

## Consequences of Global Warming in Reunions Island

**Introduction :** These last years our planet known an important temperature rising due to several facts. Because of that, there are a lot of consequences on our planet.

Unfortunately, those consequences are not so good, and we can see the impacts of global warming on our environment, even in our island.

### **What is Global warming due to ?**

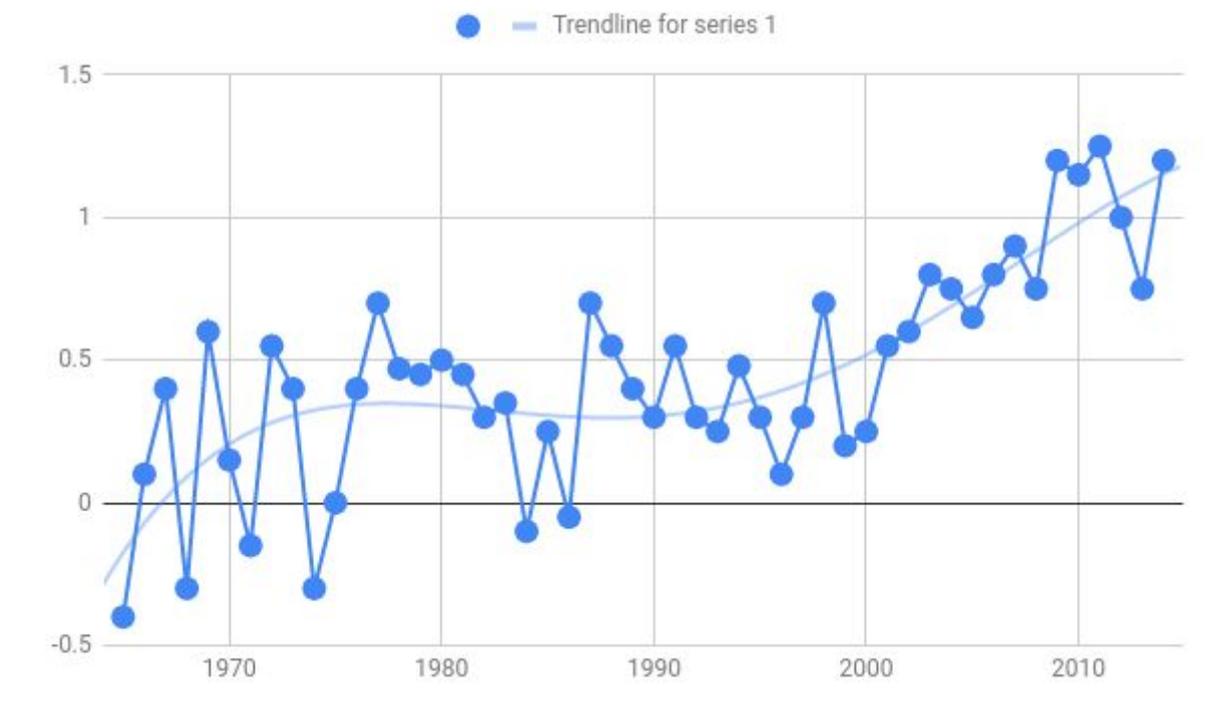
First of all, to understand **what Global Warming is**, you need to know all the factors that lead our Earth to this actual state.

Indeed, a century ago, Earth used to be healthy but with certain inventions created by human beings, it started to go wrong and it's now going worse. The causes of this rising temperature are :

- **Carbon dioxide emissions increased**
- **Greenhouse gases released by fossils fuel, land cleaning, agriculture and other humans activity.**

