

# CONTENTS

|                                                 | <b>Page No.</b> |
|-------------------------------------------------|-----------------|
| <b>1. INTRODUCTION</b>                          | <b>1-10</b>     |
| • Purpose and Scope                             | 1               |
| • Study area                                    | 3               |
| • Approach and Methodology                      | 9               |
| <b>2. REGIONAL GEOLOGY AND STRUCTURAL SETUP</b> | <b>11-24</b>    |
| • Regional Tectonic Framework                   | 12              |
| • Geology of the study area                     | 15              |
| • Structural Setup                              | 21              |
| <b>3. TECTONIC GEOMORPHOLOGY</b>                | <b>25-46</b>    |
| • Geomorphic Zones                              | 25              |
| • Morphostructural Domains                      | 29              |
| • Structural Control on Drainage                | 40              |
| <b>4. GEOMORPHIC SURFACES</b>                   | <b>47-68</b>    |
| • Recognition of Geomorphic Surfaces            | 47              |
| • Early Pleistocene Erosional Surface (EPES)    | 50              |
| • Early Pleistocene Depositional Surface (EPDS) | 57              |
| • Early Holocene Erosional Surface (EHES)       | 63              |
| • Late Holocene Depositional Surface (LHDS)     | 66              |
| <b>5. STRATIGRAPHY AND SEDIMENTARY FACIES</b>   | <b>69-96</b>    |
| • Late Pleistocene Depositional Surface (LPDS)  | 70              |
| • Late Holocene Depositional Surface (LHDS)     | 81              |
| Fluvial Sediments                               | 83              |
| Estuarine- Tidal Sediments                      | 87              |
| • Sedimentary Facies                            | 90              |
| <b>6. DRAINAGE ANALYSIS</b>                     | <b>97-112</b>   |
| • Drainage Parameters                           | 98              |
| • Bifurcation Ratio                             | 100             |
| • Stream Orientation Analysis                   | 101             |
| • Sinuosity Parameters                          | 105             |
| <b>7. LATE CENOZOIC GEOMORPHIC EVOLUTION</b>    | <b>113-128</b>  |
| • Late Pliocene-Middle Pleistocene              | 114             |
| • Late Pleistocene                              | 117             |
| • Early Holocene                                | 118             |
| • Middle-Late Holocene                          | 120             |
| • Inversion Tectonics and Geomorphic Evolution  | 121             |
| <b>8. CONCLUSIONS</b>                           | <b>129-132</b>  |
| <b>REFERENCES</b>                               | <b>133-141</b>  |