

**ISKANDAR
MALAYSIA
ECOLIFE
CHALLENGE**



Presenter

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UTM-Low Carbon Asia Research Centre, UTM**

RCE Iskandar

Main Partners



**KEMENTERIAN
PENDIDIKAN
MALAYSIA**
Jabatan Pendidikan Negeri Johor

Facilitation

- Gather stakeholders
- Gather funding
- Promotion

Operation

- Design workbooks & rules
- Conduct training
- Visit schools
- Marking
- Carbon reporting
- Research

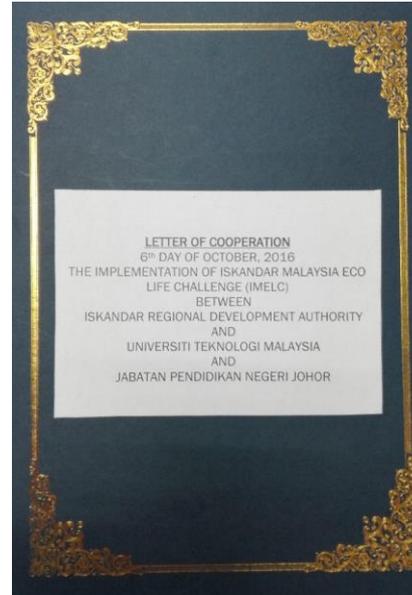
Authorisation

- Plan schools' involvement
- Contact schools

Stakeholders



Letter of Cooperation



Letter of Cooperation signed between UTM, IRDA and JPNJ in 2016 witnessed by Chief Minister of Johor

Letter of Cooperation signed between UTM, IRDA, JPNJ and SWM Environment Private Limited in 2018

Low Carbon Blueprint

Blueprint Actions

Green Economy

- Action 1 Integrated Green Transportation
- Action 2 Green Industry
- Action 3 Low Carbon Urban Governance**
- Action 4 Green Building and Construction
- Action 5 Green Energy System and Renewable Energy

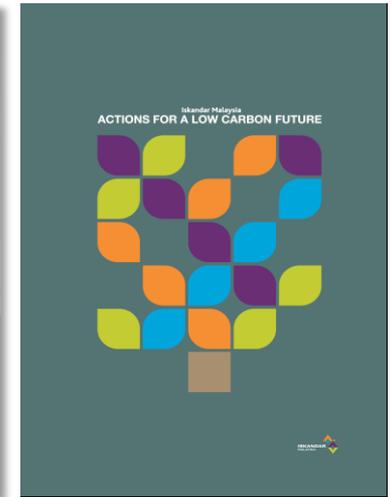
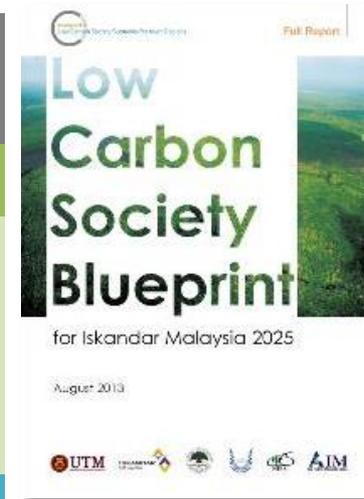
Green Community

- Action 6 Low Carbon Lifestyle
- Action 7 Community Engagement and Consensus Building**

Green Environment

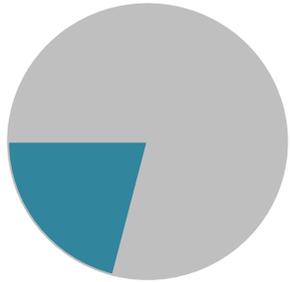
- Action 8 Walkable, Safe and Livable City Design
- Action 9 Smart Urban Growth
- Action 10 Green and Blue Infrastructure and Rural Resources
- Action 11 Sustainable Waste Management
- Action 12 Clean Air Environment**

Total



Action 6 – Low Carbon Lifestyle – Awareness through education. IRDA lacks of knowledge and expertise to give LCS awareness at school level.

Action 6.0: Low Carbon Lifestyle



2,727 ktCO₂eq

21%



Low carbon lifestyle refers to working and living in a sustainable way of daily life. This means that having a low cost working/ living that comprises less carbon foot print per person, a pure, healthy and natural environment. The behaviours and utilization of resources by an individual, organization or community that produce

low carbon emission and give a minimum impact to the environment and enhance low carbon development.