### I] Rising temperature in Reunion

#### A]What about our temperature?

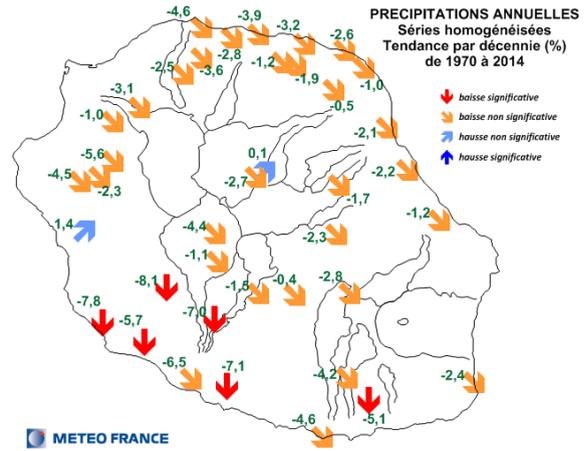
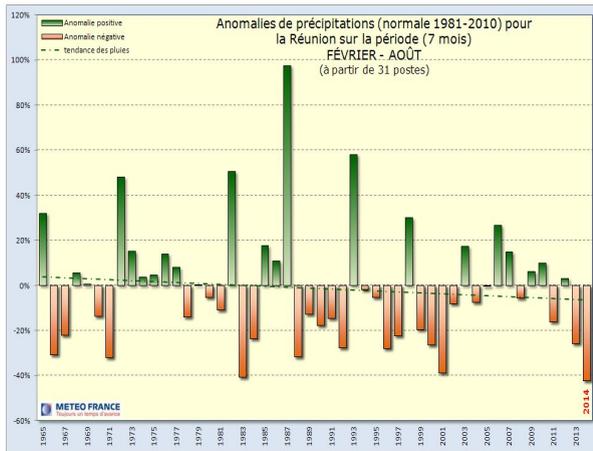


The diagnosis of the evolution of temperature is based on data from six stations with measurements for at least 40 years located at various altitudes and in different sectors of

the island the trend analysis reveals a significant increase in average temperatures over all these stations of the order of 0.15°C to 0.2°C by decade

