

# Sustainable Living In Malaysia

LIVING WITHIN THE ECOLOGICAL LIMITS OF ONE PLANET

A CAPACITY BUILDING SEMINAR IN SABAH  
for Individuals And Communities



## SESSION 4

# A SAMPLING OF MALAYSIA'S SUSTAINABILITY STATUS

With the support of



**SGP** The GEF  
Small Grants  
Programme



# MALAYSIA'S LIFESTYLE BEHAVIOUR – EPSM'S PROJECT ON MEASURING THE CARBON, WATER AND FOOD FOOTPRINTS OF MALAYSIAN HOUSEHOLDS

By

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# SEQUENCE OF PRESENTATION

- Background on EPSM project
- Survey on household consumption of electricity, petrol, water and consumer items, as well as waste generation
- Analysis of consumption of utilities and waste generation
- The way forward

# BACKGROUND

- SLiM Campaign – 2007
- Promoting sustainable living in Malaysia using ecological footprint as the core
- Introduction of Ecological Footprint Analysis by Professor William Rees
- EPSM survey of ecological footprint of households in Section 1, Petaling Jaya, Selangor, 2007
  - Footprint of more than 5 gha

# BACKGROUND

- Expand on work done in 2007
- Obtain detailed data for policy intervention
- Need for work of NGOs to be 'scientific'
- Approached Universiti Kebangsaan Malaysia in 2011
  - Keen to work with EPSM
  - Used project as a basis to appoint a doctoral student
- Designed survey form

# SURVEY PARAMETERS

- Details of household
- Water consumption
- Food consumption
- Transport
- Waste generation
- Energy consumption

[See Handbook for mini survey – page 34]

