

Program	Program Nucleu, PN 16 25 02 05
Project title (ENG):	A new approach to assessing the quality of drinking water sources through water quality indices
Project title (RO):	O noua abordare a evaluarii calitatii surselor de apa potabila prin intermediul indicilor de calitate a apei
Duration	2016-2017
Team Leader	Senior Researcher Paun Iuliana Claudia
Summary ENG (short description)	<p>In this project was evaluated the surface water quality of the Danube River and the Jiu River as well as the underground water from two counties in southern and south-eastern Romania (Ialomita and Braila) that use these waters as a source of drinking water through water quality indices.</p> <p>Using water quality indices (CCMEWQ) in the Danube River surface water characterization of the five sampling points (Drobeta Turnu Severin, Calafat, Calarasi, Chiscani Braila and Gropeni Braila) and the Jiu (Isalnita) river has been shown to correspond good quality class, which means it can be used as a source of drinking water for the Drobeta Turnu Severin, Calafat, Calarasi, Braila and Craiova towns.</p> <p>Using water quality indices (CCMEWQ) in groundwater characterization, it has been shown that this corresponds to the:</p> <ul style="list-style-type: none"> - good quality class for sampling points in Slobozia, Urziceni, Cosereni, Reviga Crunti and Victoria, which means that characterizes water quality parameters rarely or with little value violate the criteria for using it as a drinking water source - acceptable quality class for sampling points in Garbovi, Insuratei and Rosiori which means that characterize water quality parameters sometimes violate the criteria with a high value for use as a source of drinking water, but can be used as drinking water sources after a drinking process that includes several stages, namely decanting, coagulation, filtration and disinfection.
Summary RO (short description)	<p>In cadrul proiectului a fost evaluate, prin intermediul indicilor de calitate a apei ai Consiliul Canadian de Miniştri al Mediului (CCMEWQ), calitatea apei de suprafata a fluviului Dunarea si a raului Jiu precum si a apelor subterane din doua judete din sudul si sud-estul Romaniei (Ialomita si Braila) care utilizeaza aceste ape ca sursa de apa potabila.</p> <p>Utilizand indicii de calitate a apei (CCMEWQ) in caracterizarea apei de suprafata din Fluviul Dunarea din cele cinci puncte de prelevare (Drobeta Turnu Severin, Calafat, Calarasi, Chiscani Braila si Gropeni Braila) si din raul Jiu(Isalnita) s-a demonstrat ca aceasta corespunde clasei de calitate buna, ceea ce inseamna ca poate fi utilizata ca sursa de apa potabila pentru orasele Drobeta Turnu Severin, Calafat, Calarasi, Braila si Craiova.</p> <p>Utilizand indicii de calitate a apei (CCMEWQ) in caracterizarea apelor subterane s-a demonstrat ca aceasta corespunde:</p> <ul style="list-style-type: none"> - clasei de calitate buna pentru punctele de prelevare din Slobozia, Urziceni, Cosereni, Reviga Crunti si Victoria, ceea ce inseamna ca parametrii care caracterizeaza calitatea apei incalca rar sau cu valoare mica criteriile pentru utilizarea ca sursa de apa potabila - clasei de calitate acceptabila pentru punctele de prelevare din Garbovi, Insuratei si Rosiori ceea ce inseamna ca parametrii care caracterizeaza calitatea apei, uneori, incalca criteriile, cu o valoare mare, pentru a fi utilizata ca sursa de apa potabila, dar pot fi utilizate ca surse de apa potabila dupa un procedeu de potabilizare care include mai multe etape si anume: decantarea, coagularea, filtrare si dezinfectie.

Dissemination of results	
Full-paper ISI	Water Quality Index, a Useful Tool for Evaluation of Danube River Raw Water, Iuliana Paun, Florentina Laura Chiriac, Nicoleta Mirela Marin, Liliana Valeria Cruceru, Luoana Florentina Pascu, Carol Blaziu Lehr, Corina Ene, REV.CHIM.(Bucharest), 68, no. 8, 2017, pp. 1732-1739
Full-paper BDI	Water Quality Indices - Methods for Evaluating the Quality of Drinking Water, Iuliana Paun, Liliana Valeria Cruceru, Florentina Laura Chiriac, Marcela Niculescu, Gabriela Geanina Vasile, Nicoleta Mirela Marin, <i>International Symposium SIMI 2016, "The Environment and the Industry"</i> , Proceedings Book, pp. 395-402.
Conferences (platform, poster, abstract / full-paper	Water Quality Index, a Useful Tool for Evaluations of Danube River Raw Water, Iuliana Paun, Gabriela Geanina Vasile, Florentina Laura Chiriac, Nicoleta Mirela Marin, Liliana Valeria Cruceru, Luoana Florentina Pascu, Carol Blaziu Lehr, <i>International Symposium "Environment and Industry" SIMI 2017, Bucharest, Romania, 28-29 September 2017</i> , poster