

Risks in water management associated with changing climate systems: reflections and case analysis

JUAN CARLOS BERTONI

*Hydrology and Hydraulics Processes Chair. Faculty of Exact, Physics and Natural Sciences,
Cordoba National University, Argentina*

jcbertoni@arnet.com.ar

Abstract Climate variability, climate change and hydrological variability are distinct phenomena whose effects on water resources can mean, among other consequences, changes in the conditions originally assumed in the design of hydraulic facilities. Hydrological variability takes place when there are changes in the main inputs and/or outputs of a hydrological system (precipitation, evapotranspiration, flows). This paper presents some considerations concerning the hydrological behaviour of river basins in situations associated with climate change, climate variability and hydrological variability. Several case studies in the central region of Argentina illustrate the issues discussed. The considerations presented are intended to contribute to the awareness of new risks that arise in operational water management.

Key words hydrological variability; climate change; climate variability; Argentina