

LET'S TALK ABOUT WATER and MAYORS MAKE MOVIES

JULY 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...DROUGHTS

Overuse of water from its effluents has dried up the Aral Sea, leaving only a trace of what was once the fourth largest inland body of water in the world, below.



Photo: Life Without Guarantee – Uzbekistan – by Qudrat Atajonov

What Is Drought? Drought is a deficiency in precipitation over an extended period. It is a part of normal climate variability in many climate zones. The duration of droughts varies widely. Drought can develop quickly and last only for a matter of weeks, exacerbated by extreme heat and/or wind, but more commonly drought can persist for months or years. The effects of drought can be so widespread that, in extreme fire conditions, officials may issue mandatory evacuation orders to protect lives and animals. In the United States alone, from 1980 to 2020, droughts generated losses over 1 billion dollars. (<https://www.weather.gov/safety/drought>)

Check out below the different definitions of drought that may affect us:

Meteorological Drought

When dry weather patterns dominate an area.

Hydrological Drought

When low water supply becomes evident in the water system.

Agricultural Drought

When crops become affected by drought.

Socioeconomic Drought

When the supply and demand of various commodities is affected by drought.

Ecological Drought

When natural ecosystems are affected by drought.

There is a wealth of information about these various concepts of water scarcity, often referred to as a drought in this platform: <https://www.drought.gov/node/1034/>

For students and teachers, there are special resources that can be accessed here: <https://www.drought.gov/what-is-drought/resources-for-teachers-and-students>.

DROUGHTS IN LATIN AMERICA



Photo: @redcharlie - Unsplash

According to the database website Statista, the most vulnerable countries to severe droughts in Latin America are Bolivia, with the highest risk, followed by Argentina, Honduras and Brazil. Chile offers the lowest risk of droughts in the region. (<https://es.statista.com/>)

The World Bank considers drought the secret enemy of Latin America as explained in this article: <https://www.bancomundial.org/es/news/feature/2013/12/12/sequia-enemigo-silencioso-brasil-latinoamerica> and sees droughts as the “poor cousins” of natural disasters because so little attention is paid to this environmental condition.

DROUGHT PREVENTION AND MITIGATION

In a joint effort, the United Nations Convention to Combat Desertification (UNCCD), the Food and Agriculture Organization of the United Nations (FAO) and the World Meteorological Organization (WMO) have put together a set of policies, to which researcher Antonio Magalhaes has added practical policies to a proactive drought policy and plan aimed at reducing vulnerability and the costs of drought impacts to the countries in Latin America. His suggestions to governments can be found here: <https://www.preventionweb.net/publication/towards-national-drought-policies-latin-america-and-caribbean-region>

DROUGHT MANAGEMENT EDUCATION

Science has a key role to play in water scarcity mitigation, drought prevention and vulnerability reduction. Among these fields of study, **high technology irrigation** is a growing one both in

research and jobs. Check out our June issue to learn more about opportunities in education and employment, by watching our interviewee of the month, **Miguel Doria, PhD** [here](#). He presents many options for those interested in careers in the field.

THE ROLE OF HIGH TECHNOLOGY IRRIGATION IN WATER RESOURCES MANAGEMENT



Photo: Unsplash+/Getty Images

THE LATEST FROM THE FIRST LATIN AMERICAN WATER FORUM



Can proper irrigation help mitigate water scarcity? Recently, the **most advanced technology in irrigation** was presented at the **First Latin American Water Forum**, held in Aracaju, Brazil.

Everardo Mantovani, from the Brazilian Irrigation and Drainage Association – **ABID** gave a comprehensive overview on **the state of high technology irrigation in Latin America** and presented some key case studies. His full presentation can be watched [here](#).

Mantovani pointed out the “*state of the art*” in irrigation has evolved. For the first time, irrigation has permeated all three key pillars: Water and Environment, Water and Development and Water and Climate. It led to a new integrated vision: Food Security and Sustainability.

In tropical climates, seasonal cycles are defined by water availability. Irrigation breaks that cycle and allows for two harvests a year, instead of one, making it possible to produce crops year-round. The key to the efficient management of water is the proper practice of technology with responsible use of hydric resources.

Electricity, a main component of irrigation, is expensive, one more reason for applying the **best technical resources** when managing irrigated properties. From 2012 to 2021 irrigated areas in Latin America have grown 16,2% aimed at maintaining food security, jobs and income in rural areas.

New studies show how irrigation can help mitigate greenhouse effects, making low carbon agriculture one of its main goals. These studies can be found here:

<https://www.mdpi.com/2077-0472/9/1/24>

<https://sciprofiles.com/publication/view/2a3e2e783f4927cf2c9e9f73a792448f>

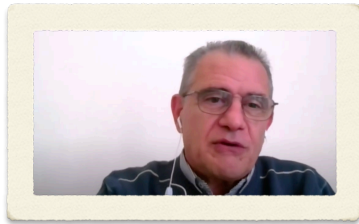
Large companies can handle the investment, but ABID is now developing programs for small family farms, same objectives, different tools.

With government agencies and universities, ABID has developed a **free educational software** named “*Sistema Brasileiro de Manejo de Irrigação*” (Brazilian System of Irrigation Management) which explains key aspects of irrigation technology. abid@abid.org.br

The association also offers a range of free courses that can be found here: <https://abid.org.br/eventos/cursos-livres>

THE GUARANI AQUIFER:

HOW TO BUILD A MULTI COUNTRY AGREEMENT TO MANAGE AND CONSERVE WATER



Let’s take the Guarani aquifer, a milestone in the history of multilateral agreements on water. It is an example that can be followed by other countries in the region and around the world. How do governments come to build a consensus on managing and conserving water?

Learn from who has been in the field for over 20 years, the Executive Director of the Regional Center for Groundwater Management in Latin America and the Caribbean (**CeReGAS**),

Professor Alberto Manganelli, a pioneer in the construction of the **Guarani Aquifer Agreement** between Argentina, Brazil, Paraguay and Uruguay. Watch his interview [here](#).

Let’s Talk About Water and **Mayors Make Movies** have previously sponsored short film competitions on this subject and past winners have brought light to the issue in two short films “[Life Without Guarantee](#)”- Uzbekistan and “[Father of Trees](#)” – Iran.

STAY CONNECTED!

Watch your inbox for our next August 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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