

Study of meandering of river Ganga near Allahabad (India), using remote sensing and GIS techniques

■ M. KUMAR, D.M. DENIS AND P. GOURAV

Article Chronicle :

Received :

01.02.2016;

Revised :

30.04.2016;

Accepted :

10.05.2016

ABSTRACT : The present work deals with Sinuosity Index which determines the meandering and sinuosity of the river Ganga. The study depends upon using TM and ETM⁺ acquired through 1990, 2000 and 2010 years. Remote sensing and Geographical System Information (GIS) analysis, and sinuosity index were used in this study to investigate and classify the river into straight, sinuous and meander category. The analysis of the Landsat imagery revealed the migration of the river course with time and space. The study reveals that the length of the river falls in only two categories *i.e.* sinuous and meander. The study measures the various silt of selected segments in many part of the river. The study reveals that Landsat images/remote sensed images can be successfully used to classify lengths of the river.

HOW TO CITE THIS ARTICLE : Kumar, M., Denis, D.M. and Gourav, P. (2016). Study of meandering of river Ganga near Allahabad (India), using remote sensing and GIS techniques. *Asian J. Environ. Sci.*, **11**(1): 59-63, DOI: 10.15740/HAS/AJES/11.1/59-63.

Key Words :

Remote sensing,

GIS, landsat

MSS.TM. ETM+,

Meandering,

Sinuosity index

Author for correspondence :

M. KUMAR

Department of Soil
Water Land Engineering
and Management, Vaugh
School of Agricultural
Engineering and
Technology (SHIATS),
ALLAHABAD (U.P.) INDIA
Email : mukesh_fo@yahoo.
co.in

See end of the article for
Coopted authors'