The specific theme related geo-data have to be in the one specific dataset having similar coordinate reference system, extent, theme, and data format. Therefore the following data model has been prepared

1. **Spatial reference System:**

Geographic Coordinate System:

GCS\_WGS\_1984

WKID: 4326 Authority: EPSG

Angular Unit: Degree (0.0174532925199433)

Prime Meridian: Greenwich (0.0)

Datum: D\_WGS\_1984

Spheroid: WGS\_1984

Semi major Axis: 6378137.0

Semi minor Axis: 6356752.314245179

Inverse Flattening: 298.257223563

1. **Datasets**

The datasets contain the feature classes

1. Administrative Boundary
2. Educational Institutions
3. Health Facilities
4. Risks and Hazards
5. Open Space
6. Community Center
7. Cultural and Archeological Sites
8. Agencies
9. Hotel and Lodge
10. Security Forces
11. Road Network
12. Transportation Utility
13. Hydrographic Features
14. Industry
15. Settlement
16. Topographic Features
17. Urban Utility
18. Local Attraction
19. Local Market
20. Development Projects
21. **The datasets contain following feature classes:**

|  |  |
| --- | --- |
| **Dataset** | **Feature Class** |
| 1. Administrative Boundary | 1. Municipality Boundary 2. Municipality Ward Boundary 3. Old VDC Boundary 4. Old VDC Ward Boundary |
| 1. Educational Institutions | 1. School 2. College 3. Kindergarten |
| 1. Health Facilities | 1. Hospital 2. Primary Health Center 3. Health Post 4. Sub Health Post 5. Polyclinic 6. Pharmacy 7. Veterinary |
| 1. Risks and Hazards | 1. Landslide 2. House Fire 3. Flood 4. Drought 5. Epidemic 6. Animal Attack |
| 1. Open Space and Safe Location | 1. Playgrounds 2. Parks |
| 1. Community Center | 1. Community Center |
| 1. Cultural and Archeological Sites | 1. Places of worship 2. Museum 3. Monuments |
| 1. Agencies | 1. Government Agency 2. Private Agency |
| 1. Hotels and Lodges | 1. Hotel 2. Lodge/Guest House 3. Restaurants 4. Fast Food 5. Bar 6. Café |
| 1. Security Forces | 1. Police Station 2. Military Force |
| 1. Road Network | 1. Road Network |
| 1. Transportation Utilities | 1. Bus Park 2. Bus Stand 3. Parking Space 4. Traffic Signal |
| 1. Hydrographic Features | 1. River 2. Pond |
| 1. Industry | 1. Industries |
| 1. Settlement | 1. Settlement Points 2. Buildings |
| 1. Topographic Features | 1. Contour 2. DEM 3. Slope 4. Hill Shade |
| 1. Urban Utilities | 1. ATM 2. Public Toilet 3. Drinking Water |
| 1. Local Attraction | 1. Local Attraction |
| 1. Local Market | 1. Local Market |
| 1. Development Projects | 1. Development Project |

