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Flood Plain Mapping in a Part of Yamuna River

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ABSTRACT

A flood is markedly high stage or flow in a river. A flood may also inundate adjoining land. This inundated area is named 'floodplain' of a river. Floodplain is also flat land between valley walls. Floodplain is land inundated by a flood of given frequency. A river creates sculptural and constructional landscape in a basin. In a floodplain river creates landscape between valley walls. Floodplain deposits or alluvial deposits, natural levees, oxbow lakes, channel fillings, clay plugs, sand plugs, sand bars, back-swamps, back-swamp deposits, channel scour routes, alluvial cones, deltaic deposits occur in a floodplain. In this study, floodplain deposits are mapped. The study area is the Yamuna basin between Gangoh and New Delhi. Data are satellite FCC paper prints and SOI topographic maps. The deposits are oxbow lakes, old or filled channels and sand bars. River channels, tributaries are mapped. Satellite data are geo-referenced digitally. Maps are digitized and output using ILWIS Window version. River migration is depicted graphically. Bend statistics are computed from satellite data and median values are found.

