

Thesis: “Integrated Water Resources Management: Capacity building aiming to get a systemic view of water management.” Dec, 2018

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ABSTRACT

Water, as it is a resource of multiple uses, has in its management a challenge related to its scope and complexity that requires an effective system of governance. In order to deal with the challenges to integrated water resources management (IWRM), water professionals need to improve their skills and competencies by acquiring new knowledge and building capacity to deal with the complexity. In this sense, the objective of this work was to analyze the case studies from South America available in the Global Water Partnership ToolBox platform against the conceptual framework of IWRM and to identify their contributions to capacity building in the achievement of a systemic vision for the management of Water. To achieve the proposed goal, a combination of methodologies was used for analysis. Firstly, a reference framework for the concept of IWRM was systematized based on a theoretical reference on the subject, combining data obtained in scientific articles, international declarations and publications and tools available in ToolBox GWP. After this step, the methodology of conceptual modelling with the CmapTools Software was used to identify the relationships among the concepts. This could favour the construction of a systemic vision for water management. Capacity building in IWRM was also discussed from the perspective of environmental education. We analyzed 16 case studies of water management in South America, available on the ToolBox GWP platform. Case analysis identified the main lessons learned from South American experiences and their implications for IWRM. Among the main results, the elaboration of the conceptual framework of IWRM brings advances on the importance of supporting the analysis from an integrated perspective of the various elements and areas of knowledge that are connected to water management. In this way, it is concluded that the use of conceptual modelling contributes to the achievement of a systemic view of complex issues, such as IWRM. Capacity building, when envisaged in the light of environmental education, brings important advances towards empowering individuals and the community to take action more committed to water resources. The analysis of the South American case studies available in the ToolBox/GWP database identified the main lessons learned from the implementation of positive actions to address water management problems. Among the lessons learned, it is concluded that effective advances in the management of water resources must include the cooperation of different sectors and stakeholders, through dialogue spaces that contemplate the different interests and multiple uses for participatory and integrated water management. In addition, the case studies, when indexed to the management tools and the set of disciplines proposed by the Teaching Manual of the IWRM ToolBox (2017), provide a promising path in the adoption of integrated approaches to improve implementation results, allowing practitioners and professionals to discuss and analyze the various elements of the IWRM process and help prioritize actions to improve governance and water management.

Keywords: Integrated Water Resources Management; Capacity Development; Environmental education; Conceptual Maps; GWP ToolBox.