CHAPTER 8

R E S U M E

The present study, the results of which have been discussed at length in the various preceeding chapters, has for the first time revealed the complexities of the inundation phenomenon. The author has not only been able to solve the hitherto unexplained mysteries of inundation, but he has fully analysed the factors that cause and control it.

Year after year most of the Rann surface gets under various depths of water, and it is interesting to know that no single factor is responsible for the flooding.

The Rann inundation is controlled by a complex interplay of geomorphic factors, to which the property of Rann sediments contribute considerably. A summary of the whole phenomena is given below.

PATTERN OF INUNDATION

Geomorphologically, the Great Rann is divisible into three main facets (1) Bet-zone comprising a vast network of shallow channels separating the various elevated bets (2) the trench-like linear depression extending from the Kori creek eastward upto Kuar-bet and (3) The Great Barren Zone forming the eastern part of the Great Rann.

The three geomorphic units show their own distinctive patterns of inundation. The Bet-zone is flooded annually by the rain water that flows down from the north, collecting in the various depressions where it stagnates till evaporated. The trench-like depression of Kori creek, on the other hand is inundated by tidal waters, the degree and extent controlled by the tides and the prevalent wind directions. Though the tidal water extends right upto Kuar bet under extreme conditions, it never reaches the other two facets. In years of

exceptionally heavy monsoons, some water from the bet-zone may spill over to this region. The Great Barren Zone characteristically devoid of any drainage channels, comprises a large shallow depression where the water by (i) direct precipitation, and (ii) from the neighbouring mainland streams collects and stagnates.

The causes of Rann inundation are several. One of the important cause is the geomorphology, where the various facets are inundated by either sea water or rain water. The lack of gradient enables the water to spread over greater areas. In the Bet-zone water transfer takes place by the channels acting as conduits. In the trench zone, its depressed and restricted shape aided by Kori creek configuration helps in pushing sea water as far inland as Kuar bet. In the Barren Zone, the various depressions, act as bowls, within which, the rain water stagnates.

Another important contributing factor is the nature of the Rann sediments. The Rann surface not only inhibits downward percolation, but also helps in retaining and moving the surface water over greater distances without being absorbed or transmitted to the lower horizons. It

is most obvious that nowhere the inundation is caused by the rise of sub-surface ground-water level. The hypotheses put forth by some earlier worker is not valid.