



Dr. BUDRUDDIN MOHAMMAD FARUQUE,
General Central Services (GCS)
DIRECTOR (Retd), **Geological Survey of India**,
M.Sc (Geology), **Ph.D.** (Geology) Utkal University
Geological Survey of India: 1972-1981 & 1988-2007,
Ethiopia: Asmara University: 1982-1987
Geology and Exploration Consultant: 2009- to date
DOB: 16 JULY 1947

SKILLS: Geological Mapping & Exploration for mineral deposits Iron ore, Manganese ore, Colluvial Cassiterite, Secondary Gold deposits, Reserve, Mapping with GPS compass (Epicollect digitally) Seabed geological mapping, Magnetic, Seismic survey, Geochemical Scan for hydrocarbon. Detailed Geologic Report. Cartography QGIS,

PROFESSIONAL EXPERIENCE:

GSI: 1972-81, 1987-2007 •Geological mapping. Exploration for minerals (REE, Cassiterite, Tantalum, Niobium, Lepidolite, Gold, Base metal) associated with acid magmatism. Mineralisation (Bauxite, Graphite, Manganese, Limestone) associated with High grade metapelites, calcareous sediments, by hydrothermal and chemical leaching and sedimentation (Eastern Ghats). Mineralisation (Iron Ore and Manganese Ore) associated with Volcano-sedimentary and Hydrothermal intrusive in IOG rocks. Mineralisation (Limestone-Dolomite and Coal) associated with sedimentary rocks. Mineralisation (Bauxite, Heavy minerals onshore) associated with mechanical residual concentration and chemical leaching.

•**Exploration (2009-2021) •Iron Ore:** Iron Ore of Faryadoon, Iran. Iron Ore in Ethiopia, Exploration for Iron Ore: Gorumahisani, Raisuan, Jaribahal, Mahulsukha, Bhanjapalli, evaluation of Sagasahi Odisha, Metupalli, Andhra, Sandur, Karnataka, Sawantwadi, Maharashtra and Meghalaya,

Commodities with Field Experience:

- IRON-ORES:** Iran, Ethiopia, Odisha, Chhattisgarh, Andhra, Karnataka, Maharashtra.
- Manganese** in **Zambia:** Ramabhadrapuram, AP, Mahulsukha, Sarkunda Odisha.
- Gold and Base Metal:** Primary gold and Cu deposits **Ethiopia**; Placer Au **Kyrgyzstan**.
- Coal** in Tete, **Mozambique** and Nagaland, India.
- Bauxite and Graphite:** Discovery of bauxite, graphite of Eastern Ghats, Odisha.
- Heavy Minerals Placer:** Formation and distribution of Heavy Mineral Placer deposits in the coastal tracts and inner continental shelf off northern East Coast of India.
- Phosphorite and Limemud:** Discovery of Phosphorite/Lime mud: Arabian Sea shelf.
- Researches:** First **Sea Level Curve** with **¹⁴C Radiocarbon** East Coast of India.

Seabed geological, magnetic, seismic survey: terrigenous minerals. Scan for Hydrocarbon, Andaman Sea, Tectono-eustasy Red Sea coast of Ethiopia (1982-87).

DEPUTATION GOVT OF ETHIOPIA: •Establish GEOLOGY DEPT in Asmara University **Ethiopia**, 1982-87. •Discovered Third Rift of Red Sea Rift and the Red Sea: first published in *ZIETSCHRIFT FÜR GEOLOGISCHE WISSENSCHAFTEN*, 1988, Berlin, **Germany**. •**AGRO-GEOLOGY:** Rock Crush as Soil Additive.

UNESCO-IGCP Sea Level Changes of Last Glacial Cycle • **Convenor, India, IGCP Project 464** • Participated in 6 IGCP Projects: • 200 (Qing Dao China), • 274 (Netherlands), • 376, • 464 (St. Petersburg, Russia), • 514 (Guilin, China), • 588 Germany. Currently member • **IGCP Project 639** • Oman Estonia (2017) Italy 2018. IGCP725, New Orleans, USA.

