

# Environmental diagnosis of dams on the Peruvian coast. Case Study: Gallito Ciego dam

**Researchers:** Carlos Tavares Corrêa (Geography Section) / Nadia Gamboa Fuentes (Chemistry Section) / María Isabel Quispe Trinidad (Industrial Engineering Section) / Victoria Ramirez Valdivia (Civil Engineering Section) / Patricia Alva Carolina Zúñiga (FCI-Chemistry) / Carmen Celia Alvarez Gutierrez (FCI - Chemistry) / Natalia Ríos Perales (FCI - Chemistry) / Renzo Alberto Matienzo Bernabé (FCI - Chemistry) / Gabriel Andrew Koo Urcia (LLyCCHH - Geography and Environment) / Estefanía Carmela Fox Llerena (LLyCCHH - Geography and Environment) / Michelle Jahnsen Cisneros (LLyCCHH - Geography and Environment) / Carlos Miguel Incháustegui Perez (LLyCCHH-Geography and Environment) / Jorge Eduardo Cieza Aubert (FCI - Civil Engineering)

**Coordinator:** Carlos Tavares Corrêa

**Research Assistants:** José Flores Satoshi Takahashi (FCI - Chemistry) / Gustavo Adolfo Rondón Ramírez (LLyCCHH - Geography and Environment) / Nelson Omar Zapata Salazar (FCI - Industrial Engineering)

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Department of Science - Chemistry Section - Group GRIDES

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The importance of dams on the Peruvian coast is undeniable. Water storage can meet multiple needs such as irrigation, drinking and hydroelectric power generation, among others. However, it is necessary to know impacts caused by the damming of the river water in the geographic area of **influence**.

This project is aimed to provide a methodology to recognize and quantify the major environmental impacts downstream from the Gallito Ciego dam, in order to propose mitigation and prevention necessary to extend the service life. To do this, a monitoring program will be designed for the **mirror of the dam and the river downstream of the dam**, methodologies for assessing environmental impact will be applied and one methodology for impacts recognition and quantification to dams comparable to the case study will be proposed.

This research results from the concern that erosion can be caused by the interruption of sediment supply to the lower basin of a river, both in the river and in beaches courses,

and thereby cause an environmental impact to be evaluated. Moreover, farmers may use at some point in the dam sediments confined as a natural fertilizer, if they have high organic nutrients without evaluating the content of other toxic or ecotoxic chemicals.