

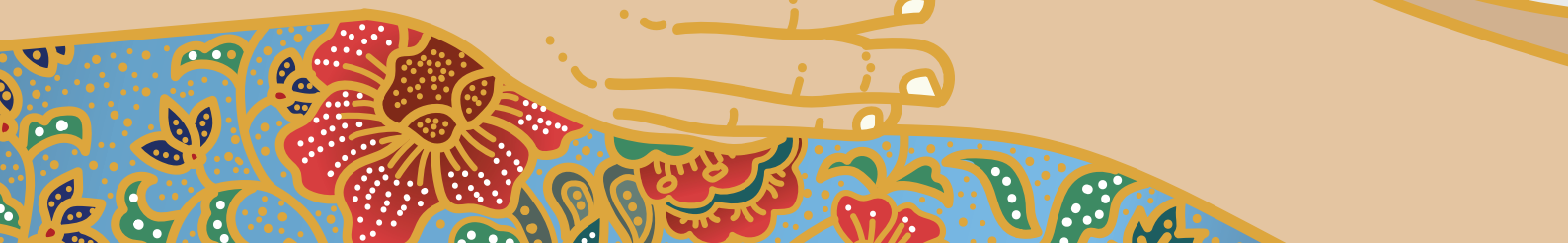


Cent-GPS
Centre for Governance
and Political Studies



Kuala Lumpur
URBAN
CLIMATE CHANGE
RESILIENCE
WORKSHOP 2024

POLICY SUGGESTION PAPER ON
CLIMATE CHANGE AND
URBAN RESILIENCE





POLICY SUGGESTION PAPER ON **CLIMATE CHANGE AND URBAN RESILIENCE**

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1.0 BACKGROUND

The Kuala Lumpur Urban Climate Change Resilience Workshop #KLUCCR2024 was a two-day climate action workshop held in Kuala Lumpur on the 26th and 27th of February, 2024. It gathered key stakeholders from both the government and private sector including members of Malaysia's various civil societies. As we can see from recent events, climate change has a major effect on urban areas ranging from the increasing occurrences of flash floods thanks to the intensifying tropical storms and drought that affect water supply, it is high time that we put a focus on urban planning and disaster mitigation in the right context.

While most climate change discussions and initiatives are very much focused on national and regional policies such as taxation, technology adoption or the introduction of certain tariffs, KLUCCR pushes more on the local government perspective as these local councils hold several jurisdictions regarding the enforcement and implementation of climate mitigation projects and initiatives. These are the very same people who are also at the forefront of these climate change-related disasters, thus a workshop that looks at the angle of urban climate change resilience through a localized lens is long overdue.

KLUCCR is organized by the Centre for Governance and Political Studies, a Kuala Lumpur-based research firm with support from the United States Embassy of Kuala Lumpur. Climate change is not a regional nor is it a national issue, rather, it is a global challenge which affects all of us. Through workshops such as these, we can build a network of like-minded policymakers, implementers and decision-makers and work towards a concerted goal in solving the climate crisis which we believe is the pertinent issue of this century.

The goal for this year's workshop is to produce a list of policy suggestions in the form of a white paper proposal that can be implemented and adopted by all tiers of government (Local, State and Federal) in their respective capacity.

