

Ecology, Demography and Agrarian Change in Bengal, c.1770-1900

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One interesting feature of the studies in ecological history is its impact on economic change in the long run. In this context, it is quite in order to probe into the patterns of agrarian change in different parts of modern India over a long period, say from the late eighteenth to the end of the nineteenth century and beyond, and to relate them to two other important variables: ecological and demographic changes. The present study is specifically connected with two parts of what was known as the Bengal Presidency in the colonial India, with special reference to the period from the Bengal Famine of 1770 to 1900. Here, generally speaking, agriculture did not decline in the late pre-colonial period, say in the first half of the eighteenth century, though agricultural resources remained underutilized because of labour shortage in some areas. The first major setback was noticeable with the devastating famine of 1770, with its prolonged but variable impact in the two areas mentioned above. The simultaneous demographic reverses and an independent course of ecological changes were also noticeable by the end of the eighteenth century. Population changes and more importantly redistribution of population in several parts of Bengal were remarkable developments of nineteenth century, but by that time a radical ecological change with its ominous effect in public health had occurred in between western and eastern parts of the region.

This paper re-examines an important argument from Radhakamal Mukherjee's *The Changing Face of Bengal* (University of Calcutta, 1938, revised edition 2009) not only as a significant contribution in human geography, demography, economic history and irrigation studies of Bengal but also as one of the earliest ecologic studies in the process. There were many effects of the topographical changes described by Mukherjee in the eighteenth and nineteenth centuries. First, the most active portions of the Bengal delta were now shifted to eastern Bengal, which constituted the most populous and productive region of the Ganga valley. Both the double-cropped area and the area under the wet variety of rice increased and co-existed with heavy rural density. Most of these changes probably occurred within a short span of hundred years after the middle of the nineteenth century. Secondly, the upper delta, particularly the central and western Bengal, became comparatively moribund during the same period. The fertility of the soil had declined owing to the loss of inundation silt, when the rivers deteriorated as the result of the Ganga having marched eastward. The decline of rivers in western Bengal, and the decadence of agriculture in Burdwan and Hoogly were clearly discernable from the middle of the nineteenth century. Thirdly, with the construction of roads, railways and embankments in the course of the nineteenth century in western and central Bengal, water logging became a real problem. The rivers maintained a languid vitality during the monsoon season and for the greater part of the year were merely chains of stagnant pools. Sluggish waters, full of aquatic weeds, became the breeding places of anopheles leading to the widespread outbreak of malaria in these districts.

The present paper on ecology, demography and agrarian change in Bengal in the nineteenth century and beyond is a modest attempt to re-examine and re-evaluate the significance of the above arguments in the context of an intellectual debate that preceded and followed Mukherjee's intervention.