Sub-actions		Measures
1	Awareness through Education	Enhancing general public awareness
		Enhancing school children awareness
2	Smart Working Style	Work from home
		Staggered working hour
3	Promote Energy Efficiency	Promote sales and use of energy efficient appliances
		Promote energy saving practices
		Incentives for green energy initiatives
4	Promote "Smart Travel Choices"	Public information on "Smart Travel Choices"
5	Stock-taking for Low Carbon Lifestyle	Promote self management of lifestyle to monitor CO ₂ emission and expenditure in residential and community

Iskandar Malaysia Ecolife Challenge (IMELC)

- Started in 2013 as a part of a research project funded by the SATREPS to achieve “**Low Carbon Society Blueprint for Iskandar Malaysia 2025**”
- IMELC is a post-UPSR activity for all Year 6 students in all the primary schools in Iskandar Malaysia.



Teacher Training &
Workbook
distribution

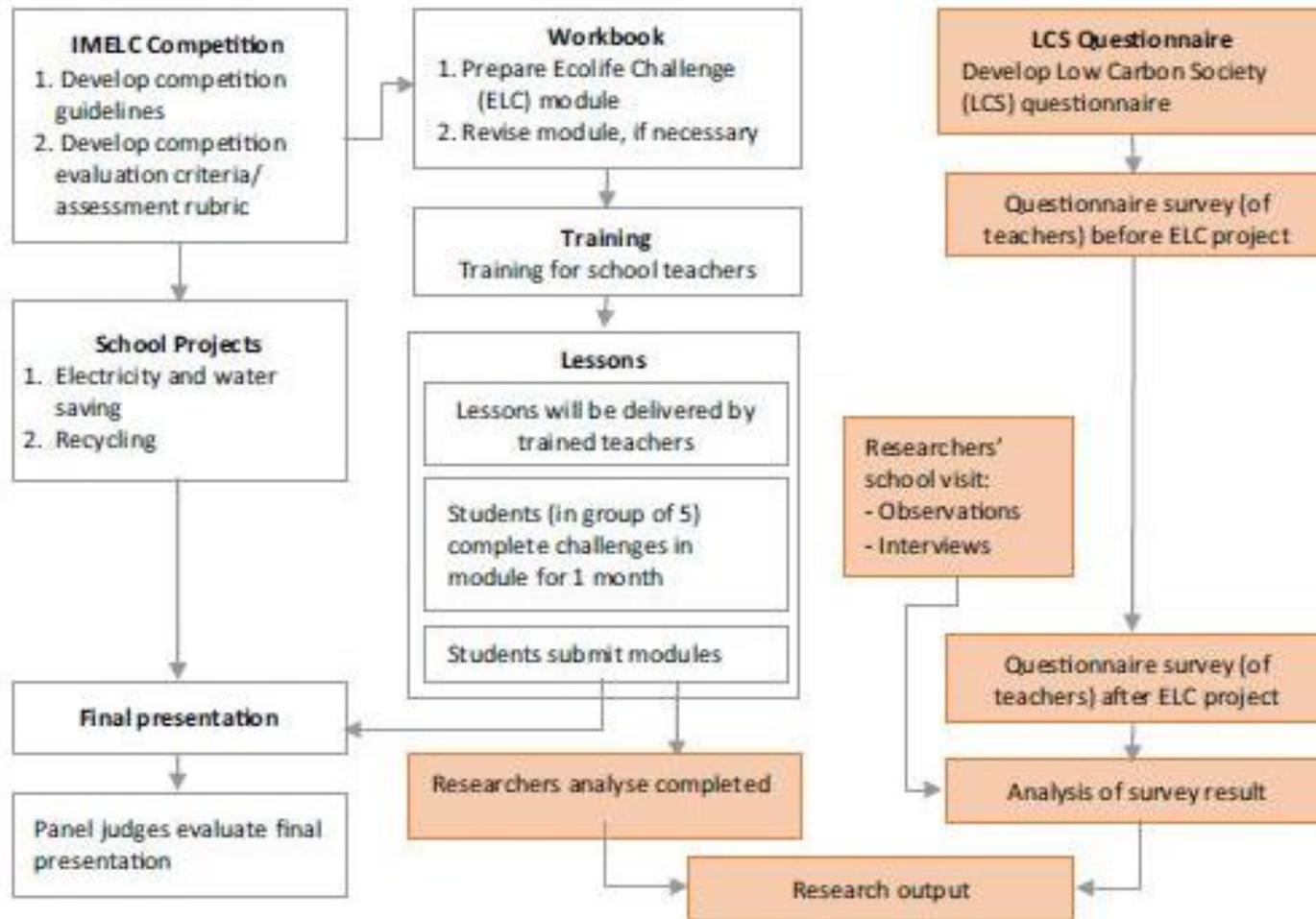
Complete
Workbooks

School
Projects

Final
Presentation

Prizes -
Study Trips

IMELC Operational Framework



IMELC in a Snapshot

Teacher Training
& Work
Distribution



Workbook
Completion



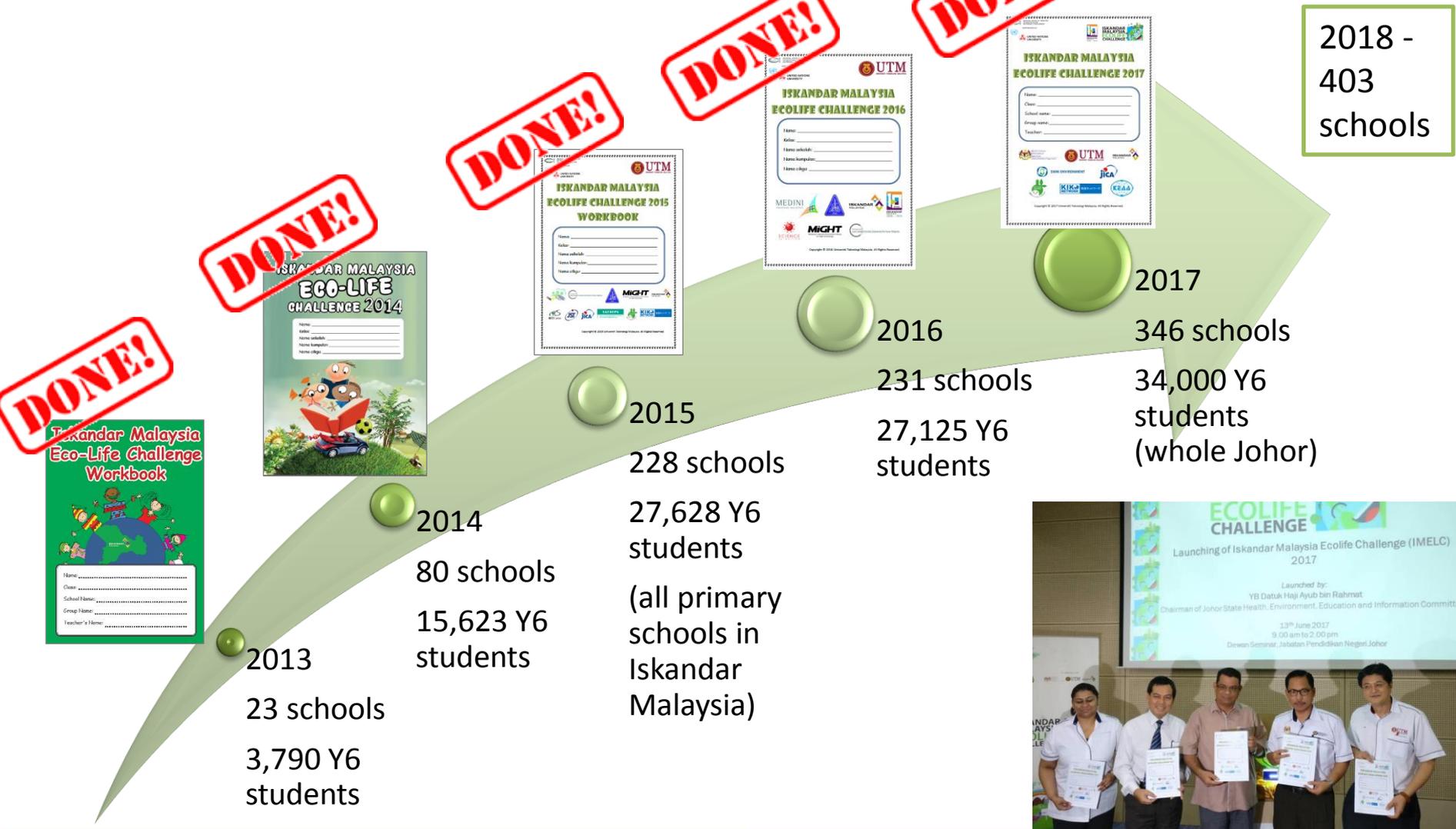
School Project



Final
Presentation



IMELC Journey



Teacher Training (2013 - 2018)



