



## **CHILE**

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- **Organization and Number of Personnel:**

Under the supervision of the CC, operates a teaching group of three trainers and two assistant teachers for the teaching topics; a communications committee of two people with training; a set of scientific collaborators of 5 people. In total 10 people.

- **Financing by:**

Basically, volunteer contributions, project funds, self-financing of the units and logistical support from related organizations.

- **Cooperating organizations/individuals:**

In logistical support:

- AIEP Professional Institute.
- Metropolitan University of Education Sciences (UMCE).
- Universidad de las Américas (School of Basic Education).
- Ludens Chile Communications.
- Affiliated schools.

- **GLOBE Schools**

We have an average of 6 active educational establishments, we have integrated some and have inactivated others. There are 20 in the process of activation and we keep the communication channel open to reactivate other schools that have had GLOBE activity at some point.

- **GLOBE Protocol Areas:**

In the formative area the basic protocols of 3 research areas (Atmosphere, Pedosphere, Hydrology) were worked, There are works with advanced protocols in aerosols, atmospheric waters and Hydrology (water desalination).

- **Number of schools reporting data during the past year:**

Only 4 establishments have reported as such. Additionally there is a significant amount of contributions that are uploaded in the GLOBE OBSERVER application We will initiate a process of linking measures with schools, as appropriate.

**Program implementation, international cooperation in the GLOBE network and activities during the past year (categorized by objectives of the GLOBE Strategic Plan 2018-2023).**

- **Education**

- ✓ Conduction of training workshop on basic protocols (Atmosphere, Pedosphere and Hydrosphere) for Pre-services teachers.
- ✓ Contributions to the redesign of the curriculum of subjects of the CCNN line for basic education teacher training with the use of GLOBE protocols. In the context of curricular environmentalization.
- ✓ Reactivation of interactive platform at UMCE for training purposes on GLOBE issues, open to students from partner universities and the community.
- ✓ Beginning of agreement with the Universidad de Concepción, through its units that do Environmental Education and is operationalized with agreements between the university and municipalities. In our case, we are managing the municipality of San Pedro de la Paz, which has in its territory a wetland of Ramsar agreement (Los Batros) and the San Pedro lagoon (Nature Sanctuary), as potential sampling sites in bundle modality.
- ✓ Participation of MMDD School in IVSS 2023, chosen as a finalist among 5 school inquiry projects of our Chilean partner schools.
- ✓ Launching of 7 school research projects with a view to participate in IVSS 2024.

- ✓ Continued development and implementation of the GLOBE Center in the Fifth Region (Papudo la Ligua).

- **Science**

- ✓ Start-up of a professional meteorological station, soon to begin operations under the custody of the School of Basic Education of UDLA, which will report data to GLOBE and provide research inputs in an inter-university transdisciplinary team. associated universities.
- ✓ Start of research project in the area of aerosols and atmospheric variables based on access to data from air quality measurement devices (particulate matter 2.5).
- ✓ We continue to persevere in improving management to channel the contributions of our scientific collaborators in an efficient manner. We are also calling for specialists in Education, which is perceived (curiously) as one of the aspects of little participation and/or incipient development in GLOBE.

- **Community**

- ✓ 12 virtual and/or face-to-face presentations for new schools about the GLOBE Program.
- ✓ Dissemination talks on eclipses with scientific fundamentals of the phenomenon, local experiences 2019 and 2020, and projection of the 2023 eclipse, which will be visible in the northern hemisphere.
- ✓ Virtual expository talks on GLOBE experiences. In inactive partner schools in order to bring them back into the GLOBE dynamic.
- ✓ Participation in outreach activities of partner universities, and implementation of early warning initiatives on air, water and soil issues.

- **Tecnología**

- ✓ Bajo liderazgo del profesor M. Paillali se siguen desarrollando modalidades de construir accesorios e instrumentos con base en hardware Arduino y uso de impresoras 3D,
- ✓ Continuamos con la participación de los estudiantes de postgrado del Profesor Rondanelli. (U.CH.) Se siguen apoyando iniciativas de desarrollo instrumental, iniciativas en nieblas (tercera etapa de atrapanieblas), aerosoles y fabricación de fotómetros.

- **Communication**

- ✓ Publication Star 2022/23. on the activity of GLOBE CHILE members in the eclipses 2019 and 2020 that we have qualified with ethological contributions on animal behavior in the face of light suppression, with the help of UMCE academic, Prof. Marcial Beltrami, Ph.D..

**Plans and ideas for the coming year:**

Our intentions are focused on maintaining the progress of ongoing initiatives and:

1. Reactivation of GLOBE activities in educational establishments in recess and the integration of new schools.
2. Consolidation of the GLOBE center in the fifth region (La Ligua, Zapallar, Papudo and surroundings) led by Prof. H. Costabal (GLOBE Trainer).

3. Full activation of the virtual training center at UMCE.
4. Integrate a third Davis meteorological station in the northern part of the country to the system of establishments associated to GLOBE CHILE, in order to reinforce the actions established for the other two.
5. To reconsider the proposal for the second Citizen Science congress, which had to be frozen due to administrative issues of the potential participating institutions.
6. Feasibility study of the bi-national meeting (Argentina-Chile), in the southern zone (endemic region of the continent). For the time being, inter-school work has already begun.
7. We continue with advances in the work on curricular environment with the inclusion of GLOBE protocols, and proposals for STEAM projects for teachers in initial training and with two scientists we are continuing with the elaboration of a work to survey environmental education and GLOBE protocols associated to formal contents of primary and secondary education in Chile.
8. To manage the realization of a second version of the event integrating this time UMCE and another Latin American University, which we hope to be able to materialize as soon as the minimum conditions for its realization are in place.
9. Strengthen the participation and presence of GLOBE CHILE in outreach activities specific to the Universities of Concepción, Las Américas and UMCE, and manage the realization of inter-university actions.