Climate change

What is it?

Natural greenhouse effect

Enhanced greenhouse effect

- Climate inertia
- Extra greenhouse gas emissions
  - Methane (CH_4) 16%
  - Fluor gases 2%
  - Carbon dioxide (CO_2) 76%
  - Laughing gas (N_2O) 6%
- Tipping elements
  - Icecaps melt
    - less light reflection
  - Permafrost thaws
    - Extra methane

Climate <> weather

Causes

- Coal
- Petroleum
- Natural gas
- Burning fossil fuels (71%)
- Other causes (11%)
  - Digestion process ruminants
  - Limestone production and processing
  - Waste sector
- Change in land use (9%)
  - Deforestation
    - Agricultural land
      - Pasture
      - Monocultures (palm oil, fodder ...)
    - Mining
    - Stock breeding
    - Agriculture
  - Marsh draining

Effects

Temperature rising

- Weather and climate change
  - Ocean currents can change
  - Land ice melts
    - Glaciers melt
      - Fresh water shortages
    - Sea level rises
      - Floods
        - Vulnerable regions e.g. river deltas, islands
- Loss of biotopes
- Sea ice melts
- Ocean gets warmer
  - Buffering effect CO_2 absorption decreases
  - Thermal expansion of water
    - Floods
      - Sea level rises

Extreme weather

- Failed harvests
- Fresh water shortages
  - Longer periods of drought and heatwaves
- Mudslides
  - Floods
    - Heavy precipitation
- Stronger tropical storms

Regions under pressure

- Disrupted ecosystems
  - acidification of oceans
    - E.g. coral reefs and calcareous plankton dies
  - Nature
    - Loss of biodiversity
  - Humanity
    - Geopolitical tension and conflicts
    - Mass migration
    - Worse consequences for poor regions

What can we do?

Get informed

- Less products from ruminants
- Influence your government
- Talk about it with your community

Renewable energy sources

- Solar boiler
  - Warm water
- Solar panels
  - Electricity
    - Solar power
- Sustainable electricity suppliers
- Wind turbines
  - Electricity
    - Wind energy
- hydroelectric power station
  - Water power

Smart energy use

- Heat pump
  - The right heat source
- Heating networks
- Sustainable hydrogen gas
- Insulate
- Low-energy household appliances
- Energy efficient LED lighting
- Consume less, buy smart, share and reuse
- Circular economy

Carbon capture

- Forestation
  - Products with a label for sustainable forestry
- Sustainable forestry

Transport

- Limit and compensate air travel
- Stappen (On foot)
- STOP principle
  - Trappen (By bike)
  - Openbaar Vervoer (public transport)
  - Personenwagen (passenger car)
    - right engine

Dealing with the effects

- More nature and green
  - Cooling
  - Water infiltration

SCAN ME

mosvlaanderen.be