

World Future Energy Summit 2022

Tackling air pollution for long-term urban benefit



Presenter: Oriol Teixido - EAD Air Quality Scientist / WHO GAPH Advisor

19 January 2021



هيئة البيئة - أبوظبي
Environment Agency - ABU DHABI

What is air pollution?

It is the presence in the atmosphere of gases, dust and particles at a percentage that may be harmful to humans, animals and plants.

Why is important?

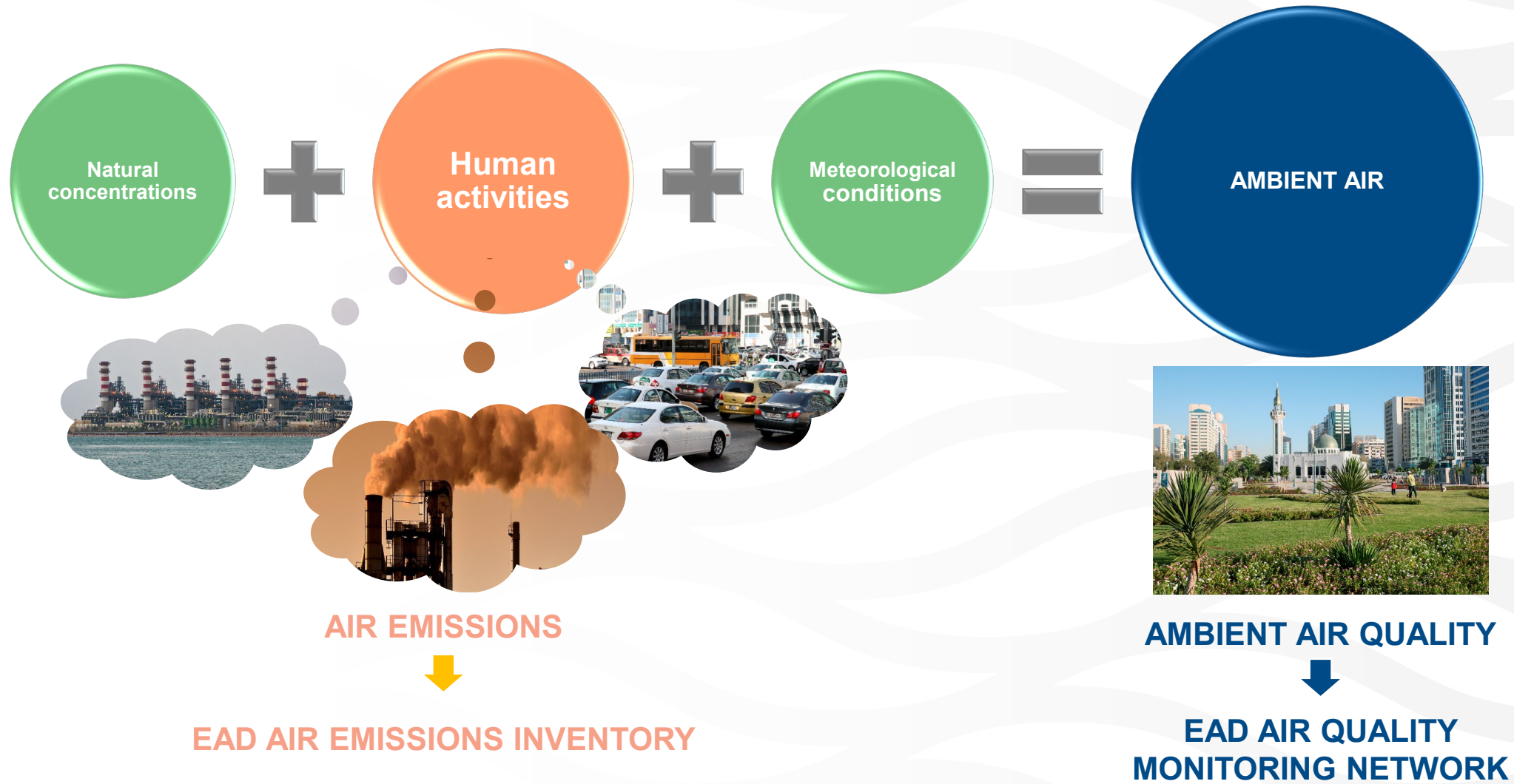
Air pollution is the largest environmental risk to public health:

- Across the globe, **9 out of every 10** people are breathing unclear air.
- Around **4.2 million people die every year from diseases and infections related to ambient air pollution** – more than the number of people who die in road traffic collisions.

Source: WHO, UNEP



Air Emissions vs Ambient Air Quality



Impacts of air pollution



Has air pollution been solved anywhere?

Air pollution has not been solved in any region, but there have been remarkable decreases in emissions and pollutant concentrations where strong policies, regulations and regular monitoring systems were put into place.



