

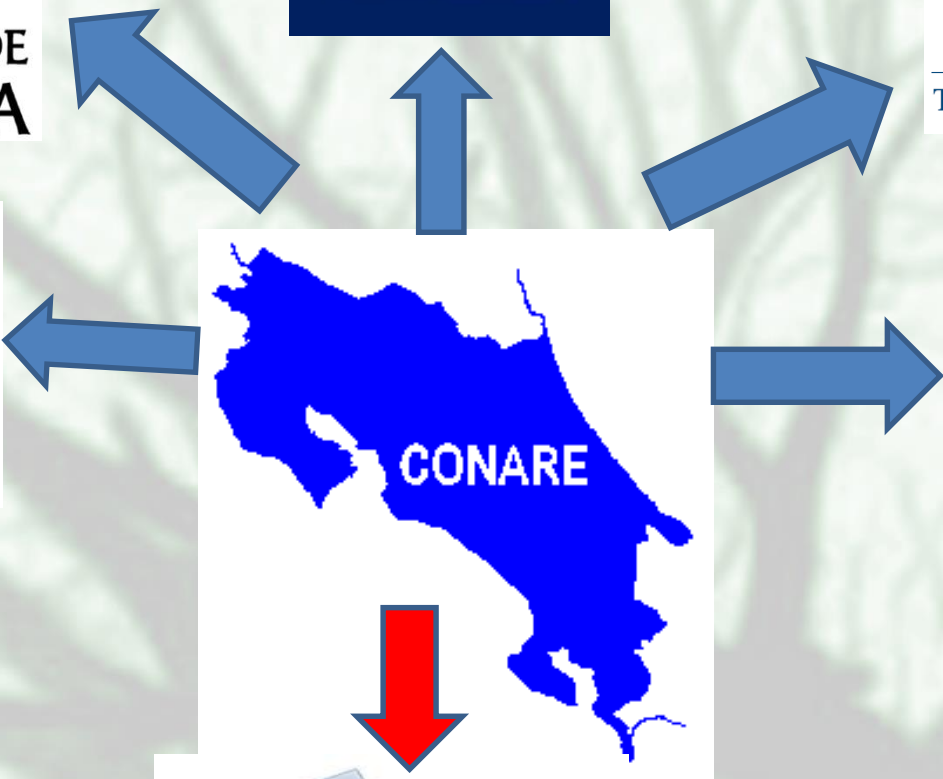


ADAPTING AND IMPROVING RESILIENCE TO CLIMATE CHANGE IN COMMUNITIES (MORAVIAN COMMUNITY AS A PILOT), BY CREATING NEW CAPABILITIES BASED ON THE IMPLEMENTATION OF A NEW WATER CULTURE; PROTECTION AND MANAGEMENT OF NATURAL RESOURCES

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- Computing and information technology •
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Escalando hacia el futuro



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VERY IMPORTANT CONCEPTS

- **Vulnerability:** “Degree to which a system is susceptible and unable to cope with adverse effects of climate change.”
- **Adaptation:** “Adjustment in natural/human systems in response to actual and expected climatic stimuli or their effects, which moderates harm or take advantage of opportunities”.
- **Resilience:** “The ability of a person/group to recover from adversity to continue projecting the future”.

UNDENIABLE FACT ABOUT WATER

- More than 2 billion people lack access to clean water
- “The quality of water is a key determinant of development”



access
in 2,6
billion

at the
of the
imple

CLUE ISSUES

MAJOR POINTS OF CRISIS/FAILURE IN WATER MANAGEMENT

- **Sustainability crisis**
- **Governance crisis**
- **Coexistence crisis**

CRITICAL ISSUES DIRECTLY AFFECT WATER RESOURCES

It raises movements in defense of territory and progressive growth in average temperatures. It generates hydraulic works, deforestation and pollution of rivers, lakes and against the privatization of water and sanitation. It is a confrontation argument, instead of assuming the management of rivers as a cooperation between coastal towns.

Regional changes in rainfall
Increased climatic variability

ABOUT COSTA RICA

- Costa Rica is the 2nd most exposed country to multiple hazards in the world.
- Costa Rica is the eighth most likely to suffer economic risks due to greater exposure to three or more natural disasters.
- MINAE's adaptation objective: That implies to reduce vulnerability, adapting communities and increasing resilience to climate variability.
- National Strategy for Climate Change (ENCC).
Prior areas: **water**, agriculture, health, biodiversity, infrastructure, fisheries, coasts.