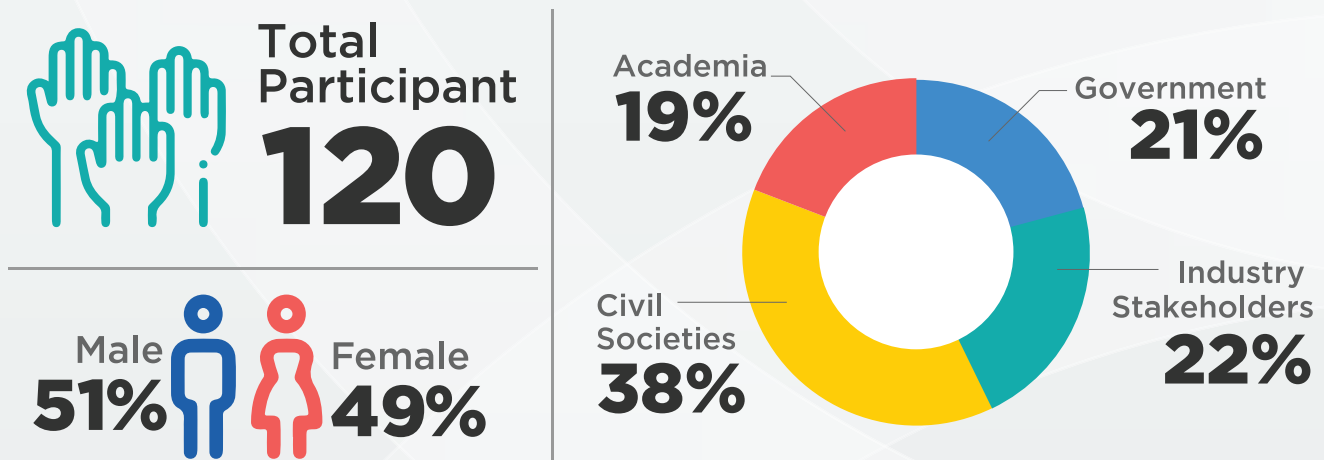


2.0 STAKEHOLDERS

In order to achieve long and meaningful impact, relevant stakeholders from a diverse background and interests will be required to share their opinions, knowledge and expertise in the matter. For the KLUCCR workshop, this was achieved through the attendance of various climate experts, academicians, civil servants and industry players as participants and speakers.

A total of 120 unique participants attended the two-day workshop from a varying and diverse range of backgrounds and experiences pertinent to the discussion had during the workshop.

Below are the details of the participants:



The workshop's participant demographic showcased a healthy level of participation from all stakeholders with the workshop achieving close to an equal balance of gender and type of organization. This healthy level of participation means that stakeholders from all sorts of backgrounds and knowledge are able to share their findings, observations and insights allowing for a more thorough discourse to aid in the formulation of this policy suggestion paper.

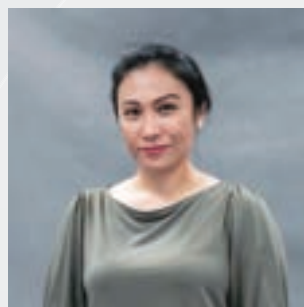
Speakers of the workshop were from various backgrounds as well lending their expertise and knowledge to the workshop and its participants. Speakers included Dr. Renard Siew from Cent-GPS, Mr. Yeong-chuan Lim from Honeywell Malaysia, Ms. Aznie Rahim from G100: Mission Million and finally Mr. Murali Ram from Arup.



Dr. Renard Siew
Climate Change
Advisor, Cent-GPS



Mr. Yeong-chuan Lim
Country President for
Malaysia and Singapore,
Honeywell



Ms. Aznie Rahim
Country Chair for Climate
Action and Environment,
G100: Mission Million



Mr. Murali Ram
Malaysia Lead, Arup



3.0 DISCUSSION OUTCOMES & POLICY SUGGESTIONS

From the workshop, the various policy suggestions and initiatives can be categorized into the following:

 **COORDINATION AND AWARENESS**

 **ENERGY TRANSITION**

 **RESILIENT CITIES AND COMMUNITIES**

 **DISASTER MANAGEMENT**



4.0 COORDINATION AND AWARENESS

4.1 INCREASED COLLABORATION FOR ALL

With many stakeholders operating and working towards the same goals, many are still insulated from one another making collaborative progress impossible. Academia, private industries as well as government agencies need to make a concerted effort to collaborate and share developments where applicable in order to ensure that climate adaptation can be effectively done and understood.

Increasing collaborations in an effective manner also allows all stakeholders to interact and understand each other's requirements and goals. Aligning these goals will not only strengthen efforts in implementing climate adaptation policies and processes but also help accelerate progress while reducing impact and burden for all.

In addition to this, increased collaboration specifically between government agencies allows a more streamlined approach at implementing and enforcing policies and guidelines. This streamlining of efforts allows for more effective execution of policies and guidelines whilst reducing loss in productivity.



Specific suggestions to achieve this goal includes:

1. Hosting a regular monthly multi agency and ministerial meeting headed by the Ministry of Natural Resources and Environmental Sustainability. Through these regular meetings, information and progress can be shared openly and in a timely manner ensuring the collaborative efforts are meaningful and impactful.
2. Setting clear goals and key performance indexes regarding policy initiatives and implementations. These goals and key performance indexes should be set on targets such as the number of functioning solar farms, reduction of GHG emissions and so on.
3. Hosting an annual conference which includes non-governmental stakeholders of which includes not only civil societies but also industry players as well as academicians. This allows the relevant ministries to be able to capture pertinent voices on-the-ground and act on these insights effectively.

4.2 RESEARCH AND DEVELOPMENT TO ACCELERATE CLIMATE ADAPTATION

Research and development is needed to accelerate climate adaptation in Malaysia in order to safeguard the future of the nation and its people. According to the Minister of Natural Resources and Environmental Sustainability, Minister Nik Nazmi, a total of 637 billion MYR in funding is needed in order to transition Malaysia's power grid to renewables. This translates to only 1% of Malaysia's nominal GDP and would only require 15-18 billion MYR to be raised a year.

Aside from funding, research and development needs to be integrated and applied practically. Many research and development done in universities and academic centers are often underutilized in real life settings by both the private and public sector. This underutilization not only hampers potential progress in accelerating change but also demoralizes any further study leading to intellectual stagnation in the nation.

