Changing water cycle

Science, Physics

Changing Water Cycle The research projections indicate that the current reduction in the snowpacks and streamflows remains a major concern to the American society with the prospects that the Southwest's population will hit 94 million by 2050. The prospects drawn in support of the argument assert that the current population of 56 million is increasing at a rate of 68%. The southwest's dependence in water for its economic and social progression would stale in future if the concerned groups fail to venture in alternative measures to adapt to the challenges.

The study argues that the states of California, Colorado, Texas, and Utah are amongst the constituents of the Southwest. According to the argument on reducing water levels, the regions indicated will suffer profusely in the agricultural and energy aspects. The consequential outcome of the challenges will further affect the society's welfare at the advent of insufficient commercial production of specialty crops, recreation, and the general amenities. The figure shows that the southwest states' water levels reduced by 14% from the beginning of the millennium to the present period, and the anomaly will remain at 84% until 2035. Further, the states' water resources will dwindle to 66% and 43% between the ranges of 2041-2070 and 2070-2099 respectively. Therefore, it is certain that the south and west states along the US-Mexico border would be vulnerable to the consequences borne from the drastic climatic changes.

The figure indicates that the water levels reduction process is imminent to the current societal practices. The region's dependence in hydroelectric energy should cease as continuation of the practice risks the society's welfare with the current prospects, which indicate a rapid rate of population

increase in the agriculture-dependent area. Therefore, the concerned authorities should invest in geothermal, wind, and solar energy production projects as the alternative and eco-friendly sources to adapt to the changes. Secondly, the economic dependence on irrigation-based agricultural practices would flourish after the region's reconsideration of constructing alternative water reservoirs and boreholes for use in the projects over the stream water sources. Apparently, the practice is a sustainable measure to ascertaining growth in the farming industry in the absence of water scarcity. The municipal water supply systems should conform to the measures of sustainability by reviewing the water distribution systems' to match the environmental changes. Lastly, the administration should establish recycling measures to ensure maximum utilization of the water resource.

It is apparent that the recommended measures would be expensive to establish in the region. However, the appropriateness of the remedies is a major concern to ensure that the southwest region will survive the threat of the dynamic changes in the climatic conditions, and more to the reducing water levels in the states' streams and snowpacks. Further, the region's alternative use of substantial and eco-friendly energy production alternatives will reduce the rate of water-levels' reduction in the future. The states' municipal administration units would find the reviewing process as a remedy to the advent that the practice will lead to identification of a system that will ascertain maximum utilization of the resource in the region's domestic and commercial platforms.

Works cited

National Climate Assessment. “ Southwest: Changing Water Cycle.” U. S Global Change Research Program,