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School catchment as a tool for sociohydrological development

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The use of citizen-based approaches and community-based management has received considerable attention in the last decade even though their practice is much older [1]. These approaches are strongly recommended to reduce the gaps between theory and practice. They can contribute to understanding existing problems and co-developing solutions through the integration of local heterogeneous characteristics and global scientific knowledge. Against this background, we present a citizen-based approach called "*school catchment"*. A *school catchment* is executed inside a catchment where scientific research and educational activities are performed by involving social participation and the study of hydrological phenomena. The school catchment is spatially delimited not by administrative boundaries, but by physical delimitation (catchment) because the water is an important connector between social and natural systems. Pilot *school catchment* projects have been implemented in around 26 case study areas in Brazil [2]. The objectives of these projects are various, depending on the existing problems at hand. For instance, in Angra dos Reis city, besides hydrological monitoring conducted by partners, the Retiro School Catchment involves local citizens in discussions regarding solutions to existing problems aiming actions to conserve the environment [3]. Some author's analysis shows that the use of *school catchments* contributes to: (i) gathering both hydrological and social data; (ii) exchanging knowledge between scientists and citizens; (iii) increasing the inhabitants' awareness regarding ecosystem services; and (iv) improving their coping capacity during extreme events [2] [4]. Therefore, considering the important role of citizens in sociohydrology, we conclude that *school catchments* can be an effective tool for sociohydrological development. This tool can also support the achievement of the Sustainable Development Goals, especially regarding the SDGs 6 – Clean water and sanitation, 10 – Reduced inequalities, 11 – Sustainable cities and communities, among others.

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