Malaysia's First Biennial Update Report

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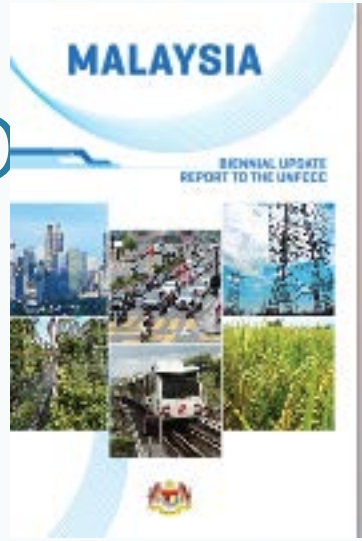
Content

- Summary of BUR
- Lesson learnt
- Challenges in developing the BUR
- Next steps
- Conclusion

Malaysia's BUR Snapsho



- Six chapters and two technical annexes
- Chapters include:
  - National Circumstances
  - GHG Inventory
  - Mitigation actions and their effects
  - Level of support
  - Constraints, gaps and needs
  - Other information on addressing climate change
- Technical Annexes:
  - GHG Inventory
  - REDD+ Results based payments

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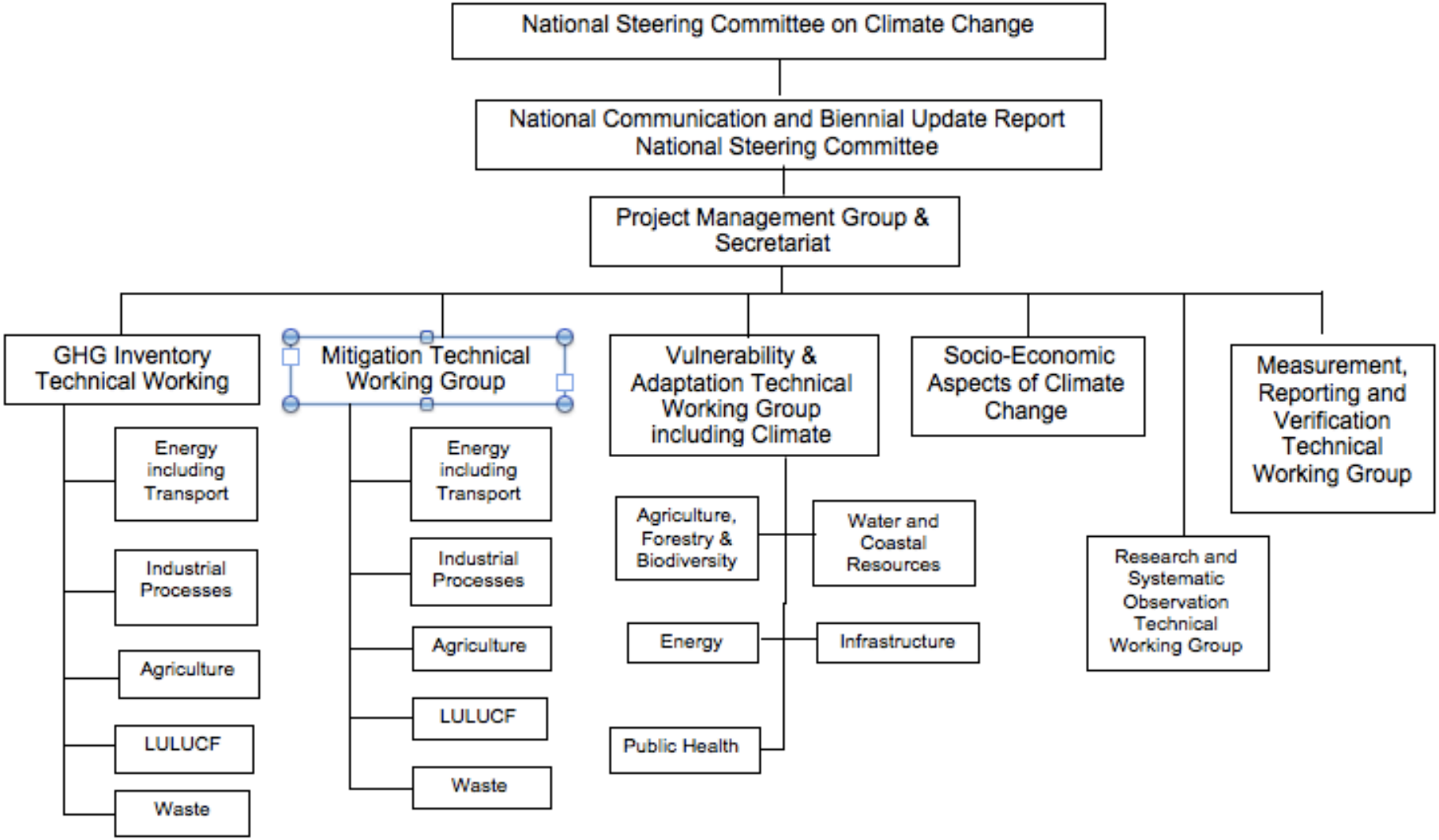
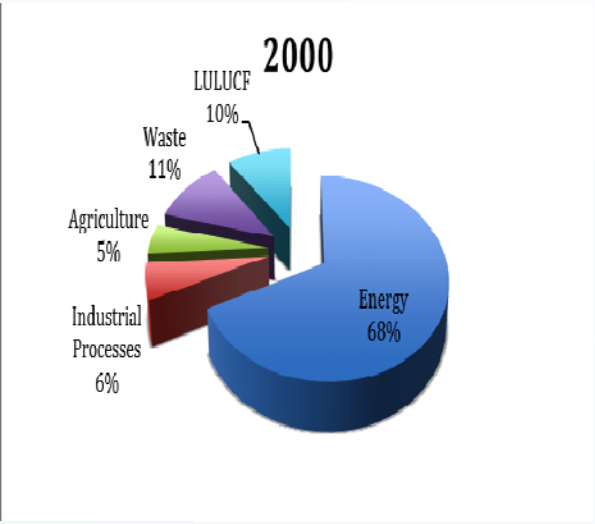
Institutional arrangement

