Saket Pande is a hydrologist and a resource economist at the Center for World Food Studies (SOW-VU) at VU University Amsterdam. He has advanced education in both Hydrology and Economics, and has expertise in the fundamentals of Hydrology, Applied Probability Theory, Economic Theory, and their intersections in real-world applications.

In recent years Saket has been extensively researching on how fundamentals of applied probability can explain the issues underlying calibration uncertainty in water systems, especially in basin scale hydrology. He has shown that control on hydrologic model complexity can lead to robust prediction performance in applications ranging from short term canal management to stream flow prediction for multiple river basins. He has also been studying the impacts of hydrologic uncertainty on economic systems. Using his advanced training in economics, Saket has also researched into temporal dynamics of individual decision-making as well as into the fundamentals of welfare economics.

Saket has extensive experience in working in multidisciplinary teams on topics such as uncertainty implications of climate change on water availability, food production and human wellbeing in developing countries like Benin and Ethiopia. Saket has been involved in development of innovative statistical and GIS tools for integrating data of different kinds, be it by resolution or source, into a unified modeling framework. Most recently Saket has been involved in mathematically conceptualizing basin level decentralized water management for arid areas in India and consequently has developed parsimonious conceptual models at monthly time step that conceptualizes relevant dominant processes. Saket's overarching aim is to use his diverse training to solve real-world problems that are interdisciplinary in nature.

A parsimonious modelling approach for water management in dryland areas

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Abstract
This paper deals with development of parsimonious models for dry land areas. The modeling approach is to capture the dominant processes of dry land areas in a data limited environment. Two processes, evaporation and subsurface flows are identified as dominant and modeled at monthly time steps for a study area in western India. The area is represented by interconnected linear (in storage-discharge relationship) reservoirs, and each reservoir is parameterized to represent the two fluxes. The parameters are estimated based on GRACE (terrestrial storage change) and MERRA2D (evaporation flux) data simultaneously. Finally, parsimony in parameters of the overall model (of interconnected linear reservoirs) is achieved by regionalizing recession parameters in terms of soil characteristics. This study elicits an approach that is urgently needed in data and water scarce regions.