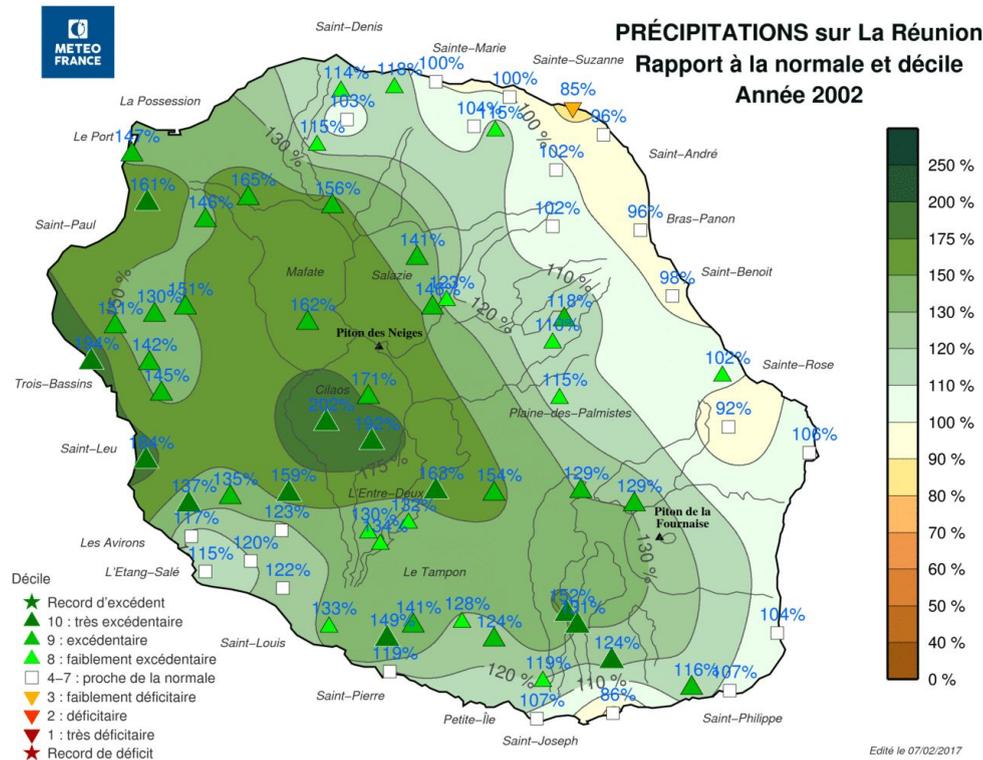
**B]Drought and rain.**

**title : Precipitation anomaly in Réunion / Annual precipitations**



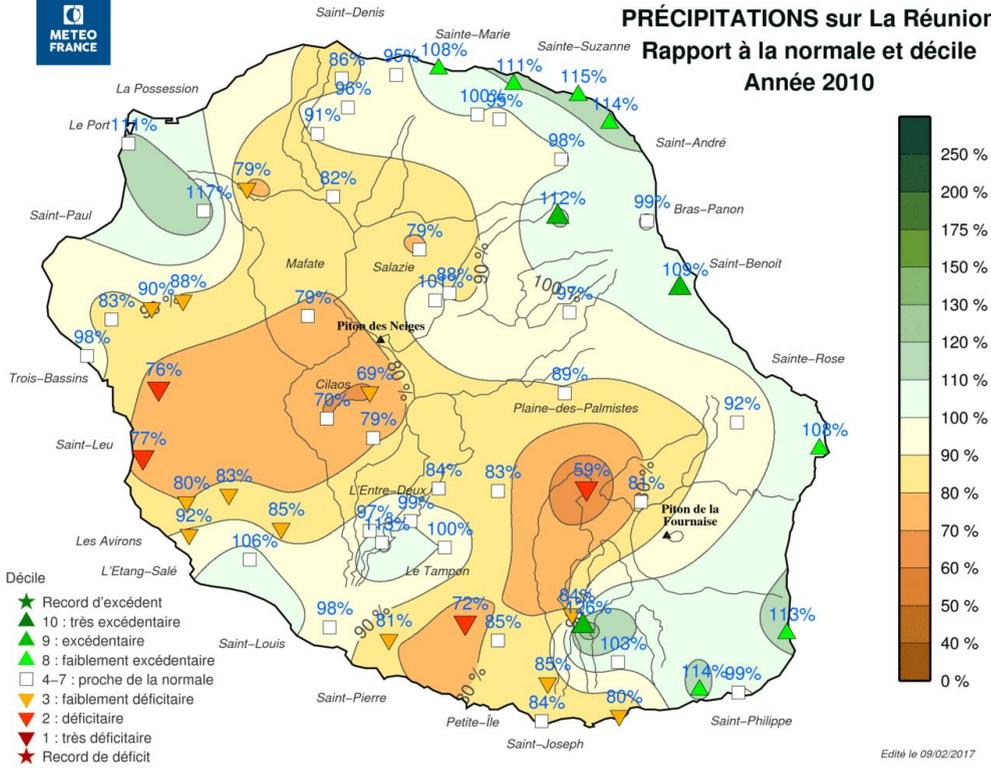
**Precipitations on Réunion**

**Report to normal decile year 2002**





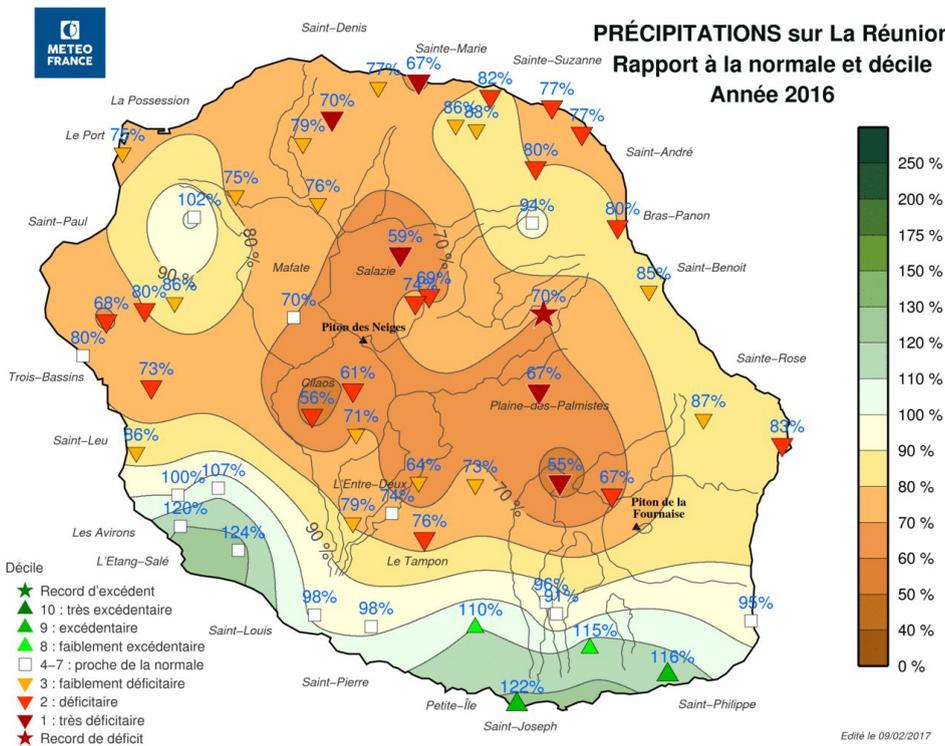
## PRÉCIPITATIONS sur La Réunion Rapport à la normale et décile Année 2010



