

## SUMMARY

Our existence is dependent on water in many ways. Infact, one could say that our whole civilization is built on the use of water. India is a country with more than five thousand years of civilization, with great contributions to the field of hydrology. Ancient Indian civilization, referred to as Indus Valley Civilization or Harappan Civilization was at its prime around 3300–1300 BC. It is now known that Harappan people had sophisticated systems of water supply and sewerage, including hydraulic structures such as dams, tanks, lined wells, water pipes and flush toilets. The cities of Harappa and Mohenjo-Daro developed the world's first urban sanitation system. Large scale agriculture was practiced and an extensive network of canals was used for the purpose of irrigation in Indus valley civilization. Sophisticated storage systems were developed including the reservoir built at Girnar in ca. 3000 BC.

The ancient Vedas, Puranas, Meghmala, Mayurchitraka, VrahtSamhita, literature of Buddhism and Jainism and various other works are enriched with plethora of knowledge about natural systems, including earth, atmosphere, hydrosphere, lithosphere and their interaction with the human beings. If one studies these ancient Sanskrit literature, (s)he observes that it contains valuable references to hydrology. It is observed that in ancient India, the information on various hydrological processes was very well known. Evaporation, condensation, cloud formation, precipitation and its forecasting were well understood in ancient India. Raingauges were developed and were widely used during the Mauryan period (4<sup>th</sup> cent. B.C.) to measure rainfall and its seasonal variation, based on the same principles as that of modern hydrology. While the western knowledge about the occurrence of ground water was based on wild theories, the Indians had well-developed concepts of ground water occurrence, distribution and utilization. Literature also reveals that hydrologic indicators were used to detect the presence of ground water. Well organized water pricing system was also in place during Mauryan era. Various references are available in Vedas alluding the importance of efficient water use so as to reduce the intensity of water scarcity and drought etc.

In the present report, an attempt has been made to compile knowledge and wisdom pertaining to hydrology in ancient Indian literature. At this juncture, it is high time that we recognize and appreciate our traditional wisdom and practices and blend them appropriately with our current systems of water management. Such overdue initiative will definitely create a synergy of the OLD and the NEW.