the Godavari delta front of ca. 160 km long and particularly river mouth areas are getting more eroded. Human activities may be responsible to a large degree for the shore erosion as there has been reduction of sediment supply to the shore-face due to construction of dams on Godavari River and its tributaries in the catchment area. Subsidence of land due to sediment compaction and land subsidence related to human activities like excessive pumping of ground water, digging aquaculture / shrimp culture ponds by large scale conversion of cropland, mud-flats and mangrove forests may promote land subsidence thereby facilitating landward marine ingress and shoreline retreat. Shore erosion on the Mahanadi river coast is very prominent partly due to natural processes and human activities. Construction of dam, barrages, weir on the rivers trap the sediments in the upstream side during the monsoonal river flow. Now, National Water Policy of Govt. of India to divert surplus water from one major river basin to other by interlinking river systems and construction of storage reservoirs will further trap sediments in the reservoirs thereby diminishing sediment supply to the shore-face affecting delta-building. Rampant deforestation in the catchment area also probably is affecting rainfall and consequent riverflow and sediment discharge. Mangroves are destroyed by human activities exposing the coast to storm/cyclone hazards.

Due to climate change/changes in monsoonal rainfall patterns, frequent natural hazards and human activities; it is apparent that east coast deltas are now in a crisis. If sufficient sediment does not reach the shore-face, the shore-line will retreat due to marine transgression. In the event of sea-level rise due to global warming, coastal erosion will be enhanced and will lead to staggering land-loss. Human population will face a crisis, as deltaic area has prosperous resources and products.

Architectural elements and facies analysis of Oligocene tidal sequence of Renji formation, Bengal Basin, Bangladesh

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A detailed study of architectural elements and facies of an exposed section (45× 8.35 m) of the Oligocene Renji Formation of Barail Group in Sylhet Trough, Bengal Basin has been done to interpret its paleoenvironments of deposition. All together three major architectural elements, like channel (CH), bar (LA, DA, LS) and tidal flat (TF) and thirteen sub-elememts having first to fifth-order bounding surfaces have been recognized in the sequence. A broad spectrum of facies, like S_t, S_p, S_{ph}, S_{pb}, S_h, S_l, S_r, S_{rm}, S_{rb}, S_w, S_f, F_{st}, F_l and F_m are present within these elements. These facies form multistoried fining upward sequences those belong to two distinctive genetic facies associations. The sandstone facies association (SFA) is related to stronger flow and tide in the channels and creeks whereas; heterolithic facies association (HFA) or tidalite is related to weaker flow and tide in channels, creeks, interdistributary bays and floodplain. Both the associations show bi-polar, bi-directional paleocurrent patterns with dominant direction towards SSW and NNW-SSE respectively.

Sedimentological aspects strongly suggests a deposition of the formation in subtidal, intertidal and even supra tidal sub-environments under tide dominated coastal paleogeographic setting along the northern margin of the Barail paleocoastal zone. Water depth during deposition of these associations SFA and HFA were 0.07-10 m and 0.01-0.164 m respectively with an overall decrease towards top of the sequence.

Facies depositional environment of Muglad Rift Basin with emphasis of geometry of sedimentary bodied determined from subsurface

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In the Muglad rift basin wells and seismic data recorded the domination of the clastic sedimentation. The fluvial and lacustrine environments are most commonly preserved. Seismic reflection character, tied to wells permits some prediction of lithology. In particular, shale prone lacustrine sediments are characterized by relatively slow seismic velocities and continuous high amplitude reflections. Fluvio-delatic sediments tend to have relatively fast velocities and discontinuous, weak reflections. Within a rift basin, accommodation space may vary in different sub-basins depending upon the degree of subsidence and relative lake level.

Evidences like Ethiopian dome indicate tectonic uplifts occurring in the eastern margin, while

subsidence tacking place at the western margin.
The facies types can be classified into two; the Cretaceous and post Cretaceous. The Cretaceous sediments characterized by source rock, reservoir and seal and the Tertiary. The Tertiary facies characterized strong faulted and recognized by clear maximum flooding surface in the lower portion of the facies.

Turbidites in the upper bhuban member of the sitakund anticline, Chittagong, southeastern Bangladesh

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The Upper Bhuban Member in the Sitakund anticline, Chittagong, Southeastern Bangladesh is constituted by the light gray, light yellow and greenish gray sandstone and siltstone with dark gray, bluish black and black finely laminated silty shale to shale. The lithofacies of massive sandstone(Sm), turbidite sandstone (ST), flat bedded sandstone-siltstone (Sh), ripple cross laminated sandstone-siltstone (Sr), laminated sandstone-siltstone (Sl), lenticular laminated sandstone-siltstone-shale (Sll), wavy laminated silty shale to shale (Fw), laminated shale (Fl) with sub-facies black shale (F_{lbk}) and blue shale (F_{lb}) and mudstone (Fm) have been delineated in this member. Based on genetic aspects the facies are grouped into (1) turbidity generated - and (2) deep marine basin plain facies association. The medium to fine grained facies Sm and ST with or without Sh, Sr, Sl Sll Fw and Fm facies constitutes the turbidity generated facie association. The deep marine basin plain facies association is characterized by the monotonous hemi-pelagic blush black shale (subfacies Flb) and pelagic black shale (subfacies Flbk) with rare to scare silty stringers of facies Sh, Sr, Sl, Sll and Fw. The facies Sm is turbidity channel in the inner part of medial fan and the complete ST sequence indicates channelized forms, while incomplete ones have been identified as channel or interchannel deposits in medial to distal fan. The facies F_{lb} and F_{lbk} denote deep marine environments above and below the carbonate compensation depth, where the lithofacies facies Sh, Sr, Sl, Sll and Fw were deposited as distal turbidites. The facies sequence of medial to distal fan and deep marine basin plain were repeated and randomly juxtaposed one upon other due to instability of basin probably by faulting along Dauki and adjoining area accompanied by sea level change. The paleoflow pattern indicates the dominant source of detrius was the Shillong plateau along with minor contribution from the Himalayas and Arakan Yoma Folded Belt.

The upper cretaceous, ghazal formation, reservoir charecterization, unity field, Muglad Basin. (SW)Sudan

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The Campanian-Maastrichian continental fluvial Ghazal Formation has been investigated based on data obtained from ten wells in the Unity field. Various methods have been used in the present study including different sedimentological, petrography and petrophysical techniques as well as conventional cores.
The lithofacies analysis allowed the sub-division into lower and upper parts. The lower Formation is composed of coarse lithofacies of sandstone that reveal fining upwards sequence of braided stream channels. The upper Formation is dominated by fine sandstone, siltstone and claystone that reveal coarsening upward sequence of meandering rivers.
The stratigraphic successions of lithological facies and depositional patterns reflect mainly allocyclic and autocyclic controls such as tectonic activity, climate, drainage system, and sediment load.
The clay mineral mainly consists of kaolnite, smectite, illite and chlorite. The kaolinte and semcitite indicate a warm humid climate interrupted by dry season. The mixed layer of illite/smectite indicates the influence of the burial diagenesis with increasing depth and temperature. The clay mineral assemblages show relationship with lithofacies types and depositional system.
The diagenetic event has played considerable role in modifying the original framework components as well as the primary inergranular porosity of these sandstones. Therefore, the reservoir quality was mainly controlled by the original framework composition, cementation and compaction.
The porosity in these sandstones average is about 22－24, Permeability average is about 103－596 md.
The reservoir is relatively thicker in the units