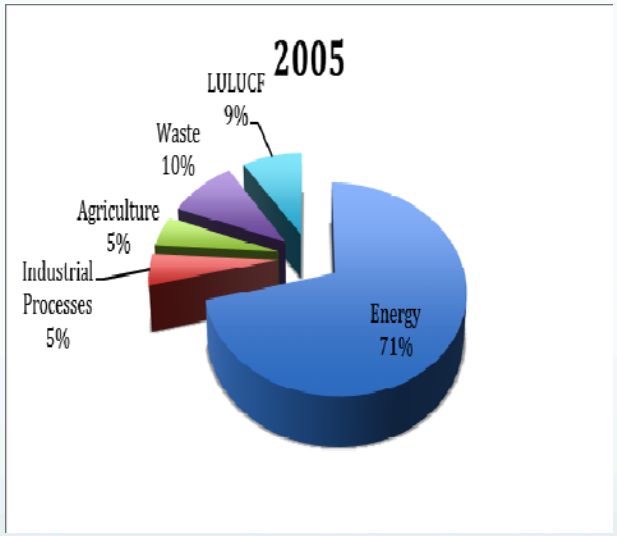


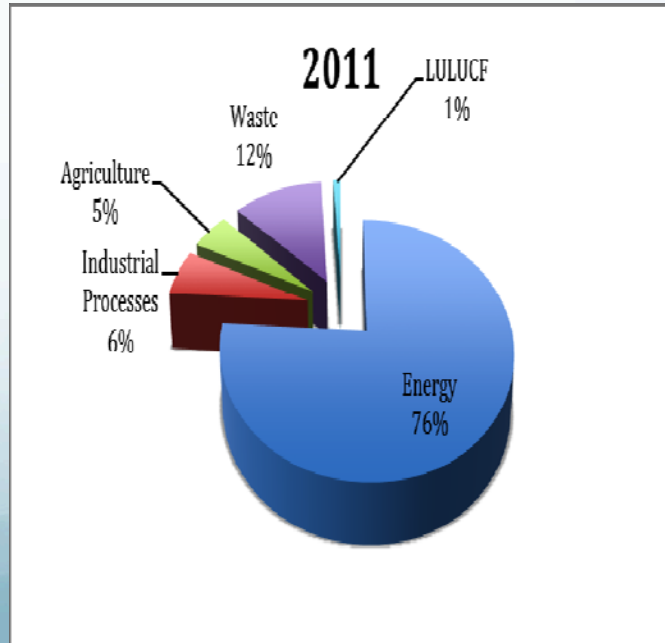
GHG Inventory

- For year 2011
- Time series 1990-2011 except IP – 2000-2011
- Enhanced reporting:
  - Clear description of methodology
  - Uncertainty assessment
  - QA/QC process
  - Assumptions, activity data, emission factors and tabular format for time series

