

RIVER REVITALISATION THROUGH COMMUNITY PARTICIPATION IN MALAYSIA

Jockey Club Water Initiative on Sustainability and Engagement (JC-WISE)
2019 International Symposium on Water Sustainability



Dr. K. Kalithasan Kailasam
Global Environment Centre
MALAYSIA

AGENDA

- Global Environment Centre
- RIVER CARE
- Community Participation Model
- Case Studies
- Outcomes and Limitations



20 years of Building Partnerships for the Environment

- Established in 1998
- Malaysian Non-profit Organisation (Reg. no. 473058-T)
- Supports information exchange & capacity building as well as undertaking strategic projects particularly in developing countries

MISSION

- To support the protection of the environment and sustainable use of natural resources to meet local, regional and global needs, through strategic partnerships with communities and like-minded organizations.

PROGRAMMES



River Care



Forest and Coastal



Peatland

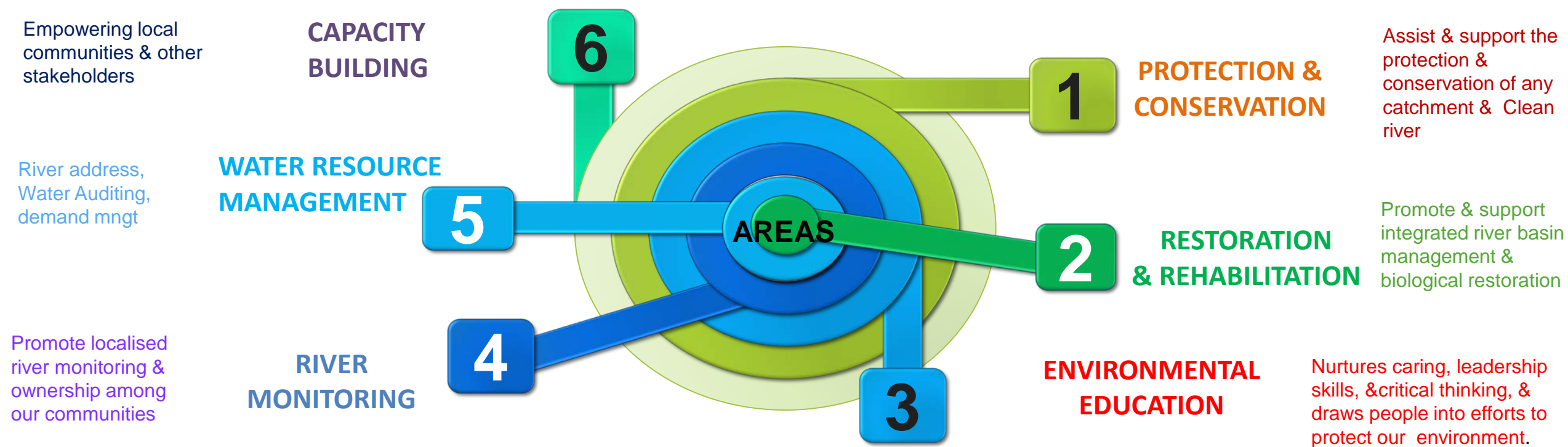


Outreach & Partnership

RIVER CARE PROGRAMME

Mission : Promote the protection, restoration and sustainable use of rivers by enhancing multi-stakeholder participation and knowledge to stimulate local action.

Vision : to have clean, healthy, living and vibrant rivers for people and the environment.



RIVER CARE PROJECTS & PROGRAMME



2002



2004



2007



2014



2015



2015



2016



2019

Current Main Projects

1. River of Life Public Outreach Programme (ROLPOP 5)



2. W.A.T.E.R Project



➤ Water Stewardship Agenda & Mobile River Care Unit

3. Integrated management of Upper Kinta River Basin



4. Sustainable water resource management for community via drinking water supply



5. SMART Ranger for Schools within Klang Valley



RIVER REVITALISATION THROUGH COMMUNITY PARTICIPATION IN MALAYSIA

RIVER MANAGEMENT

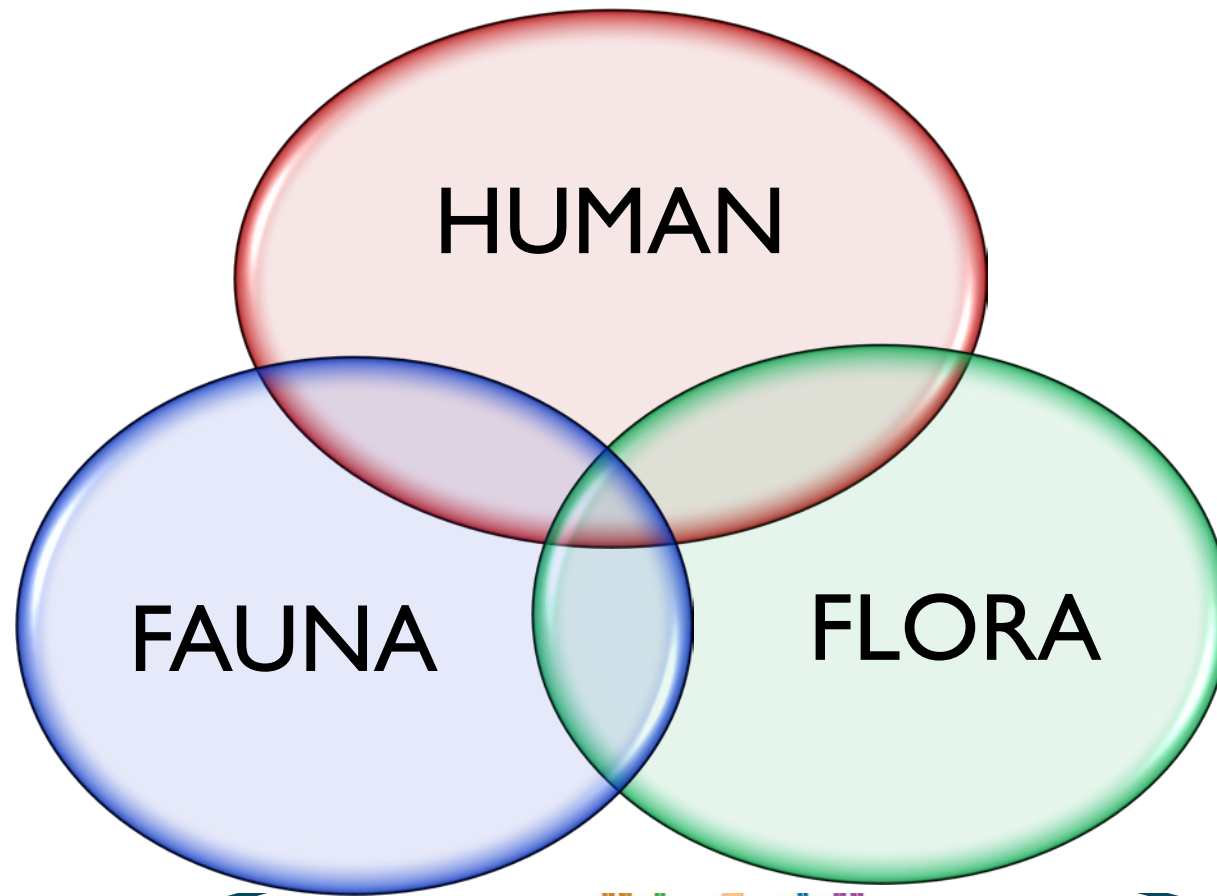
- All rivers are not same/equal
 - Each river needs a different approach
- Work with nature and not against
 - Reconnect to Nature
- Focus on usage, needs & respective success model
- Balance achievement for all purpose/usage include:
 - Environment, economic, social, religious



