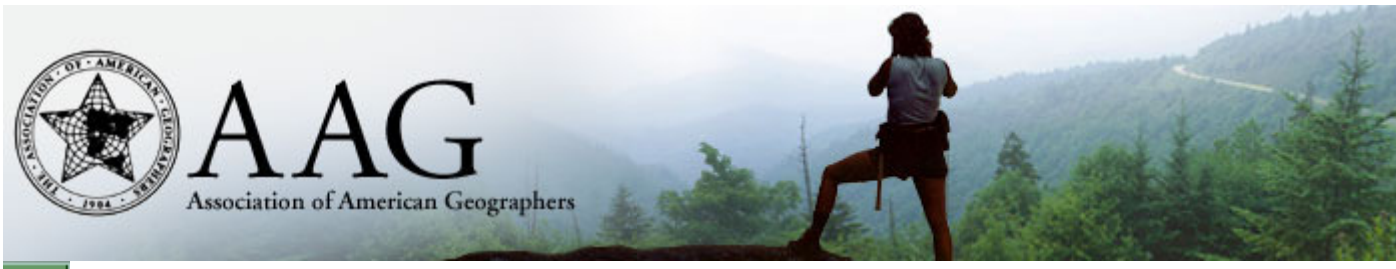


# 2009 Annual Meeting, Las Vegas, NV Online Program

**Abstract Title:**
***After six decades of dam operation: A case study of the Damodar River, India***

**is part of the Paper Session:**
**Evolution of Professional Geography in India 2**

**scheduled on Wednesday, 3/25/09 at 10:10 AM.**

**Author(s):**
Kumkum Bhattacharyya* - Portland State University
Kumkum Bhattacharyya - Portland State University

**Abstract:**
The Damodar River, a subsystem of the Ganga, was once an endemic flood-prone river. A concerted effort at river control was made in 1948 through creation of the Damodar Valley Corporation which was modeled on the Tennessee Valley Authority and proposed the construction of four multipurpose dams. The Maithon and Panchet dams, constructed in 1957 and 1959 respectively, have significantly reduced daily and annual discharge and also largely eliminated the extremes of flow so that ten-year recurrence interval floods have been reduced to half. Sediment trapping in reservoirs and the lack of flushing due to reduced peak discharge have inevitably transformed the Lower Damodar into an ecologically imbalanced area. The controlled release downstream has been further depleted through irrigation intakes from the Durgapur barrage and the Rhondia weir. This decrease in flow volume, combined with deposits from unregulated embankment-free areas and tributaries, has resulted in creation of sandbars or char lands that have been further shaped by functional relations between the river-bed and its occupiers. People previously used only silt but have now converted semi-fluid or flexible resources into a permanent resource in the form of productive sandbars. Identification of resources and utilization and conservation of resources depend on resource perception. Methods adopted in this article are mostly ideographic though an attempt has been made to use deductive methods to assess the hydro-geomorphic consequences of dam construction. Significant emphasis has been placed on extensive and intensive field survey for the analysis of land use and emergent landscape in the river-bed.

**Keywords:**

Damodar River, Damodar Valley Corporation, Dams, perception, resources, char lands

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