Trends in GHG Inventory







Key Category Analysis

Sector	Key source	Gas	Current year estimate (Gg CO_2eq.)	Level assessment (%)
Energy	Energy industries: public electricity	CO_2	87,885.41	30.54%
Energy	Transport: road transportation	CO_2	41,601.95	14.46%
Waste	Solid waste disposal sites	CH_4	31,127.82	10.82%
Energy	Fugitive emissions from oil and gas operations	CH_4	29,536.66	10.26%
Energy	Manufacturing industries and construction	CO_2	23,003.97	7.99%
Energy	Energy industries: manufacture of solid fuels & other energy industries (natural gas transformation)	CO_2	22,920.48	7.97%
Agriculture	Agricultural soils	N_2O	10,943.82	3.80%
Industrial Processes	Mineral products: cement production	CO_2	7,766.20	2.70%
Industrial Processes	Limestone and dolomite use	CO_2	5,152.17	1.79%
Waste	Industrial wastewater: palm oil mills	CH_4	2,960.14	1.03%
Energy	Other sectors: commercial	CO_2	2,933.97	1.02%
Energy	energy industries: Petroleum Refining	CO_2	2,761.16	0.96%
Energy	Other sectors: agriculture, forestry and fishery	CO_2	2,732.81	0.95%

Mitigation Actions

- National Policies and Planning Processes
- Cross-sectoral policies
- Sector specific policies
- Tabular formation on mitigation effects :
  - Methodology and assumptions
  - Progress etc
- Projections to 2020

Summary of Emissions Reductions and Projected Reductions

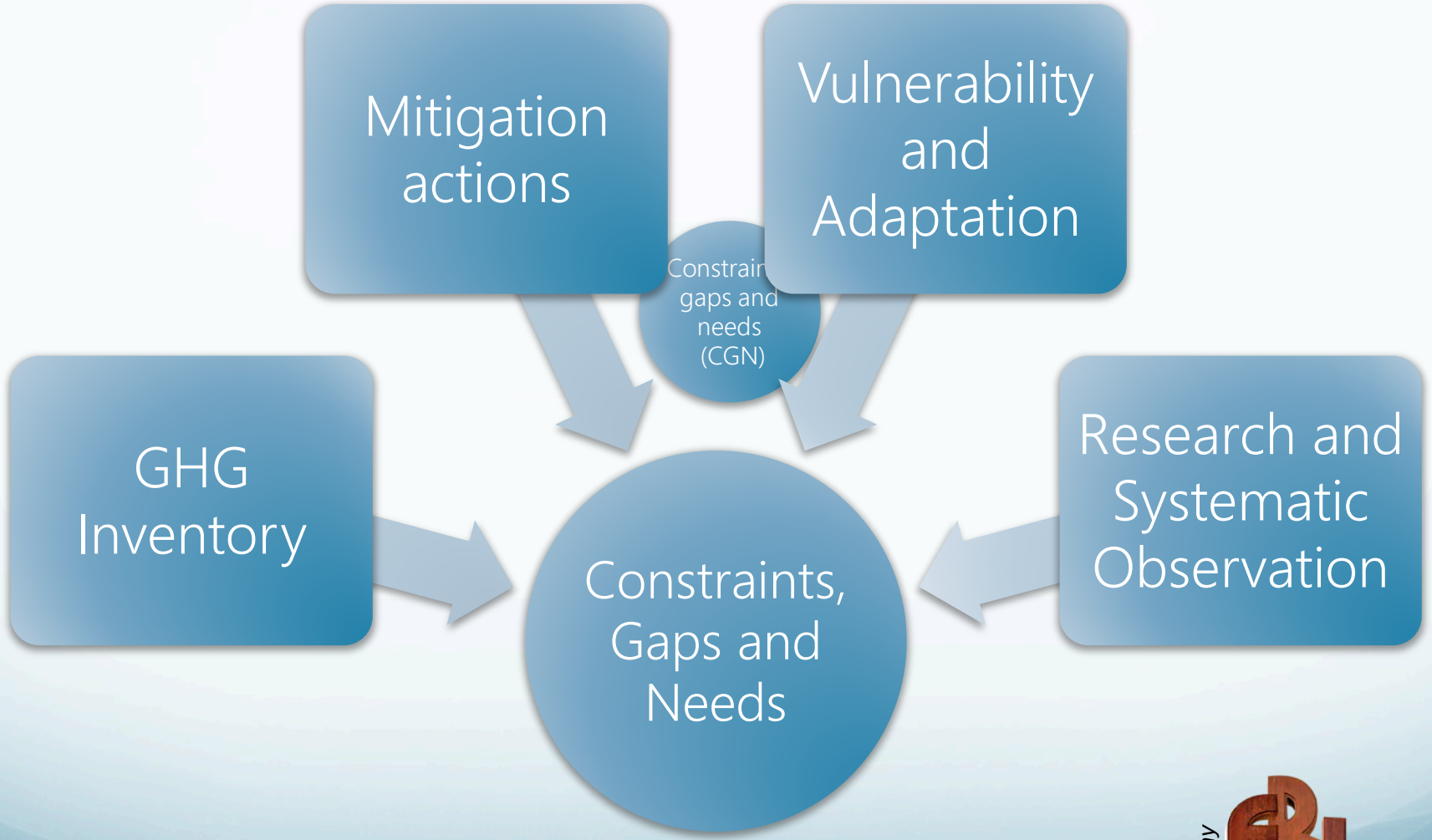
Sector	Mitigation Action	Emission Reduction Achieved in 2013 (kt CO_2eq)		Potential Emission Reduction in 2020 (kt CO_2eq)	
Energy	RE Implementation through Feed-in Tariff mechanism		252.76		5,458.09
	- *Biomass*	127.89		1,511.19	
	- *Biogas*	21.68		906.71	
	- *Small hydropower*	63.41		2,507.92	
	- *Solar photovoltaic*	39.80		403.13	
	- *Geothermal*	-		129.14	
	RE electricity generation by non-Feed-in Tariff regulated public and private licensees and other mechanisms		948.77		2,179.29
	- *Biomass*	822.25		822.25	
	- *Biogas*	17.28		17.28	
	- *Small hydropower*	108.39		108.39	
	- *Solar photovoltaic*	0.85		1,231.37	
	Use of palm-based biodiesel in blended petroleum diesel		719.74		1,802.49
	Application of green technology		94.81		1,426.35
	Implementation of green building rating scheme		60.40		858.40
	Efficient electricity consumption in all Federal Government ministry buildings (baseline established in 2013)		-		98.21
	Reducing emissions through development and usage of energy-efficient vehicles (EEVs)		40.96		199.74
	Use of compressed natural gas (CNG) in motor vehicles		154.62		217.57
	Rail-based public transport		214.93		977.51
LULUCF	Emissions reduction through sustainable management of forest				
	- Gazettement under CFS and HoB	6,214.41	13,797.37		13,800.00
	- Other gazettment	7,582.96			
Waste	Waste paper recycling		1,993.47		2,158.45
	Biogas capture from palm oil mill effluent (POME) treatment		300.95		3,001.89
	Total		**18,578.80**		**32,178.99**

