



Participatory-based Hydrology Education as Adaptation Strategy of Water Resources under Global Changes

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Non-stationary challenges of water resources under global changes redirect a common attention to elucidate multisource education from water practitioners, researchers and users. At the long-term, increases in water demands degradation, pollution and climate change conflicts impose new directions of how participatory schemes would shape hydrology education and practice. Participatory-based hydrology education schemes can be progressively promoted at different levels of capacity building and training, ranging from communities at small catchments to transboundary settlements at ungauged river basins. However, some advantages and limitations emerge from participatory-based schemes. Experiences gained in the last decade are here discussed, especially in regard to: (1) a complex feedback among physical data, formal understanding and society's quasi-stationary assumptions, (2) novel, generalized approaches of water balance addressing adaptation to vulnerable water footprints, (3) different praxis, empirics and theory backgrounds of internationalization mobility and changing professional requirements, (4) learning processes of risk management from natural water hazards and extremes in strategic biomes, i.e. Amazon and La Plata River Basins, and (5) stakeholders' preparedness to enhance participatory early warning systems. Some local examples are here highlighted in order to share promising yardsticks for decision support systems, not only valid at micro-scales but useful for regional impacts. Practical results depict stakeholders, when well-motivated and trained, can easily acknowledge, and profit from, participatory-based hydrology education schemes of water resources under global changes.