings, knowledge and solutions are regularly evaluated for continuous improvement and life-long learning

ON-SITE COMMAND CENTRE (OSCC)



Generally, OSCC is a localized, centralized workspace established at a specific facility or incident location to monitor, control, and manage operations in real-time. It serves as the "nerve center" where decision-makers gather critical data to coordinate responses and maintain situational awareness. The OSCC was setup by MERCY Malaysia in Kg Jawa (Batu 18). Moreover, the Masjid Qariah Kampung Jawa Batu 18 served as a local centre for collecting and coordinating aid, the Bahulu Classiq Cafe turned into a local mobile clinic.



OSCC was established for coordination work by volunteers



Mobile clinic is opened in front of the cafe by MERCY Malaysia

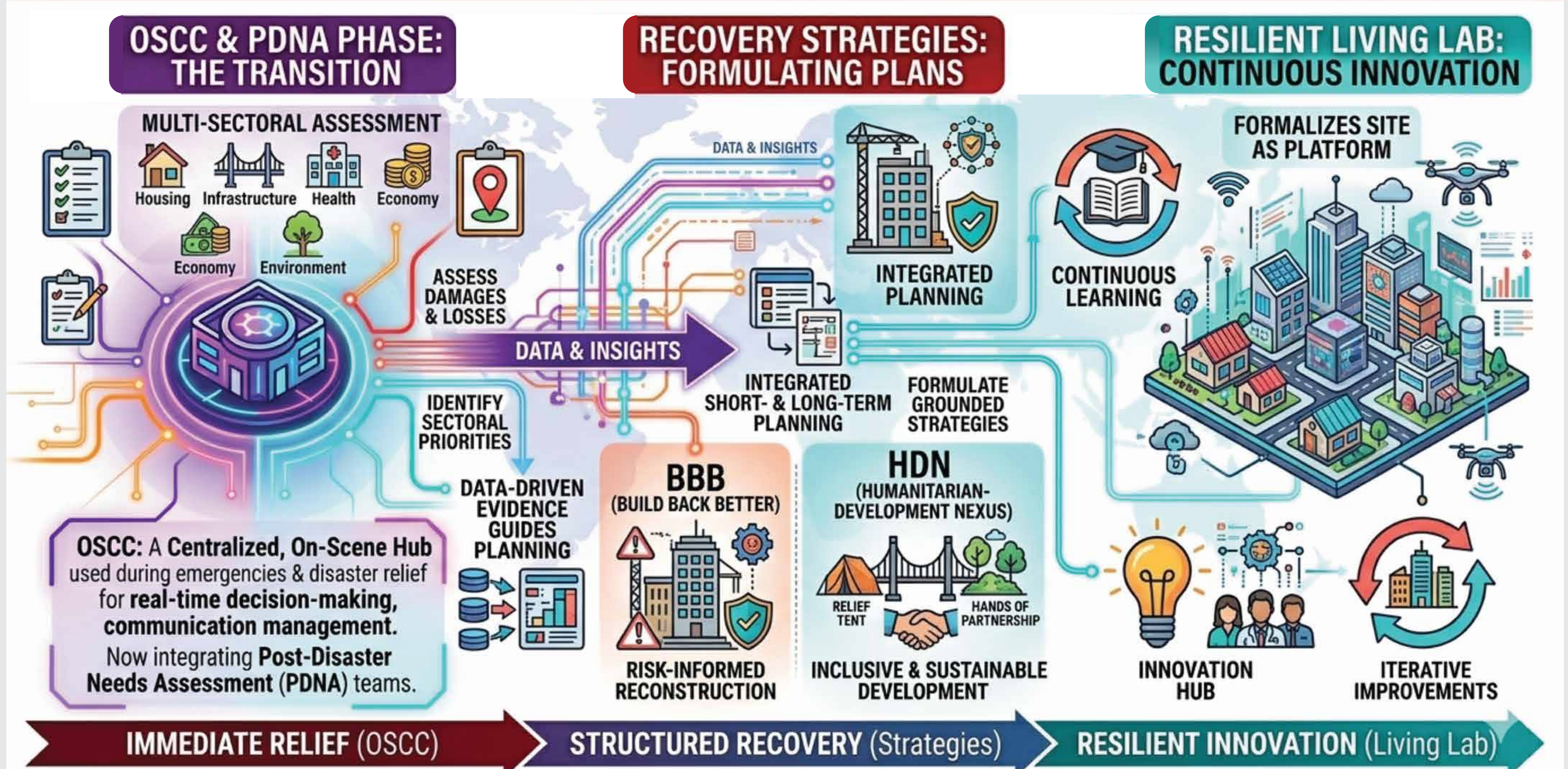


Mosque serves as temporary evacuation center and aid collection / coordination



Bahulu Classiq Cafe conditions on a normal day

THE RECOVERY JOURNEY: FROM CRISIS TO RESILIENCE



DISASTER RISK REDUCTION (DRR) EDUCATION HUB



The Resilience Living Lab Centre (RLLC) serves as a physical Disaster Risk Reduction (DRR) education hub in Hulu Langat. Situated at the destroyed 53-year-old Mrs Rohana's home, this collaborative initiative should function as a "One-Stop Community Disaster Resource Hub" integrating, education, training, research, emergency coordination, community space and knowledge sharing as aligned with the Sendai Framework.



BEFORE/DURING DISASTER



AFTER DISASTER



Location

OUTDOOR PLAZA

Refers to central open areas with (1) amphitheater and (2) monument plaza and covers the entrance, interactive learning corner and community notice board.

LIVING LAB CENTRE

Refers to (3) Living Lab Centre which acts as primary hub for public reception, education and active administration e.g. reception, lobby and multipurpose training.

ANCILLARY BUILDING

Refers to (4) next to main centre, suited for documentation and archive room, local resources space, meeting room, prayer room, and toilet.