FELICITATION / ACADEMIC

Chairman of the Final Conference of IGCP464 in Saint Petersburg, Russia in 2005.

Invited lecture: Climate Change Sea Level 98th **Indian Science Congress, Chennai**, Agro-Geology at Odisha Science Congress, 2019. Fellow of the Orisha Environmental Society, 2018. Felicitated as **Eminent Geologist** by Geology Alumni, **Utkal University** 2009.

Ph.D Guide Geology, Utkal University 2008. Examiner for Ph.D. and M. Phil. Thesis,

MEMBERSHIP OF PROFESSIONAL BODIES:

MEMBER: GEOLOGICAL SOCIETY OF AMERICA, FELLOW: GEOLOGICAL SOCIETY OF INDIA, Society of Geoscientists and Allied Technologists, Mining Engineers Association of India, **Fellow: Orissa Environmental Society**, Odisha Bigyan Academy

AUTHOR/EDITORIAL: • Author two Chapters in THE CONTINENTAL SHELVES OF THE WORLD (2014) by **Geological Society of LONDON**, **Author** one paper in FLUVIAL PALAEO-SYSTEMS: EVOLUTION AND MINERAL DEPOSITS, IGEM, **MOSCOW (2009)**.

• **Editor:** GEOLOGY AND MINERAL RESOURCES OF ODISHA, • **Author:** Chapter 5 of COASTAL TRACTS OF ODISHA (2012). • Member of Editorial Board of ETHIOPIAN JOURNAL OF AFRICAN STUDIES, (1986-87). • Member-Editor, GSI Newsletter (Marine)

5. PUBLICATIONS: Total 61 PAPERS

Complete list of papers published or presented in national and international seminars/books/journals. Including international fora in **UK (London), USA, Canada, China (Qingdao & Guilin), Russia, Germany, The Netherlands, Oman, Ethiopia, Italy, India & Senegal.**

1. Quaternary Littoral Development of Ethiopia. -- B.M.Faruque, Abstract Volume: International Symposium Global Changes in Africa, INQUA, UNESCO, Senegal, 1986.
2. Geology of Asmara –B.M.Faruque, University Notes, Vol I/1, Asmara Univ, Asmara, Ethiopia. 1984.
3. Geology of Gambela Area – B.M.Faruque, University Notes, Asmara Univ, Asmara, Ethiopia 1986.
4. Wisconsin Glaciation and Southern Red Sea Islands – B.M.Faruque, Abstract Volume, XII INQUA Congress, Ottawa, Canada 1987.
5. Three Rifts in the Southern Red Sea Structural Complex – B.M.Faruque and R.K.Majumdar in Zeitschrift Fur Geologische Wissenschaften, Berlin, Germany.
6. Gravimetric Study of the Third Rift in the Afar - Red Sea Region, B.M.Faruque and R.K.Majumdar 1987 Abstract Volume 14th Colloquium of African Geology, Berlin, Germany.
7. Structure and Tectono-eustasy of Ethiopian coast during the Quaternary – B.M.Faruque and Mulugeta Alene. Symposium Abstract Volume IGCP 274: Coastal Evolution, 1988, The Netherlands.
8. Cassiterite Mineralisation of Orissa B.M.Faruque, S.K.Kar and R.N.Padhi, Abst Vol SGAT, 1989,
9. Buri Peninsula and Quaternary Tectono-eustasy in Red Sea – B.M.Faruque and Mulugeta Alene, Abstract Vol XIII INQUA CONGRESS, Beijing, China, 1991
10. Fan Valleys of DeepSea bed off Orissa, Andhra Pradesh and Tamil Nadu coasts. B.R.Rao and B.M.Faruque, GSI Marine Wing Newsletter Vol IX/2, 1993.
11. Lime mud in continental shelf edge and slope off Kuchchh – G.G.Vaz, U.S.Misra, N.R.Biswas, P.Vijaykumar, J.V.Krishna Rao, J.Sankar and B.M.Faruque, Indian Jour Marine Sci. Vol 22/3, 1993.

