

Clay Research, Vol. 41, No. 1, pp. 60-68 (2022)

Origin and Dispersal of Agriculture Activities in the Indo-Gangetic Plains (IGP) in Response to Climate Change and Neotectonics During Holocene

PANKAJ SRIVASTAVA

Department of Geology, University of Delhi, Delhi 110007

Abstract: *The IGP is one of the largest fluvial plains of the world with a unique geomorphic setting in between the Himalayas and the Indian craton. Soil-geomorphic studies of the IGP carried out over the last several decades suggest five different geomorphic surfaces varying in age (<500 years to 13500 years) that are marked by varying degrees of soil development. The geomorphic surfaces developed in response to climate change and the prevailing neotectonic movements caused by the northward drift of the Indian Plate during the Holocene time. Climate change and neotectonics had a profound effect on anthropogenic and agriculture that first developed in southwest Asia and then dispersed towards the south and further east over the Gangetic Plains. Extreme aridity set in ca 4000 years ago together with possible reactivation of surface and subsurface structures in west of the present-day Yamuna River not only influenced drainage dispersal and pedogenic development but also the loss of Harappan civilization. This article is an attempt to explain the origin and dispersal of anthropogenic and agriculture over the IGP in response to climate change and neotectonics based on pedogenesis over the entire IGP.*

Keywords: Agriculture; Anthropogenic activity; Aridity; Fluvial plains; Geomorphic surface; Soil-Geomorphology.