### Precipitations on Réunion Report to normal decile year 2010



## PRÉCIPITATIONS sur La Réunion Rapport à la normale et décile Année 2016



**Precipitations on Réunion**  
**Report to normal decile year 2016**

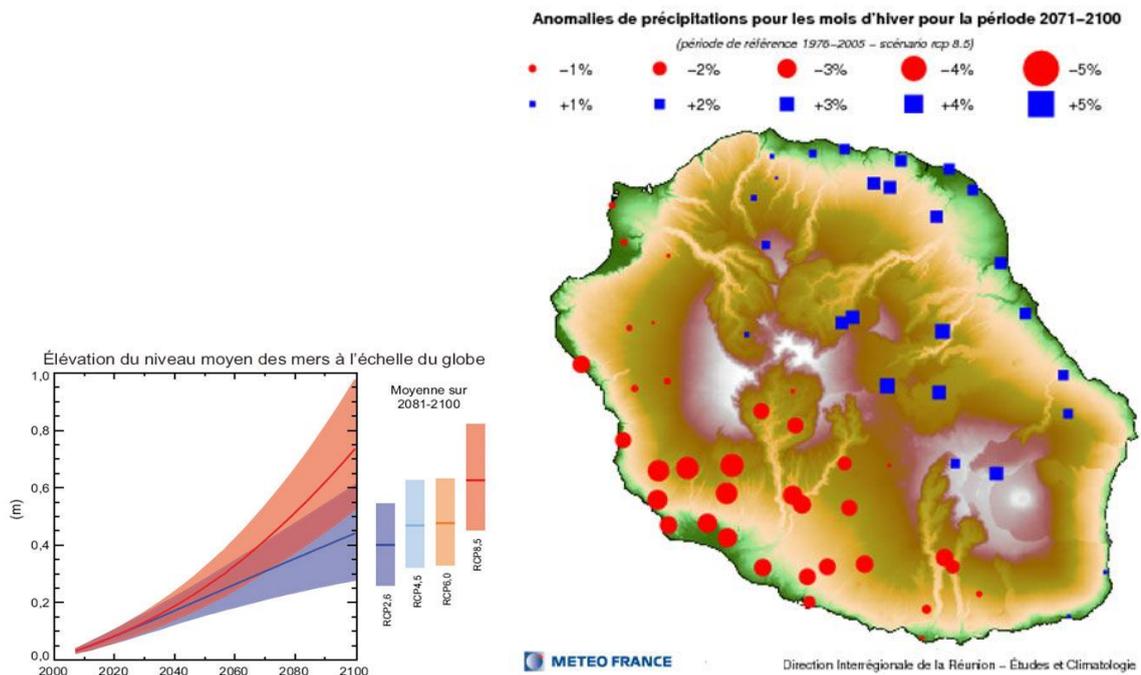
As we can see over time, there is less rain so more drought.

Furthermore, nothing is proved yet but global warming may have impacts on cyclones. Consequences of Global Warming also equals to the changing of cyclones season. Indeed, for a few years now, due to temperature rising, cyclones have been appearing sooner than expected.

