



**Action plan Climate Resilient City and
Urban Environmental Sustainability from
11 April to 17 IUTC**

[Kurunegala Sri Lanka]

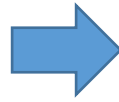
Situation Capital in Colonial Times



Modern Capital



Slum upgrading process in Colombo

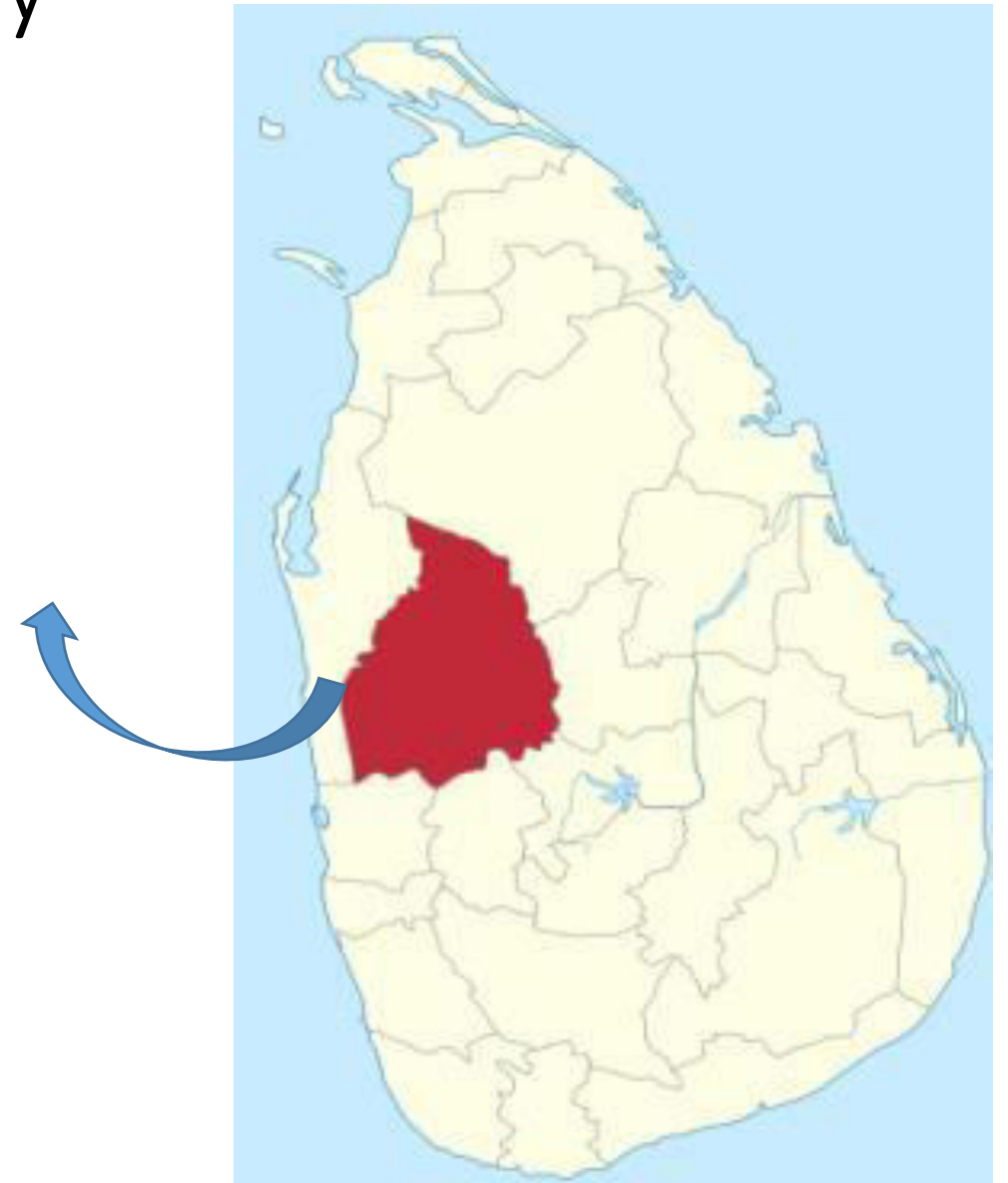
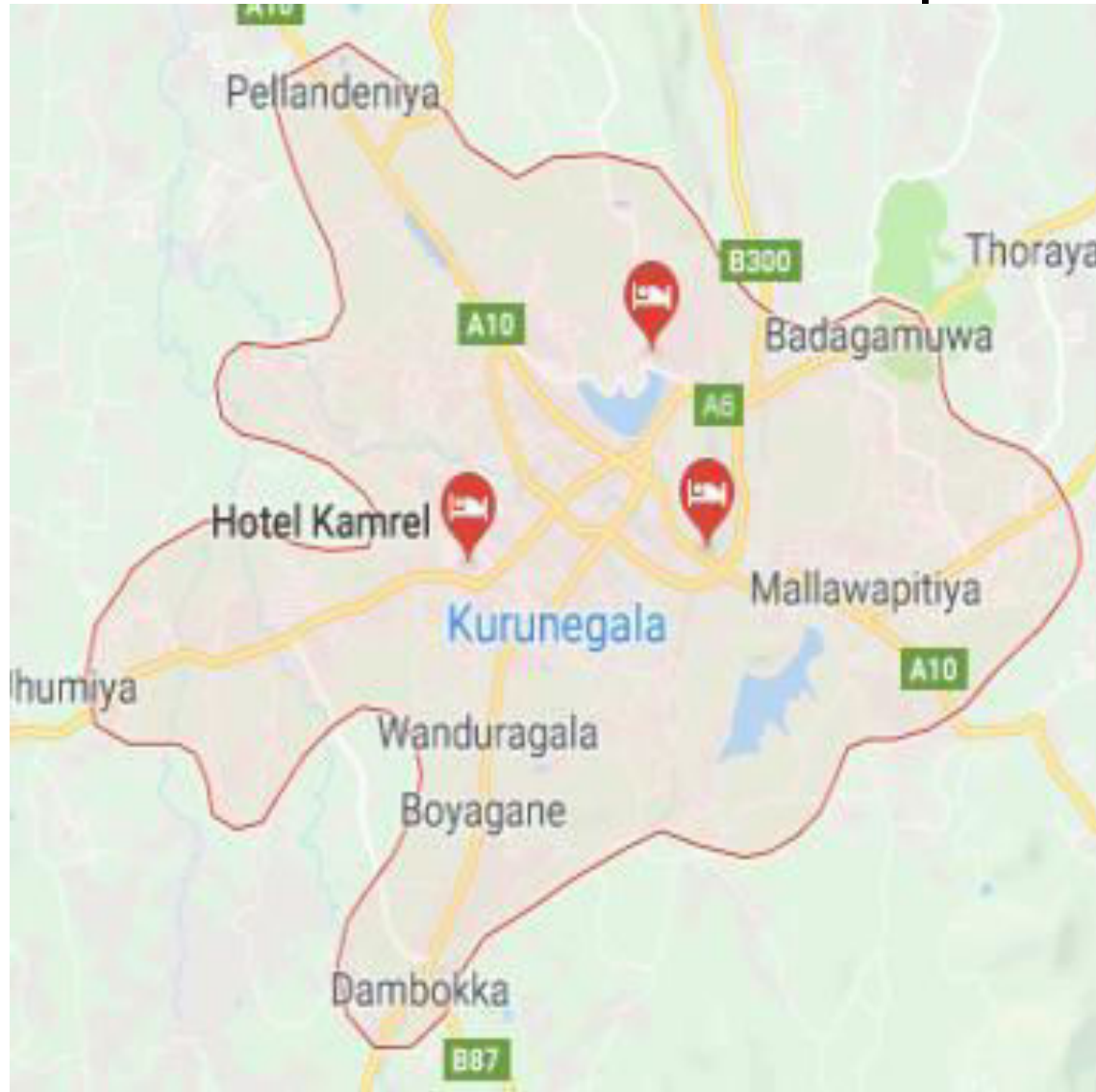