Example of Mitigation Action and Effects

Mitigation Action	Objectives	Description	Key Implementing Agency	2020 Quantitative Goal	Progress of Implementation/ Steps Taken or Envisaged to Achieve Action	Progress Indicators	Methodologies and Assumptions	Gas Coverage	Results Achieved
3. Urban rail-based public transport	• To upgrade and integrate the urban public transport system; • To promote reduced use of private transport and demand on road infrastructure through increasing public transport modal share.	Public investment in rail-based urban mass transit infrastructure in the Klang Valley in the form of the Light Rail Transit (LRT), the Mass Rapid Transit (MRT) and the Monorail networks.	Land Public Transport Commission	Annual ridership on rail-based public transport from year 2013 to year 2020 to increase by 355%. Potential net emission reduction: 977.51 kt CO_2eq	• Construction of new rail-based mass rapid transit networks to integrate with the existing networks; • Extension of existing networks to increase coverage and enhance efficiency.	Daily ridership volumes on the LRT, MRT and Monorail networks	• Daily ridership data based on the number of trips on the LRT, MRT and Monorail networks are compiled and aggregated for the year. • The number of commuters is determined by dividing the ridership by two on the basis of return trips. • The number of cars and the corresponding commuting distance avoided are computed using default values from the most recent study by MIROS. • The emissions avoided are calculated based on the carbon emission factor for the passenger vehicle category as reported by DEFRA, United Kingdom, or equivalent. • Monthly data on operational electricity consumption of the LRT, MRT and Monorail	CO_2	109,660 passenger vehicles that would have travelled $1,541.44 \times 10^6$ km per year were taken off the road in 2013. Net emission reduction achieved in 2013: 214.93 kt CO_2eq.

Level of Support

- Very challenging to gather information
  - Tracking of support given especially to NGOs and private sectors
  - Distinction between climate and non climate support
- Time frame?
- Quantification of support through regional capacity building programmes



Lessons learnt

- Institutional arrangement is important
  - Repository of data and information
  - Expertise retained to some extent
  - Improvement plan
  - Helped in meaningful interaction during ICA process
- Mandatory for at least two people to understand and be familiar with the whole BUR
- Improvement in documentation of mitigation actions and their effects especially when mitigation action is a co-benefit of a policy

Next Steps

- Experience gained from GHG Inventory will be used to institutionalise mitigation actions
- Reporting format for GHG inventory needs to be enhanced
- Standard Operating Procedures for Mitigation actions needs to be developed
- More detailed procedures for MRV needs to be established

Challenges

- Generalized UNFCCC Guidelines
- For GHG Inventory, it is still unclear if a separate National Report is required?
- What needs to be reported?
- Operationalising of MRV system fully as national capacity is being built

Conclusion

- Good institutional arrangements is mandatory for on time BUR submission
- First BUR focused on:
  - Transparency
  - Completeness
  - Comparability
  - Consistency
- More effort on accuracy – moving towards country specific emission factors
- Comprehensive GHG and MRV system

- Thank you