12. Micromorphology of sillimanite grains from the continental shelf off Gopalpur. B.M.Faruque and Amitava Bandyopadhyay, GSI Marine Wing Newsletter Vol X/1,94.
13. Phosphorite from the Upper Continental Slope off Kuchchh, Northwest Coast of India – G.G.Vaz, B.M.Faruque, N.R.Biswas, P.Vijaykumar, U.S.Misra, J.Sankar and J.V.Krishna Rao. Indian Journal of Marine Sciences Vol 25/1 1996.
14. Differentiation of Beach, Dune and Aeolian Flat sediments. B.M.Faruque and S.Acharya, GSI Marine Wing Newsletter, Vol XII/1,1996.
15. Microtextures on Heavy Minerals of Orissa Coast, Bay of Bengal and their Bearing on Depositional Environments. **B.M.Faruque** and Amitava Bandyopadhyay, Abstract Volume: **International Symposium on Geology and Geophysics of the Indian Ocean**, Goa, India, 1996.
16. Signatures of Erosion near Puri on a Predominantly Emergent Beach. **B. M. Faruque** and S. Acharya, Abstract Volume: **International Conference on Natural and Technological Coastal Hazards**, Tirupati, India, 1996.
17. Incipient Charnockitisation in the Granulite Facies Terrane of Dasingbadi, Orissa. **B. M. Faruque** and P.Balakrishnan, Volume: **International Symposium on Charnockite and Granulite Facies Rocks**, Chennai,1996.
18. Temporal and Spatial distribution of Clay mineral assemblage in the Bay of Bengal Sediments **B. M. Faruque**, Kalpana Roychowdhury and Swapna Mukherjee, National Seminar on Four Decades of Marine Geosciences in India- A Retrospect, Mangalore, India, 2001.
19. Physiography of the Deep Sea Floor of the Western Part of the Bay of Bengal. B.R.Rao and B. M. Faruque, Volume: National Seminar on Four Decades of Marine Geosciences in India- A Retrospect, Mangalore, India, 2001.
20. Skewness: Its Relevance in Distinguishing Coastal Depositional Environments - Puri Coast, Orissa. B. M. Faruque, SGAT Bulletin Journal of the Society of Geoscientists and Allied Technologists Vol 2/2, 2002.
21. Post Wisconsin Glaciation Sea Level Stands off parts of East Coast of Andhra Pradesh by B.M.Faruque and A.Lahiri. In House Workshop on Quaternary Formations of Coromandel Coast and Drainage Basins of Andhra Pradesh. GSI,SR, 2002.
22. **Signatures of Climatic Changes During Last 5000 years in the Nizampatnam Bay Sediments – B.M.Faruque, A.Lahiri, A.K.Mathur, P.C.Shrivastava, Chhaya Sharma and G.Rajagopalan. Fourth South Asian Geological Congress (GEOSAS-IV) New Delhi, 2002.**
23. Textural Analysis of Glaciogenic Diamictites of an ancient Drumlin Field, East of Durgapur, Dist Angul, Orissa. Chinmayi Rekha Nayak, A.K.Paul, MadhumitaDas and B.M.Faruque. XIX Convention of Indian Association of Sedimentologists, Dec.2002, Andhra Univ, Visakhapatnam.
24. Characterization of Fireclay in the Kamthi formation near Katasikha, Dist. Angul, Orissa. Chinmayi Rekha Nayak, J.K.Mohanty, B. M. Faruque, Madhumita Das and A.K.Paul. National Seminar on Metallogeny in Orissa.
25. Rock Crush as Soil Additive: A Preliminary Study on The Soils of Asmara, Eritrea. B.M.Faruque, Mulugeta Alene, Berhane Girmai and A.K.Paul in the Vistas in Geological Research 2004 Utkal University Spl. Publ. in Geol. No.3.
26. Geomorphic and sedimentary imprints of Low Sea level stands in the shelf off Kalingapatnam-Rattikonda, Andhra Pradesh. 2005 B. M. Faruque, B. R. Rao, A. Lahiri, B. Satyanarayana, C. V. Brahmam and K. Banerjee, Abst Vol: Workshop IGCP 464.
27. Sea Level Stands along Western Continental Shelf off Cape Comorin-Quilon area during Last Glacial Cycle.2005 K.V.Ramachandran, B.M.Faruque, K.Banerjee,, B.Zaheer, A.V.Gangadharan and C.Jayaprakash, Abst Vol: Workshop IGCP 464, Vizag.
- 28 **Signatures of Sea Level Changes During the Last Glacial Cycle along the South Western Continental Shelf of India. K.V.Ramachandran and B.M.Faruque in the International Conference on IGCP 464, at Saint Petersburg, Russia 2005.**

