# Purifying the Air of Hawler

## **Environmental problems of Erbil**

Erbil is a city that is facing the effects of climate change, due to the development and expansion of the city in recent years. Even before its expansion, Erbil had scorching temperatures reaching 50 degrees Celsius in summer, causing heat waves, droughts and desertification of the land. The region's dry climate and limited water resources have led to persistent water shortages, resulting in low greenness rates. In the absence of sufficient green space, which is needed to filter the air and remove pollutants, the city has established a baseline of high air pollution and poor air quality

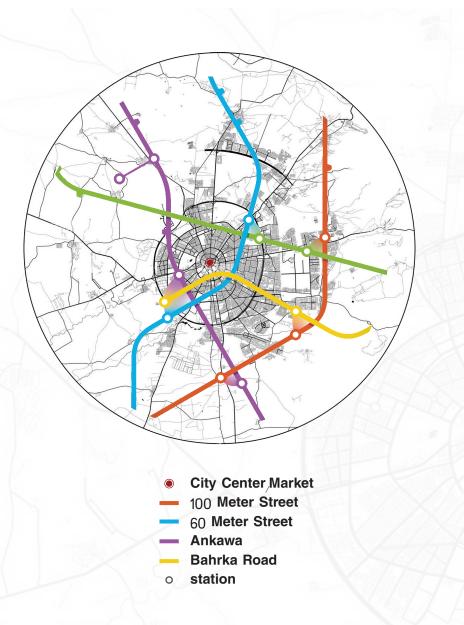


According to the air quality index, Erbil varies between moderate to bad depending on the time and season Air Quality Index (AQI) of Erbil City is

Healthy air quality ranges from 0 to

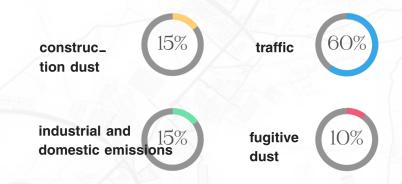
Currently, Erbil is 3.8 times the annual value of the World Health Organization (WHO) air quality guide-lines

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#### 1.Improved public transportation

Traffic is the largest source of air pollution in Erbil, accounting for about 60%



#### Ways to improve public transport

**Translation results** 

**Translation result** 

1. Giving priority to public transportation

2. Focus on passenger satisfaction and safety

3. Improved communication and convenience

All of this will encourage the use of public transport instead of private cars, which will clean up the city's air significantly



## 2. Green buildings

Buildings that are environmentally responsible in both the construction and residential processes

Environmental cleanliness is considered at all steps of the building

- design
- build
- dwell
- maintenance
- update
- Demolition

During residency it will continue to be self-sufficient

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### 3. Increase green spaces and parks

Focusing on greenery and plant more trees in the city and its surroundings and protect and not destroy the existing greenery

What are the advantages of green zones?

- 1. Increases property value
- 2. They protect the city from environmental impacts
- 3. Accommodation increases
- 4. Stimulate the domestic economy

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### 4. Inner\_city agriculture/local growing

Urban agriculture means the production, processing, distribution, and sale of food in and around urban areas for commercial, noncommercial, hobby, educational, or nonprofit purposes.

What are the benefits of local farming?

- 1. Increasing property value
- 2. reducing feed transport
- 3. Taking advantage of underutilized land
- 4. Helps reduce food waste
- 5. Preventing the heat island effect and reducing greenhouse gases
- 6. Awareness for healthy eating

The vertical farm project is one example of domestic agriculture



#### **ENVIRONMENTAL** PROTECTION

- > Air Quality
- > Water Quality
- > Site Assessment & Reclamation
- > Waste Management
- > Health & Safety

# MANAGEMENT

- > Fisheries & Wildlife
- > Natural Resource Management

> Energy

- **SUSTAINABILITY**
- > Sustainability
- > Education & Training
- > Research & Development
- > Policy & Legislation
- > Communication & Public Awareness

#### 5. High environmental standards An environmental standard is a regulation directive that

effect

It regulates human activities on the environment

The purpose of environmental quality standards is to protect the quality of life and health by controlling the quantity and quality (mainly in terms of toxicity) of man-made pollutants, which mainly originate from industrial activities