PROPOSED RESILIENCE LIVING LAB CENTRE (RLLC)



EXISTING CABIN HOUSE

Refers to (5) Existing Cabin House and (6) Parking areas which serve perfectly as security/operations cabin, overnight caretaker quarter or a storage facility for disaster simulation gear.

RESILIENT INFRASTRUCTURE



Following the 2021 Hulu Langat disaster, building resilient infrastructure became vital to prevent community isolation, protect lives, and withstand future climate shocks. After the tragedy, the government strengthened river and road access by repairing roads, strengthening slopes and rebuilding the collapsed bridges that isolated many homes. Moreover, landslide mitigation and slope rehabilitation using various control measures and nature-based approach for landslide risk reduction strategies, ensuring long-term community safety.



DURING DISASTER

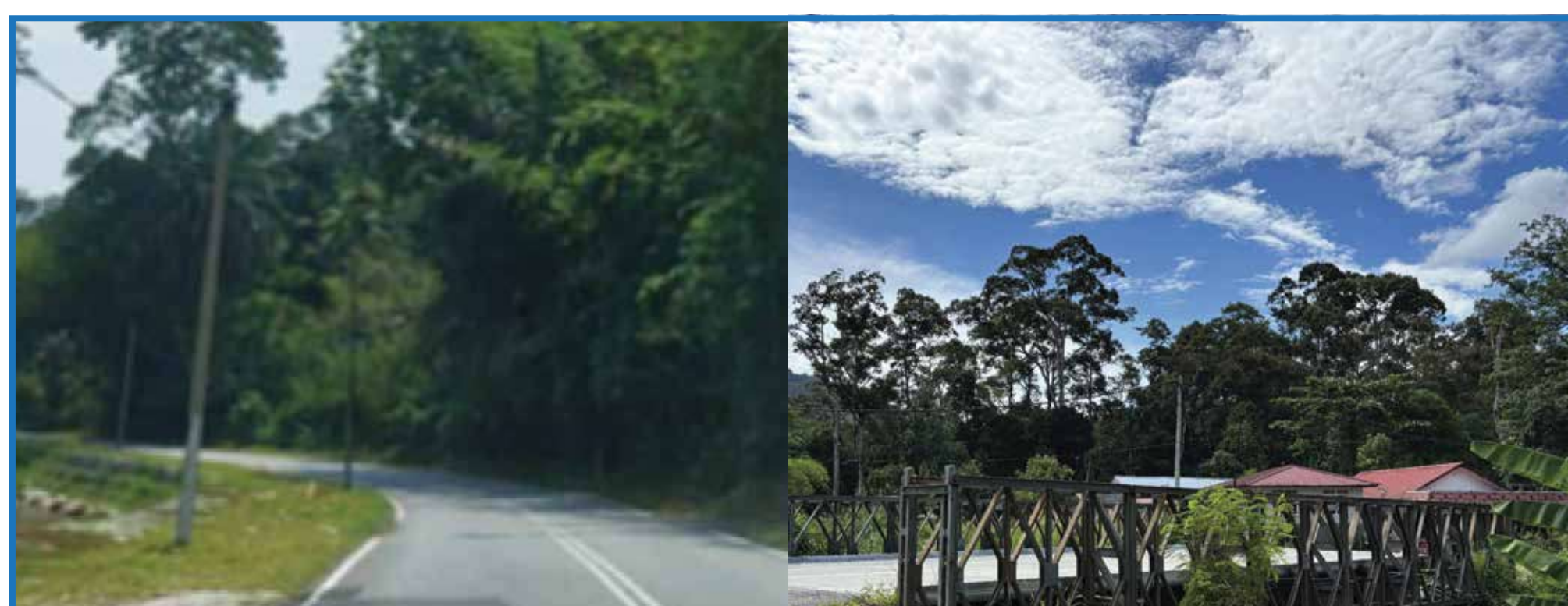


Extensive debris accumulation and structural failure along riverbanks caused high-velocity floodwaters and uprooted trees



The debris flow impact and resilient infrastructure intervention strengthens adaptive capacity against climate-induced hazards

AFTER DISASTER



Rapid reconstruction effort through the installation of a Bailey bridge – a modular, pre-fabricated steel structure implemented collaboratively by government agencies and community volunteers



This project aligns with RLL framework showcased evidence-based engineering and locally-led nature-based contributed to long-term road safety, connectivity and sustainable resilience

NATURE-BASED SOLUTION (NbS) FOR DRR



HARNESSING ECOSYSTEMS, STRENGTHENING LOCAL RESILIENCE

UNDRR defined NbS as the working with nature to protect, restore and sustainably manage ecosystems. As actions that protect, sustainably manage and restore natural or modified ecosystems, NbS address many societal challenges while providing human well-being and biodiversity benefits.

As an example, we showcase the Bamboo trees growing naturally on riverbanks serve as an effective non-structural mitigation measure. They indirectly became a major barrier against damage when torrential waters hit Mr. Tahir's house. Nature works perfectly with high return and co-benefits.