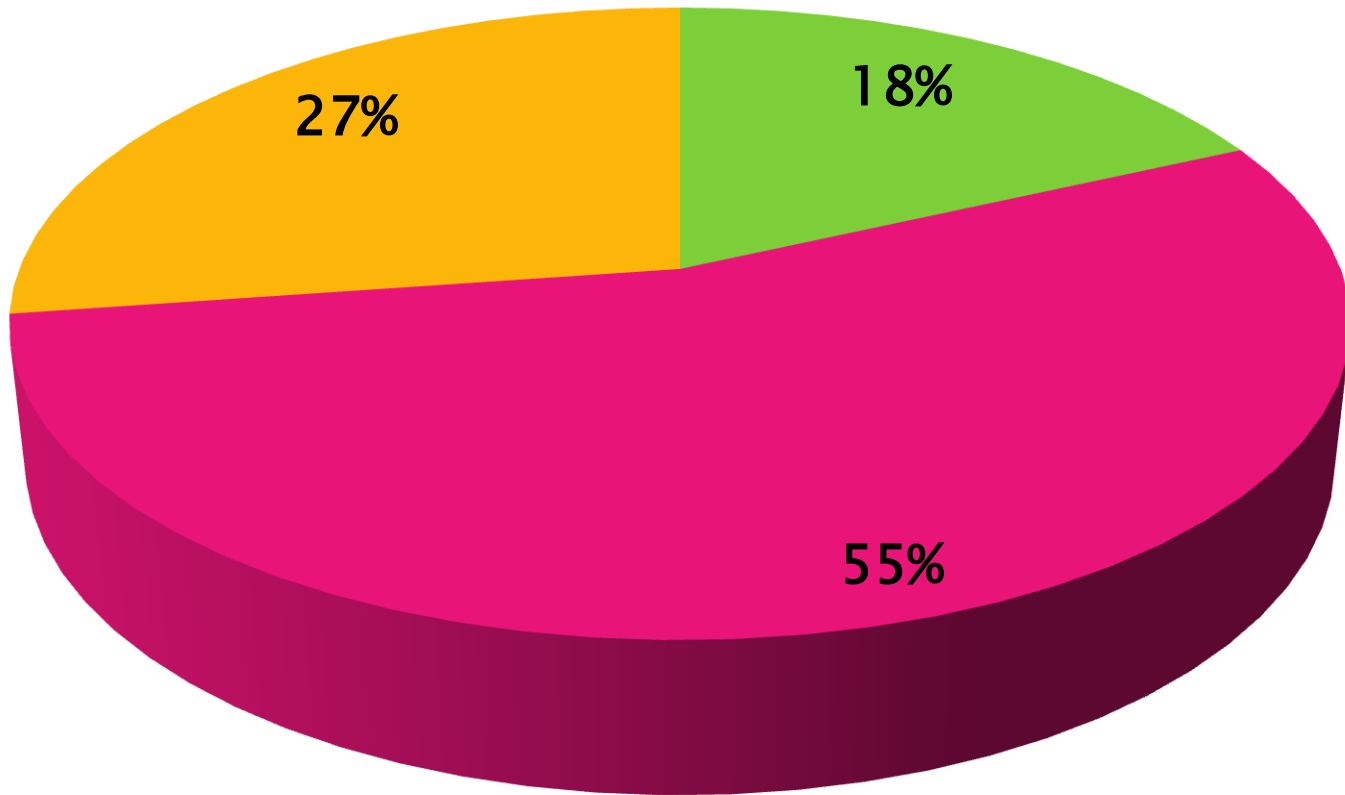
# IMPLEMENTATION

- Obtained GEF SGP funding in 2012; to wind up by April 2014
- Worked with educational institutions to source data
- Five institutions covered and 457 individuals surveyed

Venue	Activity	Number covered	
		Male	Female
Kuala Lumpur	Survey & Awareness-raising talk	0	89
Subang Jaya	Survey & Awareness-raising talk	33	75
Penang	Survey	0	82
Kota Kinabalu	Survey & Awareness-raising talk	60	75
<i>Ipoh</i>	<i>Survey</i> <i>&amp; Awareness-raising talk</i>	43	0
		<b>136</b>	<b>321</b>
<b>TOTAL</b>		<b>457</b>	



