

# Environmental Challenges

## Learning Objective:

- **Assess** challenges that face Newcastle



# Learning Outcomes:

- **Identify** types of environmental problems
- **Examine** issues of waste disposal and air pollution
- **Outline** the need for more green space





No room for nature, the entire landscape is devoted to crop production in China





Sprawling Mexico City rolls across the landscape, displacing every scrap of natural habitat



- Imagine 30,000 people moved to Peterlee over the next year, what environmental problems might that create?

# On going problems...

- Research has shown that **deprived** areas generally recycle less, and Newcastle has **high levels of deprivation** in comparison to the UK as a whole.
- In addition, it has a proportion of **high-rise buildings** which also present a challenge, why?
- The city is close to landfill sites. This has made landfill an attractive **solution** for **waste disposal** in the past due to the **low transport costs** .





# Improvements



**BAN Waste Group**



# More improvements





# What improvements have the city made?

- Household recycling centres
- Home composting – promoted and expanded. Only local authority in England to manage own composting facility.
- Collections of dry recyclables and garden waste now weekly.
- Community engagement– events, road shows, adverts and articles in “Citylife” magazine. Funded a local pressure group called – BAN waste. Presented local schools and supported them in becoming Eco schools.

# Waste in Newcastle – a success!

- Newcastle collects approximately **155,000 tonnes** per year, of which **112,000 tonnes** is household waste.
- In 2000 – only 6% was recycled with 94% going to landfill. Today around 40% is recycled.
- Newcastle University - recycling rate increased to almost **93% in just three years**, no *general waste* from the University now goes to landfill.
- At least **50%** recycling and composting of household waste by **2020 – ON TRACK**





Department  
for Environment  
Food & Rural Affairs



Plastic bag  
charge

**Large shops in  
England must  
charge 5p for  
single use plastic  
carrier bags from  
5th October 2015**

**#reusebags**  
To find out more:  
**[gov.uk/carrierbags](http://gov.uk/carrierbags)**

# Beijing: The city where you can't escape smog



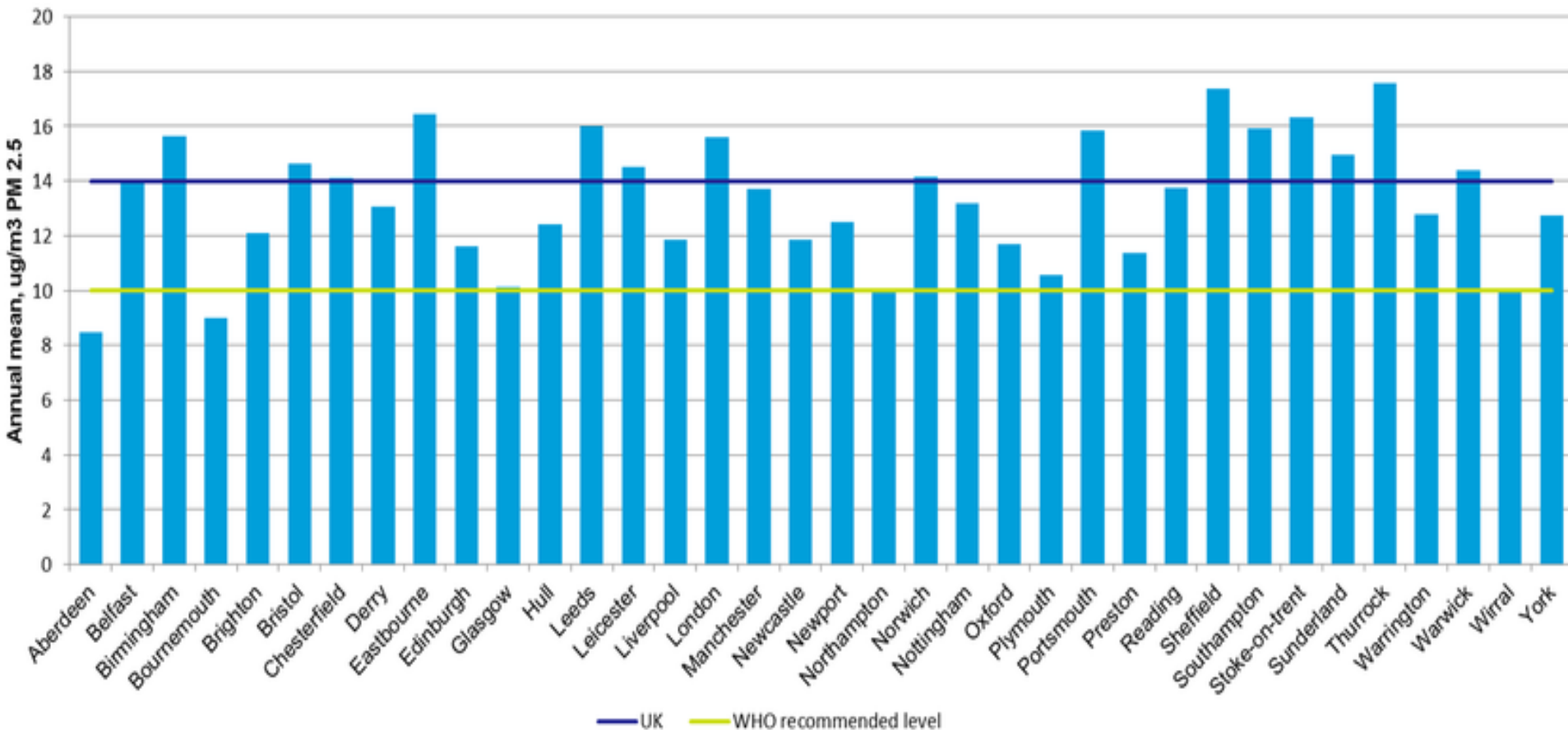
China's capital has chronic pollution. Even indoors it's a struggle to find clean air, says John Sudworth. *"Having already taped most of my windows shut, I have now started on the air conditioning vents. The aim is simple - to close off every access point through which the toxic outside air leaks into our Beijing home"*



