

CONCLUSIONS

Based on his investigations the author has brought out fresh data on the region as listed below.

1. The egression of Northern Hill Range (NHR) is on account of fault-propagation folds with steeply north dipping fore-limbs and gently south dipping back-limbs.
2. Eastern part of Kachchh Mainland Fault (KMF) is progressively emerging upward.
3. Low angle reverse faults are encountered together with asymmetric folds, bedding parallel slip, flat-ramp-flat structures and fault-propagation-folds at several places to the south of NHR. They implicate that the region is an example of fold-and-thrust tectonics instead of vertical tectonics as proposed earlier.
4. Horizontal compression related structures are observed in association with actively deforming syndclinal fold have been identified around Palara, about 8-10 km north of Bhuj.
5. The exposure of folded and gently north dipping tertiary rocks observed near Kharod in Banni area is another important finding made during present study. These outcrops remained hitherto unnoticed by previous workers. The outcrop holds significant structural implication; it adds another dimension to structural, tectonic and active-fault modelling in the region.
6. Evidences of fold-and-thrust tectonics are detected in Wagad region as well. Occurrence of sub-vertical Jurassic beds resting over sub-horizontal Cretaceous sandstone attests the prevalence of compressive regime in the region.
7. An attempt has been made to throw light on origin of domal structures in Wagad region by examining their architecture. The origin of domes is correlated with

slip-deficit subsurface reverse fault. The slip deficit in the fault plane is reflected as saddle between two domes.

8. Active tectonic features were identified along Kachchh Mainland Fault after comprehensive analysis of CORONA satellite photos, which were followed by trench investigations at suitable locations.
9. Active nature of the Kachchh Mainland Fault was confirmed by folded and faulted Quaternary sediments observed in the trenches T1 and T2.
10. Based on the stratigraphic cross-cutting relationship, variation in inclination of the units and angular unconformities observed in the trench at least three seismic events are inferred at the foothills of Jhura and two seismic events are inferred at north of Khirsara village.
11. Keeping in view, comparable deformation and slip along the KMF near Jhura and near Khirsara, it is proposed that KMF is typified by 'characteristic earthquakes'.
12. As discussed earlier KMF has demonstrated *characteristic earthquake* pattern in different trenches which implies that KMF is potential to generate earthquakes of M 7.2 in future.