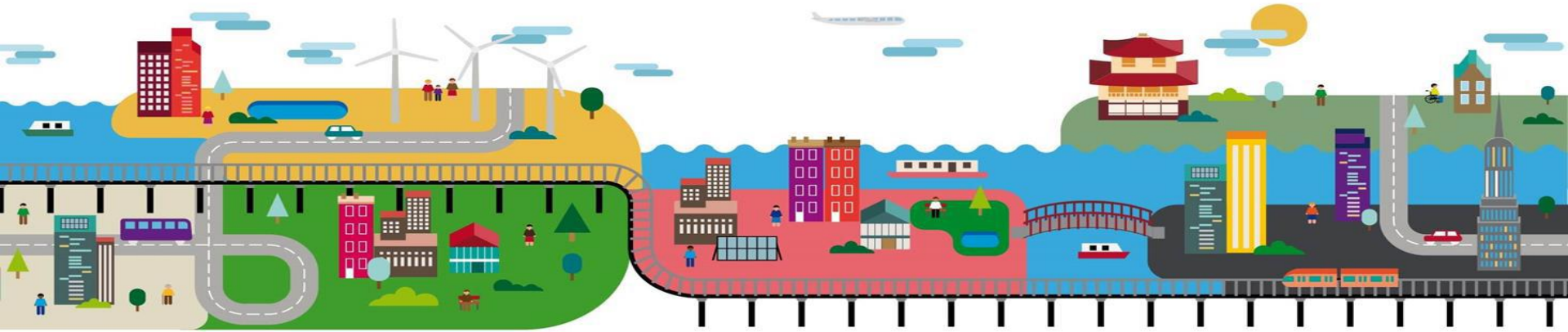


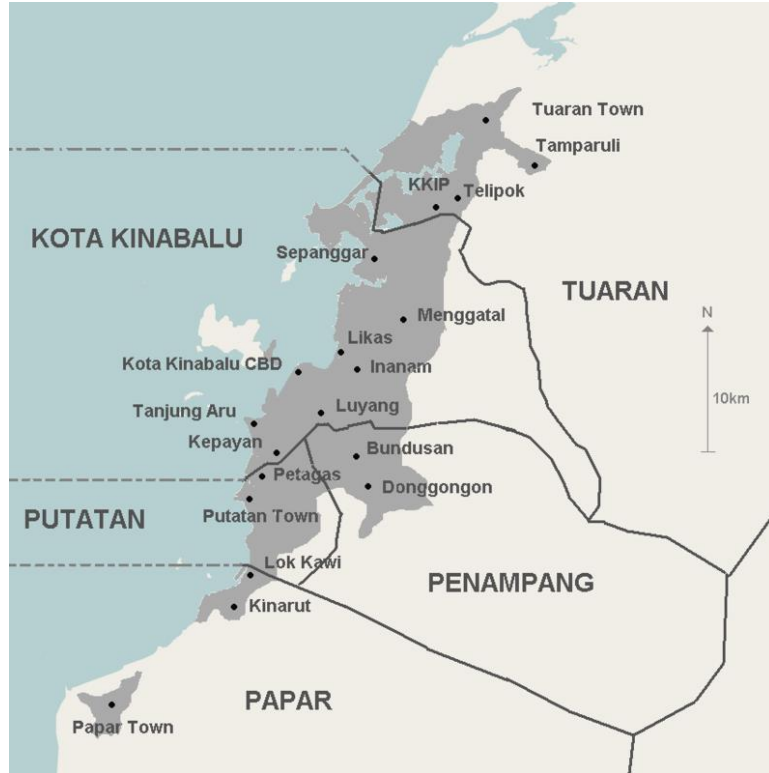
International Urban Cooperation Asia

Penampang Climate Change Action Plan

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About Penampang



Population: 145,630 (2015)

Land Area: 425 km²

Economy: Agriculture

Basic Profile / Key Features

Penampang District is located in Sabah's West Coast Division, with Donggongan Town as its capital and main town, where it functions essentially as a **suburb of Kota Kinabalu**.






It is one of the **primary industrial, cultural and commercial centres** of the region, and is the fourth largest commercial area in Sabah (following Kota Kinabalu, Sandakan and Tawau).

Penampang is the **cultural centre of the Kadazan and Dusun**, largest indigenous groups in Sabah. The name Penampang comes from the title of one of the earliest villages in the area. The District Council was first established there in 1958, and was originally known as the Jesselton Rural District Council, referencing an earlier name of Kota Kinabalu.

