**TD N° 3**

**Climate change and Global warming**

**Weather and climate**

**Weather (météo) / Climate (climat)**

**Weather (météo) :**

* **Refers to atmospheric conditions that occur locally over short periods of time—from minutes to hours or days.**
* **Weather includes rain, snow, clouds, winds, humidity or thunderstorms**

**Climate:**

**refers to the long-term (usually at least 30 years) regional or even global average of temperature, humidity, and rainfall patterns over seasons, years, or decades.**

**1/ Global warming: Réchauffement climatique**

**What is Global Warming?**

* **Global warming is the rapid increase in Earth’s average surface temperature over the past century primarily**
* **The main reason is human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth’s atmosphere.**
* **Human activities have increased Earth’s global average temperature by about 1 degree Celsius (1.8 degrees Fahrenheit),**
* **This number is currently increasing by more than 0.2 degrees Celsius (0.36 degrees Fahrenheit) per decade.**
* **The impact of global warming is far greater than just increasing temperatures.**
* **Warming modifies rainfall patterns, amplifies coastal erosion, lengthens the growing season in some regions, melts polar ice, storms, heat waves, floods, droughts.**

**The term Global warming is not interchangeable with the term "climate change."**

**Global warming causes climate change**

**2/ Climate change: changement climatique**

* **Climate change describes a change in the average conditions — such as temperature and rainfall — in a region and over the entire Earth- over a long period of time**
* **The climate change conditions include warming temperatures and changes in precipitation, as well as the effects of Earth’s warming**
* **Fossil fuels – coal, oil and gas – are the largest contributor to global climate change, accounting for nearly 90 per cent of all carbon dioxide emissions.**

**Impacts of climate change:**

* **Intensive rainfall storms**
* **Droughts and heat waves**
* **big impacts on the health of Earth's plants and animals**
* **changing weather patterns and disrupting the usual balance of nature**
* **risks to human beings and all other forms of life on Earth.**