Book Reviews

The book is divided into seven chapters with 16 Figures, 18 Tables and 13 Illustrations.

Chapter 1 is a very brief introduction to Ganga around Patna. The objective of this book, as stated by the author, is to study the geochemistry of the river sediments around Patna. What an objective for a book! The coverage of previous study is woefully inadequate. No justification is given why a very limited stretch of Ganga is covered instead of a broad coverage of the entire river basin.

Chapter 2 gives a brief insight into the geological features around Patna. No reference is given to values of nitrogen in soil and size distribution of sediments quoted in this section. A good geological map would have given supporting information. The author seems to be not aware of remote-sensing techniques used in studying the geomorphology in this region in recent years.

Chapter 3 is devoted to general discussion on pollution. Many references cited here are not mentioned in the list of references. There are several useful tables on fertilisers and pesticides but the author has done a poor job of discussing these tables.

Chapter 4 deals with materials and methods used by the author to create the data base mentioned in later sections. Sampling locations are satisfactorily discussed but there is no mention of how the sediments and water samples were collected. There is no mention of suspended sediments at all; the suspended load of Ganga around Patna is perhaps the highest in the sub-continent. No detailed methodology on water analysis is given.

Chapter 5 gives the analytical data obtained in this work. In a sense, this is the only original contribution, though not of much value, to this book. Table 5.1 to 5.7 is replete with errors in the data base. The mistakes are too many to be individually cited but, as an example, the author reports a total dissolved Fe of 600 ppm (Table 5.1) in the water when the pH (Table 4.1) is 7.35 whereas 10 m away Fe values drop to trace levels. What a shocking surprise! There is more Fe, Ni etc in water than in sediments! Nowhere else in the world, except in mining areas with pH $<$ 2, such values have been reported! Discussions are totally unscientific and violate basic principles of chemistry. Since all the figures are based on data which are highly doubtful, useful interpretations as to the distribution behaviour in various regions of the river, are neither possible nor desirable.

Chapter 6 is devoted to discussion of the results presented in chapter 5. The brief dicussion on the self-purification capacity of Ganga is interesting though highly debatable. The illustrations are good for a layman.

Chapter 7 summarises the work and concludes that the chemical pollution of the river Ganga is found to be alarming. Since the entire data base of the author, on the basis of which discussion and conclusions are arrived at, is unreliable, no useful purpose will be served by making eye-catching scenarios and statements. This is not to reduce the need to study the river around Patna but river studies need to be based on scientifically acceptable methods and approaches. We cannot recommend the book.

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