1 RESEARCH ON CLIMATE AND PHENOLOGY
THE PASSING OF A POSSIBLE CLIMATE CHANGE ON THE LAPSE OF PLANTS AS "Terminalia catappa" and "Terminalia Mantaly"

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GRAD LEVEL : SECONDARY

PROJECT TYPE: Research Report

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In our research is at our school, we noticed during 2012 that deciduous plants such as' Terminalia catappa "and" Terminalia mantaly "have lost half of their leaves in the month of September 2012 when the period has already started budding. Yet in 2011 and we started our observation we found that these trees have lost their leaves until September and budding has started at the beginning of October. In our study we want to determine the factors that have caused such a change on the lapse of these plants.

We made the following assumptions: "there are climate change on our study site and climate change have an impact on plants results in the disruption of their lapse. "

Indeed, by observing changes in our temperature and our average annual rainfall of the two years 2011 and 2012 (see graph 1 and 2) we found that there is a net increase in temperature (22 ° 5-23 5) during the month of September in the year 2011 more à2012.En this increase in temperature is accompanied by a clear increase in rainfall (121 to 142mm) the same month. We conclude that the combined effect of rising temperatures and precipitation caused a physiological early awakening of photosynthetic activity that disrupts the lapse of the remaining leaves. Hence the presence of half the leaves while the budding has already begun.

We can therefore conclude that changes in temperature and precipitation due to climate change in our observation site can have an impact on the operation of the plants here translated disruption obsolescence of certain plants. But to check the veracity of our hypothesis, we continue our observations for some years. Plus, we will also want to note, observing the surrounding plants and those of the region itself, if the disturbance is widespread throughout the area or if it is located only in our website.

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WEATHER DATA TOAMASINA

MONTHLY PRECIPITATION (in mm)

	MAI	JUIN	JUIL	AOUT	SEPT	OCT	NOV	DEC
2011	55	144	97	193	121	108	100	52
2012	166	252	192	128	142	127	140	189

AVERAGE MONTHLY TEMPERATURE (degrees celcius)

	MAI	JUIN	JUIL	AOUT	SEPT	OCT	NOV	DEC
2011	24,4	23,4	22	22,2	22,5	23,9	25,5	27,6
2012	23,8	22,1	21,5	21,8	23,5	22,3	25,1	26

MATERIALS AND METHODS

MATERIALS:
-Digital thermometer, rain gauge, record sampling the atmosphere, the color globe guide, tapes, discs sampling phenology (germination, greening, wilting)
method:
_We Measure the temperature at the site each day, using a digital thermometer for solar noon (between 11-12 home). We include every data on the sampling form. At the end of each month, the average temperature is calculated.
-We also measure rainfall collected each day of rain measured by protocols globe. We then calculate the average monthly precipitation.
For each period, vegetative sprouting, greening, wilting), we measure the buds, leaves, according to the Globe protocols. And determine their color using the color guide globe. Then, we note sampling data files. Finally, we analyze the results in terms of temperature and precipitation.

PHOTOS AND NAMES OF TWO PLANTS

First plant:
Vernacular name: Badamier
Family: Combretaceae
Genre: Terminalia
Species: Terminalia catappa

Second plant:
Vernacular name: Mantaly
Family: Combretaceae
Genre: Terminalia
Species: Terminalia Mantaly

BIBLIOGRAPHY

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-GEORGES E. SCHATZ, 2001, Royal Botanic Garden Kew & Missouri Botanical Garden,"Generic Tree of Madagascar"

-MINSTERE DE L'ENSEIGNEMENT SECONDAIRE, CELLULE DE CORDINNATION ET DE SUIVI, 2010, DATA ENTRY GLOBE PROGRAMM

-WIKIPEDIA

LISTE GLOBE PROGRAM (PHOTOGRAPHIC RELEASE)

N°	NAME AND FIRST NAME	JOBS	SIGNATURE
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05	RANDRIANASOAVINA Ratsirahonanampy Luciana Paulia	student	
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07	RAOZIVELOMA Marie Chrinitta	Student	
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09	Teandro vavy Lydia	Student	
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11	MEROHINE Natacha	Student	
12	RAZAFINDRAVOLA Miana Zoesmila	Student	
13	RASAMIMANANA Sohny	Student	
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16	RANDRIAMANANTENA Jean Jacques	Student	
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