

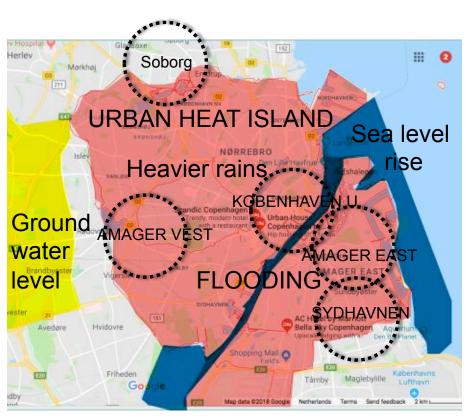
#### **GROUP MEMBERS:**

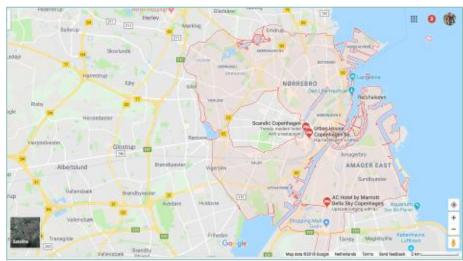
- ARMAND NICOD-AM CAMHOL (PHILIPPINES)
- HADIZA KABIRU MADO (NIGERIA)
- OSAMA MOHAMED OMAR (EGYPT)

# **CLIMATE CHANGE CHALLENGES**

#### **DIRECT IMPACTS:**

- 1. FLOODING- HEAVIER RAINS, SEA LEVEL RISE
- 2. URBAN HEAT ISLAND
- 3. GROUND WATER LEVEL CHANGE





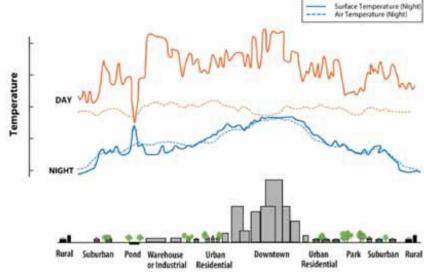
#### **INDIRECT IMPACTS:**

- HEALTH EFFECTS OF WARMING
  WORSENING AIR QUALITY
- 2. BIODIVERSITY EROSION

# **CLIMATE CHANGE CHALLENGES**



Figure 2. Flooding in 10-year scenario (2010)



Air Temperature (Day)

Figure 1: Surface temperature (heavy lines) and air temperature (light lines) for different areas.



Figure 3: Maximum extent of a high water of 226 cm (DVR90). A high water level of this kind will statistically occur every 20 years in 2110.

## **KEY QUESTIONS:**

- 1- Which are the most vulnerable sectors/assets in the city assigned to you?
- 2- Which people would be most at risk?

#### **VULNERABLE SECTORS**

- 1. TOURISM 2. COMMERCIAL
- 3. RESIDENTIAL 4. EDUCATIONAL

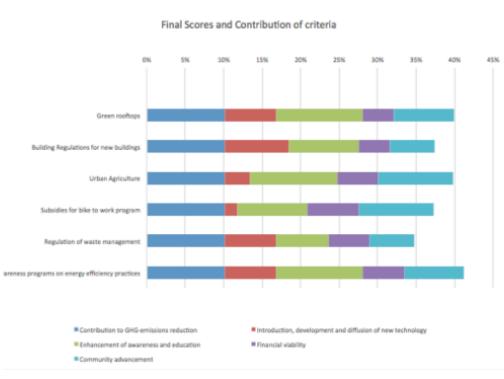


# MOST AT THE RISK

- 1. Elderly
- 2. Children
- 3. With existing health issues
- 4. Low income

## MITIGATION AND ADAPTATION ACTION

## **MITIGATION ACTIONS**



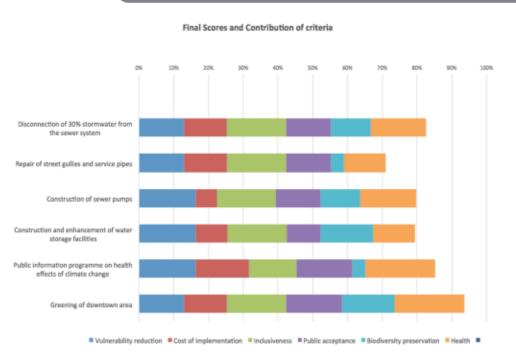
Options	Score	Ranking
Awareness programs on energy efficiency practices	0.69	6
emercinely practices	0.03	
Regulation of waste management	0.81	3
Subsidies for bike to work program	0.82	1
Urban Agriculture	0.82	2
Building Regulations for new buildings	0.70	5
Green rooftops	0.75	4