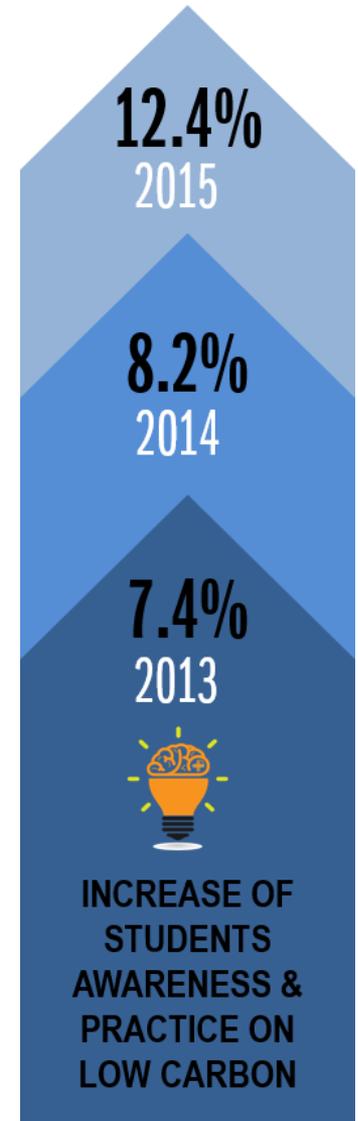
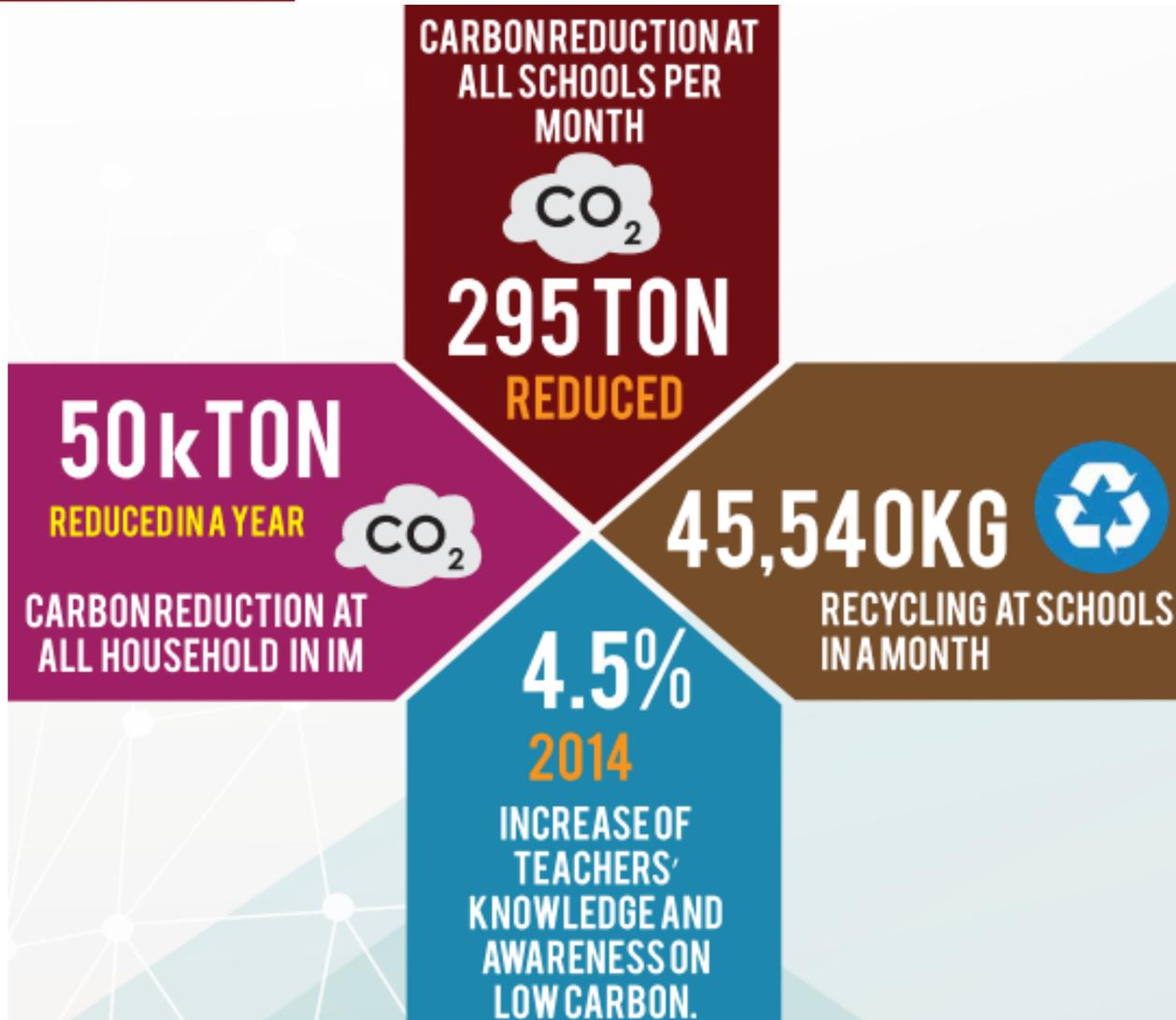
School Activities & Projects