29. Late Quaternary Climatic Changes from the Sediments in the Continental Shelf off Andhra Pradesh Coast in the Abstract Volume of 2nd National Working Group Meeting of IGCP 476 Monsoon Evolution and Tectonics-Climate Linkage in East Asia and its Marginal Seas During Late Cenozoic, 2005, Nagpur.
30. Imprints of Sea Level Changes along Kasargod-Kanyakumari coast, Kerala. Abstract Volume of Seminar on Status of Coastal Zone Studies and Future Trends: Special Reference to Western India, M.S.University of Baroda, Vadodara. 2006, IGCP 495 (Land Ocean Interaction).
31. Geology of the Continental Shelf of Orissa B.M.Faruque in Geology and Mineral Resources of Orissa. SGAT, 2020
32. Signatures of Glacio-eustasy due to Last Glacial Cycle in the shelf sediments off Kasargod-Mangalore coast. 2008 B.M.Faruque and K.V.Ramachandran. SGAT Bulletin, V9/2.p9-13.
33. Signatures of Sea Level Changes in the shelf off Rattikonda - Chilka Coast, B.M.Faruque and P.K.Panda, Proc. Vol. National Seminar Geology of Orissa – Contemporary Researches, 2009 Alumni Assocn, Utkal University.
34. **Sea Level Changes and the Disposition of Placer Minerals in the Shelf off Kalingapatnam-Gopalpur coast, India. B.M.Faruque in FLUVIAL PALAEO-SYSTEMS: EVOLUTION AND MINERAL DEPOSITS Eds: Natalia G. Patyk-Kara, Igor G. Pechenkin and A.V.Lalomov, 2009, Moscow, Russia.**
35. **Eustatic and Fluvial Influence on Placer Minerals in the Shelf off Aryapalli-Kushabhadra, east coast of India. B.M.Faruque Proceedings IGCP 514 Fluvial Palaeo-Systems: Evolution and Mineral Deposits, 2009, Guilin, China.**
36. SEM study of Glaciogenic Diamictite associated with Palaeo-Drumlins, East of Durgapur village, Angul district, Orissa.2009 Paul, A.K., Nayak,Chinmayi R., Faruque, B.M. 2009. SGAT Bulletin. 10/2.
37. Impact of Glacio-Eustasy in the Shelf Sediments off Indian coasts. 2010 B.M.Faruque in the Seminar Volume Frontiers in Gondwana Geology. Utkal University,
38. Beach Erosion, Coastal Processes and Continental Shelf along Chilika-Kushabhadra Sector, Orissa, 2011 in the OMEGA Seminar, Bhubaneswar B. M. Faruque.
39. Mineralisation in seabed sediments in the Continental shelf off Sonapurpeta-Palur, east coast of India. Dr.B.M.Faruque, Annual General Meeting, Institute of Metals, 2012.
40. Geo-Agriculture: An Experiment with Rock crush as soil additive, Dr.B.M.Faruque and Mulugeta Alene, IME Seminar on Waste to Wealth Seminar, December 2012
41. Records of Deglaciation and Little Ice Ages in the sediments off Kerala coast. 2012 Seminar on Environment and Climate Change, Utkal University DRS.
42. Coastal erosion along Arakhakud-Kushabhadra stretch, Dr.B.M.Faruque, IGCP588 NWG 1st Workshop at Mangalore, May 2012
43. **Geology of the Continental Shelf. 2012 B.M.Faruque. in Ed.N.K.Mahalik's Coastal Tract of Odisha. Publ: Geomin Consultants.**
44. **Coastal Processes and Beach Erosion along Satpara - Konarak coast, India. 2012 B.M.Faruque in Abstracts Volume of 3rd Joint IGCP 588/I Int Conf *Preparing for Coastal Change*, Kiel, Germany.**
45. Changing Shorelines in parts of southern Odisha coast. B.M.Faruque, 9April 2013, IGCP-588, NWG 3rd Workshop, Kochi, GSI.
46. Last Glacial Cycle and Nature of Mineralisation in the shelf sediments off Quilon, Kerala. Diamond Jubilee Invited Lecture at Utkal University, 7 Nov 2013.
47. Exploration techniques for Off-shore minerals – a synoptic view. Dr.B.M.Faruque, SGAT International Seminar on Exploration for Minerals: Challenges and Opportunities, 2013.
48. Coastal Processes and inferred Epeirogenic Movement Along Arakhakud-Konarak coastal tract, Odisha. IGCP-588 In-house Workshop,3014 GSI, Cochin.
49. Prospects of offshore Mineral deposits in the EEZ of India. B.M.Faruque, SGAT Seminar MINEXPRO 2014, Bhubaneswar.
50. **The Western Continental Shelf of India. 2014 B.M.Faruque & K.V.Ramachandran, in Chiocci & Chivas Eds; Continental Shelves of the World, Geological Society of London.**

