Ravine Erosion in India

H. S. Sharma

Concept Publishing Company, 1980, New Delhi, Rs. 50/-

Although there is a growing consciousness of ravine erosion, it seems that the root cause of the origin and development of ravines is not yet properly investigated. Due credit must be given to the author for giving a full appreciation of all the aspects of the problem.

The book gives the distribution of ravine affected areas in India, such as Yamuna-Chambal ravine region, the Mej ravines, Gujarat ravines and the ravines of western Sub-Himalayas and Chota Nagpur plateau. It also describes ecology and morphology of ravines. A chapter is devoted to the discussion of ' Genesis of ravines.'

According to the author the ravine devlopment in India is neither a result of climatic change nor an effect of overgrazing. He attributes the development and erosion of ravines to the lowering of local base level of erosion caused by recent uplift.

The author formulates a ' Rejuvenation theory of ravine formation' and tries to apply it to all the major areas of ravine erosion in India. The ravines are described as the features of early maturity stage in the fluvial cycle of erosion, the concept which needs further elaboration. The chapters like ' Dimensions of ravine problem in India ' and ' Ravine reclamation work in India, are more like summary type reports, but are helpful in giving some idea of the efforts made in India for the soil conservation and reclamation.

The chapter on ' Ravine reclamation planning ' needs a special mention in which a reclamability, classification and measures for ravine reclamation are suggested. For a general level planning, watershed of a ravine is suggested as a planning unit. It is also suggested that the integrated planning for ravine lands can be done for whole of the watershed on a contour map of 1 : 25000 scale.

Although the description of ravines, particularly their ecology and morphology appears too theoretical at many places, the book is successful in giving an impression that the study is mainly a result of extensive field work done in different ravine affected areas in India.

The illustrations like ' extension of ravines through headward erosion ' and the mechanism of ravine extension through swallow holes and tunnels ' have helped a great deal in visualising the erosional features.

The author no doubt, deserves credit for introducing a refreshing innovation of ravine and gully erosion problem in India.

S. N. K.

Geomorphology of the Sonar Bearma Basin

R. K. Rai

Concept Publishig Company, 1980 New Delhi Rs. 70.

The book gives a detailed account of the physiography of the Sonar-Bearma basin, covering parts of Sagar and Damoh districts of Madhya Pradesh.

It deals with the geology of the region in detail. Endogenic forces and geomorphic processes are also deseribed at length. The geomorphic analysis of the region is done by using usual morphometric techniques. The drainage characteristics and valley forms are described under the title ' Fluvial Geomorphic cycle.'

It is regrettable that at many places the description takes the form of toposheet interpretation. In the absence of description and interpretation of landforms based on a