Final Presentation



IMELC Achievement



Project	Electricity	Water
School submitted	131	159
Total reduction by participating schools in 1 month	32,622.61kWh	9,219.00m ³
Total CO2 reduction by participating schools in 1 month*	22,640.09 kgCO ₂	3,852.76kgCO ₂
Total money saved by participating schools	RM15,543.96	RM30,860.56
Projection to all 346 schools (reduction in usage)	86,163.53kWh	20,061.47m ³
Projection to all 346 schools (carbon reduction)	59,797.49kgCO ₂	8,405.76kgCO ₂
Projection to all 346 schools (money saved per month)	RM41,055.04	RM67,155.68
Projection to all 346 schools (money saved per year)	RM492,660.47	RM805,868.21
Rate	1kWh = RM0.50	1m ³ = RM3.30

* Based on KeTTHA (2011) Low carbon cities framework and assessment system. KeTTHA, Putrajaya.

	Recycling	Carbon reduction (1kg = 2.87kgCO ₂)*
School submitted	128	
Total weight sold by participating schools	168,509.91kg	483,623.44kgCO ₂
Total income reported	RM59,759.57	
Average weight per school per month	1,316.48kg	3,778.31kgCO ₂
Average income per school per month	RM466.87	
Projection to all 346 schools (weight per year)	455,503.35kg	1,307,294.62kgCO ₂

* Based on Waste Reduction Model (WARM), U.S. Environmental Protection Agency

IMELC Recognitions



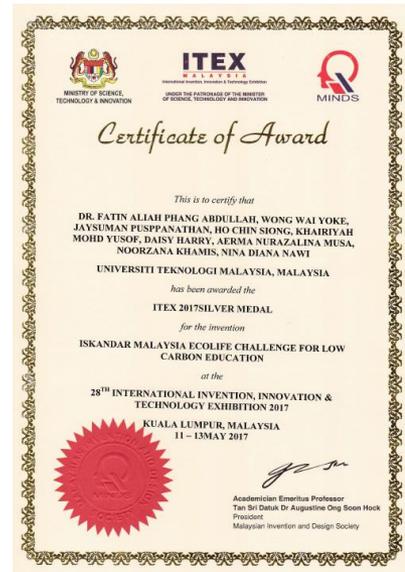
Okayama ESD Awards 2018



Awarded 'Outstanding Flagship Project for Climate Change' at the Global RCE Award 2015 by United Nations University

Awarded **Gold** for National Intellectual Property Award (Copyright) 2018

WIPO Medal of Creativity



Awarded **Silver Medal** at the 28th International Invention, Innovation & Technology Exhibition 2017

Awarded **Silver Medal** at the 18th Industrial Art & Technology Exhibition 2016

Awarded **Bronze Medal** at the PECIPTA 2017

Acknowledgement



**KEMENTERIAN
PENDIDIKAN
MALAYSIA**
Jabatan Pendidikan Negeri Johor

- **Chief Executive**
- Mr Boyd Dionysius Jouman
- Ms Suhaily Hamid
- Ms Daisy Harry
- Ms Choo Hui Hong
- Ms Khairunnisa Abd Khalid

- **Vice Chancellor**
- Deputy Vice Chancellor (R&I)
- Prof. Dr. Ho Chin Siong
- Prof. Dr. Khairiyah Mohd Yusof
- Dr. Nor Farahwahidah Abd Rahman
- Dr. Jaysuman Puspanathan
- Dr. Mahyuddin Arsath
- PG Students & Research Assistants

- **Director of JPNJ**
- Ms Sallina Hussain
- Ms Aerma Nurazalina Musa
- Mr Mohd Munir Baharom
- All PPD Officers

Thank You

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