**II]How could it be in few years?**

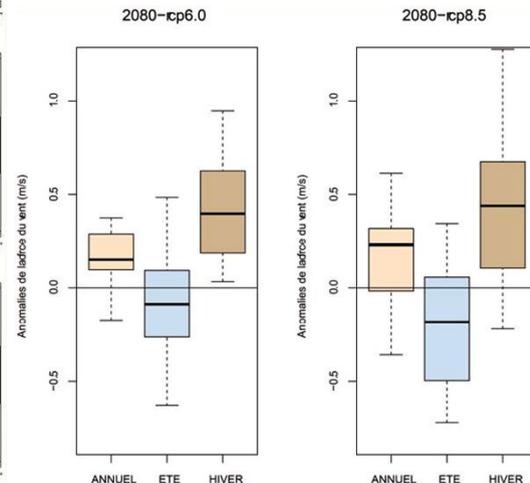
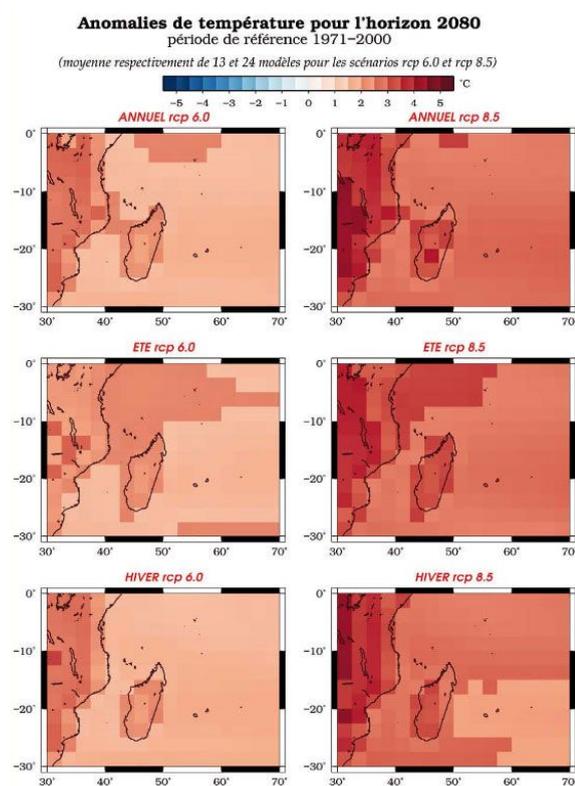
**A]Previews**

Scientist did some “previews “ about what could happen :



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As we can see may happen:

-more violent wind in winter:

-more rain in winter:

-A rise between 1,7°C and 2,6°C:

-a rise between 0,5m to 1m of the sea level :

But we have to remind that nothing is proved, it's just hypothesis.

## **B] Consequences on the environment**

What can be the consequences:

### **-risk of longer drought**

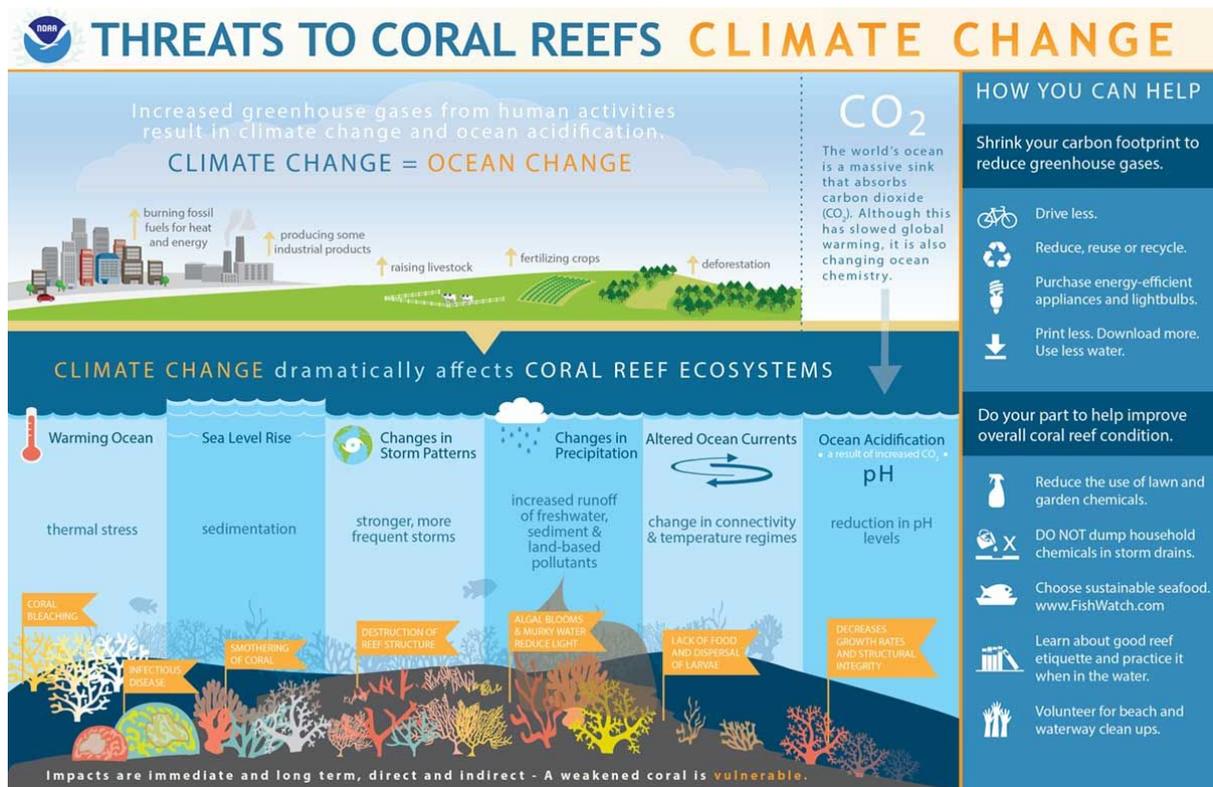
Looking at the composition of Reunion Island, you can see that **forets represent approximately 60 % of the island** which means that with drought, those trees can burn easily which leads to a quite important loss of the island.

