

An approach toward the existing challenges in Integrated (Fresh) Water Resources Management (IWRM) and presentation of strategies

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Abstract:

Previously, because of low population, water crisis was not too tangible like these days so currently the given crisis has been exacerbated more than ever by rising growth of population. Gradually by increasing demand for water, the requirement for supply and development of water sources, thus developing state-of-art technologies will be increased in order to restore and expand fresh water sources, as well.

With respect to this fact that water is considered as the main factor for life and cultivation, but UN has proposed this decade as water scarcity decennium (2005-2015) and a global concern so this problem has encompassed the main parts of the world, particularly Africa and Asia, while the given body warned about its adverse consequences.

There are some potential threats to which water sources management, especially fresh water supplies has been faced with during the forthcoming years including rising population, droughts, lowering the level of water tables, penetration of salt water into fresh water sources, qualitative change in water sources, endangering of public health, threatening in nutrient security, malnutrition and famine, local and regional and international conflicts, deserting rural areas due to water scarcity (as life main infrastructure), destruction of biologic diversity in ecosystems and wildlife etc.

Overall, dryness of climate, droughts, water tensions due to over population etc are considered as the essential factors for water scarcity. The foremost appropriate solutions for management of water scarcity also include water optimal consumption and training for this purpose, construction of dams, water storage, treatment of salt water into fresh water, improvement of water sources productivity, revival and renovation of aqueducts, keeping and control waste waters and control of water-floods etc where managerial methods, existing challenges and some appropriate strategies will be described in detail in the full paper.

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