- 51. The Eastern Continental Shelf of India. 2014 B.M.Faruque, G.G. Vaz & G.P. Mohapatra, in Chiocci & Chivas Eds; Continental Shelves of the World, Geological Society of London.**
- 52. Episodes of still-stands during the transgressive phase of Last Glacio-eustatic Cycle along the East coast of India. IGCP 639 Conference, 2016, Muscat, Oman.**
53. Iron Ore Deposits of Odisha: Strategies to augment. B.M.Faruque, Pratisruti Plus Odisha Industry, 2017
54. Odisha's Mineral Resources, B.M.Faruque, Gateway Odisha, 2017
55. Status of Iron Ore Geology in Odisha, B.M.Faruque, Institute of Engineers India, Seminar, October, 2018.
- 56. Imprints of Last Glacial Cycle along the East Coast of India. B.M.Faruque, IGCP 639 3rd Int Conf. Taranto, Italy.**
- 57. Early Holocene palaeogeography of coastal tract around Quilon, Kerala, SW coast of India. B. M. Faruque & K. V. Ramachandran, 2023 Coastal Sediments 2023, IGCP725 Session, USA.**
58. Marine Minerals in India: Prospects and Challenges B. M. Faruque 2024 SGAT Seminar Mineral Dynamics.
59. Glacio-eustasy and Shelf sediments off Indian coastal zone B. M. Faruque 2025 International Conference Coastal Dynamics, Geology Department, F. M. University.
- 60. Possible Impact of Eustatic Rise and Neotectonics on Lower Mahanadi Delta. 2026 IGCP 725 Final Conference, Gold Coast, Australia.**
61. Urban Geology of Bhubaneswar and its Geoheritage, GSI, 175 years of GSI. (2026 In Press).