

**Globe Program**  
**Virtual Student Conference**

**Which are the causes of floods in  
Buenos Aires?**

**Colegio French – Banfield – Argentina**

**Teachers: Emiliano Basic and Rafaela Capisciolto**

**Contact e-mails: [emibasic@hotmail.com](mailto:emibasic@hotmail.com) –**

**rafaela\_77@hotmail.com**

**Student: Britos, Sol María**

**Year: 1<sup>st</sup> Secondary School**

**School Address: Manuel Castro 1690 – Banfield – Buenos Aires –  
Argentina – CP 1828**

## Table of contents

<b>Abstract</b> .....	page 1
<b>Research questions and hypothesis</b> .....	page 2
<b>Analysis and results</b> .....	pages 2, 3 and 4
<b>Conclusions</b> .....	page 5
<b>References and bibliography</b> .....	page 6

## **ABSTRACT**

The aim of this research is to determine the causes of the severe flooding in Buenos Aires, the capital city of Argentina. In order to do that, I took into account the amount of precipitation fallen on April 2<sup>nd</sup> over the city, the historical average of precipitations for the same period and the urban conditions of the city as regards water drainage. My conclusion is that floods in Buenos Aires are due to excessive population and lack of public works.

Floods are usually very severe in the city of Buenos Aires due to several factors. Some years ago, the concept of climate change has become important, associated to an increase of precipitations. But the greatest floods are not only a secondary consequence of climate change, but to the action of men.

My research question is: Why were the floods in Buenos Aires on April 2<sup>nd</sup> so severe? In order to answer that question, I have to find out this related data:

- amount of precipitations over that certain period of time.
- comparison with precipitations in previous years.

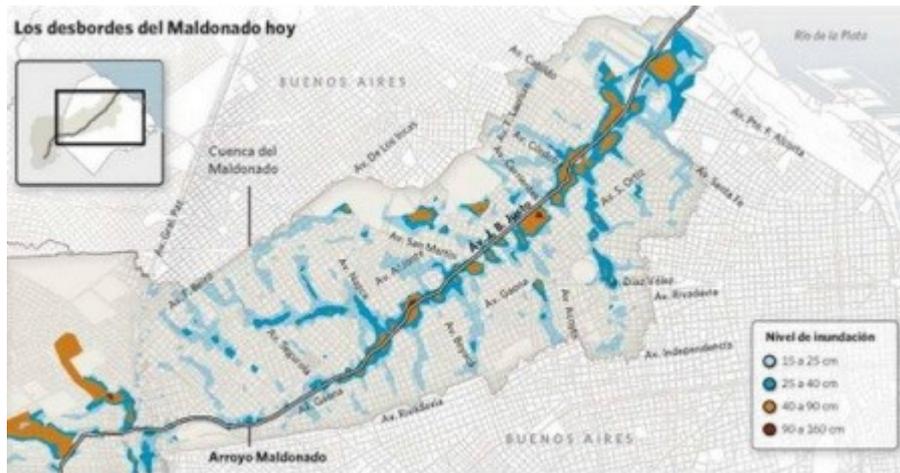
My hypothesis is that, in the city of Buenos Aires, floods have to do with the underground piping of lowland streams and the fever of construction, which implies a loss of green spaces that allow the drainage of water.

I carried out my research mainly through bibliographical analysis and by taking information from the internet.

The city of Buenos Aires is located in the lower portion of the Pampa, being a low plain with a little slope to the River Plate. There are two rivers in this area, Reconquista and Matanza-Riachuelo, currently piped in most of its course.

Four of the most important basins that run through the city, Riachuelo, Cildañez, Maldonado and Medrano, have its source in the province of Buenos Aires and gather water from the suburban areas.

### **Maldonado stream basin**



Maldonado stream overflows – (1)

53,4% of the natural disasters that took place over the last 33 years were of hydro meteorological origin. In the city of Buenos Aires, the network of storm drains was thought for a city of no more than 5,000,000 inhabitants, distributed between the Capital City and the suburbs. According to the population survey of 2001, there were 12,045,941 inhabitants and 2,776,138 in town.

Although floods are a consequence of natural factors, precipitations, there are causes that have to do with urban growth, infrastructure and policy.

In the last decades, flooding in the city occur twice a year, causing disasters associated to:

- the conditions of the drain network, which is not suitable to evacuate the excessive rainwater.

- the “sudestada”, strong winds producing a growth above its normal height average, flooding the coastal zones.

We can synthesize the causes of flooding in the following items:

- rapid population growth and densification of buildings in the city.
- poverty, which implies the occupation of lower zones because of a lack of economical resources, with the result of people being exposed to a high risk of flooding.
- urban expansion with lack of appropriated drainage control.
- lack of maintenance of storm drains.

During April 2<sup>nd</sup>, more than 155mm fell over the city. In previous years, the average precipitation for the month of April was of 97 mm. Only in exceptional cases, 400 mm were registered in 1959, and only 5mm in 1968.

## **Conclusion**

Taking into account the information analyzed, I think that there are more people living in Buenos Aires than what the city can endure. So, the main cause of flooding is overpopulation. The city mainly floods because the drainages cannot fulfill its function.

## **References**

- 1) [www.buenosaires.gob.ar/](http://www.buenosaires.gob.ar/)

## **Bibliography**

[www.elciudadano.cl](http://www.elciudadano.cl)

[www.metro-practicaspott.com](http://www.metro-practicaspott.com)

[www.cambioglobal.org/.../Cap%207%20ESTUDIO%20DE%20CAS..](http://www.cambioglobal.org/.../Cap%207%20ESTUDIO%20DE%20CAS..)