Proper understanding of success by stakeholder

- Including communities

SMART PARTNERSHIP



FLORA



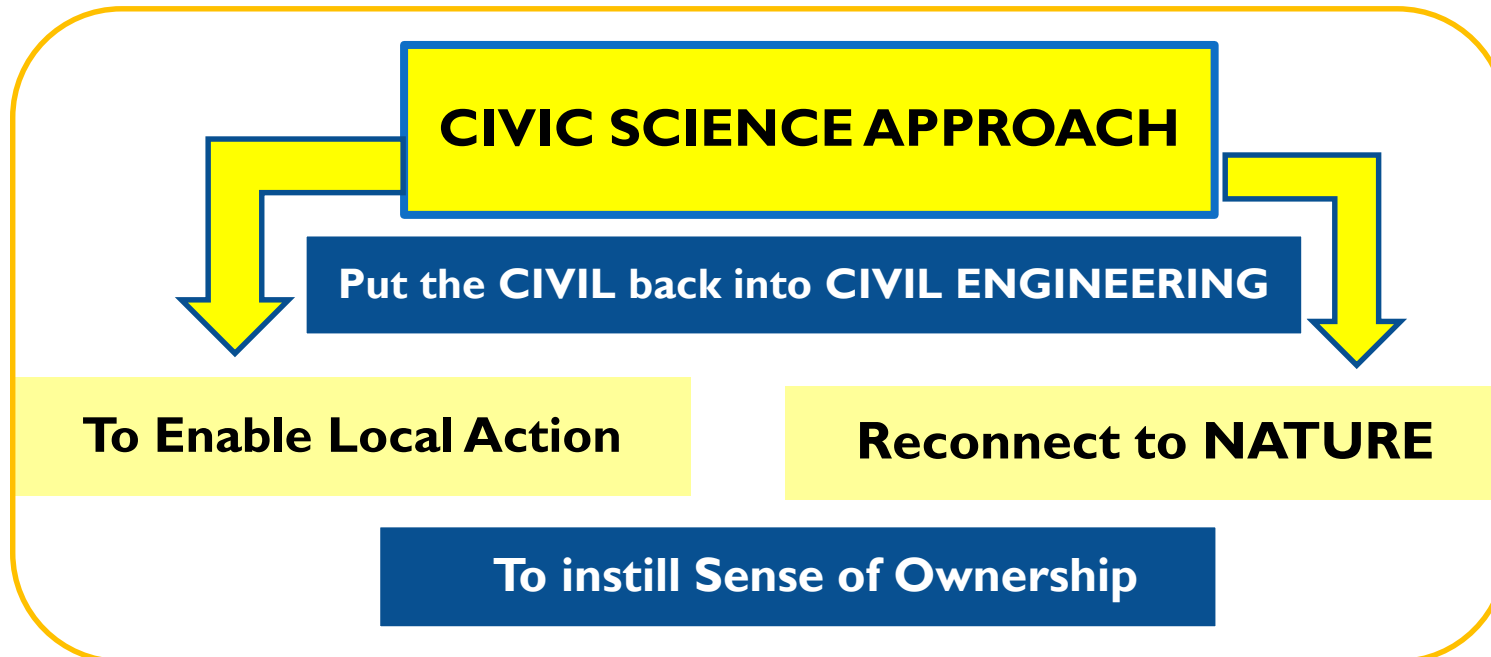
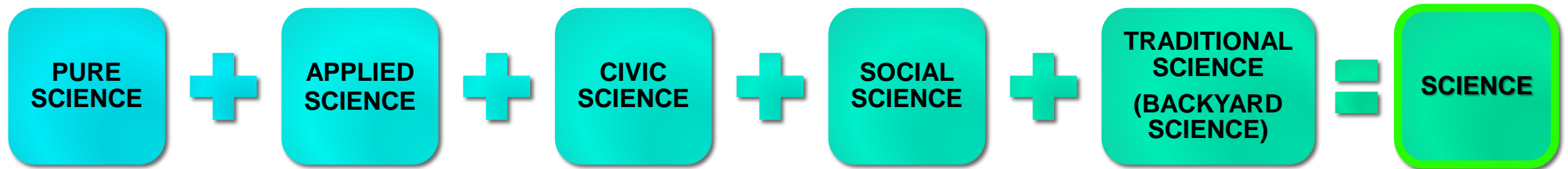
HUMAN