M.A.K Marasinghe
Environment Safeguard Manager (LGESP)
Sri Lanka



Location of the Municipality



Location of the Municipality



Famous features of the City



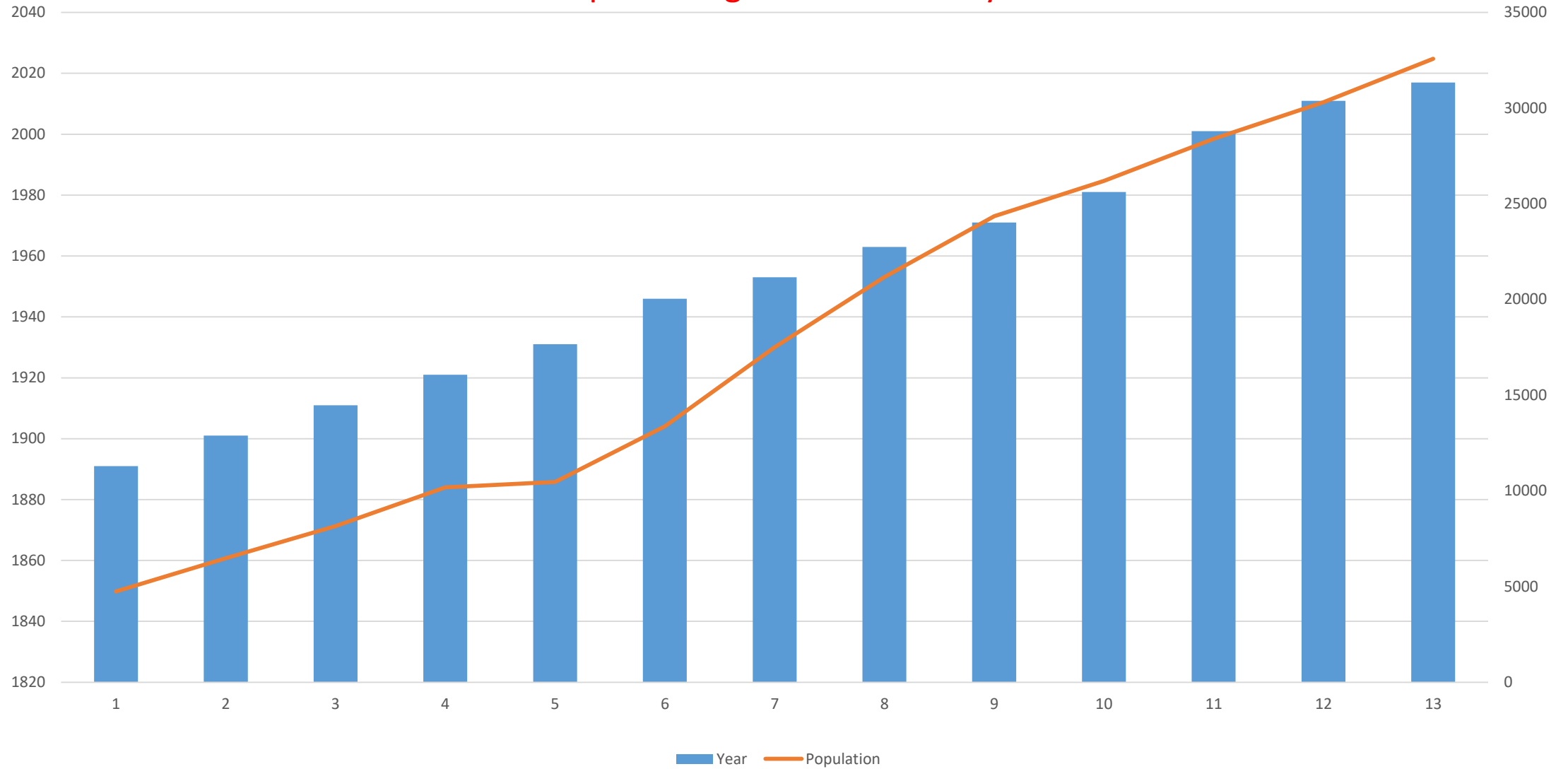
City Tank



Context - Introduction

- Kurunegala City is situated in the North western province of Sri Lanka. It was a **kingdom** ruled by two kings
- The country has been divided into 9 provinces and 24 districts. It is the main capital of the Kurunegala District. The city is limited to **11 sqKm** and live **32579** people up to date. Highest above mean sea level **116 m**
- Although, people are not known, the city is experiencing direct impacts of climate change up to now
- People are making negative acts that might be worse the climate impacts in future such as **co2 emission, remove the green cover, Turn towards ground water sources**