# Air Pollution:

How does Newcastle compare to other UK cities?

Figure 1: Annual mean PM 2.5 for UK Cities



# London breaches annual air pollution limit for 2017 in just five days



<https://www.theguardian.com/environment/2017/jan/06/london-breaches-toxic-air-pollution-limit-for-2017-in-just-five-days>



# Newcastle: monitoring air quality

- The Environment Act 1995 requires the city to **review and assess** air quality each year.
- Most concerned with **Nitrous Oxide** caused by road traffic.
- **6 stations** have been set up in possible risk areas across the city.
- Data can be accessed live for the city

<http://aqicn.org/city/united-kingdom/newcastle-centre/>

**CHALLENGE**

Assess the success of waste disposal methods in Newcastle.

Explain how Newcastle might solve issues relating to air pollution?

How has the 5p charge on plastic bags changed attitudes to recycling?

Explain why was it important to expand the number of bins and their sizes?

On average 20% of waste in the UK is food waste. What has Newcastle done to address this problem?



Economic development – sometimes more important than environmental protection.

What can urban authorities do?





Where is this?

New York



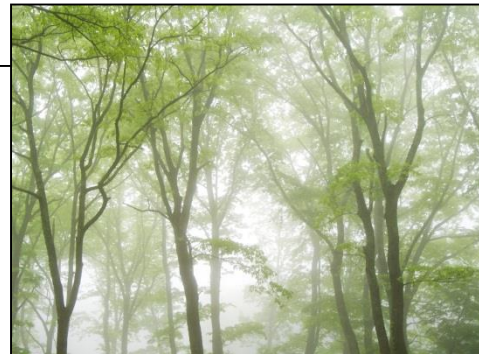






# Urban greening in Newcastle

- Newcastle is one example of a city which has undertaken an **urban greening programme**
- The city is home to numerous **public parks** and **hundreds of trees** are being planted in the city centre and various suburbs









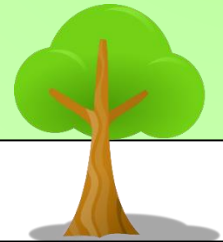








# So why bother spending the money to restore the urban environment?



## Social and economic advantages:

- Improving **living conditions** for urban residents
- Encouraging people **to want to live** in urban areas
- **Attracting new businesses** and a more **sustainable** economic future
- Encouraging visitors and the **development of tourism**