FAUNA

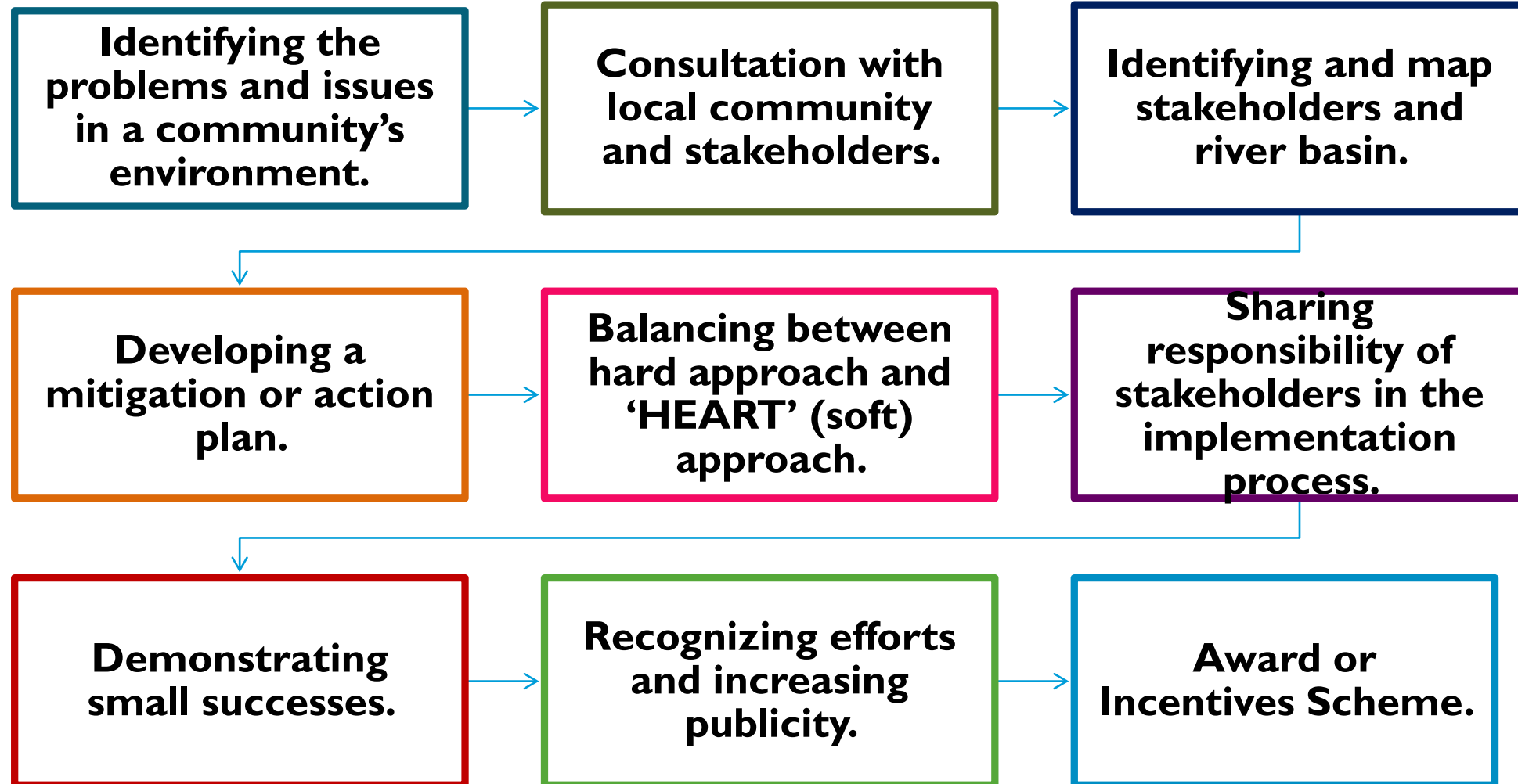


APPROACHES

Balance : **HARD APPROACH** vs **SOFT APPROACH** vs **HEART APPROACH**



METHODOLOGY



RIVER CARE TOOLS

- Reconnect to nature
 - **River Address**
- River monitoring
 - River Report card, Lake report card, water testing kits, river auditing tools, pollution mapping, YSI meter (probe)
- Water conservation
 - DrH2O Kit (Water Saving kits, Checklist, water Audit), Water Conservation Module
- River Education
 - Interactive board (ROLPOP5)
 - Mobile River Care Unit (MRCU)
 - Interactive River Games
- River monitoring & sharing
 - RIVER Ranger Website, WhatsApp's, Facebook, CITIZEN's EYE



DO YOU KNOW WHERE IS YOUR RIVER BASIN?

STEP 1: Locate your house in the map given. Find the drain located within your housing area.

STEP 2: Can you identify the nearest river? List down the name.

STEP 3: Does the river leads into a 2nd river? List down the name.

STEP 4: Follow the river flow until it reaches the sea. List down any connecting rivers on the way.

DO YOU KNOW WHERE YOUR DRINKING / TAP WATER COMES FROM?

Find the nearest water treatment plant. List down the location / name.

FIND OUT WHERE YOUR WASTEWATER GOES TO

Find the nearest wastewater treatment plant. List down the location / name.

ONCE YOU HAVE FOUND ALL 3 PARTS OF THE RIVER ADDRESSES,
YOU WILL RECEIVE A 'SPECIAL TOKEN' FROM US.
CONGRATULATIONS!