#### **SELECTED MITIGATION ACTIONS**

- 1. Subsidies for bike to work program
- 2. Regulation of waste management

## MITIGATION AND ADAPTATION ACTION

### **ADAPTATION ACTIONS**

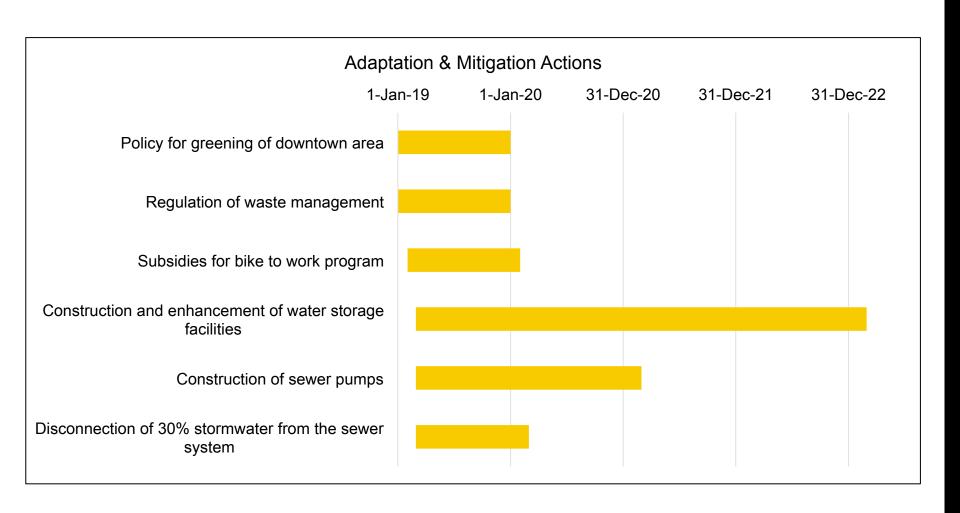


Options	Score	Ranking
Greening programme	0.94	1
Public information programme on health effects of climate change	0.85	2
Construction and enhancement of water storage facilities	0.79	5
Construction of sewer pumps	0.80	4
Repair of street gullies and service pipes	0.71	6
Disconnection of 30% stormwater from the sewer system	0.83	3

#### **SELECTED ADAPTATION ACTIONS**

- 1. Greening programme
- 2. Construction and enhancement of water storage facilities
- 3. Construction of sewer pumps.
- 4. Disconnection of 30% storm water from the sewer system

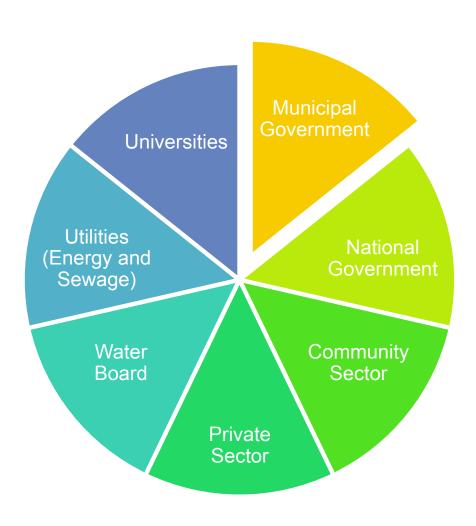
### TIMEFRAME FOR IMPLEMENTATION OF ACTIONS



# 4- IDENTIFY FINANCIAL RESOURCES FOR THE IMPLEMENTATION OF ACTION

Actions	Stakeholders	Notes on resources & mainstreaming
Policy of greening of down town	Government Sector – Private Sector – Community Sector	Taxes and incentives
Regulation of waste management	Government Sector	
Subsidies for bike to work program	Government Sector –Private Sector	Taxes and incentives
Construction and enhancement of water storage facilities.	Government Sector – Private Sector – Community Sector	Taxes will be collected from Private Sector and Community Sector
Construction of sewer pumps.	Government Sector – Private Sector – Community Sector	Taxes will be collected from Private Sector and Community Sector
Disconnection of 30% storm water from the sewer system.	Government Sector – Private Sector – Community Sector	Taxes will be collected from Private Sector and Community Sector

# 5- INDICATE RELEVANT STAKEHOLDERS AND POSSIBLE PARTNERSHIPS



# CONCLUSION

Main issues (Climate Change Impacts) **Objectives** (Decrease the Vulnerability and increase the opportunity) Why Government, Taxes, incentives How Who Stakeholders ( Private national Fund, Private Sectors, Community Sector Sectors, National Government, Utilities) **Mitigation and Adaptation** Timeframe from three to **Actions:** five years When What -Policy of greening of down town. -Regulation of waste management. Where - Subsidies for bike to work program. - Construction and In Down Town Area and enhancement of water storage in Suburban area facilities. - Construction of sewer pumps.

- Disconnection of 30% storm water from the sewer system.