Air quality in the UK has improved remarkably. Particulate matter (PM) pollution levels fell by over 97% between 1900 and 2016



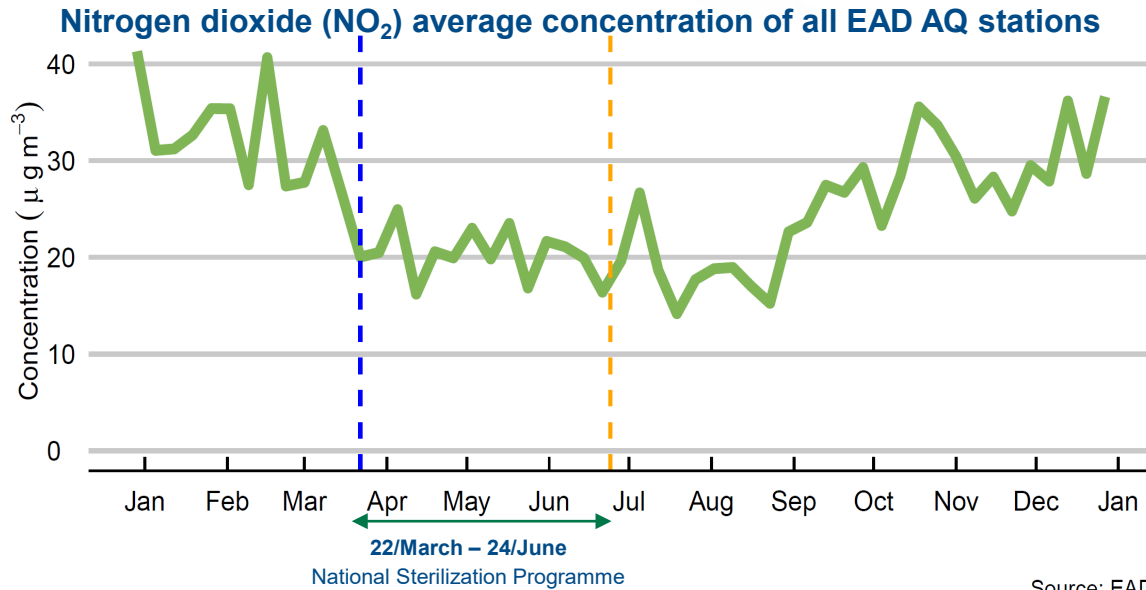
From a peak in 1989, O₃ levels have decreased by two-thirds by 2015 – still high enough to cause significant health impacts, but a massive reduction, nevertheless.



Beijing lowered air pollutant levels by 25-83% (depending on pollutant) since 2013.

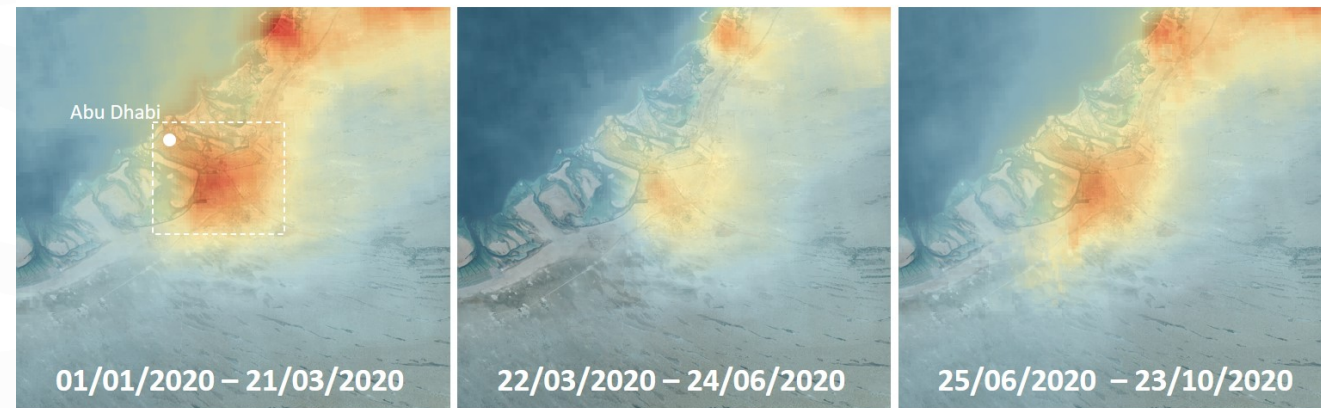
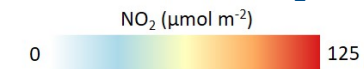
“This improvement in air quality didn’t happen by accident.” Acting Exec. Director of UN Environment.
“It is a good example of how a large city in a developing country can balance environmental protection and economic growth.” Director of UN Environment’s Asia Pacific Regional Office

Air pollution levels drastically reduced during lockdown



Source: EAD

Satellite background tropospheric NO₂ measured by TROPOMI-ESA



Source: Teixido *et al.*, 2021

Lessons learnt

- **EAD data confirms that the preventive measures to control the coronavirus pandemic had a huge impact on air pollution, largely due to the reduction in traffic and other human activities.**

Opportunities:

- From past and current experience, we know that air pollution is preventable, and as the examples show, **reducing air pollution will provide additional benefits like:**
 - **Healthier and more productive lives,**
 - **Healthier natural environment,**
 - **Reduced climate change,**
 - **Poverty alleviation, and**
 - **Increased shared prosperity.**