Population growth of the City

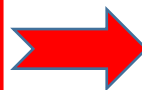
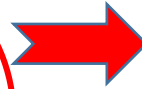


Key problem in climate change affect in the city

- Increase of urban temperature



- ★ Through the past 7 years Kurunegala City has become one of the **warmest** city in the country
- ★ **Day time temperature** vary 32 c to 37c in most of the months in the year
- ❖ **Night time temperature** vary 26 c to 28 c and uncomfortable in indoor living
- ❖ Day time extreme **temperature absorb by the large rocks** and release in evening
- ❖ **Abnormal heat release by the rocks** in 2016 got the attraction of many scientists



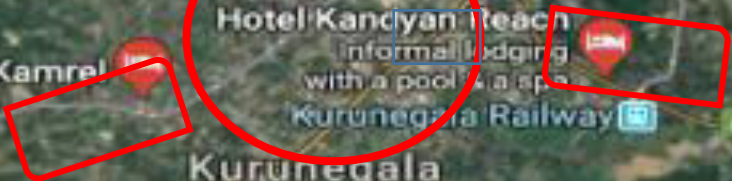
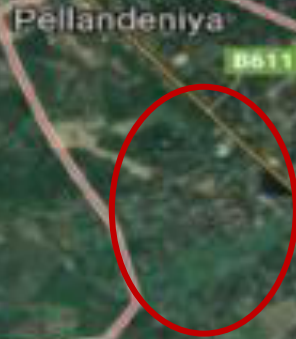
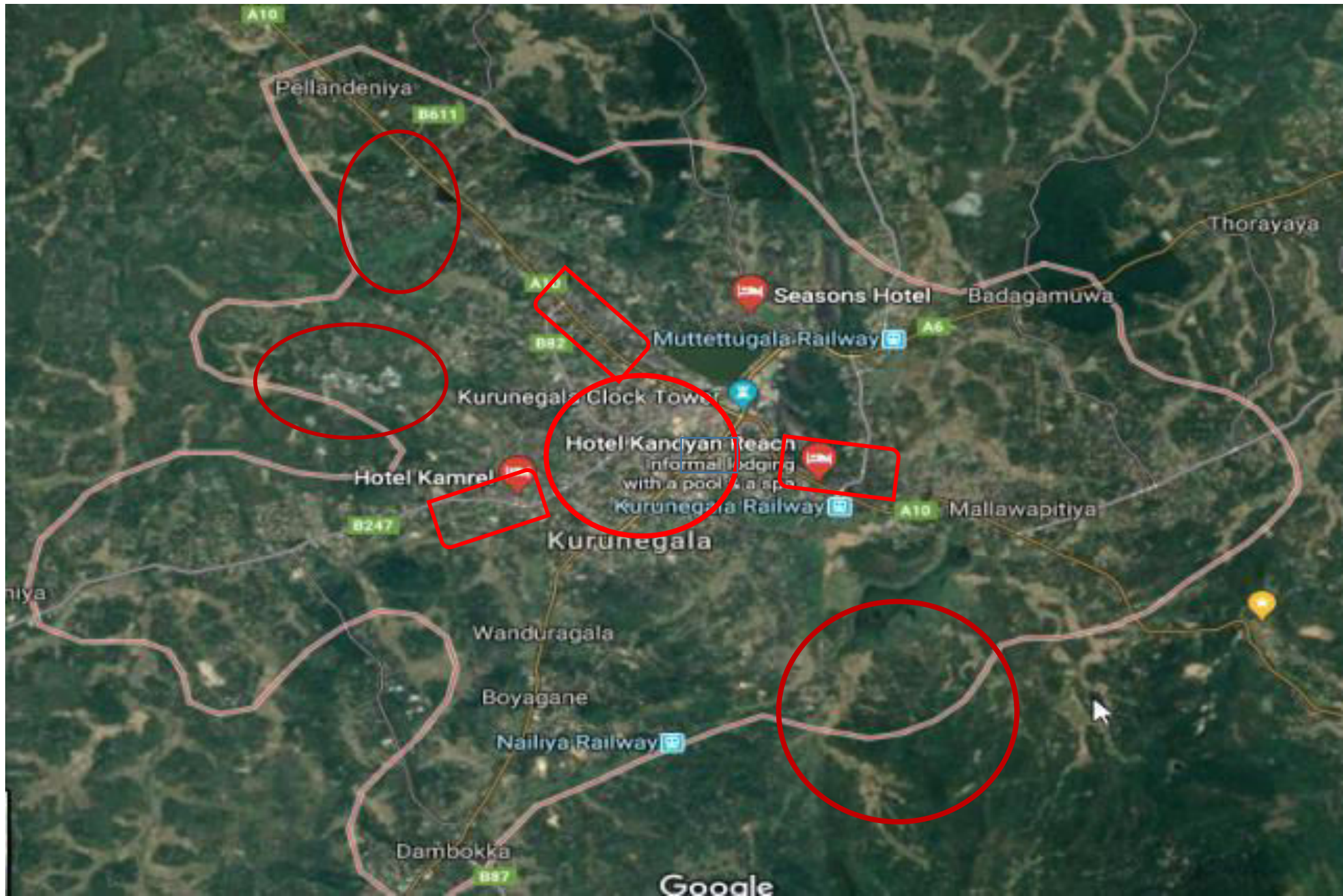
Key problem in climate change affect in the city

