U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
BOUGUER GRAVITY ANOMALY MAP OF BANGLADESH
OPEN FILE REPORT 97- 470H

Original Bouguer gravity anomaly map of Bangladesh by M. A. Rahman, (Geological Survey of Bangladesh), M. A. Mannan (Bangladesh Petroleum Exploration Company), H. R. Blank, M.D. Kleinkopf, and R. P.Kucks, (United States Geological Survey), 1990

Digitally compiled by F.M.Persits, C.J.Wandrey, (USGS), and Abdullah Manwar, (Director General, Geological Survey of Bangladesh), 2001

Scale 1:1,000,000

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the International Stratigraphic Code.

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Projection Lambert Conformal Conic Spheroid Everest 1969 Central Meridian 87 E First standard parallel 22 N Second standard parallel 25 N

## 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 Bouguer gravity Anomaly Map of Bangladesh, by M.A. Rahman, (Geological Survey of Bangladesh), M. A. Mannan (Bangladesh Petroleum Exploration Company), H. R. Blank, M.D. Kleinkopf, and R. P.Kucks, (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 color rectified image as a backdrop in ArcInfo ARCEDIT.
- 5. Bouguer gravity values in mGal were assigned to Bouguer item of Arc Attribute Table (AAT) of ArcInfo coverage.
- 6. Base map data layers rivers, lakes, cities were digitized as separated coverages.
- 7. All the ArcInfo coverages were converted into .E00 files, then imported to ArcView by IMPORT 71 utility and saved as shape files.

Country boundary coverage used on the map is the property of Environmental System Research Institute, Inc. (ESRI) and is used with permission.

## Map explanation

Contours showing Bouguer gravity anomaly intensity.

Primary interval 2 mGal (milligal).

Negative 168 to negative 130

Negative 128 to negative 90

Negative 88 to negative 60

Negative 58 to negative 40

Negative 38 to negative 20

Negative 18 to positive 10

Country boundary (E S R I Arc World 1 to 3 million)

Rivers

Ocean and wide river

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