RIVER CARE MATERIALS

- Handbook

- Urban River Management (W.A.T.E.R. Project)

(<http://www.waterproject.net.my/index.cfm?&menuid=140&parentid=127>)

- Modules

- RIVER Ranger 2.0, SMART Ranger, FLOOD Ranger, Water Conservation

(<http://www.riverranger.my/riverranger/index.cfm?&menuid=5&lang=EN>,
<http://www.riverranger.my/drh2o/index.cfm?&menuid=5&lang=EN>,
<http://www.riverranger.my/index.cfm?&menuid=10>)

- Booklet

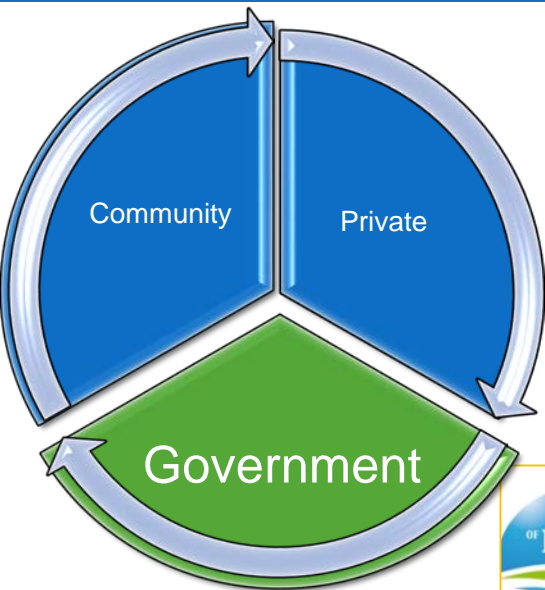
- RIVER Ranger 2.0 Action Guidebook, Biological Monitoring, SMART Ranger, Water audit, ISLAND Ranger

- Brochures, Leaflets, Report Card (River and Lake)



RIVER REVITALISATION THROUGH COMMUNITY PARTICIPATION IN MALAYSIA





CASE STUDY 1: RIVER OF LIFE PUBLIC OUTREACH PROGRAMME (ROLPOP)

REDISCOVER
RECONNECT



Ministry of Federal
Territories

JABATAN PENGAIRAN
DAN SALIRAN MALAYSIA

ROLPOP 5



EPP 5 : River of Life

Transforming Klang River into a vibrant and liveable waterfront with high economic value



River Cleaning
(DID Malaysia)

River Beautification
(DBKL)

Commercialisation and
Tourism (KWP)

- Clean and improve the 110km stretch along the Klang River basin from current Class III-V to Class IIB by 2020
- Covers the municipal areas of:
 - Selayang (MPS)
 - Ampang Jaya (MPAJ)
 - Kuala Lumpur (DBKL)



- Masterplanning and beautification works will be carried out along a 10.7km stretch along the Klang and Gombak river corridor
- Significant landmarks in the area include Dataran Merdeka, Bangunan Sultan Abdul Samad and Masjid Jamek



- Cleaning and beautification works will spur economic investments into the areas immediately surrounding the river corridor
- Potential government land will be identified and tendered out to private developers through



RIVER OF LIFE : RIVER CLEANING : 13 KEY INITIATIVES

Aspiration



Class III & IV
• unsafe for body contact

- Decrease ammonia-nitrogen¹ from 0.9 to 0.3 mg/l
- Decrease biological oxygen demand² from 6 to 3 mg/l
- Decrease suspended solids³ from 150 to 50 mg/l



Class IIB
• recreational use with body contact

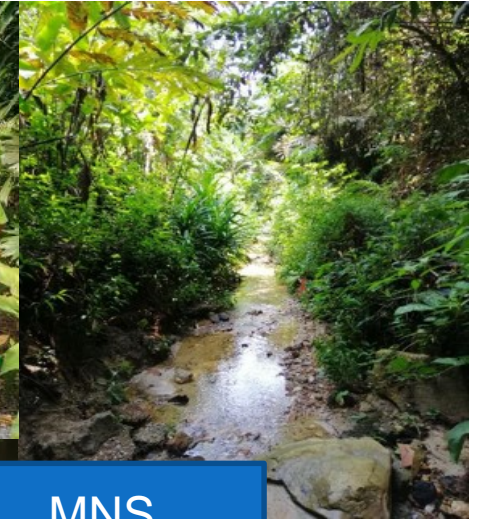
Key Initiative	Description	Lead Agency
1	Upgrading existing sewerage facilities is the most impactful and important initiative to reduce Klang river pollution	JPP
2	Existing regional sewage treatment plants must be expanded to cater for future growth	JPP
3	Wastewater treatment plants need to be installed at 5 wet markets to decrease rubbish and pollutants	DBKL
4	Install additional gross pollutant traps will improve the river aesthetics and water quality	JPS Selangor / DBKL
5	Utilize retention ponds to remove pollutants ¹ from sewage and sullage	JPS WPKL
6	Relocation of squatters will significantly reduce sewage, sullage, and rubbish in the Klang river	MB Sel office/MPAJ
7	Implement the Drainage and Storm water Management Master Plan to upgrade drainage systems	BPB JPS
8	Systematic hydrological study and rehabilitation of the river are needed for flow control	BPLS JPS
9	Promote, enforce, and manage river cleanliness and health – erosion from urban development	BSMA JPS
10	Promote, enforce, and manage river cleanliness and health – restaurants, workshops, and other commercial outlets	JKT
11	Promote, enforce, and manage river cleanliness and health – industries that generate wastewater/ effluent	DOE
12	Promote, enforce, and manage river cleanliness – general rubbish disposal	JPS /JPSPN
13	Interceptor System	DBKL/JPS

