Badra ATTOUI, Samia T. BENRABAH, Habiba MAJOUR, Nadjet ZAIR

ASSESSMENT OF GROUNDWATER VULNERABILITY TO POLLUTION USING THE KHERICI’S METHOD IN THE TALEZZA PLAIN COLLO REGION (NE ALGERIA)

Abstract

The intrinsic vulnerability of groundwater aquifers refers to their sensitivity to all contamination coming from soil surface irrespective of the nature of the polluting. In order to improve the protection of groundwater, there must be a reduction in the infiltration of contaminants towards the reservoir through the impacting factors determination of this phenomenon by means of research. There are collected models that include particular number of factors which allow the determination of a sign of groundwater vulnerability of all superficial pollutions.

The goal of the study centers on ascertaining the state of vulnerability and the risk of groundwater pollution of the Collo region with a new proposed method by KHERICI [2008]. Generally, assessment methods of vulnerability and the danger of groundwater pollution employ parametric systems with numerical quotation, cartographic superposition where the analytical methods are based on equations. In this study, we consider the combination of criteria dependent on natural factors (thickness of the unsaturated zone, geologic facies, degree of auto-purification) and the causes of groundwater vulnerability to man-made pollution (anthropogenic factors).

Key words: risk of pollution, self-purification, Talezza plain, unsaturated zone, vulnerability to pollution