

## **WORLD WATER DAY – 2018**

### ***THE ANSWER IS IN NATURE***

The existence and systemic functioning of the "Blue Planet" is due to water. Life was born in the aquatic environment. The oldest civilizations have developed along the shores of aquatic sites. The revolution of agriculture and later of the industry were directly or indirectly related to water use. Today, mankind has stepped into a new era, not accidentally called the "Water Century".

In this context, the Earth's environment has known essential transformations, from the dominance of natural processes to more and more sudden interventions of humans and the creation of an anthropic environment. The continued economy strengthening of society and the accelerated development of technologies has created the possibility of even more brutal interventions in the balance of nature. The social component of the environment has believed, and sometimes still believes, that it can modify natural systems at its own discretion.

This general "vision" has also been used very much in the field of waters. Along with other resources, water was treated as an inexhaustible one, initially in quantitative terms, then in quality aspects. In the last period of time, mankind realizes that water is not an inexhaustible resource and water processes cannot be influenced and changed for unlimited time.

In this context, UN Water has set for World Water Day 2018 the following logo: "The Answer is in Nature". The title wishes to draw attention to the fact that the hydric environment works as a well-structured natural system, and natural water processes must be examples of human activity. It is important to point out that water is an essential element of building life, using it to provide basic health protection, water is vital to job creation and to support economic, social and human development.

Due to the quantitative and qualitative insufficiency today there are over 663 million people who do not have a quality water source within their own habitats. Over 1.8 billion people use a source of drinking water contaminated with faeces, putting them at risk of contracting cholera, dysentery, typhoid and poliomyelitis. Globally, more than 80% of society's wastewater reverts to ecosystems without being treated or reused. Due to the untreated or insufficiently treated water, around 842,000 people die annually. Floods and droughts are major extreme risk phenomena in increasingly extensive areas.

This year's logo explores the ways in which nature can be used to overcome the water challenges of the 21st century. At the same time, it urges society to use existing solutions in nature to remedy these shortcomings. The operation of the water system offers countless examples that can be used by society, protecting not only the water supply, but also the very existence of society. Solutions based on natural processes have the potential to solve the correct and unitary functioning of the natural and anthropic system. Mankind needs to create

"green" infrastructures and harmonize them with the "gray" infrastructure of society.

The solutions used to manage water resources must also be protective for water environment. The use and capitalization of water resources, must assume minimal interventions in the natural water cycle. The static and dynamic properties of the hydraulic system ensure its balance and proper operation. Thus, underground water pressure provides the support of the upper layers and a correct circulation. River floodplains are valves for diminishing the negative effects of floods. Lakes are important resources if the quality of water in the cuvettes is maintained. The dynamics of the seas' water make balances in the fragile areas of the shores.

The solutions adopted for capitalizing these resources require compliance with the operating laws in order not to create imbalances. Natural processes achieve quantitative balancing and qualitative self-sufficiency of water resources. Society must be aware of the need to respect these processes.

The benefits are not strictly related to water resources alone. Green infrastructures also provides an improvement of air quality, the expansion of natural habitats, the mitigation of the negative effects of dangerous phenomena, and finally the creation of a balance in nature's water cycle. All this will affect the quality of life, from micro-scale to planetary level.

Our planet has enough water resources. It depends how we manage it and how much we protect it. Scientists are becoming more aware of this. They need to convince other social strata, first of all those who make economic and political decisions. A special role will be the awareness of all members of society and, in particular, the education of the future generation in the spirit of care and protection of a unique resource of Earth - water.

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