### **-more slides :**

First of all, a **landslide is a movement of a mass of rock, debris, or earth down a slope: it means that the natural elements that were on top of a hill by example, are "falling" or sliding down because of gravity.** But ! Gravity isn't the only cause of landslide. The

second most element that perpetuates landslide is rain. Due to an excessive amount of rain, the ground gets weaker and slippery which leads to this movement of downslope.

**-The coral reef would not play anymore its protective role due to the rise of the sea level**



**III - solutions**

**A]“Good” energies → renewable energies**

Reunion island uses some renewable energies that reduce carbon emission : Nowadays, the goal for 2030 is to reach “green electricity”. Thanks to his geographical, the island gains a lot of sun and rain due to certain zone and relief.

The results are already here. In 2015, renewable energies represent 36% of electricity produced in Reunion Island.

**-wind turbines:** the wind farm of La Perrière in the North-East of the island.



**-solar panels:** the solar farm of l'Étang salé with photovoltaic panels which can protect an agricultural activity

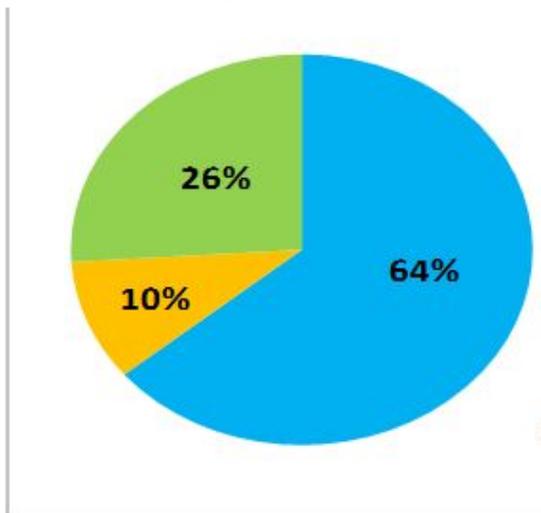


**-The biomass :** energy in organic form,exploited by combustion:In Reunion, the main source of biomass is the rest of the sugar cane, once the sugar is extracted and used as fuel



-hydraulic factories, ...

### The use of energies in Réunion



**Blue:** fossil fuels

**Yellow:** Biomass

**Green:** Renewable energies( solar panels, wind turbines, geothermal,etc.)

**As we can see we use in major part fossil fuels, this is not a good point for our environment so we have to use more renewable energies in the future.**

### B]Local fuel production

Biogostral, a reunion island's company specialized in technologies related to microalgae cultivation aims to become the first European center for the production of algofuel in the Indian Ocean. It could be a good alternative to use algofuel to reduce global warming because it pollutes less.



**Conclusion :**

*Global warming is an important problem, if we don't take care of it now we won't be able to change it in the future, it will be too late. We have to think "green" reduce our carbon emissions . Then we have to use more renewable energies.*