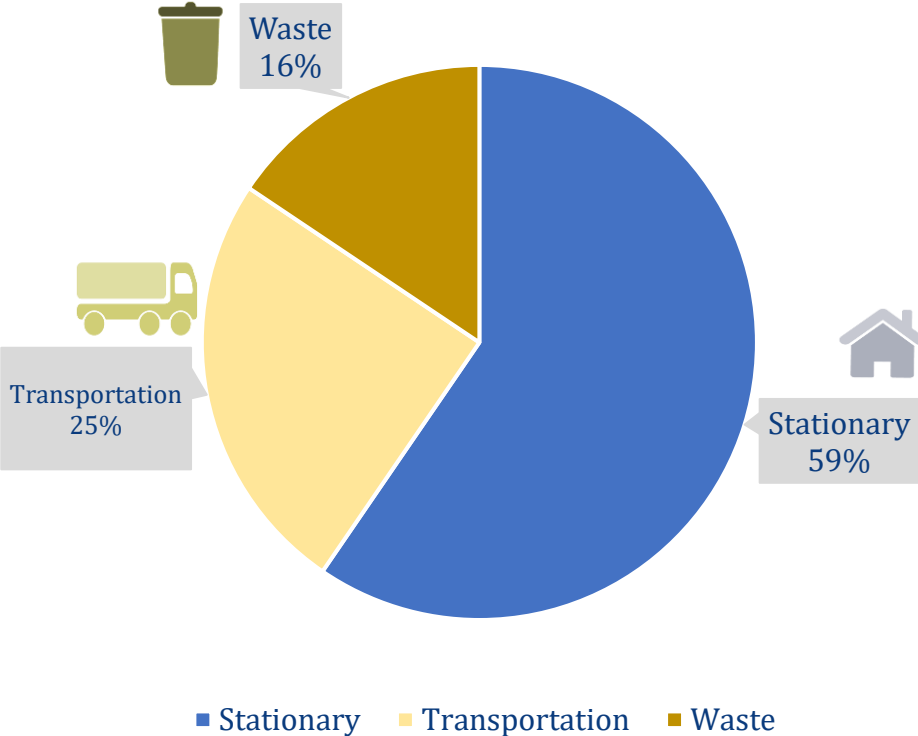
Climate Change and Penampang

	Current Observation	Projection for 2030	Projection for 2050	Reference - Assumption Remarks
Average Annual Temperature	26.0 °C	26.5 °C (+1.9%)	26.9 °C (+3.5%)	West Coast Sabah (NC3 & BUR2, 2018, pg. 87)
Average Annual Rainfall	3,532 mm	3,392 mm (-3.9%)	3,549 mm (+0.5%)	West Coast Sabah (NC3 & BUR2, 2018, pg. 87)
Average Mean Annual Flow	62 cm	59 cm (-4.2%)	60 cm (-3.0%)	Tuaran River Basin (NC3 & BUR2, 2018, pg. 89)
Sea Level Rise	0.77 - 1.05 m	0.88 - 1.16 m	0.98 - 1.26 m	Sabah West (NC3 & BUR2, 2018, pg. 95)

Main Effects of Climate Change on Penampang

Climate Hazards	Risk Level	Future Trend	Affected Sectors	Vulnerable Population	Social Impact
Rain Storm	Medium Low		Transportation; Food and agriculture; Emergency services.	Low-income households; Persons living in sub-standard housing.	Increased demand for public services; Increased risk to already vulnerable populations; Increased resource demand.
Tropical Storm	Medium High		Food and agriculture; Residential; Emergency services.	Marginalised groups; Low-income households; Persons living in sub-standard housing.	Increased demand for public services; Increased risk to already vulnerable populations; Increased resource demand.
Flood (Flash, River)	High		Water supply & sanitation; Transportation; Food and agriculture; Emergency services.	Marginalised groups; Low-income households; Persons living in sub-standard housing.	Increased demand for public services; Loss and damage.
	High		Water supply and sanitation; Transportation; Food and agriculture; Emergency services; Land use planning	Marginalised groups; Low-income households; Persons living in sub-standard housing.	Increased demand for public services; Increased demand for healthcare services; Increased resource demand; Loss and damage.
Landslide	Medium		Transportation; Environment, biodiversity, forestry; Residential; Emergency; Land Use Planning.	Low-income households; Persons living in sub-standard housing.	Increased demand for public services; Increased demand for healthcare services; Migration from rural areas to cities; Population displacement.

Penampang's Contribution to Climate Change



Total GHG Emissions (2017) (ktCO₂eq)

455

GHG Emissions per Capita (tCO₂eq)

3.1

GHG Emissions per unit land area (km²)

1,072



Mitigation Target

45% emission intensity reduction by 2030 compared to base year 2010

Adaptation Goals

Rainstorm & Flood (Flash, River)

Goal 1 Reduce property damage due to rainstorm and flooding by 50% by 2030 compared to 2017

Tropical Storm

Goal 2 Reduce downtime of utilities caused by tropical storms by 30% by 2030 compared to 2017

Landslide

Goal 3 Achieve zero unregulated hill cutting and deforestation by 2030



THEME BASED ACTIONS

- 1. Sustainable Harnessing of Resource** (Tagal, forest, solar, WtE)
- 2. Green Commuting** (better public transit)
- 3. Resilient Infrastructure** (flood, landslide, open space)
- 4. Community Based Climate Response** (recycling, composting, mini hydro)

Sustainable Harnessing of Resource



Planned actions in the CAP should consider **sustainability and harnessing natural resources** as a key pillar for Penampang's development growth plan:

These actions for **enhancing the Penampang local economy** through:

- promoting **eco-tourism incorporating Tagal practice for fishing;**
- protecting existing paddy fields;** and
- require industries to adopt cleaner and green technology.