Research and development funds can be raised through tax breaks for private industries taking part in crucial joint studies with the government ensuring private-public collaboration as well as transparency between all parties. Through these collaborations, interested parties such as the private industry and government agencies can identify new solutions that can be integrated into pre-existing frameworks for a more effective system for all.

4.3 PUBLIC EDUCATION AND AWARENESS

Public education and awareness is one of the most important issues to be addressed. This issue can be broken down into three main facets ;The public's lack of awareness in terms of the current climate-related policies, the younger generation's understanding of climate change, and the public's unawareness of programs and grants.

In order to get public support of these policies and those to come, the public needs to be made aware and be supportive of such policies. However as the public is largely unaware, support from the public is far and few in between. Examples such as recycling efforts for neighborhoods require the support of the community to be effective.

Youths should be taken into account when planning for climate-related policies as they are the ones who will be inheriting the country. These engagements can come in the form of district-based education programs through schools as well as through cartoons and other forms of entertainment. A deeper understanding of climate change among the youths will lead to more public support for policies and guidelines while also fostering a sense of individual care and responsibility towards their own community.

Lastly, many are not aware of ongoing programs and grants to further climate adaptation and mitigation. This not only extends to the public but also the private sector as well as academia. This translates to overall lower participation in these programs and grants halting innovation and progress.

5.0 ENERGY TRANSITION

5.1 OIL & GAS METHANE CAPTURE FRAMEWORK

In 2021, Malaysia signed the Global Methane Pledge (GMP), a non-legally binding agreement launched in COP26 to reduce methane emissions by 30% relative to 2020's emissions. While Malaysia has signed the GMP, very little has been done to achieve work towards this reduction.

While corporations have pledged to reduce their emissions, there is no national framework or guideline in place for methane abatement. Capturing methane would not only lead to reduction in emissions but also be able to generate additional profit for the company through the usage of these flared gasses.

Methane capturing can also provide additional revenue to companies who are able to capture it efficiently. Furthermore, it strengthens the nation's energy security while long-term solutions towards renewable energy can be achieved while reducing dependency on traditional carbon fuels.

The Ministry of Energy Transition and Water Transformation can start with a guideline and legislation framework of which can be enforced by local councils in issuing operating licenses. Of which industries and factories that want to operate must adhere to the requirements of having a carbon capture system to cut down on emissions.

5.2 GREEN BUILDINGS AS A STANDARD BASELINE

There are several green building certifications in Malaysia such as the Green Building Index (GBI) or the Leadership in Energy and Environmental Design (LEED). GBI has been specifically designed for tropical climates as well as addresses Malaysia's current social, infrastructure and economic development not too dissimilar from Singapore's GREENMARK which has been designed to address Singapore's needs.

While standards such as these exist, green building certification for future buildings needs to be made a requirement for approval especially if the construction in question would lead to high climate impact. This would lead to more environmentally friendly buildings but also lead to overall lower operational cost through energy-efficient design and reduction in water usage among other things.

5.3 RETROFITTING FRAMEWORK FOR OLDER BUILDINGS

In Malaysia, the construction of newer buildings is preferable in comparison to retrofitting older buildings. This has led to a lack of a proper framework in regard to these buildings as well as a general lack of retrofitted buildings that follow the current and energy and resource usage standards set. Retrofitting older buildings leads to reduction in energy consumption translating to overall cost-savings for homeowners, businesses as well for the government.

Retrofitting older buildings is able to reduce overall energy consumption as well as lower greenhouse gas emissions. However, low public awareness still poses a large barrier to retrofitting these buildings. Sustainable refurbishment of older buildings can lead to a more resilient, sustainable and vibrant city.

5.4 RENEWABLE ENERGY SOURCES & EV

A key issue we need to address is the carbon emissions of the nation's power source as well as its mode of transportation. While this is mainly a national-centric policy, it is important to note that in order to effectively cut urban emissions, the right initiatives must be made to allow for the transition from hydrocarbon-intensive energy production to renewable alternatives. These initiatives include urban solar farming initiatives such as the installation of solar panels on open-ended parking facilities, solar-generated power, and an independent energy storage system for larger buildings to have smart grids that can share and distribute surplus energy.

While there is a unanimous agreement on the need to make our cities more walkable and improve public transportation, there must also be a clear plan for migrating our transportation means from a hydrocarbon-based to an electric-based system. While local councils can allocate specific lots, zones and licenses for electric vehicle charging or introduce an added electric bus system, the limited resources made available to local governments may limit these initiatives.

The federal government, through the Ministry of Energy Transition and Water Transformation and even the Ministry of Finance, through its shareholding in key government-linked corporations such as TNB and PETRONAS can accelerate the introduction of these so-called renewable infrastructures. TNB serves as the right body to push for more charging stations and solar panel power generation while PETRONAS can leverage its petrol stations to have charging stations as catalysts for EV adoption. These entities have a business interest in making this happen as both parties are energy companies with investment in these projects not only meeting their corporate social responsibility requirements, it also serves to be a profitable business venture and investment to the future.

