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SOCIOECONOMIC IMPACTS OF CO₂ FLOW ON MARINE ECOSYSTEMS OF THE REGION OF THE COLOMBIAN CARIBBEAN: RESEARCH IN PROGRESS

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The acidification of the oceans is a phenomenon associated with the atmospheric CO₂ emissions resulting from the different anthropogenic activities, mainly transport and industry. This document discusses some conceptual aspects necessary to understand the behaviour of this phenomenon in the context of the Colombian Caribbean region, specifically in the valuation of ecosystem functions and intangible heritage present in that area. The socio-economic and environmental impacts of the gradual acidification of the oceans have received increasing attention due to its importance in the development of communities that depend directly and indirectly on marine ecosystems. The acidification of the oceans, coupled with the phenomenon of climate change, overfishing and pollution of the bodies of continental waters that flow into the seas, together, are factors that put at high risk marine biodiversity and the different ecosystems that perform functions essential for the environment, such as seagrass beds, beaches, estuaries and coral reefs among others. The study area selected was the Colombian Caribbean region (132,288 km²), with an approximate area of 42,699 km² occupied 23 types of ecosystems, among which are coral reefs, seagrass beds, rocky cliffs, beaches and funds soft. Thus, this document aims to identify the main socio-economic and cultural impacts arising from the acidification of the Colombian Caribbean Sea, and for this the document is divided into three sections: origin of the atmosphere-ocean CO₂ flows, a review of the socio-economic impacts of the effects of acidification, an approach to the assessment of ecosystem functions in the face of the phenomenon of and a description of ecosystems and their functions in the context of the Colombian Caribbean.

Biography

Juan Guillermo Popayan-Hernandez, Environmental Engineer (2010) and Master's in Environmental Engineering with an emphasis in research (2015) graduated from the Universidad Nacional de Colombia and is currently a Doctoral student in Environmental Sciences at the Universidad del Valle. He has focused on investigating the impacts of CO₂ on marine ecosystems in the maritime area of Colombia, specifically the relationships between social communities and abiotic factors.

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