Harnessing resources and sustainability practices through:

- promoting passive architecture, energy conservation, use of PV lighting;
- solar farm development; and
- water harvesting.**

Local community – greater attention and responsibility in the production & consumption of natural resources using sustainable construction material, solar heaters, green buildings & setting up repair 3Rs centres.



Sustainable Harnessing of Resource

Action	Benefits	Responsible department	Key partners	Timeline	
				2020-2025	2025-2030
E8: Develop eco-tourism through the promotion of Tagal system and other indigenous or community-based practices e.g. “Amazing Penampang”	Mitigation	Development	Ministry of Tourism, Culture and Environment	»»»	
E9: Protect existing Paddy Conservation Area zones	Primarily adaptation	Enforcement	Landscaping, Development	»»»	
E3: End all unlicensed hill-cutting and deforestation, especially along the Moyog River	Adaptation	Landscaping, Enforcement	SHARED A, JKR, JPS	»»»	
I3: Install solar-powered street lights throughout the District	Mitigation	Development	Private sector	»»»	
I5: Partner with private sector to build waste-to-energy plant	Mitigation	Development, Urban Services	Private sector		»»»

OUR CHALLENGES

1 BUDGET PRIORITY

In terms of budget for climate change budget, we begin by focusing more on resilience (flooding) over mitigation. **The regular flooding in Penampang is a top priority.**

2 URGENT ACTION NEEDED FOR SOLVING IMMEDIATE CLIMATE HAZARD (FLOODING)

Frequent Damages from Flood (Climate Change)
Public concern on flooding
Much emphasis on solving immediate climate hazard of flooding

3 WEAK INSTITUTIONAL RESPONSE

Despite of the frequent experience flood events, agency reaction remain slow.

4 COMMITMENT

- Getting agencies to be proactive
- Limited funding for flood-related commitments
- **Empowering the district council** and the relevant State departments (DOE, DID, EPD) with strong enforcement powers
- Real commitment from the State Government in addressing and tackling flooding and contributory causes

LESSONS LEARNED

1 INTERNATIONAL EXPERIENCE

Involvement of **City-to-City Collaboration** provide exposure to Penampang District Council

Opportunity to be involved in the Asia Pacific Urban Forum in Penang (Oct 2019)

Opportunity to participate of third IUC Brussel City-to-City (Nov 2019)

2 INVOLVEMENT WITH LOCAL CHAMPIONS ARE IMPORTANT

Get the right people (passionate and knowledgeable) in the climate action committee.

Strong partners from business community and strong support from top management



NEXT STEPS

1 ELEVATE THE CAP TO STATE GOVERNMENT ENDORSEMENT

Formalise and get strong action for implementation esp. flood mitigation and green economy programme for Penampang

2 SECURE CLIMATE ACTION PROJECT FUNDING

Using CAP document of GCoM as basis for securing from state and federal government budget; **international funding such as**

GAP fund, GEF, UK PACT, JICA

Projects are also listed under the Penampang CAC

Other Projects - Green Economy Guidelines, Green Bldgs/Energy Audits, Solar Farms

3 ESTABLISH CLIMATE CHANGE MONITORING SYSTEM

To improve the warning system for flooding and other weather-related disaster response

4 ESTABLISH GHG DATABASE INVENTORY

For the purposes of GHG emission modelling and reporting



“Penampang joining the big league”. From left, councillors Kevin Joibi, James Kenson, (Russian delegate), Freddy Ekol and Dr Rudolph Niessler of EU Commission. At APUF7 Penang, Malaysia

19-22 Nov 2019: Penampang took part in the IUC Asia/GCoM Open House and IUC City-to-City Events in Brussels, Belgium. Mr Freddy Ekol represented Penampang.



Penampang CAC with IUC Asia Team Leader Pablo Gandara and EUD Bangkok Michel Mouchiroud at the Asia-Pacific Urban Forum in Penang, Oct 2019.



Historic moment: Inaugural Launch of the Penampang GCOM event - 19 July 2019

Penampang, KK City hall, Muar and Melaka joined GCoM, witnessed by Penampang MP Datuk Darell Leiking, Datuk Jaujan (Sabah Minister of Local Government & Housing, Piero Remitti, Freddy Ekol and others. Mayor Nordin Siman (2nd left) signed for Kota Kinabalu City Hall, and DO Penampang Henry Idol (3rd left) signed for Penampang.

Penampang is one of the four pilot cities selected for the preparation of a GCOM Climate Action Plan.



Kotohuadan

Thank you for your attention