WATER SITUATION IN COSTA RICA

- Water is intended to solve established needs: hydropower, water supply, irrigation and drainage.
- Negative effects due to climate change and flows reduction or excessive increase can result in economic losses, health problems and/or hydropower lacks.

WATER SITUATION IN COSTA RICA

- People needs for supplying reliable and clean water are not fully met.
- Decreased rainfall is significant in most regions.
- It is urgent to consolidate the integrated management of water resources in the greatest risk areas
- It is important to note:
 - Water volume for irrigation is critical to maintain important crops throughout the country.
 - Increased demand and potential supply reduction, together with extreme weather events, leave the country in a state of high vulnerability.

AND WHAT ARE CeNAT/UCR DOING?

THREE STRATEGICAL LEVEL ACTIONS

- I. LOCAL LEVEL**
- II. NATIONAL LEVEL**
- III. INTERNATIONAL LEVEL**

I. PULMÓN VERDE (“GREEN LUNG”)

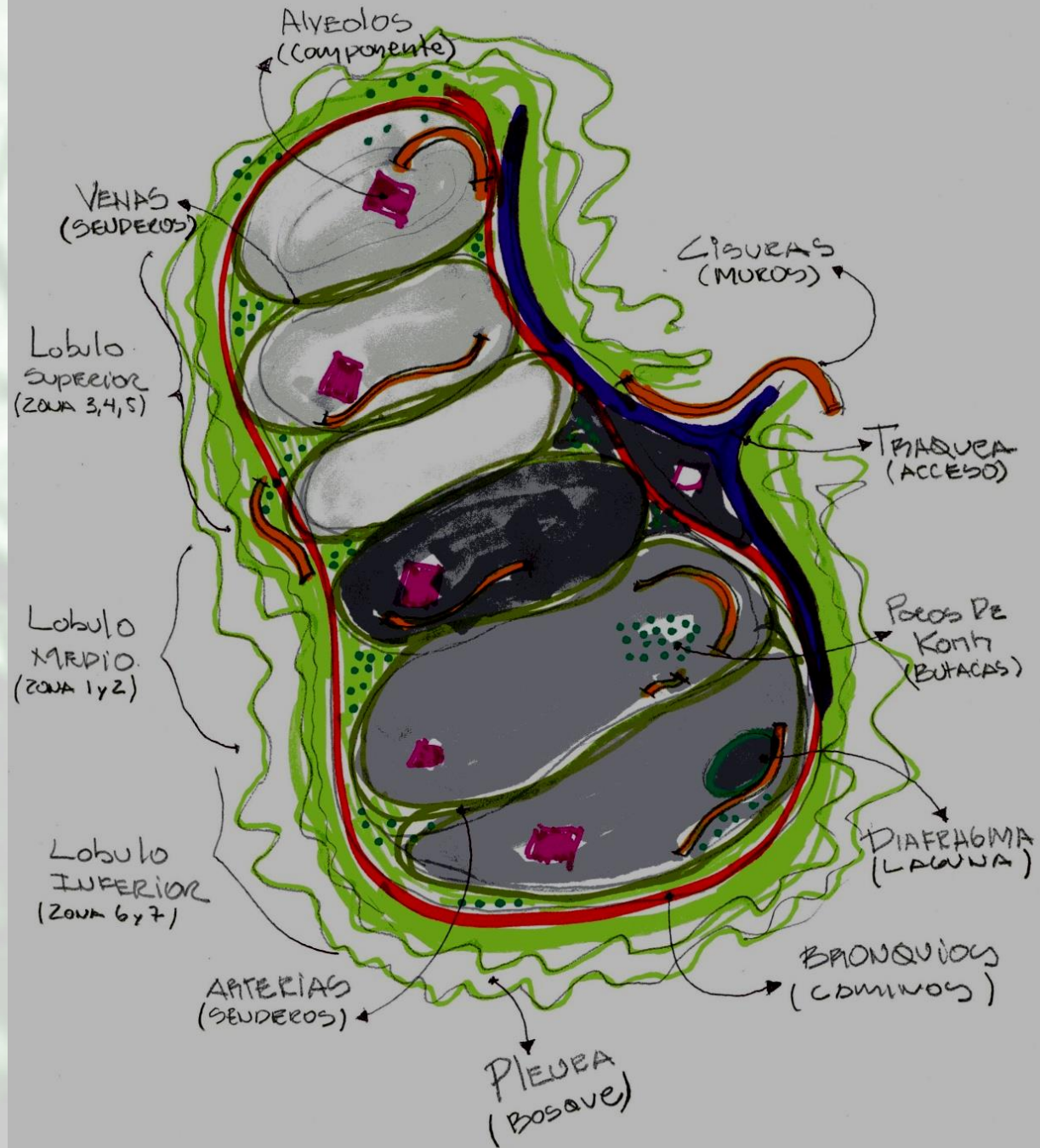
