Hydrology-2013
OMICS Group Conferences
Accelerating Scientific Discovery
2nd International Conference on
Hydrology and Ground Water Expo
August 26-27, 2013 Raleigh NC, USA

Hydrologicalwater management in spatial planning from the perspective of decision-aid science

Ngoc Tu Tong
University of Paris-East, France.

Abstract

The operation of spatial planning is carried out in an uncertain context because the modes of urban and suburban planning involve several aspects and uncertain parameters in which the risks, especially related to surface hydrological management, are important. This context leads us towards the application of decision-aid science to assist planners in making decisions which can cope with the different rationale of planning in an uncertain future.The suggesteddecision-aid model in this paper allows choosing rationally anoptimal mode (solution)among the different scenariosof spatial planning,taking into account the risks deriving from the general hydrology. Using experimentalpsychological approachto exploit theexperience of urban planner, this model allows facilitate decision making of spatial planning because that itincludes and integrates all thevariables related tohydrological water managementwho caninfluence thedecision. This study considers not only the natural risk, but also the human factor and modalities for assessing stakeholder group's risk attitude.The feasibility of this research is based on the multidimensional decision analysis techniques ofexpected utility theory and multi-attribute utility theory that were developed by the "American school". The new use that we can make from this theory allows responding to problems of hydraulic/hydrological management in spatial planning, and finally providing an adaptable tool for each case considered.

Biography

Ngoc Tu Tong, civil and planning engineer -researcher of French Land Surveyor Association, a professional association thatmake a lot of planning in France and European, I'm currently a Ph.D studentin laboratory GRID/GREGOR/Paris 1 and CRI/Paris-East.