6.0 RESILIENT CITIES AND COMMUNITIES

6.1 PEOPLE-CENTRIC CITY DESIGN

Currently, most cities are designed with cars in mind in terms of mobility and accessibility. This includes cities such as Kuala Lumpur as well as Klang Valley in general. This has led to cities not being walkable and thus increasing its dependencies on vehicles. Cities must be made pedestrian-friendly. Not only does this democratize the usage of land and lower dependency on vehicles, but also benefits the individual's health and encourages community bonding.

Activities such as the Kuala Lumpur Car Free Sunday done by the Kuala Lumpur City Hall are enjoyed by many of its residents and can be adapted at a localized level with towns such as Bandar Utama, Kepong, Hulu Langat and Shah Alam. However, more permanent solutions should be found to allow for a more prosperous and health-driven community.

6.2 PROACTIVE MEASURES TO PREVENT DISASTERS

Current policies implemented are focused on reactive measures and recovery rather than proactive measures and prevention. This policy gap is detrimental to Malaysia's fight against climate change and endangers lives while also putting a huge burden on the economy when a disaster occurs in extreme conditions such as the 2021-2022 Kuala Lumpur floods.

At a local level, waste management and catchment systems can be implemented to prevent local level environmental hazards from forming thus preventing the cascading effect that may lead to flash flooding as an example. That being said, a national level adaptation plan needs to be both proactive and reactive in order to effectively prevent and address disasters affecting our communities and homes.

6.3 FIRST AND LAST MILE SOLUTIONS IN URBAN AREAS

While Kuala Lumpur and by extension, the Klang Valley boasts a robust public transportation system, it fails to address first and last mile travel leading to many still being heavily dependent on driving. While daily ridership numbers are expected to increase to 1.14 million, first and last mile solutions are needed more than ever. With increased ridership, dependencies of vehicles can be further reduced leading to overall less carbon emissions within the country.

On-demand van services for first and last mile solutions are on the way from the Ministry of Transport. This marks a step forward in the right direction. However, infrastructural changes and empowerment of local solutions need to be made in order to make a long-lasting solution. One such change can be the inclusion of private industry in providing these first and last mile transportation in an affordable manner. Furthermore, the democratization of public transport would help alleviate the burden of the government through private entities joining the fray. Guidelines must be put in place and adhered to by private players to ensure that the public has access to affordable and safe transportation options for their travel.

7.0 DISASTER MANAGEMENT

7.1 SMART SOLUTION INTEGRATION

Smart solutions in this context refer to not only real-time monitoring and algorithmic predictions of climate patterns, but rather it can be used to also assist first responders through coordination of efforts as well as optimized resource allocation.

Additionally, through innovation in material usage and city design, Kuala Lumpur and its infrastructure can be refined to deal with the current needs of the city as well as prevent further disasters from occurring.

7.2 LOCALIZED ADAPTATION AND MITIGATION PLANNING

While agencies such as NADMA do operate on a state and district level, little is known about them and many ultimately defer to the state's government's disaster management agencies. This being said, adaptation and mitigation plans require on-ground understanding and technical knowledge to be efficient.

These localized planning require the input of residents within the community to identify and plan for potential disasters. Through local input, authorities are also able to effectively identify points of interests which require attention and monitoring.

Authorities should collaborate with local housing associations and boards to engage with residents on the ground and identify these issues leading to a more comprehensive and effective planning process. This not only empowers local authorities but also provides agencies such as NADMA key information that can be utilized at a national level.

7.3 EMPOWERMENT OF LOCAL GOVERNMENT

Empowerment of local government is crucial in disaster management with this level of authority often being the first responders of any disasters. Empowerment in this context refers to having a specific department set up to collaborate with district level NADMA offices to effectively address disasters.

Additionally, training and exercises can be held at a local level with state and federal authorities to allow local authorities to act immediately thus saving crucial time for victims caught in disasters. This can be in the form of initial disaster assessment as well as determining the required personnel. Through key actions such as these can first responders act effectively and efficiently. These training and skill sets can also be extended to community centers, religious leaders and local NGOs which have a vested interest in their respective community.

8.0 CONCLUSION

The suggestions drawn from the discourse held throughout the workshop hopefully serves as a useful guideline to further enhance our current climate change related policies or serve as an update to our current laws and policies to face the climate change reality.

We hope that it can be adopted by all relevant parties to ensure that not only will we be more prepared in the context of making our urban areas more resilient in facing the effects of climate change, but aspirationally we hope that they will help to usher a more concerted effort in how we tackle the pertinent issue of climate that we are facing us today for the sake of future generations.





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