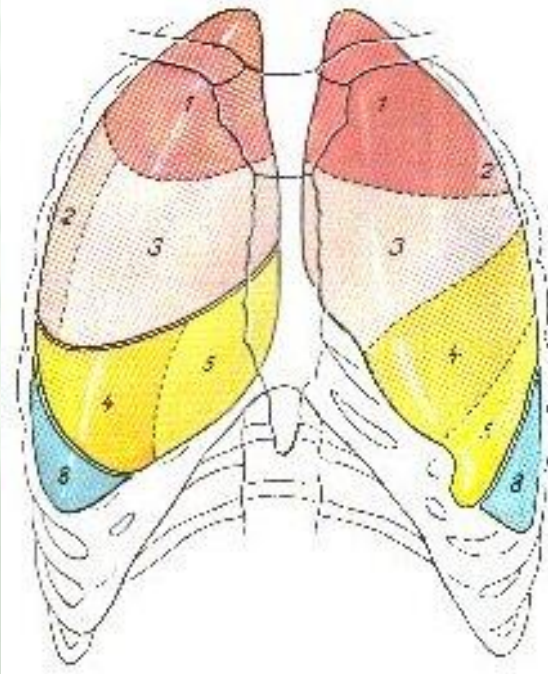
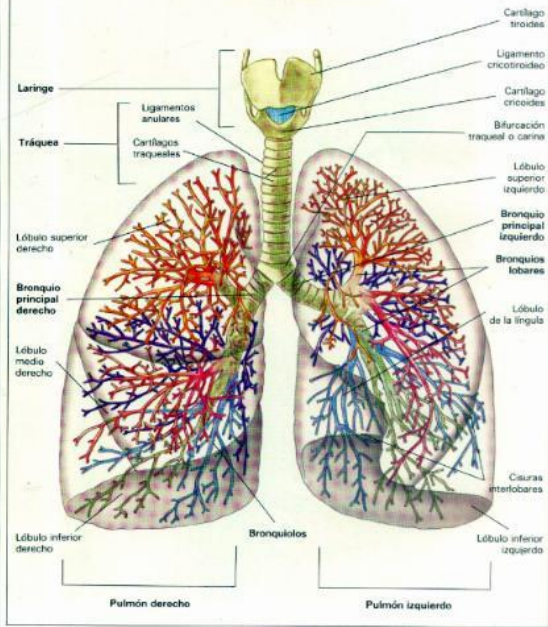


Puntero 9° 59' 02.33" N 84° 01' 25.28" W elev. 1308 m

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Secuencia 100%

© 2008 Google™
Alt. ojo 1.70 km

Aparato respiratorio y de la fonación: visión anterior







JUST RIGHT NOW



II. A NEW WATER CULTURE

- **Dr. Pedro Arrojo Agudo.** Zaragoza University / UN Water expert.
- **“New Water Economy”:** economic theory with a totally friendly base with the environment.
- Recognizes various water uses/rights to it.

WATER DIMENSIONS

- Life – Water.
- Citizenship – Water.
- Growth – Water.
- Crime – Water.





"Water, Rivers and People Fair"

- It has been presented in many countries already.
- Objectives: awareness society and empower social movements.
- Exposed in different costarrican sectors.
- To educate and train communities.
- To encourage debate and concrete commitments; creating citizens' agenda.
- Local, regional and national case studies.