12b. Public Outreach Programme

ROLPOP COMMUNITY SUCCESS: River Open Classroom Education



Taman Warisan



MNS



Source protection

Community engagement

River Resource Centre

River Restoration

River Clean Up

River Monitoring

River Walk

River Education

ROLPOP COMMUNITY SUCCESS: River Adoption & Community Garden



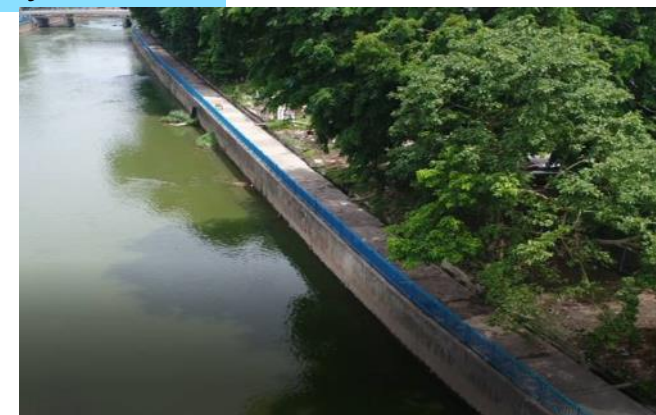
AU2 Taman Keramat



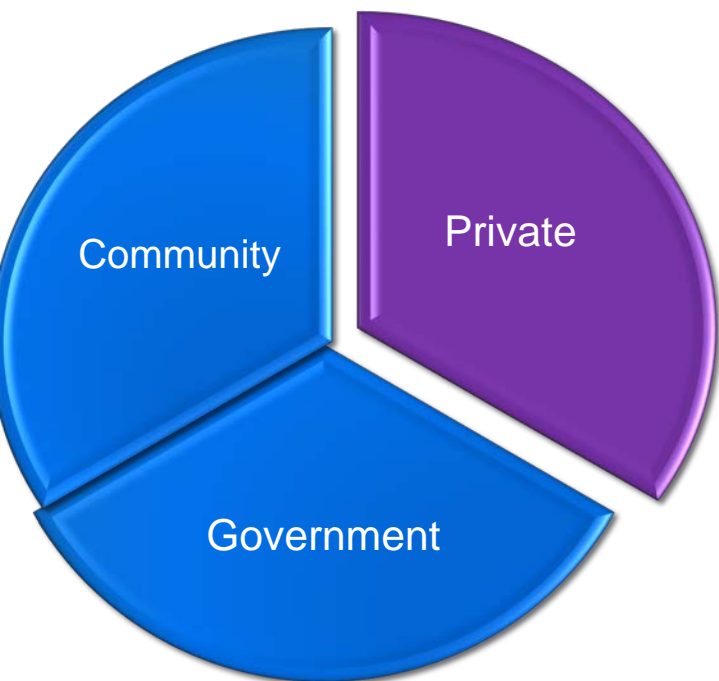
- Low cost flat formed Urban community garden along Klang River



Kasipillay Community



- River Adoption & River Monitoring



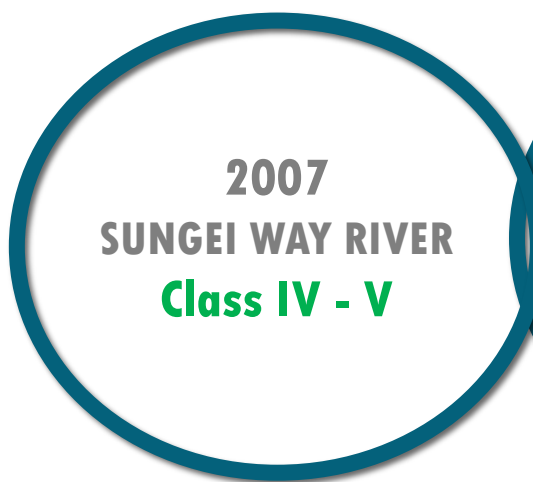
CASE STUDY 2: W.A.T.E.R.(Working Actively Through Education and Rehabilitation)



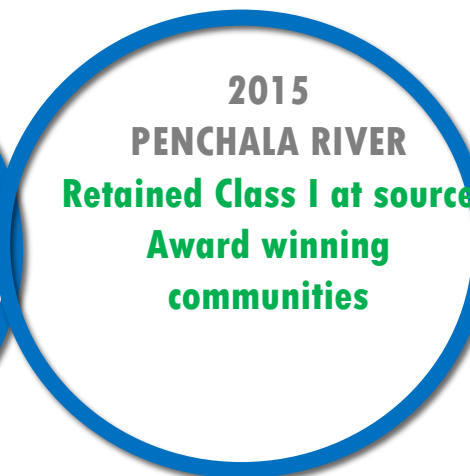
Collaboration between SPARK Foundation, Global Environment Centre, government agencies and local communities to protect our water resources.