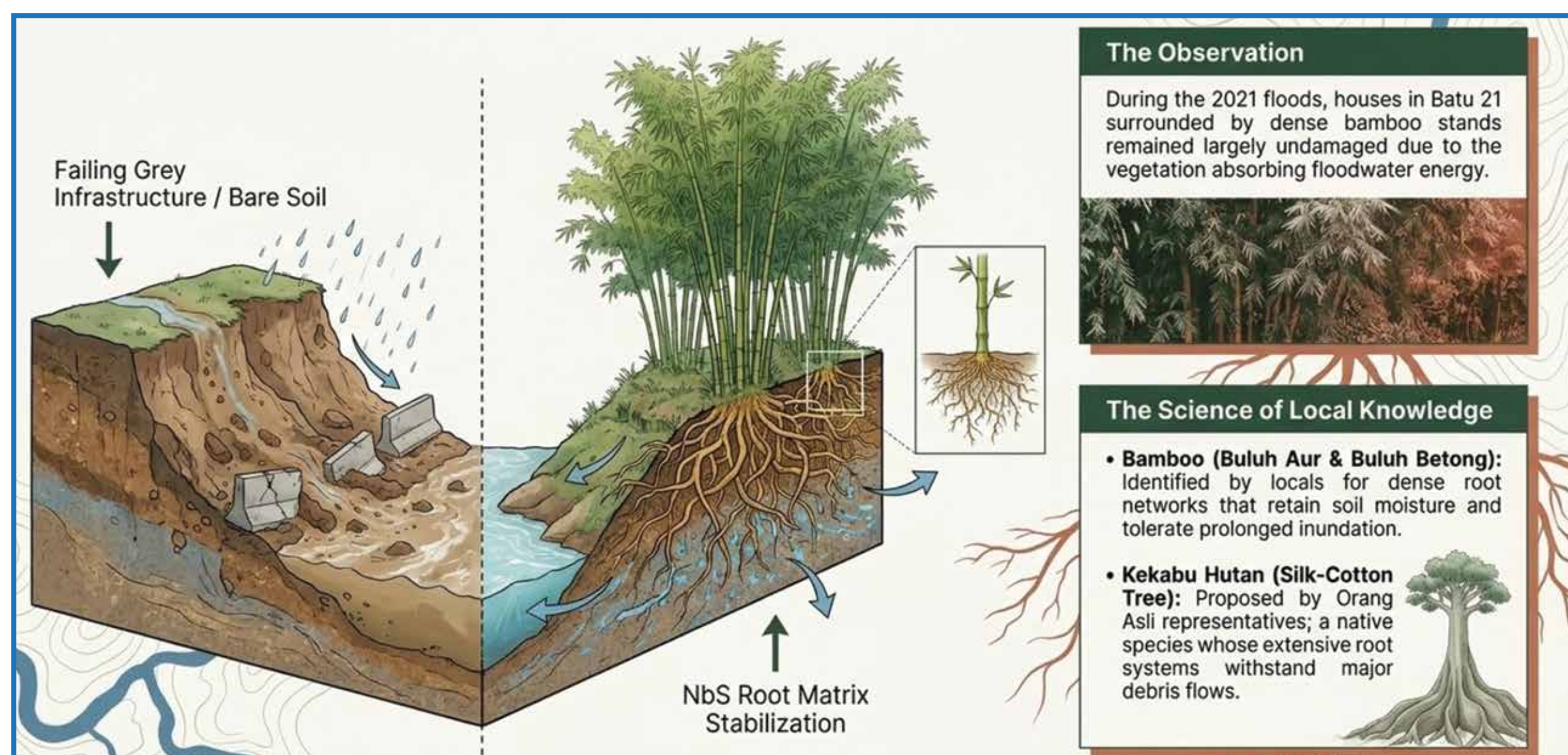
BAMBOO PLANTING PROJECT LOCATION



Ironically, the bamboo trees, which act as retaining walls against the floodwaters, have prevented the house from being severely damaged. This proves that natural solutions are the best for areas with highly vulnerable. NbS should be mainstreamed into development planning, disaster risk reduction, and climate adaptation strategies. Practically, NbS strengthens community resilience, enhances biodiversity, improves livelihoods, and delivers long-term social, economic, and environmental benefits.



NbS CONCEPT ILLUSTRATION



RESILIENT RESETTLEMENT & SHELTER



REBUILDING BACK BETTER, REBOUNCING FASTER

Resilient resettlement is a transformative approach to post-disaster recovery strategies that goes beyond mere relocation by integrating safe infrastructure, essential services, sustainable livelihoods, and inclusive governance. It is co-designed to strengthen vulnerable communities, ensuring long-term safety, liveability, and resilience against future emerging hazards and systemic risks (Ab Samah et al., 2025).

Through the Post-Disaster Needs Assessment (PDNA), 59 houses are identified that need to be repaired after disaster. The permanent house project Mr. Zaki's house was selected to showcase the resilient recovery. The house (775 square feet) was built with cost of RM80,000. It was built eight feet high to cope future floods. Pn Mira's house was another selected house. In addition, a bridge that is the main access to Puan Mira's house has been repaired and restored with the assistance of the Department of Irrigation and Drainage. **These are few examples of promoting Build-Back-Better as aligned to Humanitarian-Development Nexus (HDN).**

DURING DISASTER



Paya Lebar Orang Asli Village.

Paya Lebar Orang Asli Village.

In addition, 2 houses were destroyed due to flooding in the Paya Lebar Orang Asli Village. Heavy and prolonged rains caused water to overflow and the rapid flow of the river submerged residential, agricultural and livestock areas, public facilities and infrastructure. To help maintain life and provide shelter, MERCY Malaysia has built 2 temporary wooden houses in the Paya Lebar Orang Asli Village, where each house has 1 bedroom and 1 bathroom. The cost of building this house is RM21,600.



Mr. Zaki's house

Pn Mira's house area

Paya Lebar Orang Asli Village

The condition of the house after repairs using stronger building materials and resilient designs. A way forward prioritizes community-led relocation, hazard-mapped zoning, and modular, climate-adapted housing designs.

