

The background features a stylized illustration of an industrial landscape. On the left, two tall, thin smokestacks emit dark, billowing plumes of smoke. In the foreground, there are several rectangular buildings with grid-like window patterns. On the right, another set of smokestacks is shown, with one emitting a large, dark plume of smoke that drifts across the top of the frame. The sky is a light, warm yellow, and a large, semi-circular shape with diagonal hatching is positioned at the top center. The overall color palette is muted, consisting of various shades of brown, tan, and yellow.

POLLUTION

Group 5

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The background features a stylized illustration of a factory with a tall chimney emitting a plume of white smoke. The scene is set against a light orange background with several white, fluffy clouds. A large, light yellow speech bubble shape is positioned in the upper right, containing the main text. In the bottom right corner, there is a decorative circular pattern of thin, parallel lines.

Air pollution & Soil pollution

1. What is the current situation?
2. Which solutions do we propose?
3. Consequences

1. Air Pollution levels now

- 40 million people in the 115 largest cities in the EU are exposed to air exceeding WHO air quality guideline values
 - Roughly 90% of city of city dwellers
- Since the industrial revolution, global temperatures have risen by 1°C
 - Melting ice caps
 - Forest fires
 - Heat waves



An infographic with a light beige background and wavy, organic shapes. Three stylized smokestacks of varying heights are positioned across the middle. Each stack has a dark brown, smoke-like plume rising from its top. The plumes contain white text: '80%' on the left, '40%' in the center, and '1/2' on the right. To the left of the first stack is the text 'of methane emissions are from agriculture'. To the right of the second stack is the text 'of nitrogen levels are from road transport'. To the right of the third stack is the text 'Air pollution caused a half of a million deaths in 2016'.

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Causes of air pollution

Man made:

- Burning fossil fuels (Coal, Oil, Petrol, Diesel)
 - Release nitrogen oxides - Smog, Acid Rain
 - Carbon Dioxide - Greenhouse gasses, trap heat in the atmosphere
- Mass agriculture
 - Cattle - Cows fart, release mass amounts of methane

Natural:

- Volcanic eruptions
 - Dust/Ash into sky
- Sand Storms



2. Which solutions do we propose?

Changes need to be made on a global scale as well as on an individual or community level

Regarding Europe:

- EU working on improving air quality since 1970s
- European Commission adopted **Clean Air Policy Package** in 2013
 - reducing national emissions having negative impacts on human health & environment
 - **NERCs** for each member state

[Air - Policies - Environment - European Commission \(europa.eu\)](https://ec.europa.eu/eia/policies) for more info



On individual/ community level:



3. Air pollution solution consequences

- Increase in **laws** will force countries, companies and individuals from using as much non renewable energy (Coal, Oil, Petrol)
- Increase in electric cars and uses of busses will reduce amount of **carbon dioxide** forced into atmosphere
 - These will lower the amount of greenhouse gases in the air, will improve smog around the globe and help repair the ozone layer
- Should improve the life of people living in big **cities** where air pollution is a massive problem (Asia)
- More people use public transport means traffic and road congestion will drop in big cities (California)
- Improve overall **health** to all



Renewable energy at a country wide level can be very expensive:

- \$2.6 – \$4 million per average-sized commercial wind turbine
- *1 MW solar farm would cost roughly **\$1 million** to install*

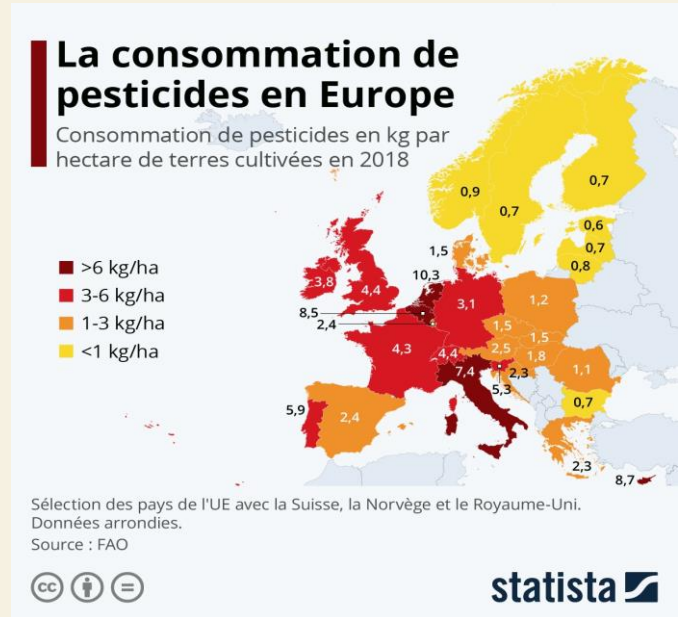


Could be very hard for countries with high debt to implement these examples especially after Covid



Soil and water pollution :

Pesticides :



IMPACTS OF PESTICIDES

Pesticides are used in our countryside, urban areas, homes and gardens



IMPACTS HEALTH

Exposure can cause fertility and reproductive issues, diabetes, obesity, degenerative diseases e.g. Parkinson's, cancers, asthma, depression, anxiety, ADHD etc.



PREGNANT MOTHERS AND CHILDREN

This group is particularly sensitive as exposure can cause disruption to endocrine systems, childhood cancers, neuro-developmental issues and other disorders.



DRAINS ECONOMIES

Pesticides cause illness and injury resulting in lost work days. Exploitative markets keep farmers on the pesticide treadmill, crops develop resistance, and incorrect use affects yields.



DECREASES BIODIVERSITY

Pesticides have been linked to declines in bees and pollinators, beneficial insects, birds, mammals, aquatic animals and non-target plants etc.



IMPACTS ON WATER, SOIL AND AIR

Run-off contaminates surface and ground water. Soil microorganisms and earthworms are poisoned, affecting soil fertility, and drift and volatisation contaminates air, rain, fog and snow.

2. Which solutions do we propose ?



❖ **The use of biocontrol**

- The use of living organisms
- The use of chemical mediators
- The use of natural substances

❖ **Digital agriculture**

❖ **Adopt good agricultural practises**

- Co-farming

3. Soil and water solution consequences:

- improving the working conditions of farmers, who no longer breathe or handle synthetic products that may be toxic.
- Reducing ecosystem alteration
- Improving the health of all
- Preservation of aquatic fauna
- Protection of biodiversity





THANK YOU :)