

# Greenhouse gas emissions and 2020 targets



# Plan

1. Past - history, Kyoto agreement
2. Present - current gas emissions, development
3. Future - 2020 targets, the effects of the gas emissions

# Introduction

- ▶ There are 2 kinds of greenhouse gases :
  - ▶ The natural greenhouse gases (for example water vapor, carbon dioxide or methane)
  - ▶ The industrial greenhouse gases (refrigeration or air cooling creates greenhouse gases).
- ▶ Some of these gases are more dangerous than others
- ▶ Changing the rate of each gas is dangerous because it provokes an increase of the temperature

# Past

Countries	1990 (million of tonnes)	1990 (% of the world emissions)	2005 (million of tonnes)
United States	4869	23.2	5785
China	2289	10.9	5101
Russia	2179	10.4	1531
Japan	1064	5.1	1228
Germany	950	5.1	811
India	582	2.8	1161
United Kingdom	549	2.6	535
Canada	433	2.1	556
Italy	397	1.9	454
France	352	1.7	387
South Korea	229	1.1	469
Spain	205	1.0	339

# Present

Countries	1990	2000	2008	2009	2010	2011	2012	2012%	per head
									in 2012
Total EU-27	5 574	5 066	4 952	4 593	4 705	4 550	4 536	100 %	8,9
<u>Total EU-15</u>	4 254	4 138	3 989	3 710	3 790	3 631	3 615	79.7 %	9
Germany 	1 250	1 041	975	911	943	916	931	20.5 %	11.3
Belgium 	143	146	137	124	132	120	121	2.7 %	10.6
Czech-Republic 	196	146	142	133	137	133	128	2.8 %	12.2
Spain 	283	379	399	363	349	350	346	7.6 %	7.5
France 	556	559	531	508	514	485	485	10.7 %	7.5
Italy 	519	551	541	491	500	489	465	10.3 %	7.6
Holland 	212	213	203	198	209	194	193	4.3 %	11.7
Poland 	457	385	400	381	402	399	377	8.3 %	10
Romania 	244	134	140	120	117	123	121	2.7 %	5.6
United-Kingdom 	767	674	630	577	594	553	568	12.5 %	9

emissions per head : in tonnes per capita

Source : European Environment Agency

# Present

## Regions Vulnerable to Sea Level Rise

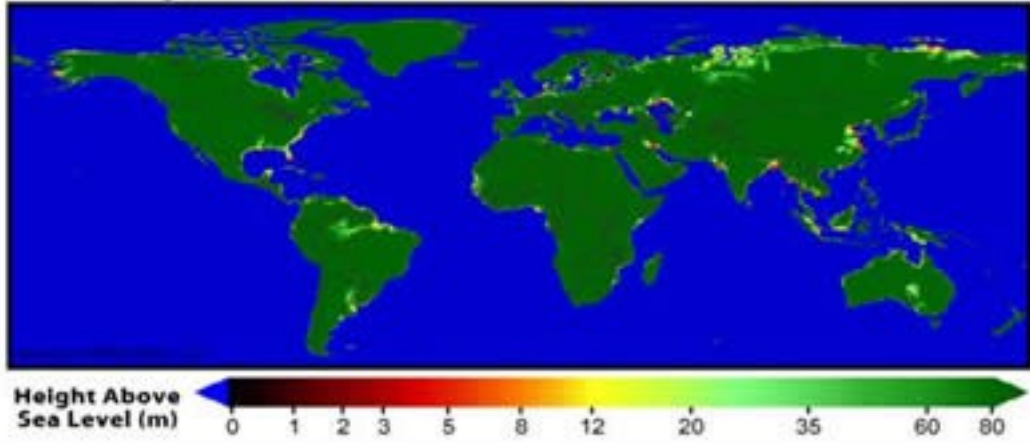
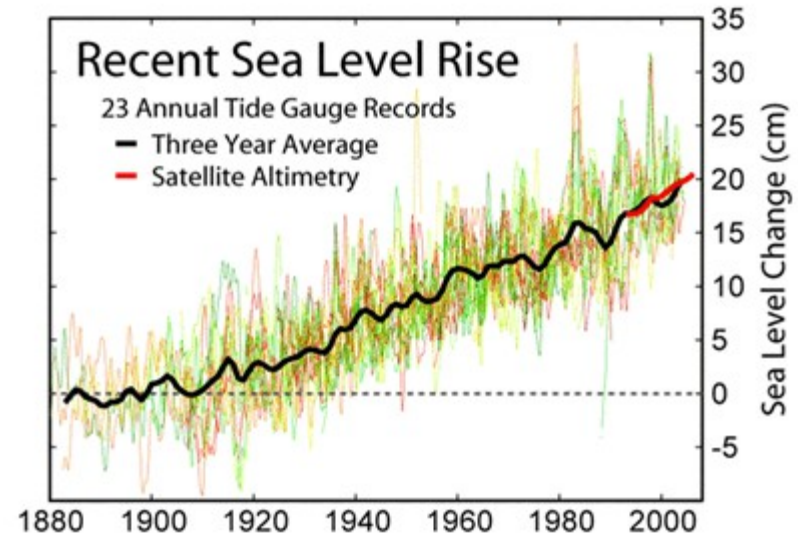


Image from GlobalWarmingArt.com  
[http://www.globalwarmingart.com/wiki/Image:Global\\_Sea\\_Level\\_Rise\\_Risks\\_png](http://www.globalwarmingart.com/wiki/Image:Global_Sea_Level_Rise_Risks_png)



# Future



Target for 2020: -20%

Decrease expected: -21%



## But...

- ▶ 6 countries are still far from the goal of 2030
  - ▶ Austria, Belgium, Finland, Ireland, Luxembourg, Spain

## The effects of the greenhouse gas emissions...

- Rising sea level → 1 to 3 meters
- Rising temperatures → 1°C to 6°C
- Disappearance of some animal species
- <http://geology.com/sea-level-rise/netherlands.shtml>

