Water crisis in Uttarakhand

Water is a prime natural resource, a basic human need, and a precious natural asset. Water ranks high among the priorities of any human settlement. Access to clean and safe drinking water has a direct bearing on both quality and prosperity of human life. Actual availability and easy access to clean and safe water and sanitation are among the most important determinants of health of human beings. In the Himalaya, the precious water resources are under threat due to various natural and man- made environmental problems. Despite being endowed with adequate rainfall, most parts of the Himalaya are considered water-stressed for both agricultural and domestic purposes. This is mainly due to the seasonality of precipitation which is concentrated to the monsoon months, while the climate remains arid for the rest of the year. The water stress situation in the hills has limited growth and development and is also leading to ecological degradation. The dying of water sources now poses severe drinking water crisis in many part of the Uttarakhand Himalaya.

Fig. 1. Women and children carrying potable water from the large distances (*Source: www.pinterest.nz*)

The Himalayan water system comprises of 12 rivers, out of 18 major rivers of the country, and also called "Water Bank of Asia". These rivers originating in the Himalayan mountain complex consists of 3 systems (i) The Indus (ii) The Ganga system and (iii) The Brahmaputra system. The state Uttarakhand considered as reservoir of water for Indian subcontinent face drought of various magnitudes. According to an estimate by United Nations Development Program about 2.6 lakh springs provide 90% of the drinking water sources in Uttarakhand. The inherent nature of the resource, land-use changes, lack of scientific understanding, and climate variability all make springs further vulnerable to extinction. Water crisis in Pauri Garhwal district is one of the reasons for large scale outmigration (Singh 2016).

The state of Uttarakhand faces acute water scarcity during the peak summer season. As highlighted in the state action plan for climate change about 20% of the 15,165 villages have varied range of problems related to drinking water provision and more than 180 villages do not have a designated source. The districts like Almora, Pauri, Tehri, Pithoragarh and Chamoli are facing drinking water crisis (Sharma 2018). In these region 72% women and 14% children have to bear the responsibility of carrying potable water from the distance source. On average, 60% women have to walk ½ km while 10% of them walk 4 km for fetching water (Fig 1). In some localities of Garhwal region carry water on mules from 8-10 km distance from the villages. State authorities are taking strict measures to tackle the water crisis still the magnitude of the problem is growing (Fig. 2 (a & b)). This has plunged mountain residents to severe water shortage, so much so that women and children have to walk kilometers for potable water. State authorities are taking strict measures to tackle the water crises still the magnitude of the problem is growing.

Fig. 2 (a & b). Water crisis in rural and urban areas of Uttarakhand (*Source: www.pinterest.nz*)

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[1]Mahesha Nand (*maheshlyf87@gmail.com*),
[1]Vipin Chandra Sharma and [2]Priyanka Maiti
[1]GBPNIHESD, Kosi–Katarmal, Almora- 263 643, Uttarakhand
[2]Botany Department, S.S.J. Campus, Almora