PHASE 1



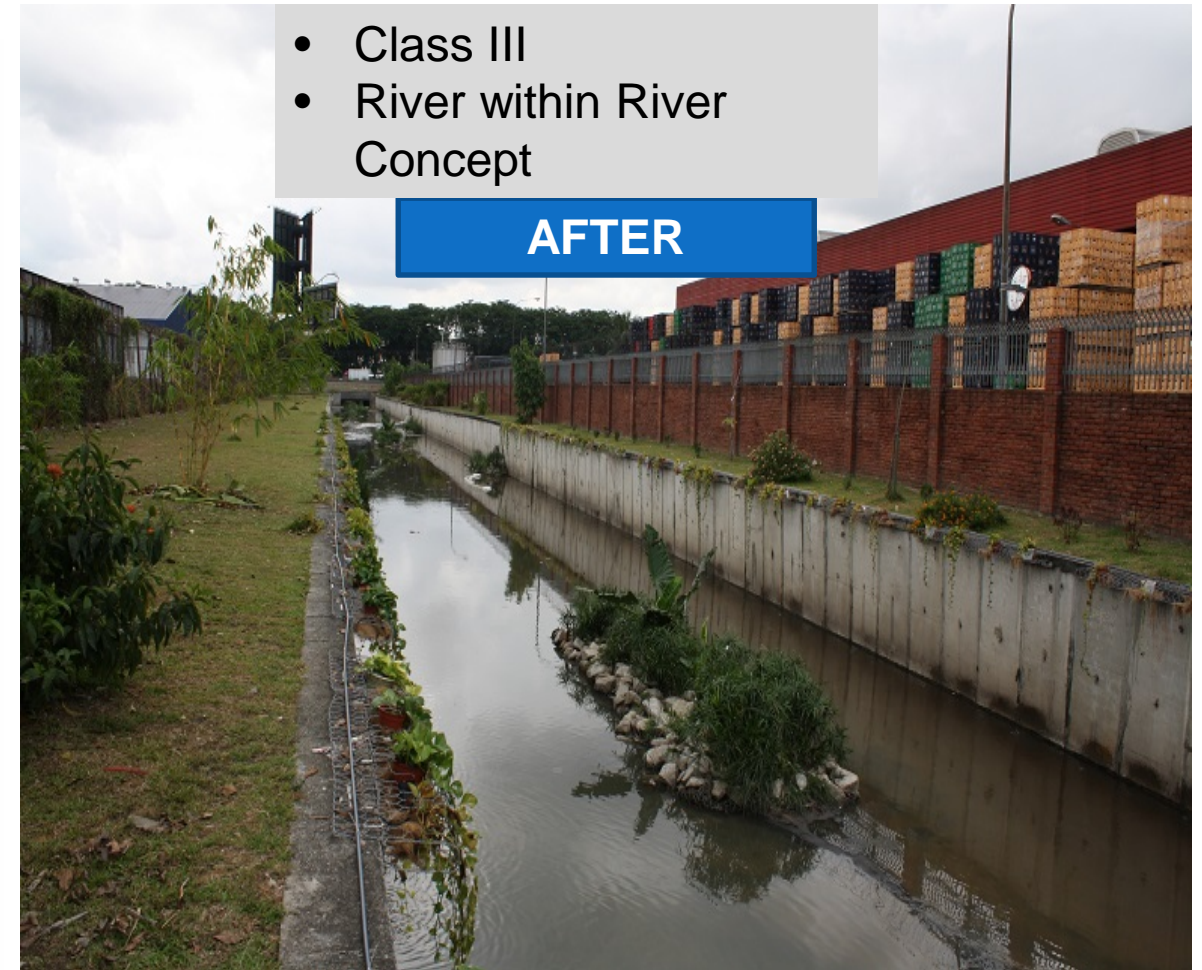
PHASE 2



PHASE 3



W.A.T.E.R. PROJECT COMMUNITY SUCCESS: SUNGEI WAY STAKEHOLDERS



W.A.T.E.R. PROJECT COMMUNITY SUCCESS: **FRIENDS OF SUNGEI WAY RIVER**

HEART APPROACH

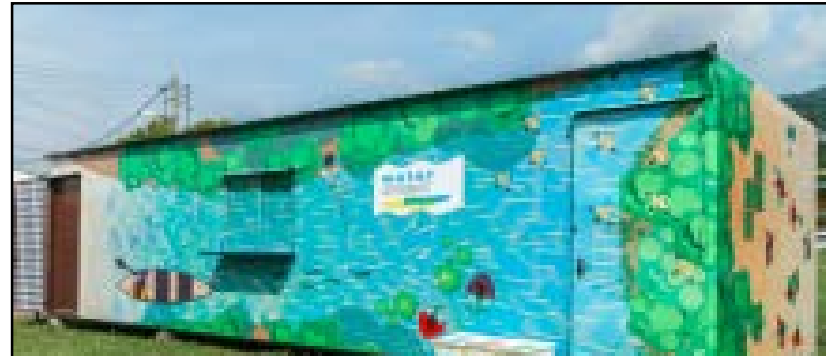
- Active river care communities
- Initiatives
 - River Monitoring
 - River information centre
 - Wetland Nursery
 - River Clean Up
 - Integrated Waste Management
 - Community Garden
- Recognition
 - Awards
 - Peer to Peer sharing



W.A.T.E.R. PROJECT COMMUNITY SUCCESS: **RIVER RANGER KINTA RIVER**



Youth River Care Model



River Information Centre



River Monitoring

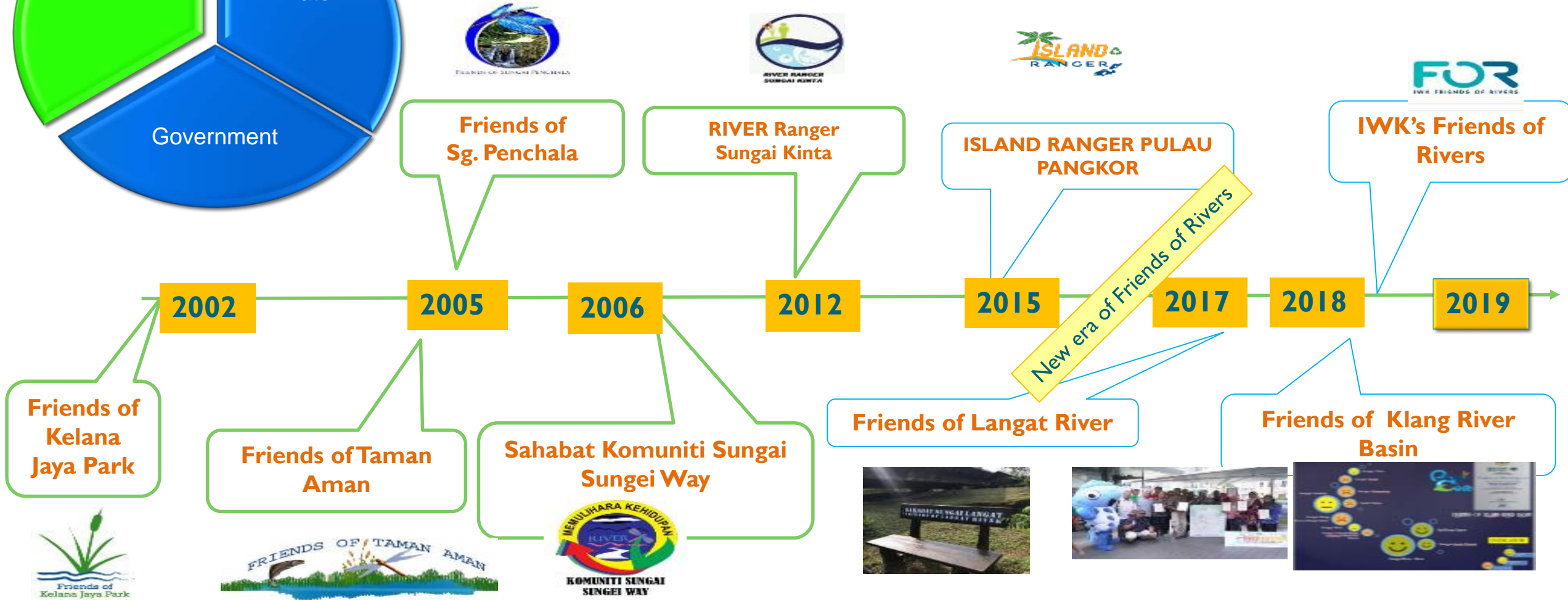
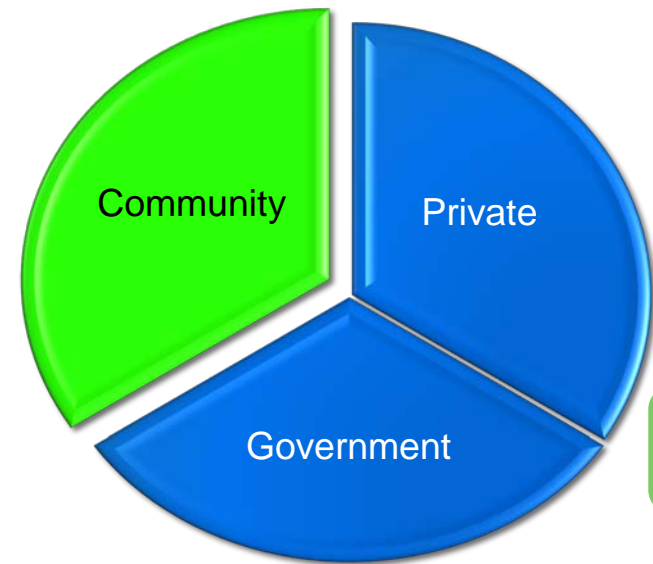


