WATERLOGGING OVER SATKHIRA, KHULNA, AND JESSORE DISTRICTS, BANGLADESH

Analysis with MODIS Terra Data Acquired 11 October 2013, MODIS Aqua Data Acquired 21 October 2012, and MODIS Terra Data Acquired 10 October 2011

This map illustrates satellite-detected areas of standing flood waters and flood affected land over the districts of Satkhira, Khulna, and Jessore, in Khulna Division, Bangladesh, extracted from MODIS Terra data acquired on 11 October 2013, MODIS Aqua data acquired on 21 October 2012 and MODIS Terra data acquired on 10 October 2011 was also analyzed to allow comparison with seasonal flooding seen in 2011 and 2012. Standing water seen on the 11 October 2013 appear to cover a slightly larger area than standing water seen on 11 October 2011 and the 21 October 2012. However it is unclear whether the water detected in these images was increasing, peak or receding. Both the 2011 and 2012 image may show the waters as they were receding. Both the 2011 and 2012 images were affected by clouds along the coast, to the north, and to the east of the area of interest.

Notes: The exact limit of flood waters is uncertain because of the low spatial resolution of the satellite data used for this analysis. Only waters with an area of at least 250 square meters were likely detected in this analysis and thus many smaller water bodies were not visible. Detected water bodies therefore reflect an underestimation of all flood affected areas within the map extent. It is likely that flood waters have been systematically underestimated in highly vegetated areas. This analysis has not yet been validated in the field. Please send ground feedback to UNITAR/UNOSAT.

LEGEND

Probable Water Bodies:
- MODIS Terra 11 October 2013
- MODIS Aqua 21 October 2012
- MODIS Terra 10 October 2011

Pre-Crisis Water Extent

National Park

Highway/Primary Rd.

International Border

District Border

Upazila Border

Main Airport

Map Scale for A3: 1:450,000

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Satellite Data (1): MODIS Terra Imagery Date: 11 October 2013
Copyright: NASA
Source: NASA Rapid Response

Satellite Data (2): MODIS Aqua Imagery Date: 21 October 2012
Copyright: NASA
Source: NASA Rapid Response

Satellite Data (3): MODIS Terra Imagery Date: 10 October 2011
Copyright: NASA
Source: NASA Rapid Response

Road Data: OSM (via bbbike)
Other Data: UNGIS, UNOSAT, NGA
Analyses: UNOSAT / UNGIS
Production: UNOSAT / UNGIS
Analysis conducted with ArcGIS v10.1
Coordinate System: WGS 1984 UTM Zone 45N
Projection: Transverse Mercator
Datum: WGS 1984
Units: Meter

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