# Household Monthly Electricity Consumption (RM)



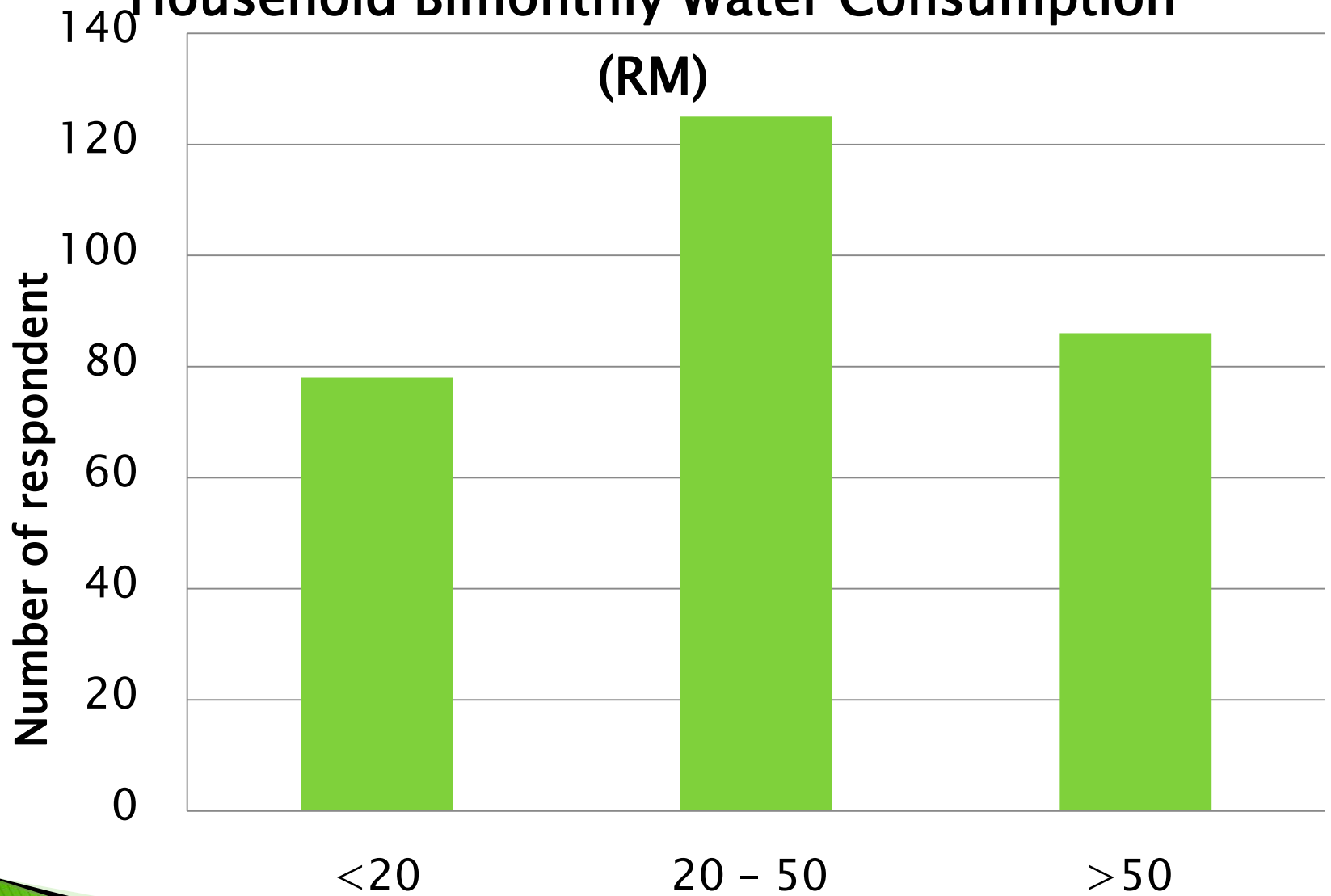
# HOUSEHOLD ELECTRICITY USE

<b>Level of Use</b>	<b>Monthly Consumption (RM)</b>	<b>Number of Households</b>	<b>%</b>
Low [8]	< 70 [279 kwh]	58	18
Medium	70 – 250	170	54
High [1200]	> 250 [818 kwh]	86	27
<b>Total</b>		<b>314</b>	<b>100</b>

# HOUSEHOLD PETROL CONSUMPTION

<b>Level of Consumption</b>	<b>Monthly Expenditure (RM)</b>	<b>Number of Households</b>	<b>%</b>
Low	< 250	138	47
Medium	250 – 500	126	43
High	> 500	30	10
<b>Total</b>		<b>294</b>	<b>100</b>

# Household Bimonthly Water Consumption



# HOUSEHOLD WATER USE

<b>Level of Consumption</b>	<b>Bimonthly Household Consumption (RM)</b>	<b>Number of Households</b>	<b>%</b>
Low (3)	< 20 [28 m3]	78	27
Medium	20 – 50	125	43
High (250)	> 50 [57 m3]	86	30
	<b>Total</b>	<b>289</b>	<b>100</b>

# HOUSEHOLD WASTE GENERATION

<b>Level of use</b>	<b>Waste generated in a week  (No. of bags; size not specified)</b>	<b>Number of households</b>	<b>%</b>
Low	0 – 1	107	31
Medium	2 – 3	124	36
High	3+	114	33
<b>Total</b>		<b>345</b>	<b>100</b>

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<b>Consumer Items</b>	<b>Number of Units</b>	<b>No. of Household</b>	<b>Average per Household</b>
Motorcycle	221	345	0.64
Small-compact car (e.g. Kancil)	68	345	0.20
<b>Mid-sized car (e.g. Waja / Wira)</b>	<b>286</b>	<b>345</b>	<b>0.83</b>
Full-sized car (e.g. Perdana)	214	345	0.62
Sports utility vehicle (4WD)	87	345	0.25
Truck or van	21	345	0.06
<b>Air conditioner</b>	<b>931</b>	<b>345</b>	<b>2.70</b>
<b>TVs</b>	<b>569</b>	<b>345</b>	<b>1.65</b>