Community Garden



National Level River Care
Community Champion in 2019

CASE STUDY 3: FRIENDS OF RIVERS IN MALAYSIA



ISSUE & PROJECT BASED



PROACTIVE / OWNERSHIP

FRIENDS OF KLANG RIVER BASIN ASSOCIATION (FoKRB)



- Klang river basin – Most urbanized basin in Malaysia
- Community action is a prerequisite for any river conservation activities
- Consists of 23 groups
- Activities
 - Weekly clean up
 - Community garden
 - River monitoring
 - River bank beautification
 - Pollution reduction
 - Composting
 - Alien fish competition
 - Recycling
 - Used Cooking Oil Collection
 - Pollution mapping



FRIENDS OF SUNGAI KLANG (FOSK) : MID VALLEY & TAMAN MELAWATI

Friends of Sungai Klang Mid Valley

14 consecutive weeks of clean up since March 2019

Total to-date:

1. Plastic bottle 65kg
2. Scrap metal 1.2kg
3. Glass bottle 7.8kg
4. Aluminium can 3.5kg
5. General Refuse 2176.4kg



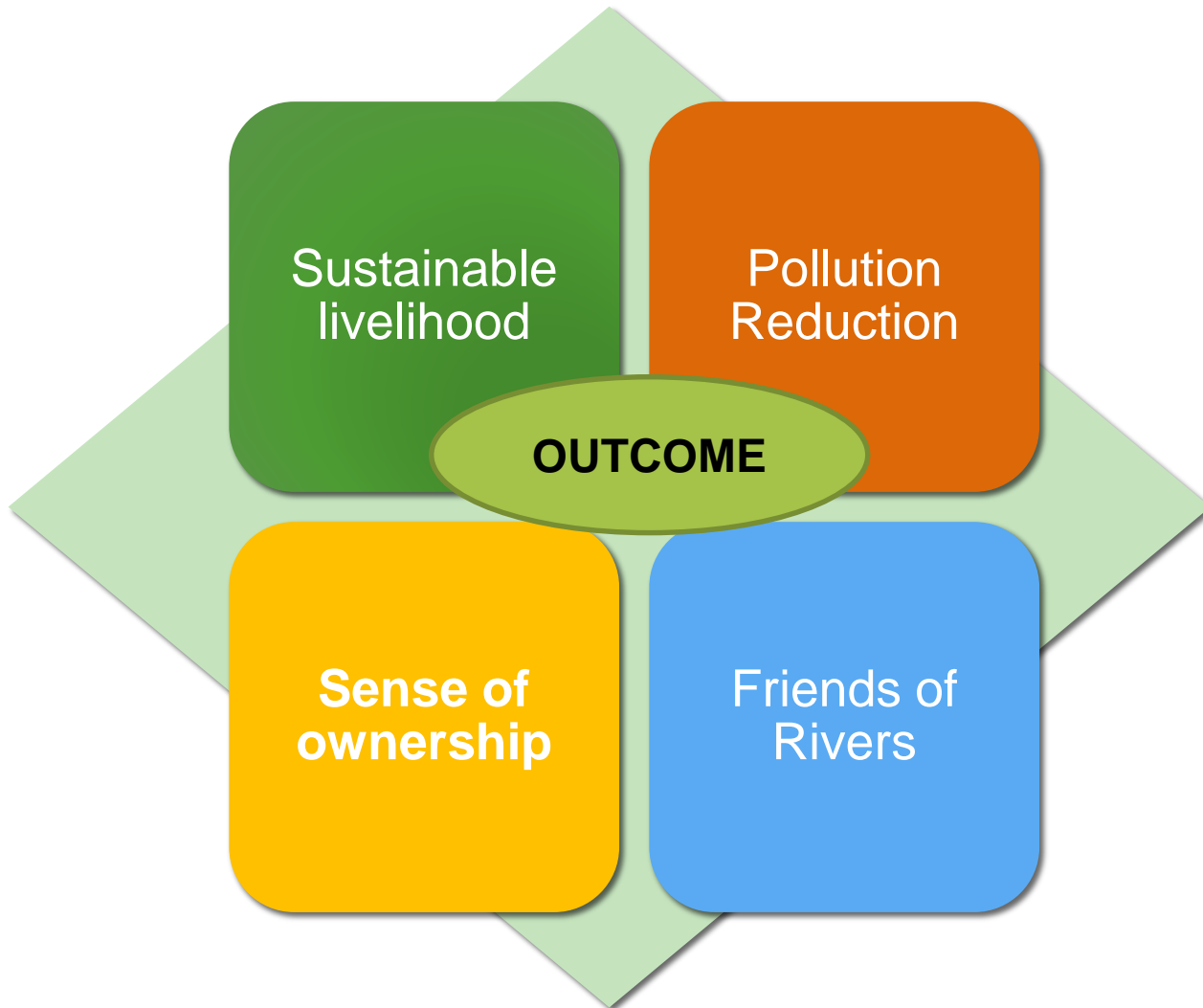
Friends of Sungai Klang Taman Melawati

49 consecutive weeks of clean up since June 2018

Tree planting activities and clean-ups



OUTCOMES AND LIMITATIONS



LIMITATION

Political scenarios

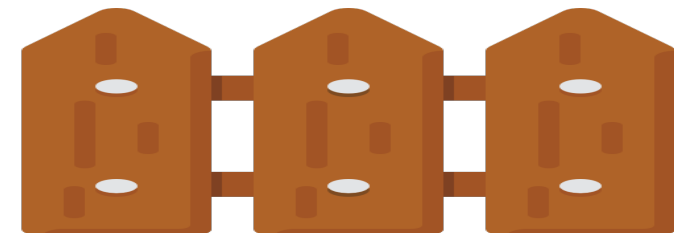
Creativity to sustain economic model

Involvement seems to be time consuming

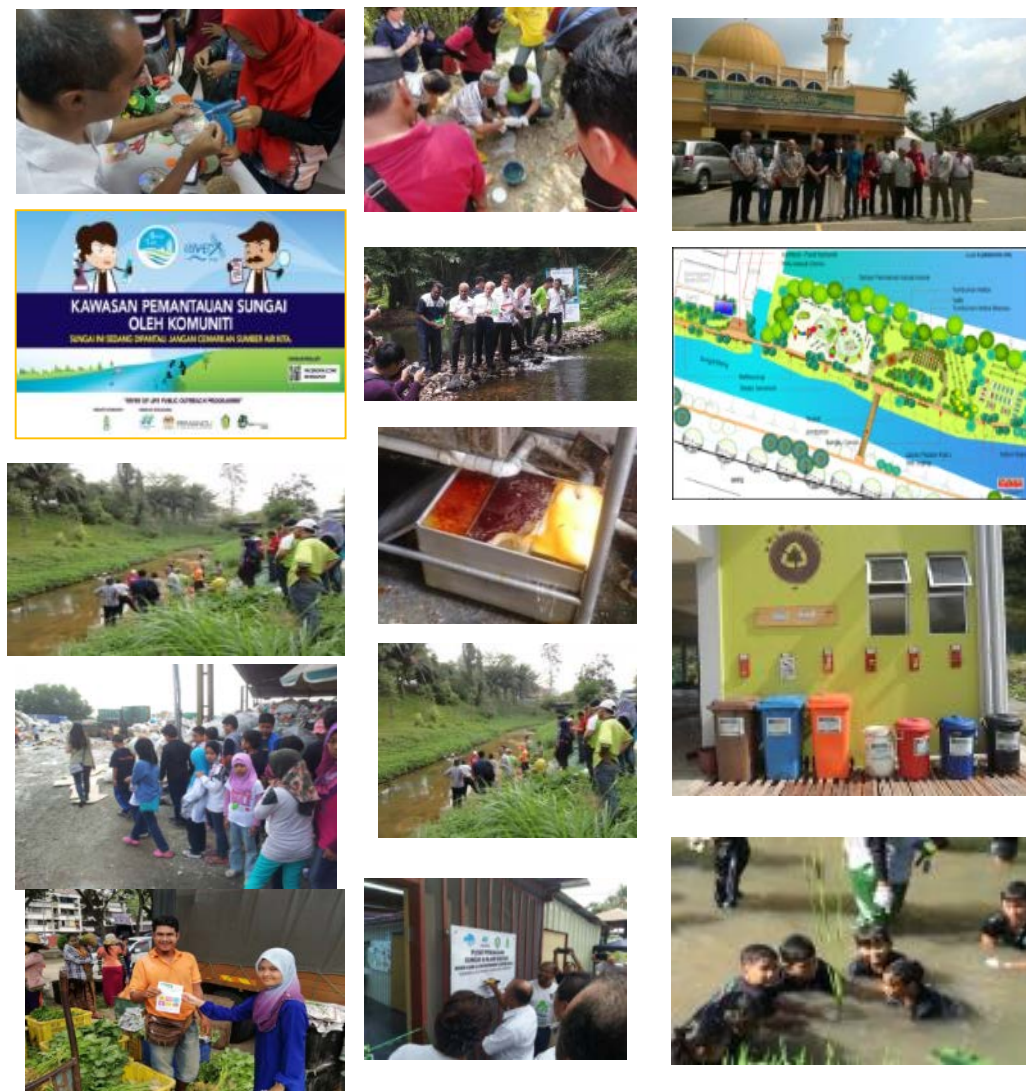
Passive community involvement

Gender inequality in terms of involvement

Uncertainty on river reserve/land ownership



SUMMARY: COMMUNITY ENGAGEMENT MODEL





healthier environment; better economy; more cohesive society

THANK YOU

together we achieve more

Follow us on Instagram & Facebook & hashtag away!

@rivercareprogramme @globalenvironmentcentre

#rivercarewecare

#globalenvironmentcentre

#riverranger; #smartranger; #drh2o



Dr Kalithasan K

010-3669772; kalithasan@gec.org.my

