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Title: Environmental Flows Requirements for Krishna river Basin, India

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Environmental Flows Requirements for Krishna river Basin, India

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Abstract

Krishna River is significantly affected due to Srisailam dam from past 30 years. The impacts of this hydraulic structure drastically reduced minimum flow regime on the downstream, which made the river into the decaying stage. In the present paper, Environmental Flow called minimum flow values released for the dam estimated with the help of hydrological method called Range of variability approach (RVA). RVA method suggested an average annual allocation of 9378 Million Cubic Meter (MCM) to preserve the ecosystem on the downstream of the river. The results indicate that current reservoir operations policy is causing a severe hydrological alteration in the high flow season especially in July. The analyse is shown that flow in the river significantly reduced in high flow season and increased in low flow season due to flow operation by the reservoir. The study concluded that when environmental information is not available hydrological indicators can be used to provide the basic assessment of environmental flow requirements.

Keywords: Environmental flows; Hydrological Alteration; Ecosystem; Range of variability (RVA).