"Water, Rivers and People Fair"

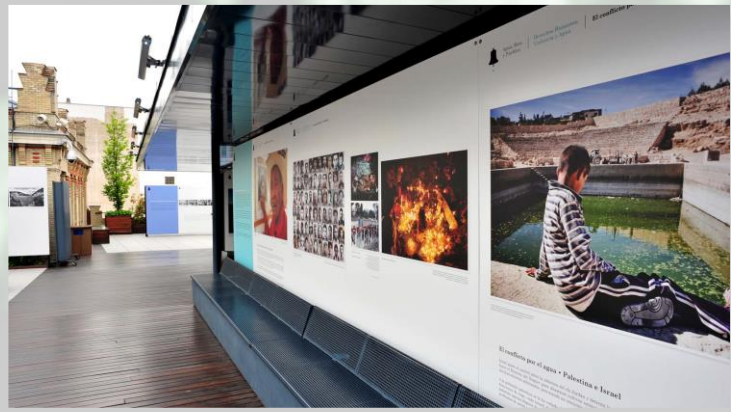

Exposición
"Agua, ríos y pueblos"
El perfil humano
de los conflictos de
aguas en el mundo
Del 9 de mayo al 28 de junio
Terraza y Torreón 2




© Cédric Faiman

AGUA,
RÍOS
Y PUEBLOS

Homenaje a quienes
luchan por defender los ríos
y sus gentes



III. INTERNATIONAL WATER CONGRESS

- Efforts must go beyond the community level to impact national and international levels.
- To put stakeholders face to face with communities and NGOs, looking for a truly sustainable water management for humanity, based on the New Water Economy.
- Originally projected to November 2015 (now March 2016).

IWC CONTENT

- Oral research presentations.
- Training workshops.
- Discussion panels.
- Poster exhibitions
- A final discussion forum.
- “Water, Rivers and People Fair”.
- Socio-economic and political presentations.
- Post-event monitoring and results evaluation processes.

CONCLUSIONS

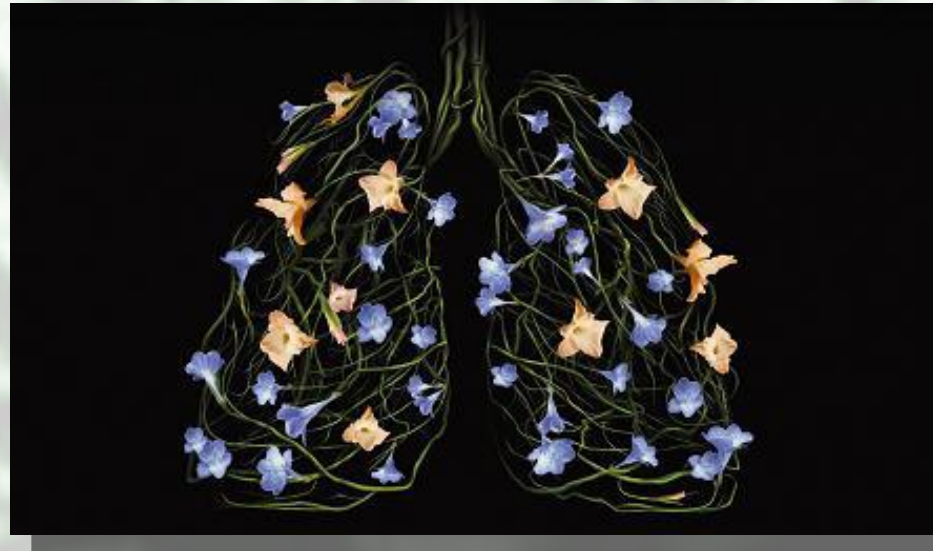
- It is undeniable that human beings are degrading natural aquifer sources.
- Communities, joint with other sectors as a whole, need to adopt policies and concrete actions.
- The New Economy of Water outlined by Dr. Arrojo emerges as an important alternative.
- It is urgent to open awareness, dialogue and defining strategies spaces, such as those presented by the upcoming International Congress on Water.

ACKNOWLEDGEMENTS

- Consejo Técnico de Fuerzas Vivas (CTFV) from Moravia.
- Lic. Gerardo Mondragón (CeNAT – UCR – UNA)
- Dr. Pedro León Azofeifa (CeNAT former Director)
- PhD. Eldon Cadwell (SIA – UCR Director).
- Dr. Pedro Arrojo Agudo



THANK YOU



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