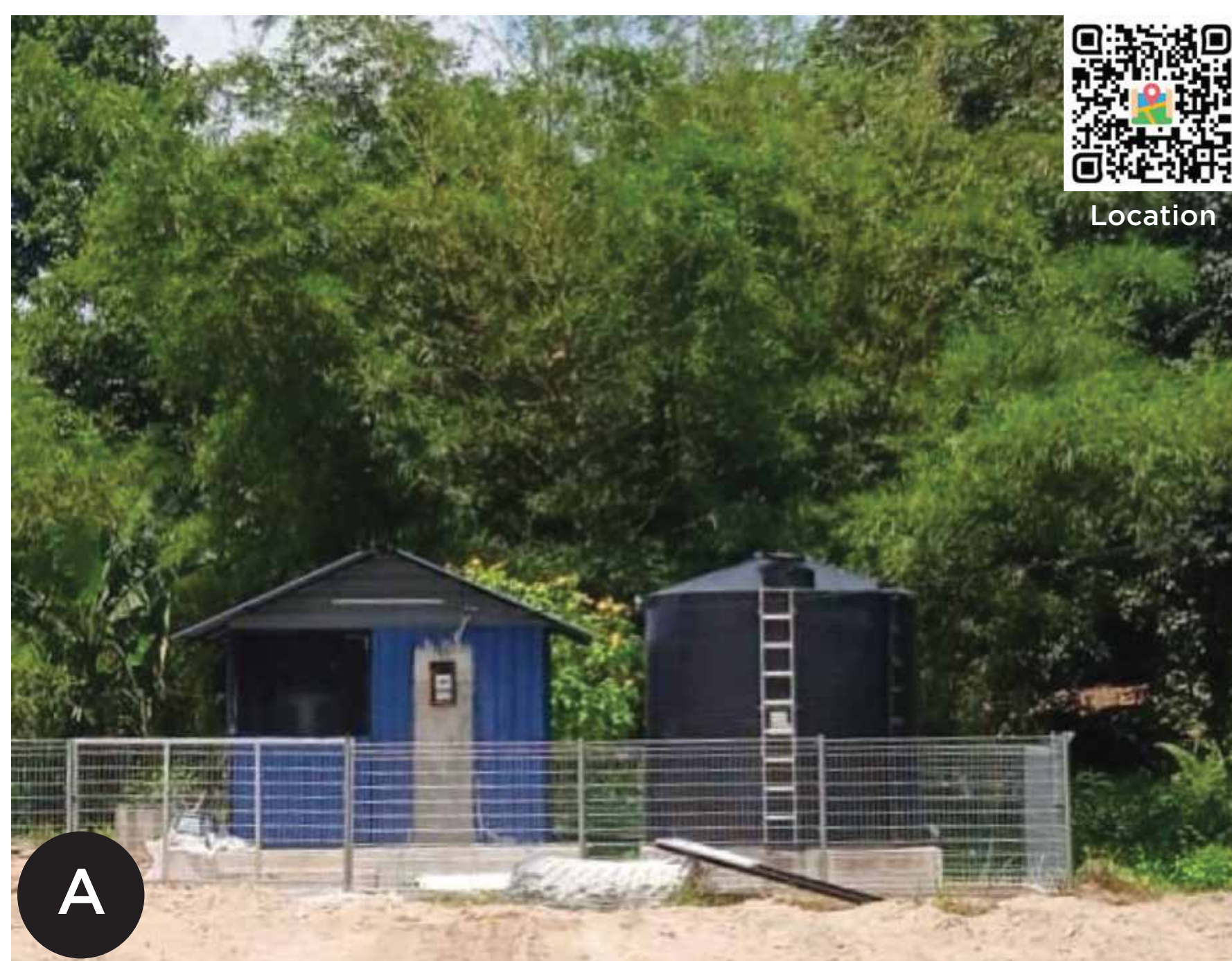
WATER, SANITATION & HYGIENE (WASH) COMMUNITY



SUSTAINABLE- AND CLEAN WATER ACCESS

Horizontal Collector Well (HCW) project is an innovative Water, Sanitation, and Hygiene (WASH) initiative co-designed to ensure sustainable and clean water access following the 2021 tragedy. By utilising advanced engineering, including a Riverbed Infiltration system and Houston V-Notch Screen technology, the system effectively taps into groundwater to meet the village's water demands. While the system is currently configured to pump and treat 2,000 gallons per hour, its robust infrastructure is capable of yielding up to 15,000 gallons per hour. This system benefits more than 140 families, with low maintenance.

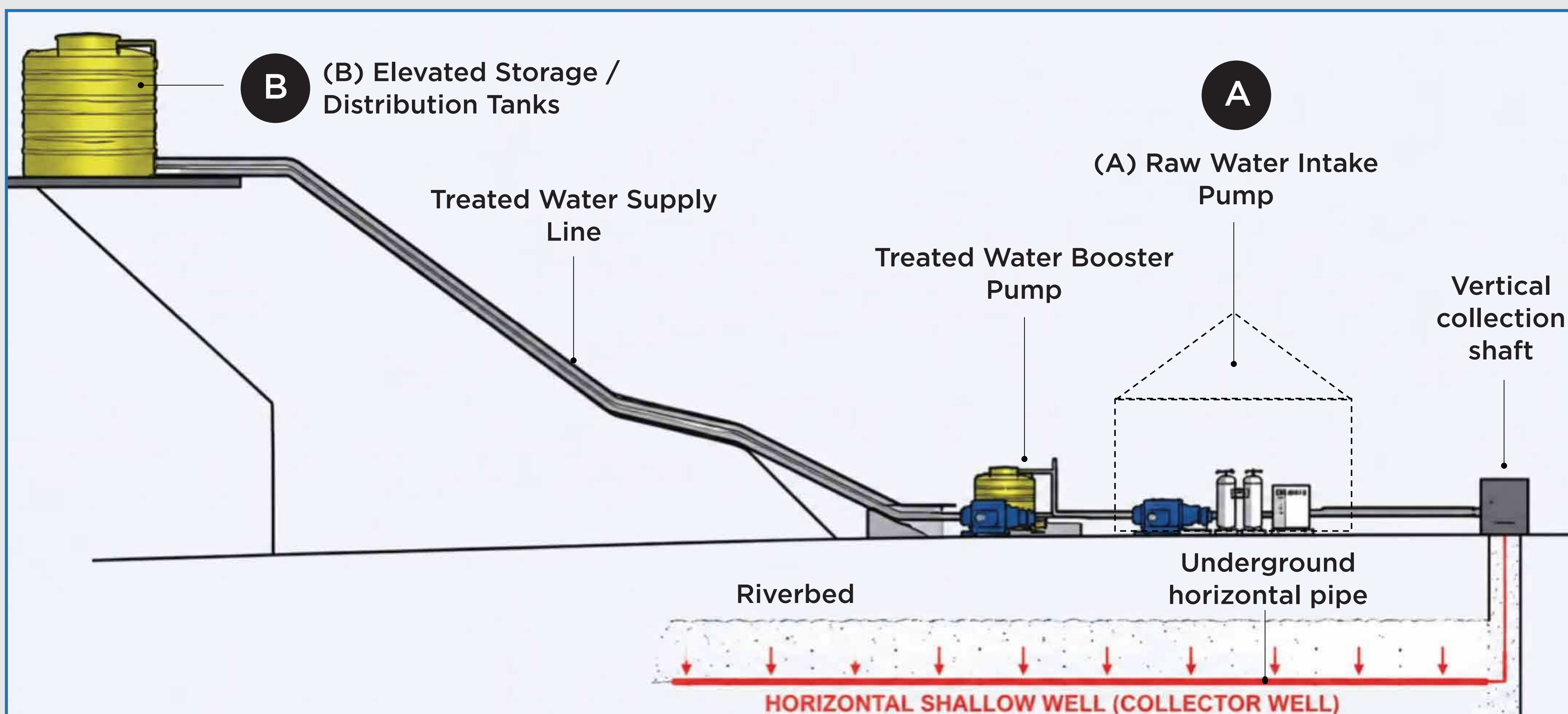
This system utilises corrosion-resistant Houston V-Notch Screens with a 60% open surface area embedded four meters into the Sungai Lui riverbed to draw naturally pre-filtered groundwater from the alluvial aquifer, which is then refined through an automatic sand, carbon, and chlorine treatment system to ensure clean, high-flow water.



