UNITED NATIONS DEVELOPMENT PROGRAMME

Youth Co:Lab Challenge Kit: Climate Change

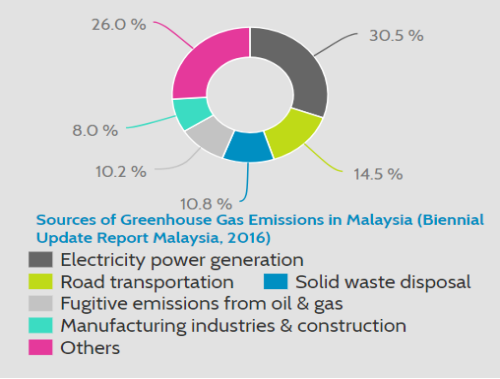
Empowered lives.
Resilient nations.

1. Climate change challenges in Malaysia

Human-induced climate change is already being witnessed in Malaysia. In the last few years, we have experienced extreme rainfall and flooding, such as the floods in Penang caused by 1.5 month's amount of rain that fell in 15 hours in November 2017. We are also no stranger to extreme heat events, like the prolonged dry season which led to water shortages in Selangor and Klang Valley in 2014. Natural disasters caused by extreme weather are occurring at an increased frequency and magnitude.

Climate change puts human life and our diverse wildlife at risk, wreaking havoc on our fragile ecosystems, destroying reefs and causing crops to fail. All at a high cost.

The cause of climate change in Malaysia and around the world? Rising greenhouse gas (GHG) emissions from burning fossil fuels. The more greenhouse gases we produce from our cars, factories, power plants, etc., the more our earth suffers from the impacts of climate change.



Malaysia's GHG emissions have been on the rise, increasing 221% between 1990 and 2004. The top 5 biggest contributors to Malaysia's emissions are electricity power generation (30.5%), road transportation (14.5%), solid waste disposal (10.8%), fugitive emissions from the oil and gas operations (10.2%), and emissions from the manufacturing industries and construction (8%).

Here are some of the toughest climate-related challenges that Malaysia faces today:

- Energy – The bulk of emissions from the cities are energy related. As the population in cities increases, energy use also increases. Electricity consumption in buildings is expected to contribute significantly to Malaysia's GHG emissions, unless efforts are put in place to reduce consumption and increase efficiency. Fossil fuel is still the main source of primary energy supplied, with renewable energy in the form of hydropower contributing to only 4% of the primary energy mix.
- Transportation – As of 2014, Malaysia had the third highest rate of car ownership in the world, with 93% of households owning at least one car. High utilisation of cars, combined with low usage of public transportation leads to high road congestion and increased CO_2 emissions.

- Human behaviour – Consumer behaviour of citizens have contributed towards the current trends in global climate. Changing unsustainable consumption and production patterns has the potential of bringing about positive climate impact.
- Waste management and the circular economy – Malaysia's recycling rate is still low, and a significant amount of potentially recyclable materials is being directly disposed of in landfills, amidst concerns of limited space for new landfills. Food waste is a big issue, with almost 50% of Malaysia's municipal solid waste consisting of food waste. Reducing or avoiding waste generation can improve the emissions of all sectors of the economy.

2. Solutions

In transitioning to a low carbon and climate resilient Malaysia, strategies should focus both on reducing GHG emissions (preventing climate change) and adapting to the impacts of climate change. Entry points for youth-led initiatives on climate action could include the below:

- **Renewable energy solutions** (solar, hydropower, biomass, wind) for cooking and generating electricity, particularly for rural communities in Malaysia
- Encouraging the public to **reduce electricity consumption** and promote energy conservation for residential and commercial buildings
- **Sustainable transportation solutions,** including promoting non-motorised transport (walking and biking) and public transport
- Promoting **sustainable consumption and production,** including encouraging positive consumer behaviour and avoiding single-use plastics and packaging
- **Reducing, reusing and recycling** waste
- Information and knowledge on **climate change adaptation** and disaster risk reduction for vulnerable communities
- Climate change **education**

3. Potential support in the ecosystem

Malaysian youths are becoming more aware about climate change issues. Social media has acted as a channel to share information and knowledge, and to empower youth to take action on issues.

There is also commitment from the government in reducing emissions. In 2015, Malaysia committed to a 35% reduction in its national carbon intensity with an intended 45% reduction by 2030, conditional upon assistance from developed countries. The Malaysian government has worked towards establishing policies, regulations and programmes on climate change.

Organisations like Yayasan Hasanah, Think City, Global Environment Facility Small Grants Programme and Air Asia Foundation provide grant funding for climate change projects, depending on the criteria.

4. Potential partners

NGOs and youth movement – World Wildlife Fund (WWF), Centre for Environment, Technology & Development Malaysia (CETDEM), Malaysian Environmental NGOs (MENGO), Environmental Protection Society Malaysia (EPSM), PowerShift Malaysia

Industry and professional groups – Malaysian Institute of Planners, Malaysian Green Building Confederation, Persatuan Arkitek Malaysia, Institute of Engineers Malaysia, Waste Management Association of Malaysia

Other organisations- Yayasan Hasanah, Air Asia Foundation, Think City

---

References:

1. Zaid, Suzaini & Myeda, Nik & Mahyuddin, Norhayati & Sulaiman, Raha. (2015). Malaysia's Rising GHG Emissions and Carbon 'Lock-In' Risk: A Review of Malaysian Building Sector Legislation and Policy. Journal of Surveying, Construction and Property. 6. 10.22452/jscp.vol6no1.1.
2.Ministry of Natural Resources and Environment Malaysia. Malaysia's Biennial Update Report to the UNFCCC. (2016).
3. Energy Commission. (2018). 2017 Malaysia Energy Statistics Handbook.
4. https://www.thestar.com.my/business/business-news/2014/04/16/car-ownership-in-msia-third-highest-in-the-world/