PREFACE

The great forward thrust of intellectual ordering and of practical manipulation have come from the creative rethinking of the basic entities to which we give our attention. In science we commonly think that quantitative precision is our great strength; and, certainly, it does give science its essentially unique power of precise prediction and hence control. But before measurements can be meaningful they must be directed to the right things and, even in science, finding these things is the major achievement; estimation is more important than quantification.


The answer of an anxious question whether flood is a ban or boon for civilization has been gradually altering since time of immemorial to present period of planning and development. Because at about 80 percent of world's population have been anchored themselves to the floodplain command area. Actually flood is not any perplexing new event of a live river system. Flood was in the Egyptian civilization and also has in this recent technocratic civilization, but it has undergone, in a great scale metamorphism i.e. its magnitude, frequency, probability, causative factors and its impact dimension is far different from the ancient flood characteristics.

River floods, as describe in terms of the variable discharge pattern relative to channel morphology, occur when the flow in a river channel exceeds its bank full capacity, expelling the excess flow over the banks. This causes inundation of the surrounding land. Flood processes vary spatially and temporally within a drainage basin with their locations and magnitudes also varying accordingly with distinct effects upon the environment. Meteorological events have not been change in a great scale as far knowledge is concerned, in comprising to the abruption have been intruded or trespassed in the inundation events of a basin as well as its consequences. So, why such smart bent of change is looming large question to us. Actually river system ecology is guided by its own principles. Wherever conceited human being have extended their interference in terms of river movement mechanization though Dam or Barrage, dimensionless, misguided pattern of land use directly and indirectly have influenced a lot to change the fluvio-morphic characteristics within and off the river course, and whole hearted attempt have therefore been taken to examine spatio-temporal pattern of changeover of such irregular hydrological phenomena like flood as well as its process response system consequence, and the unique characteristics of each river should be understood so that the responses of the river due to any encroachment in the flood plain and more in the case of future man-made structures may be anticipated and preventive measures as considered necessary may be planned before hand.

A brief quantitative and qualitative discussion with very down to earth manner in regard to regional problems-perspective is the focusing importance of this work.