



LET'S TALK ABOUT WATER and MAYORS MAKE MOVIES

JUNE 2024 NEWSLETTER

*This newsletter is a publication of **Let's Talk About Water** and **Mayors Make Movies** organizations, sponsors of the **2024 Latin American Prize for Short Films about Water and Science***

Remember to submit your film by going to Filmfreeway, and compete for awards by accessing: <https://mayorsmakemovies.org/prize-page/>

In this issue, LET'S TALK ABOUT... FLOODS

Below, the capital of the state of Rio Grande do Sul, Porto Alegre, Brazil as of May 10th, 2024



(Photo: Ricardo Stuckert/GovPR)

Flood: An overflow of water onto normally dry land. The inundation of a normally dry area caused by rising water in an existing waterway, such as a river, stream, or drainage ditch. Ponding of water at or near the point where the rain fell. Flooding is a longer-term event than flash flooding: it may last days or weeks. (https://www.weather.gov/mrx/flood_and_flash).

Rivers have played a key role in human history: they provide food, freshwater, and fertile land for growing crops. Water can also be a destructive force of nature too. When rivers overflow, they become a natural disaster, and the effects can be catastrophic, devastating cities and fields where crops are grown. The aftermath can bring waterborne diseases, starvation, loss of land and enormous economic consequences.

On the other hand, some ecosystems thrive on seasonal floods as part of their natural ecological process. Agriculture was developed in ancient civilizations, as in Egypt, along deltas of rivers like the

Nile, which depend on seasonal floods to provide deposits of sediments and nutrients, making fertile soil for farmland allowing populations to survive along these areas.

To learn more about the reasons and impacts of flooding and its consequences you can visit this website: https://www.floodinfo.ie/about_frm/impacts_of_flooding/

FLOODS IN LATIN AMERICA

The outskirts of Porto Alegre, Brazil in this past May flood



(Photo: Lauro Alves / GovRS)

In Latin America, the most vulnerable countries to floods are Brazil, Peru and Colombia. This past month of May the south of Brazil and the north of Uruguay were drastically affected by torrential rains that caused the overflowing of rivers in the Taquari basin, leading to destruction of infrastructure, displacement of populations, over 150 casualties, more than half a million people homeless and 120 thousand in shelters, leaving a trace of tragedy along the whole state of Rio Grande do Sul in Brazil and north central Uruguay. The aftermath of this event is still to be counted, but authorities assure that some towns were vanished for good and will not be reconstructed in the same locations.

MITIGATION OF FLOODS

So, what are the solutions for the mitigation of floods? In the past, flood barriers to protect critical infrastructure have been used, including levees, dikes, and seawalls. A related strategy is floodproofing, which involves elevating critical equipment or placing it within waterproof containers or foundation systems. (<https://eri.iu.edu/erit/strategies/flooding.html>)

Sponge cities

Sponge Park in the city of Curitiba, Paraná, Brazil



(Raul Juste Lores - Video reproduction YouTube)

The novel concept of “**Sponge Cities**” could be an alternative. In 1971, Brazilian architect and urbanist Jaime Lerner, then mayor of the city of Curitiba, in the State of Paraná, Brazil had a plan. After disastrous

floods in the city, he decided to create “**Sponge Parks**” along rivers and streams that surrounded the city and it worked! Nowadays several are in place all around Curitiba. Along the parks, leisure areas were put in place with lots of trees, picnic areas, sports facilities, bike lanes and other recreational spaces. (https://www.youtube.com/watch?v=B_dz2rmDaX8)

In the early 2000’s, in China, architect and urbanist Kongjian Yu, got approval to start implementing these areas and now they are in over 30 Chinese cities. The model has spread to countries as varied as Kenya, Germany, the United States and Australia. Sponge city policies are a set of nature-based solutions that use natural landscapes to catch, store and clean water. In China the concept was inspired by ancient wisdom of adaptation to climate challenges, particularly in the monsoon regions in southeastern China. (https://en.wikipedia.org/wiki/Sponge_city)

Sponge cities concept in China



(Reproduction Globonews – TV Globo Brazil)

The idea consists of preparing cities to absorb rainwater neutralizing floods and making city streets greener, thus mitigating the harmful effects of floods and actually storing water for later use. However, building this infrastructure is extremely expensive and laborious and its real efficacy is still being studied and tested. In the current scenario of growing cities, the need for effective and sustainable solutions has never been more urgent.

You can learn more about the Sponge Cities concept from these short films on YouTube:

<https://www.youtube.com/watch?app=desktop&v=8gLI50h8YWk>

<https://www.youtube.com/watch?v=FtFxmrb16co>

HYDROLOGY EDUCATION

This area of study belongs to the field of hydrology, which is the study of the distribution and movement of water both on and below the Earth's surface, as well as the impact of human activity on water availability and conditions. It is a growing field of work that needs more professionals and technicians to realize its potential. If you're interested in studying hydrology, below is a list of universities and colleges that offer these courses, both in the undergraduate and graduate levels. You can find out more about them by visiting these:

Best Universities for Environmental Science in Latin America

<https://edurank.org/environmental-science/la/>

15 Master Programs in Hydrology around the world

<https://www.master-maestrias.com/master-posgrado/hidrolog%C3%ADa>

17 Bachelor's Programs in Latin America

[https://www.topuniversities.com/programs/latin-america/bachelors/geography?region=\[4013\]&study_level=\[2\]&subjects=\[484\]](https://www.topuniversities.com/programs/latin-america/bachelors/geography?region=[4013]&study_level=[2]&subjects=[484])

There are also scholarships for helping students, covering full or partial tuitions:

Harvard University Opportunities

<https://drclas.harvard.edu/student-opportunities>

IHE – Delft Institute for Water Education

<https://www.un-ihe.org/partial-msc-scholarships-latin-americans>

FILM AND HYDROLOGY EDUCATION

Can film help and enhance education in the field of hydrology and what are the opportunities for careers in the field? Watch this interview with one of the most prominent scholars in the field of hydrology, Miguel Doria, PhD, IHP Regional Hydrologist for Latin America and the Caribbean, based at the UNESCO Office in Montevideo, Uruguay by clicking [here](#):



Let's Talk About Water and **Mayors Make Movies** have previously sponsored short film competitions on this subject and one of the past winners presents a comprehensive view on the devastating effects of floods in the country of Senegal. The short film is **"Annual Floods in Keur Massar"**, that can be found at minute 37:22 in our compilation link: <https://mayorsmakemovies.org/exhibitions/english/>

STAY CONNECTED!

Watch your inbox for our next July newsletter issue. Or send us an email at info@mayorsmakemovies.org with your email address requesting to receive our monthly newsletter. We will be happy to include you in our newsletter mailing list. And keep up with all about the **2024 Latin American Prize for Short Films about Water and Science** in the coming months!

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