- Enhancing infrastructure resilience and disaster preparedness through better planning, on-site training and capacity building.
- Promoting local innovation empowered by nature-based & local resources & knowledge coupled with environmental preservation

AFTER DISASTER

Now the local infrastructure is operating successfully and maintained by trained communities & local champions



EARLY WARNING SYSTEM (EWS)



COMMUNITY-BASED EWS

An integrated real-time flood monitor activates a 1-2 km radius siren alarm. This immediate alert enables local communities and emergency responders to accelerate disaster response, saving lives and safeguarding property. Currently, 20 EWS stations are installed in Hulu Langat by Department of Irrigation and Drainage Malaysia (JPS). CEWS empower communities to improve their disaster preparedness and to evacuate themselves to a safer place.

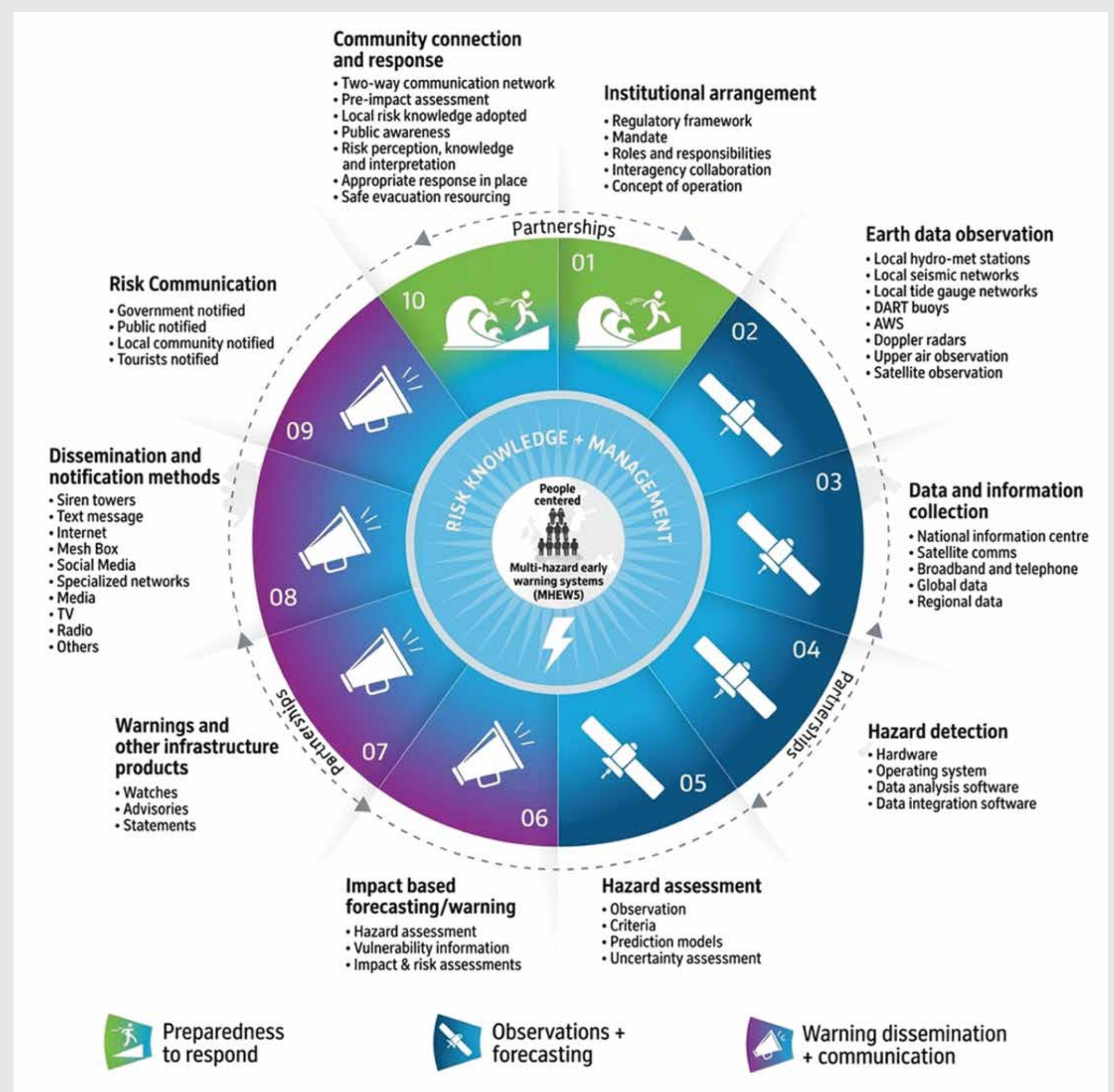


COMMUNITY-BASED EWS

This component ensures that critical flood warnings and water level data reach both local disaster managers, emergency responders and vulnerable communities:

- **Siren Telemetry Systems:** Localized warning sirens (often utilized solar-powered) are triggered when rivers reach specific "Alert" or "Danger" thresholds, broadcasting audio alerts that can carry up to 2 km.
- **Public Announcements:** Sirens are integrated with Public Address (PA) speakers that allow authority to broadcast evacuation orders or specific instructions.
- **Public Portals:** Real-time water levels and rainfall distributions are publicly disseminated via the JPS Public Infobanjir portal.

