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GEOLOGICAL MAP OF BANGLADESH

Digitally compiled by F.M.Persits, C.J.Wandrey, R.C. Milici, (USGS), and Abdullah Manwar, (Director General, Geological Survey of Bangladesh)

U.S. DEPARTMENT OF THE INTERIOR

U.S. GEOLOGICAL SURVEY

2001

Scale 1:1,000,000

Original Geological Map by Md. Khurshid Alam, A.K.M.Shahidul Hasan, and Mujibur Rahman Khan, (Geological Survey of Bangladesh), and John W. Whitney, (United States Geological Survey)

1990

ABOUT THIS MAP

This map was compiled as part of the Bangladesh gas resources assessment conducted under the Participating Agency Service Agreement (PASA) signed between U.S. Agency of International Development (USAID) and the U.S. Department of Energy (DOE) - PASA No: 388-P-00-99-00026.

The PASA provides for assistance to the natural gas sector pursuant to which the resources assessment was jointly carried out. PASA also encourages transfer of new technology, modeling practices and geoscience theory from existing and established programs in the United States to the Government of Bangladesh, Petrobangla, and Bangladesh academia.

This map has been compiled from the Geological Map of Bangladesh, by Md. Khurshid Alam, A.K.M.Shahidul Hasan, and Mujibur Rahman Khan (Geological Survey of Bangladesh), and John W. Whitney (United States Geological Survey), scale 1:1,000,000, published by Geological Survey of Bangladesh in 1990.

1. Original map was scanned on large format Ideal scanner in color mode with resolution 200 dpi.
2. The scanned image was transformed to Lambert Conformal projection by ArcInfo REGISTER and RECTIFY utilities.
3. Reference points for transformation were latitude-longitude crosses taken from paper map compared with the same crosses projected to Lambert in ArcInfo PROJECT utility. Overall RMS error of transformation was 250 m (0.25 mm on original paper map).
4. On-screen digitization was performed using a rectified image as a backdrop in ArcInfo ARCEDIT.
5. Geologic attributes were assigned to GLG item of Feature Attribute Table (FAT) of geology coverage.
6. Base map data layers - rivers, lakes, cities - were digitized as separate coverages.
7. All the ArcInfo coverages were converted into .E00 files, then imported to ArcView by IMPORT 71 utility and saved as shape files.

Administrative and country boundary coverages used on the map are the property of Environmental System Research Institute, Inc. (ESRI) and are used with permission.

Projection - Lambert Conformal Conic

Spheroid - Everest 1969

Central Meridian - 87 E

1-st standard parallel - 22 N

2-nd standard parallel - 25 N

Description of Map Units

Alluvial Deposits:

Alluvial silt

Alluvial silt and clay

Chandina alluvium

Valley alluvium and colluvium

Alluvial Fan Deposits:

Bedrocks:

St. Marin limestone (Pleistocene)

Dihing and Dupi Tila Formation Undivided

Dihing Formation (Pleistocene and Pliocene)

Dupi Tila Formation (Pleistocene and Pliocene)

Qsm

QTdd

Qsm

QTdi

QTdt

QTdd

QTdi

QTdt

Qsm

Barind clay residuum

Madhupur clay residuum

rb

rm

Tt

Tb Bhuban Formation (Miocene)

Barail Formation (Oligocene)

Kopili Formation (Late Eocene)

Tj

Lake

Ocean and wide river

River

Faults - Approximately located

Major City

Contact

Political Boundary

Areas outside of Bangladesh

Tbb Tbb

Tb
Tba
Girujan Clay (Pleistocene and Neogene)
Tipam Sandstone (Neogene)
Boka Bil Formation (Neogene)
QTg
Tt
Young gravelly sand
Tt
Residual Deposits:
Tipam Group:
Surma Group:
Jaintia Group:
Sylhet Limestone (Middle to Early? Eocene)
Tura Formation (Eocene and Paleocene)
Old gravelly sand afo
asd
asl
asc
ac
ava
afy
Holocene Sediments:

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