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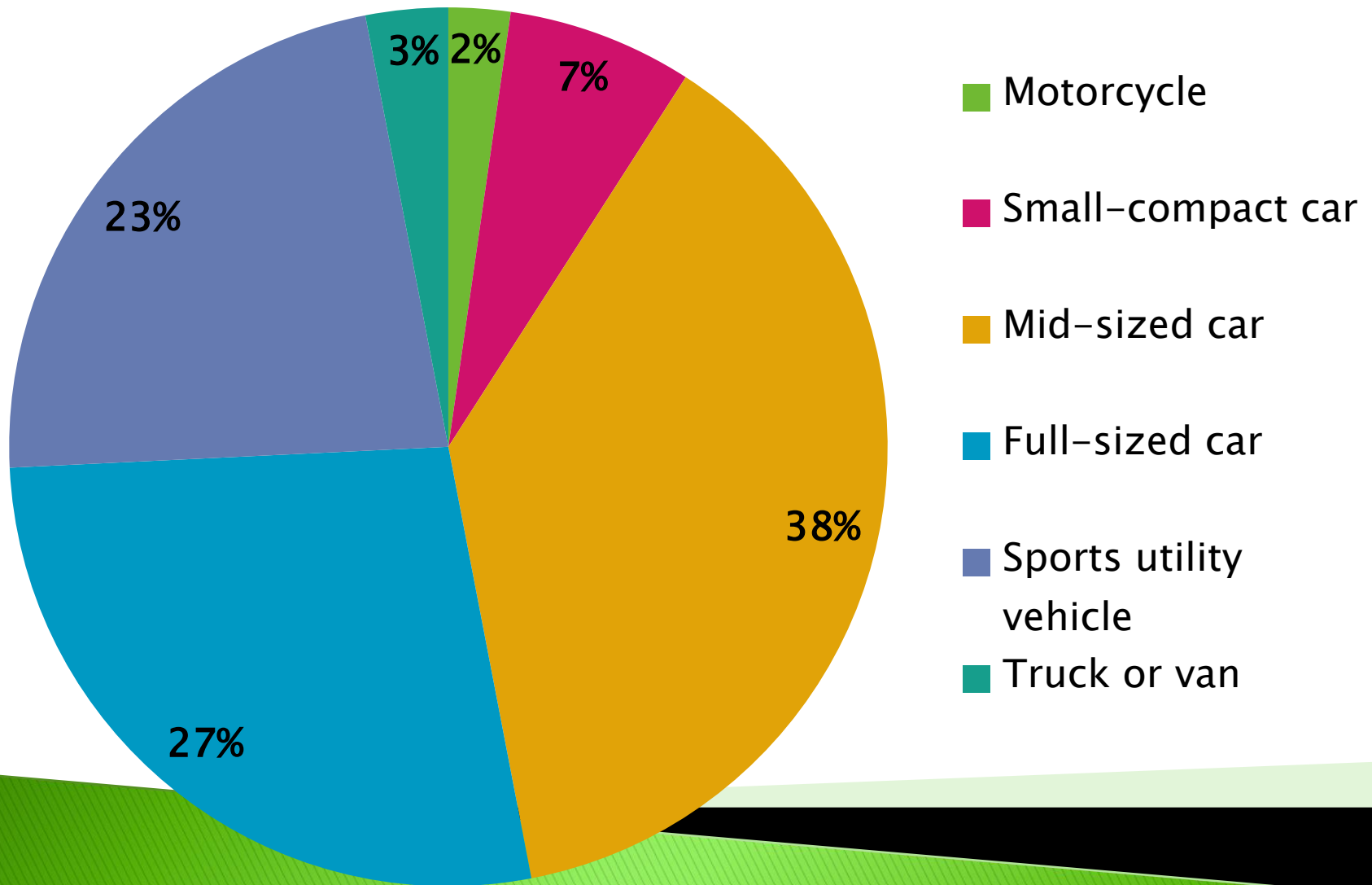


Figure: Types of vehicles used in Kota Kinabalu (%)



# ANALYSIS – ELECTRICITY USE

Electricity use per household is positively significant (confidence interval of 0.90) with:

- Number of people in the house
- Type of house
- Household income
- Education levels of parents

# ANALYSIS – PETROL CONSUMPTION

Petrol consumption per household is positively significant (confidence interval of 0.90) with:

- Type of house
- Household income
- Education levels of parents

# ANALYSIS – WATER USE

Water consumption is positively significant (confidence interval of 0.90) with:

- Household size
- Mother's occupation, especially if she is a housewife

*[Greatest use of water in households is for showers followed by toilets]*

# ANALYSIS – WASTE GENERATION

Waste generation per household is positively significant (confidence interval of 0.90) with:

- Type of house
  - Household income
  - Father's education level
- 
- Negatively significant (confidence interval of 0.95) with willingness to pay for green products.

# THE WAY FORWARD

- Continue with capacity building seminars – PJ and JB
- Conduct a survey in a rural area
- Calculate the ecological footprint and finalise Report  
[Strong indication that EF more than 5gha per household]

# THE WAY FORWARD

- Use the data to make presentations to all levels of governments to influence policy decisions and to push for policy interventions

[RwH, low shower head, dual flush toilets]

- Rally other stakeholders for support
- Write scientific papers

# ACKNOWLEDGEMENT

- Abdul Aziz Bari, PhD candidate, UKM

# THANK YOU

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