Early Warning For All (EW4All) 2023-2027



EW4All is a global initiative launched in 2022 to ensure that all people are protected by early warning systems by 2027. It aims to **reduce the impact of disasters and the vulnerability of populations through four pillars:**

1. Disaster risk knowledge (led by UNDRR);
2. Detection, observations, monitoring, analysis and forecasting of hazards (led by the World Meteorological Organization);
3. Warning dissemination and communication (led by the International Telecommunication Union); and
4. Community preparedness and response capabilities (led by the International Federation of Red Cross and Red Crescent Societies).

POST-DISASTER LIVELIHOOD & BUSINESS CONTINUITY

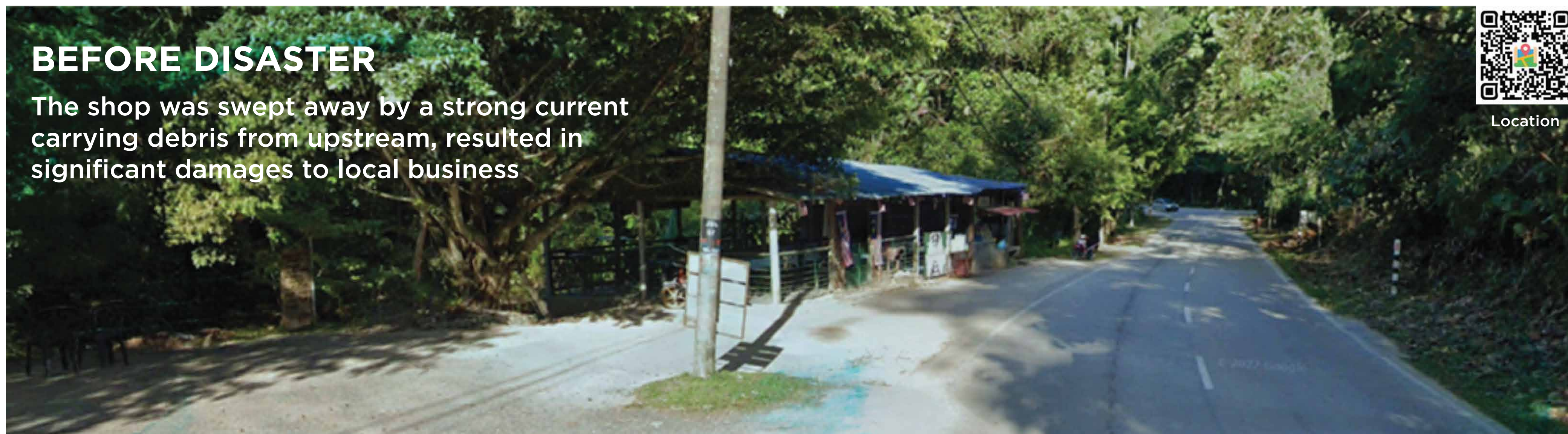


RESTORING HOPE, REBUILDING NEW OPPORTUNITY

Post-disaster livelihood provides an insight into the state of economic activity and the subsequent recovery efforts required after a disaster has caused extensive disruption to a community's ability to earn a living. Resilient recovery strategies are mutually needed to enhance the livelihood/business continuity covering critical infrastructure, assets, financial systems, communication services, and supply chains.

BEFORE DISASTER

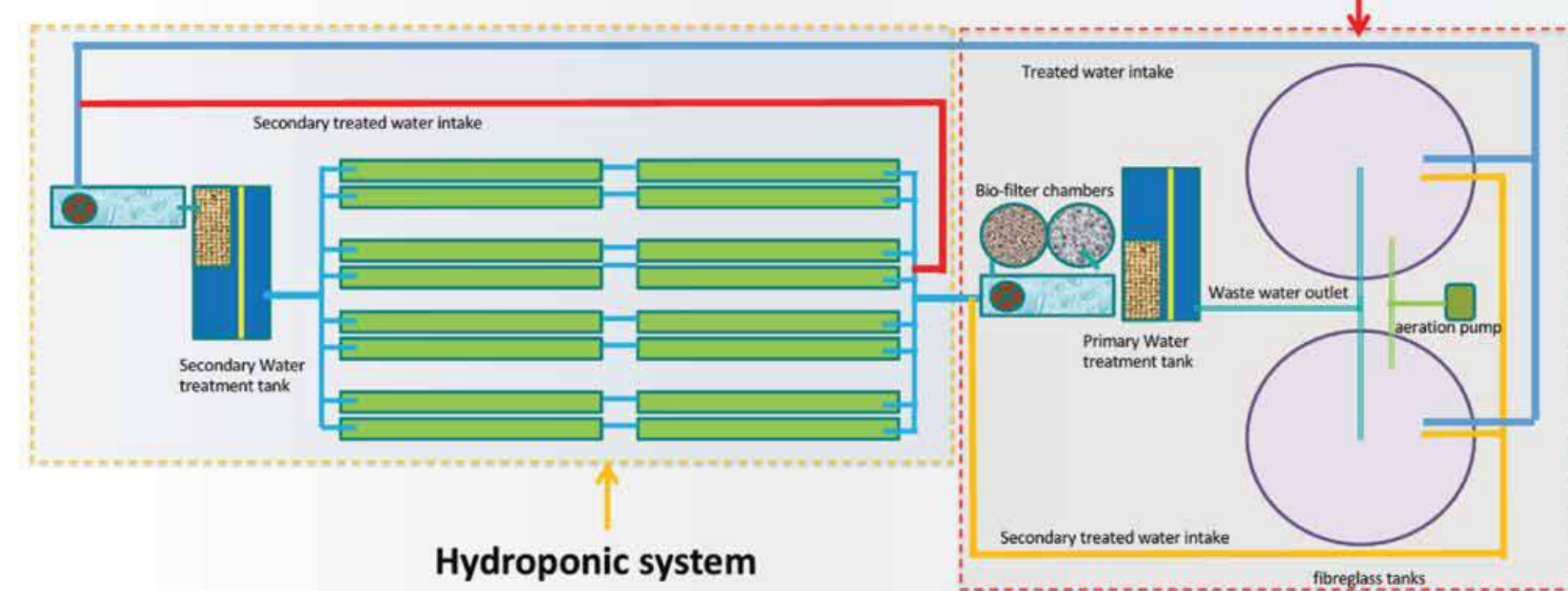
The shop was swept away by a strong current carrying debris from upstream, resulted in significant damages to local business