- Long lasting drought



- ★ Less harvest in 2 years paddy cultivation in YALA/MAHA
- ★ Major tanks around the city never fill its optimum level during past 2 years
- ★ Water table decrease considerably beyond the normal harvesting process
- ★ People avoid surface water sources and turn towards ground water sources
- ★ Early yield of the NWSDB to the same number of beneficiaries failed to meet within past 3 years





Key problem in Urban Environment

- Haphazard disposing of Solid waste
- Open burning of MSW giving rise to discharge dioxin and furans
- Increase the concrete pavement day by day
- Reduce the green cover
- High traffic jam and vehicle emission
- Reclaim marginal lands in the city
- Supplying of drinking water to the urban community

MSW issue solved 75% through 5 year intergrated waste management action plan





- Enhance Source separation
- Train Laborers
- Write project Proposal
- Approval Funding
- Start composting Plant
- Organic Farming
- Awareness School, Business community, Government office

- Cement Killing co processing process
- Crush Polyethylene and plastic
- Night soil treatment plant



Main goal and objectives

S.NO	GOAL	OBJECTIVES
1	Reduce city heat stress	Reduce city temperature by 1 c within next ten years
		Increase the green cover of the city by 10% within next ten years
		Introduce model green building concept to the MC within next ten years
		Control the vehicle fleet enter to the city by 5% within next 7 years
		Increase the street illumination through solar panel by 10% within next ten years
2	Mitigate and adapt city dwellers to the drought	Control the loss of paddy harvest even under stream whether condition by 25% in next 5 years
		Resist to long lasting droughts in 4 critical villages within next 7 years
		Rehabilitate 10 water catchment areas in city within next 7 years
		Enhance waste management system by 10% from the existing situation in next 7 years

Action Plan

S.N	Action	Responsibility	Time period
1	Tree planting program along the pedestrian of the city area	MC, PC, City Police, UDA	2019 - 2029
2	Introduce green building concept to the MC	MC, UDA	2019 -2029
3	Prepare vehicle control plan to the city	MC, City Police	2019 - 2026
4	Incorporate all new street bulbs with solar systems and biogas illumination to the weekly fair	MC, CEB	2019 - 2029
5	Introduce short term paddy varieties to 100 farmers in next 5 years	DA	2019 - 2023
6	Introduce rain water harvesting 4 model villages within next 7 years	MC,PC	2019 - 2025
7	Introduce drip irrigation system to 100 farmers within next 7 years	DA	2019 - 2025
8	Introduce early values of water management to selected model village within next 5 years	MC	2019 - 2023

SDG Goals support to the work

- Introduce **sustainable transport** system to the city
- Deal with **participatory planning** in developing strategies with the community such as rain water harvesting, agriculture modernization
- Enhance the **air quality and waste management** in the city

- **Thank you**