1. **Feature class field content**

|  |  |
| --- | --- |
| Data Layer | Fields |
| Municipality Boundary | FID  Shape  DCODE(District Code)  District  GaPa\_NaPa (Gaunpalika/Nagarpalika Name)  GaPa\_NaPa Type (Gaunpalika/Nagarpalika)  Center  State  Area SQKM  Perimeter  Centroid X  Centroid Y  Remarks |
| Municipality Ward Boundary | FID  Shape  DCODE(District Code)  District  GaPa\_NaPa (Gaunpalika/Nagarpalika Name)  GaPa\_NaPa Type (Gaunpalika/Nagarpalika)  Ward Number  Center  State  Area SQKM  Perimeter  Centroid X  Centroid Y  Remarks |
| Old VDC Boundary | FID  Shape  DCODE(District Code)  District Name  VDC Name  VDC Code  Zone Name  Region Name  Area SQKM  Perimeter  Centroid X  Centroid Y  Remarks |
| Old VDC Ward Boundary | FID  Shape  DCODE(District Code)  District Name  VDC Name  Ward Number  VDC Code  Zone Name  Region Name  Area SQKM  Perimeter  Centroid X  Centroid Y  Remarks |
| School  College  Kindergarten | FID  Shape  Name  Address  Type  Level  Kindergarten/School/College Head  Contact Number  No. of Male Students  No. of Female Students  No. of Total Students  Structure Type  Earthquake Damage  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Hospital  Primary Health Center  Health Post  Sub Health Post | FID  Shape  Name  Address  Type  Category  Contact Number  Contact Person  Emergency Service  ICU Service  Ambulance Service  Open Space  Toilet Facility  No. of Bed  Structure Type  Earthquake Damage  Evacuation Plan  Fire Extinguisher  Alternative Routes  X  Y  Remarks |
| Polyclinic  Pharmacy  Veterinary | FID  Shape  Name  Address  Type  Category  Contact Number  Contact Person  Structure Type  Earthquake Damage  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Landslide  House Fire  Flood  Drought  Epidemic  Animal Attack | FID  Shape  Name  Risk Level  Number of Victims  Remarks |
| Playgrounds  Parks | FID  Shape  Name  Address  Area SQM  Perimeter (m)  Accommodation Capacity  Road Access  Access Road Width  Alternative Routes  Terrain Type  Water Facility  Toilet Facility  Wifi Facility  High Tension Line  Remarks |
| Community Center | FID  Shape  Name  Address  Builder Name  Type  Accommodation Capacity  Road Access  Width of Access Road  Water Facility  Toilet Facility  Open Space  Structure Type  Earthquake Damage  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Places of worship | FID  Shape  Name  Address  Religion  Type  Governing Body  Contact Number  Contact Person  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Museum | FID  Shape  Name  Address  Type  Contact Number  Contact Person  Established Date  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Monuments | FID  Shape  Name  Address  Type  Structure Type  Earthquake Damage  X  Y  Remarks |
| Government Agency | FID  Shape  Name  Address  Ministry  Department  No. of Employees  Office Head  Contact Number  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Private Agency | FID  Shape  Name  Address  No. of Employees  Registration Type  Registration Number  Office Head  Contact Number  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Hotel  Lodge/Guest House | FID  Shape  Name  Address  Contact Number  Contact Person  No. of employees  Accommodation Capacity  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Restaurants  Fast Food  Bar Café | FID  Shape  Name  Address  Contact Number  Contact Person  No. of employees  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Police Station  Military Force | FID  Shape  Name  Address  Organization Head  Contact Number  No. of Human Resource  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  Alternative Routes  X  Y  Remarks |
| Road Network | FID  Shape  Name  Type  Category  Width  Length  Remarks |
| Bus Park | FID  Shape  Name  Address  Parking Capacity  Toilet Facility  Water Facility  Area SQM  Remarks |
| Bus Stand | Name  Address  Parking Capacity  Toilet Facility  Water Facility  Area SQM  Remarks |
| Parking Space | FID  Shape  Address  Parking Capacity  Parking Charge  Evacuation Plan  X  Y  Remarks |
| Traffic Signal | FID  Shape  Address  X  Y  Remarks |
| River | FID  Shape  Name  Length  Remarks |
| Pond | FID  Shape  Name  Address  Area  X  Y  Remarks |
| Local Attraction | FID  Shape  Name  Address  Type  X  Y  Remarks |
| Contour | FID  Shape  Elevation  Remarks |
| Local Market | FID  Shape  Name  Address  Registration Type  Registration Number  Contact Number  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |
| Development Project | FID  Shape  Name  Address  Started Date  Completion Date  Contractor  No of Employees  X  Y  Remarks |
| Urban Utilities | FID  Shape  Name  Address  Type  Service Type  Toilet Facility  Water Facility  Governing Body  Contact Number  Structure Type  Earthquake Damage  Open Space  Evacuation Plan  Fire Extinguisher  X  Y  Remarks |

Here, the field

1. FID i.e. feature id and
2. Shape i.e. geometry of the feature (either point, line or polygon)

Are software (ArcGIS) generated fields.

1. **Data Source**

|  |  |
| --- | --- |
| **Data Source** | **Data** |
| 1. **Survey Department** | 1. Administrative Boundary 2. Road Network 3. Waterways 4. Settlement (Points) |
| 1. **Humanitarian Data Exchange** | 1. Health Facilities 2. Road Network |
| 1. **Open Street Map** | 1. School 2. ATM 3. College 4. Kindergarten 5. Hospital 6. Dental Service 7. Veterinary 8. Playgrounds 9. Parks 10. Temple 11. Gumba 12. Mosque 13. Church 14. Monuments 15. Museum 16. Banks 17. Financial Institutions 18. NGO 19. Hotel 20. Lodge/Guest House 21. Restaurants 22. Bar 23. Fast Food 24. Café 25. Police Station 26. Military 27. Road 28. Bus Park 29. Bus Stop 30. Traffic Signal 31. Parking 32. Bakery Shop 33. Beauty Parlor 34. Bicycle Shop 35. Butcher Shop 36. Cinema 37. Cloth Shop 38. Computer Shop 39. Convenience Store 40. Department Store 41. Floriculture 42. Fuel Station 43. Furniture 44. Gift Shop 45. Green Grocery 46. Hair Dresser 47. Hardware 48. Jewelry Shop 49. Laundry 50. Liquor Shop 51. Mobile Phone Shop 52. Shoe Shop 53. Sport Centre 54. Stationery 55. Swimming Pool 56. Industries 57. Settlements(Point) 58. Buildings {Polygon} 59. Local Attraction 60. Development Project |
| **4 VSO** | 1. Pragati Summary Date (Empty sheet , no location) 2. Hospitals – Contains lat, long 3. Schools- Contains lat, long 4. Disaster Information Center- No Lat long available 5. NGOs- Only few available 6. Private Sector – No coordinate available, very few data 7. Financial Sectors –No Location 8. NDRC – No location 9. Name List - Local representatives 10. Gas Dipo – Contains lat, long 11. Government Sectors – Contains lat long 12. Search and Rescue? |

**Data Model of Department of Urban Development and Building Construction (DUDBC)**

1. Location and Administration
2. Ortho-Photo
3. Control network
4. Topography
5. Land Use/Land Cover
6. Hydrography
7. Buildings
8. Cadastral
9. Transportation Network
10. Water Supply network
11. Swear Network
12. Electricity network
13. Telecommunication Network

**Data Model of National Land Use Project (NLUP)**

1. Agriculture
2. Forest
3. Residential
4. Commercial
5. Industrial
6. Public Service
7. Mine and Minerals
8. Cultural and Archeological
9. Riverine and Lake Area
10. Excavation Area
11. Other