Under the initiative livelihood principle, the rebuilding of local businesses that had been impacted. For example, the reconstruction of the shop used clay bricks, which are two to three times stronger than sand bricks. The cost of providing the materials and rebuilding the PakTam's shop was RM35,000.



DECOUPLED RAS AQUAPONIC SYSTEM Sistem Akuaponik RAS Teragih



Community Farming: A social innovation for livelihood continuity and food security, transforming recovery sites into productive spaces that foster self-help, cooperation, and environmental stewardship. It also serves as informal centers for knowledge exchange, and socio-economic cycles.



A resilient way forward integrates micro-grants, flexible digital microfinancing, and localized supply chain backups into community re-development planning. Practically, this keeps local economies afloat immediately after a crisis. It prevents systemic poverty traps, ensuring families retain self-sufficiency while businesses adapt swiftly in a sub-urban region.

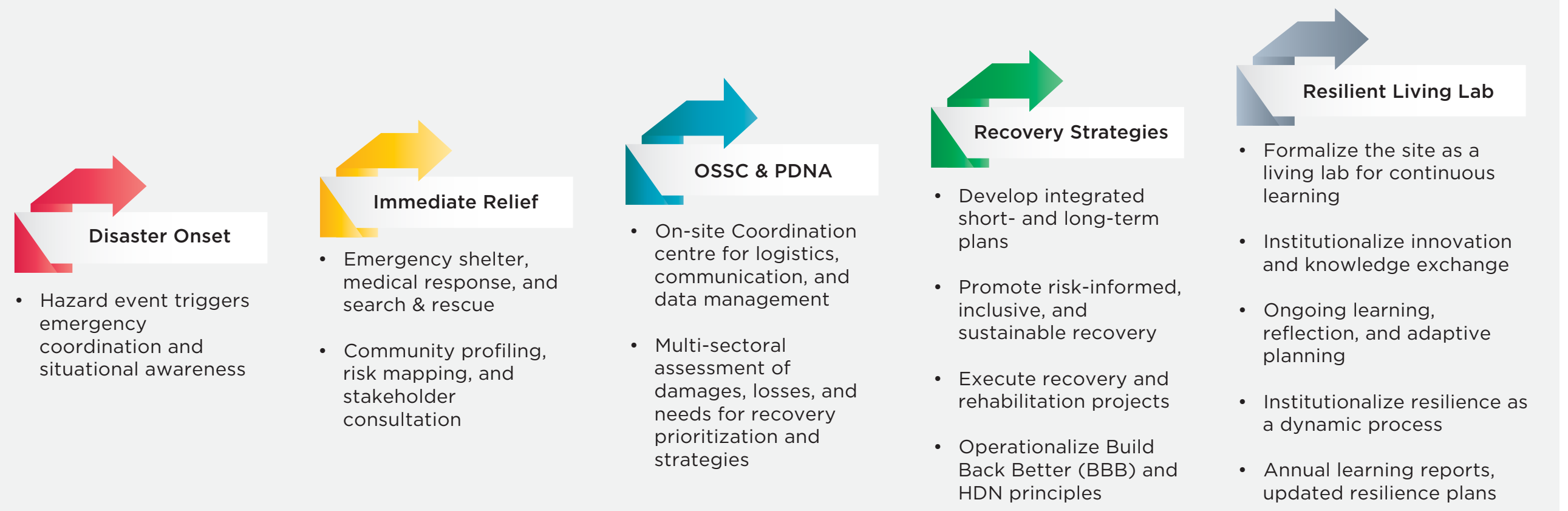
5-YEARS TRANSFORMATION OF RESILIENCE LIVING LAB @ HULU LANGAT (RLL-HL)



Over five years, the RLL-HL has evolved from identifying local vulnerabilities and building community capacity to co-developing innovative solutions, strengthening partnerships, and embedding disaster risk reduction practices into local planning processes.

Through **continuous engagement** among communities, government agencies, researchers, and stakeholders, RLL-HL demonstrates how a Living Lab approach can support long-term resilience, adaptive capacity, and risk-informed sustainable development.

