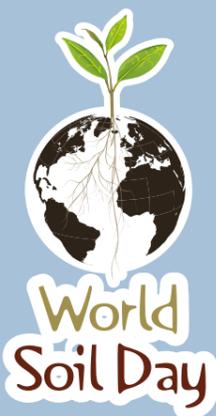




Food and Agriculture  
Organization of the  
United Nations



# BE THE SOLUTION TO SOIL POLLUTION

over thousands of years  
of human activities  
have left a legacy  
of polluted soils  
worldwide



Pollution  
jeopardizes  
valuable soil  
ecosystem  
services

CLIMATE  
REGULATION



WATER  
PURIFICATION



FOOD  
PRODUCTION



FOOD  
QUALITY



NUTRIENT  
CYCLING



HABITAT FOR  
ORGANISMS



PROVISION  
OF RAW  
MATERIALS  
AND SERVICES



## Human activities are the main sources of soil pollution



### INDUSTRIAL

Around **50,000–100,000** chemicals are currently produced commercially and their production is projected to increase annually by **3.4%** until 2030



### MINING

About **3.9 billion** people live in today's **56** "mining countries" Agricultural productivity decreases by almost **40%** in areas closer to mines due to pollution



### AGRICULTURE

The agrochemicals market is projected to increase at an annual growth rate of **3.2%** from 2015 to 2020. **58%** of agricultural soils in Europe have residues of multiple pesticides, half of them are now illegal



### WASTE MANAGEMENT

Expanding cities are producing an ever-growing amount of municipal solid waste with, **80%** not being recycled which end up in landfills, contaminating the soil



### TRANSPORT

The number of cars worldwide will nearly double by 2040. Highways are major, open and dynamic sources of contaminants such as metals, toxic organic pollutants and plastics, that present a risk to adjacent agricultural soils and urban areas

**HEAVY METALS:**  
Arsenic (As), Lead (Pb),  
Chromium (Cr), Mercury (Hg),  
Cadmium (Cd)



**FOSSIL  
FUELS**



**URBAN AND  
INDUSTRIAL  
WASTES**



**AGROCHEMICALS**



**ANTIMICROBIAL  
RESISTANT BACTERIA  
AND PATHOGENS**



**Soils act as  
a sponge and filter  
for contaminants**

**But when soils are  
overloaded, these  
contaminants can  
be released:**

## **FOOD**

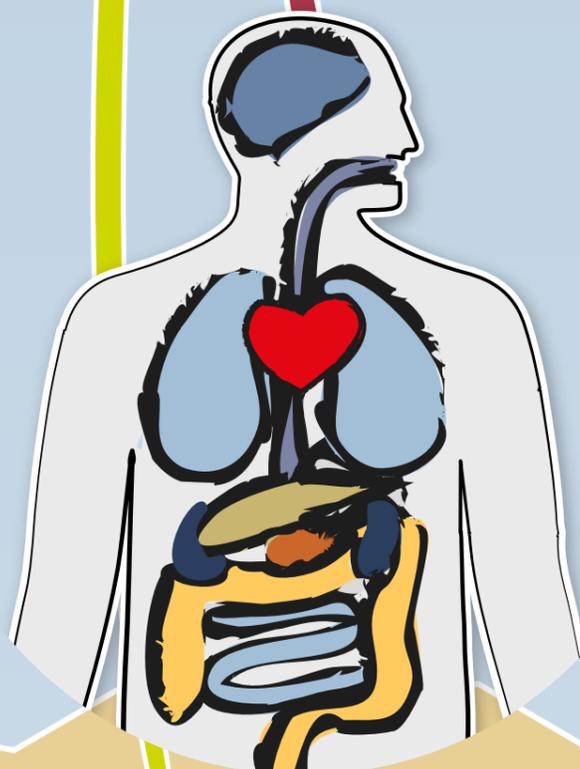
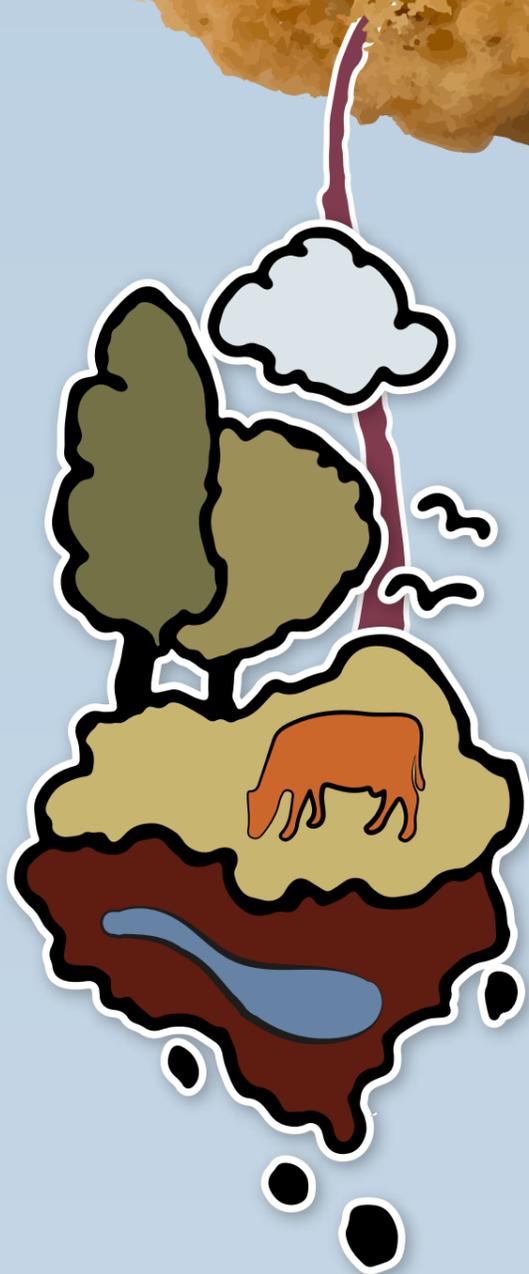
Plants may absorb contaminants through their roots, producing unsafe food. **1 in 10 people** in the world fall ill after eating contaminated food and **420 000** die every year

## **HUMAN HEALTH**

More than **70%** of the soil pollutants are carcinogenic

## **ENVIRONMENT**

**7** tablespoons of lead can contaminate up to **1 ha** of soil or **200 thousand** litres of water



**BUT NOT EVERYTHING IS  
ACTION CAN BE TAKEN NOW  
LOST**

**GOVERNMENT  
AND BUSINESSES**



**INDUSTRIES**

Promote environmentally friendly industrial processes



**AGRICULTURE**

Adopt sustainable soil management practices



**TRANSPORT**

Promote and use sustainable transport

**CIVIL SOCIETY**



**AWARENESS**

Spread the word on the causes and impacts



**MINING**

Include restoration measures in the mining plan



**WASTE  
MANAGEMENT**

Reduce waste and recycle&reuse goods

# Preventing soil pollution and maintaining soil health are crucial in achieving most of the SDGs

