

## Erratum

### Structural and Stratigraphic Study of Hazara-Kashmir Syntax, Pakistan with the Aid of Geographic Information System and Field Data Approach

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#### Title

Structural and Stratigraphic Study of Hazara-Kashmir Syntax, with the Aid of Geographic Information System and Field Data Approach

#### Abstract

This research area is located along the Hazara-Kashmir Syntax in the sub-Himalayan sector of NW Himalaya. The Hazara-Kashmir Syntax runs through numerous areas within Mirpur district. One of the key characteristics of the Hazara-Kashmir Syntax is its antiformality. The project area is bounded to the east by the Riasi fault and to the west by the Jhelum fault, while to the south it is bounded by Salt Range Thrust. Research was conducted in the areas of Narmah, Sahan, Pirgali, Kas Guma, Mohra Jangu, and Kalri. Fold-and-thrust belts are present in the sub-Himalayan region of Northwest Himalaya.

#### Introduction

The project area is marked up in the Mirpur District.

#### Geological Setting

Project site is situated along the southern portion of the Hazara-Kashmir Syntax in the sub-Himalayan region. This syntax is formed by the collision of the Indian and Eurasian plates (Khan et al., 2023; Bossart et al., 1988).

**Fig. 1.** Regional tectonic map of NW Himalaya. The red rectangle displays the position of the study area (Modified after Baig et al., 2010; Khwaja, 2004; Baig and Lawrence, 1987).

**Fig. 2.** Route traverse map of Narmah, Sahan, Pirgali, Kas Guma, Mohra Jangu and Kalri areas of district Mirpur.

**Fig. 3.** Composite geological map of new Mirpur city, Samwal, Jabi, Mohra Jangu, Narmah, Gaiyan, Kotla and Dernai areas of districts Mirpur and Bhimbar.

**Fig. 4.** Geological map of Narmah, Sahan, Pirgali, Kas Guma, Mohra Jangu and Kalri areas of district Mirpur.

**Fig. 8.** Composite structural map of new Mirpur city, Samwal, Jabi, Mohra Jangu, Narmah, Gaiyan, Kotla and Dernai regions of districts Mirpur and Bhimbar.

#### Structural Geology of the Area

The Himalayan Mountain belt extends due NW from Nepal and fluctuates the regional strike around the Hazara-Kashmir Syntax to the SW. Located at the eastern limb of the HKS, the project area is a portion of the sub-Himalayan region.

**Fig. 9.** Structural map of narmah, sahan, pirgali, kas guma, mohra jangu and kalri areas of district Mirpur.

**Fig. 10.** Structural cross sections of Dernai, Bangora, Panjeri, Kalri and Jabi areas of district Bhimbar.

**Fig. 11.** Structural cross sections of Haripur, Kotla, Tandar, Nawin Thar, Kas Guma, Jatlan and Jari Kas areas of districts Mirpur and Bhimbar.

**Fig. 12.** Structural cross sections of Gaiyan, Narmah, Dheri Rustam and Samwal areas of districts Mirpur and Bhimbar.

#### Conclusion

Hazara-Kashmir Syntax lies in the southern part of the project area. A thick sedimentary cover of Himalayan molasse deposits covers the project area. .... For the economic evaluation of Hazara-Kashmir Syntax, it is imperative to have detailed geological and structural maps derived from GIS software.

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