PROCESS FLOW FOR ESTABLISHING THE RESILIENCE LIVING LAB



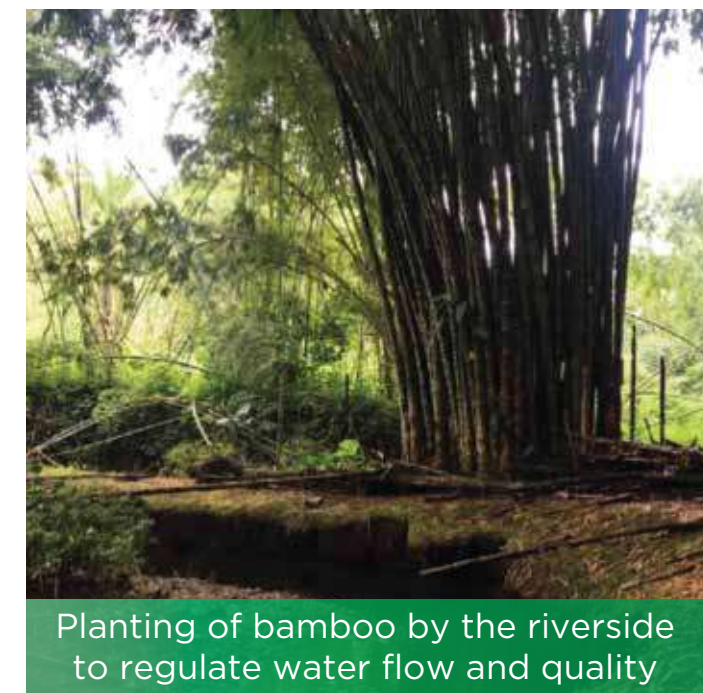
2021

- Immediate disaster relief
- Establishing the One Stop Coordination Center (OSSC)
- Conducting Post-Disaster Needs Assessment (PDNA) & Rapid Intervention missions



2022

- Post-disaster recovery process & monitoring
- Built-Back-Better (BBB) initiatives
- Adapting Nature-based Solutions (NbS) for DRR



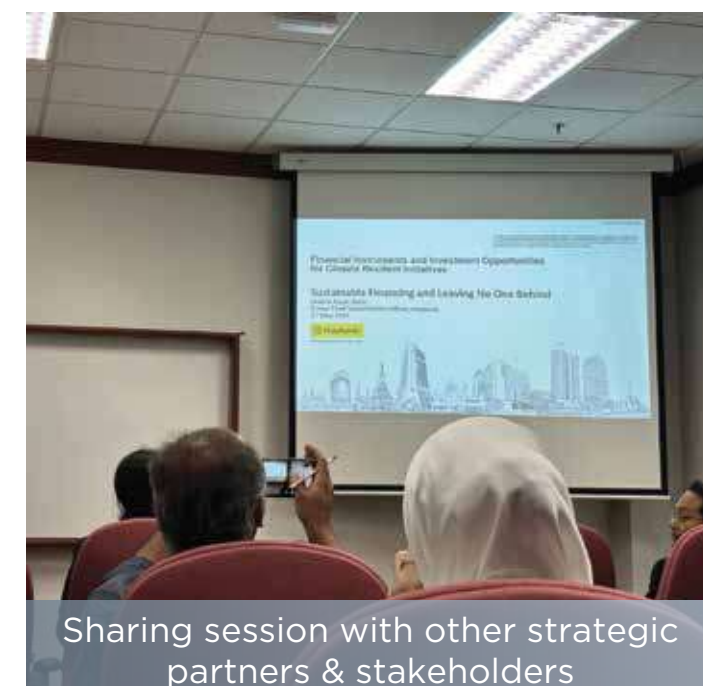
2023

- Post-disaster recovery process & monitoring
- Built-Back-Better (BBB) initiatives
- Adapting Nature-based Solutions (NbS) for DRR



2024

- International humanitarian conference
- Place-based learning
- Experiential pilot testing with local communities and agencies



2025-2026

- Place-based learning program with local councils and post-graduate students (MDRM-UTM)
- RLL-HL reporting funded by Yayasan Hasanah
- Multi-scale RLL-HL co-implementation



WAY FORWARD: ASEAN RESILIENCE LIVING LAB



STRENGTHENING RESILIENCE LIVING LAB @HULU LANGAT

EXPERIENTIAL LEARNING LIVING LAB FACILITIES

- Multifunctional facilities for disaster preparedness & education, knowledge sharing, community empowerment & local leadership
- Locally-led & youth-focused activities to promote co-ownership and community participation.
- Flood-resilient infrastructure, adaptable design and multi-scale resilience culture building.

COMMUNITY-BASED LEARNING AND ACTIVITIES

- Regular community disaster drills and preparedness trainings.
- Community-based early warning system (CBEWS), evacuation, and safe assembly points.
- Collective knowledge transfer (storytelling, social media, school resilience programs).
- Coordinated and inclusive disaster response and recovery.

LIVELIHOOD SUPPORT AND DEVELOPMENT

- Small businesses capacity building (business management, sales and marketing, cooperative models).
- Women's livelihood centres for economic empowerment, & skills development at a family-level
- Community-based ecotourism (CBET) program with environmental safeguards and proper waste management.

NATURE-BASED SOLUTIONS (NbS) FOR DRR

- Bamboo and native vegetation planting along riverbanks and slope rehabilitation.
- Community-led implementation, self-monitoring, & local impacts
- Integration of scientific guidance with local knowledge.
- Policy and regulatory support for environmental management and systemic risk reduction.

A future-ready ASEAN where every disaster & crisis strengthens - not weakens - collective resilience; where communities are co-creators of recovery; and where resilience culture becomes the cornerstone of a risk-informed, united, and sustainable region.

ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Work Programme 2026-2030

The Resilience Living Lab (RLL) approach aligns with **Priority Programme 4 (PP4) on Resilient Recovery** by strengthening community-based recovery planning, disaster recovery needs assessment, and multi-stakeholder collaboration towards **build back better** outcomes. Scaling RLL into an ASEAN Resilience Living Lab can provide a practical platform for inclusive and sustainable recovery practices across Southeast Asia and vicinity region.

Under **Priority Programme 5 (PP5) on Global Leadership**, the ASEAN Resilience Living Lab can support regional knowledge sharing, innovation, capacity building, and disaster management professionalisation. It can strengthen ASEAN's disaster resilience leadership by contributing to knowledge hubs, technology utilisation, and the implementation of the **Sendai Framework for Disaster Risk Reduction 2015-2030**.

