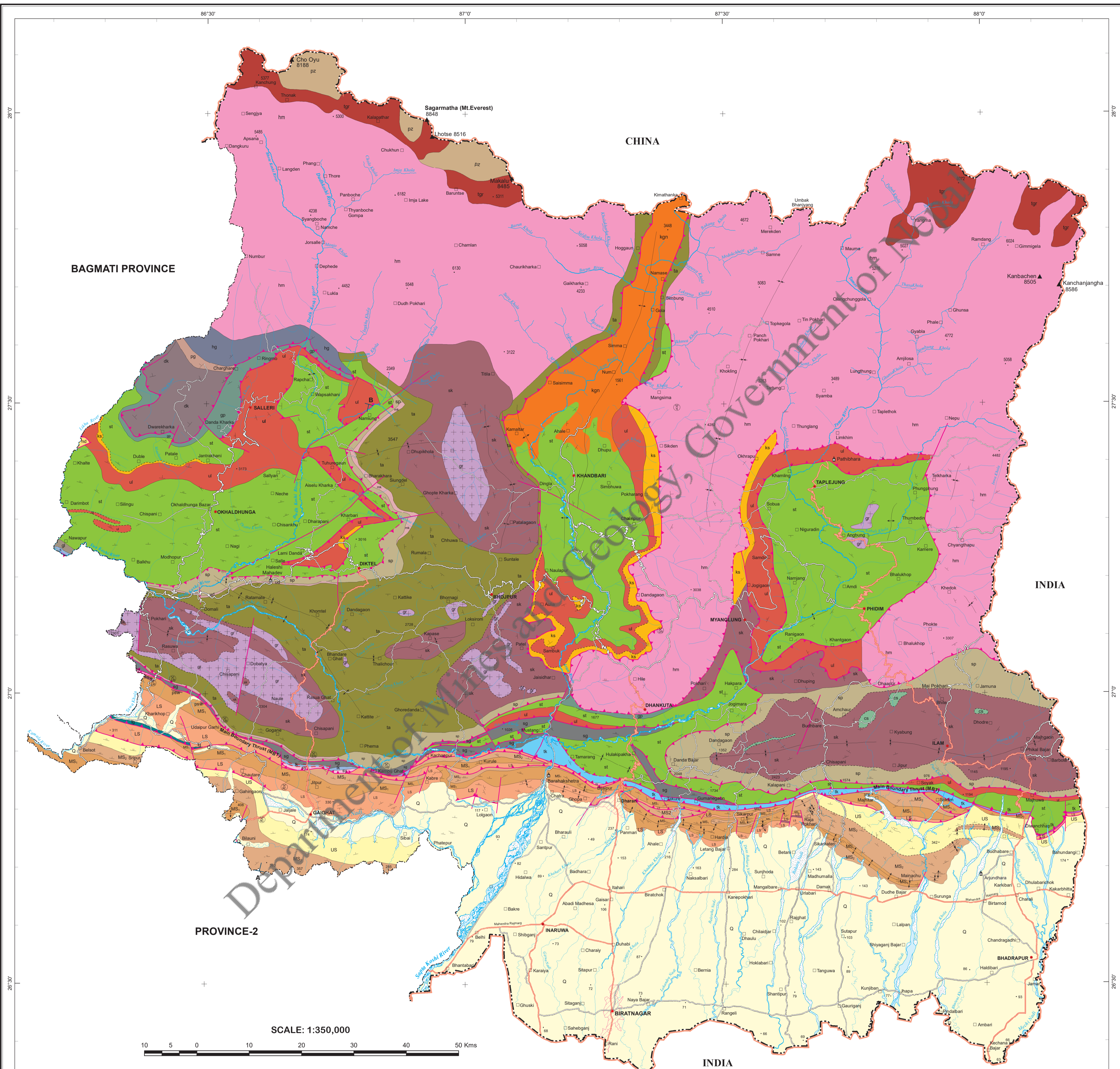
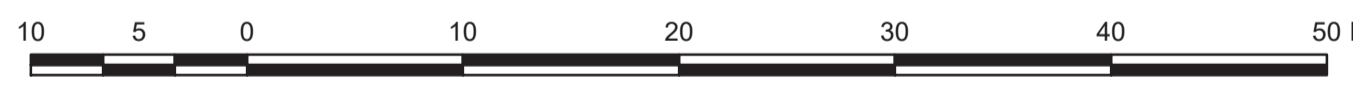


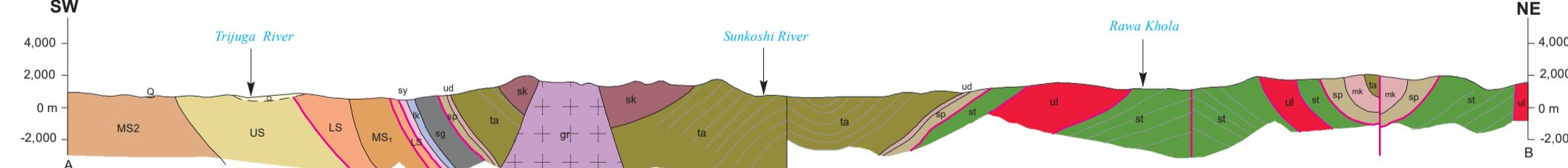
GEOLOGICAL MAP OF PROVINCE - 1, NEPAL



SCALE: 1:350,000



Geological Section Along A-B



LEGEND

- GEOLOGY**
- SURFICIAL DEPOSITS (Quaternary-Recent)**
 - Quaternary: Alluvium, boulder, gravel, sand, silt and clay.
 - SIWALIK GROUP (Middle Miocene-Lower Pleistocene)**
 - Upper Siwalik: Boulder, cobble conglomerate with minor yellow, grey mud and silt, sand bands and lenses in the conglomerates.
 - Middle Siwalik: Medium to coarse grained sandstones, pebbly sandstones with siltstones and mudstones with relic of hard sandstones. Turtle limb is present in the sandstones.
 - Lower Middle Siwalik: Medium to fine grained sandstones with interbeds of siltstones and mudstones. Coaly materials and plant fossils are present.
 - Lower Siwalik: Fine grained sandstones with interbeds of purple or red colored mudstones, shale, siltstones and occasional marl.
 - PRE-SIWALIK GROUP**
 - Pre-Siwalik (Precambrian-Early Paleozoic): Light grey to grey fine grained sandstones with purple shales and calcareous nodules.
 - MIDLAND GROUP**
 - Gondwana Sub-Group**
 - Takura Formation: Sandstones, quartzitic sandstones, graphitic coals, chloritic phyllites, lamprophyre sills and at some places thin bands of dolomitic limestones.
 - Lakharpata Sub-Group**
 - Lakharpata Formation: Fine grained grey and pink limestones and dolomitic limestones with thin intercalation of purple and green shales, algal structure with stromatolites are present.
 - Syangja Formation: White, milky white, pale orange, pinkish or purplish calcareous quartzitic beds and quartzitic limestones with dark grey and purple shales. Pinkish calcareous quartzitic beds, grey arkosic sandstones and grey to pale green shales.
 - Sangam Formation: Grey to greenish grey carbonaceous shales with highly silicified grey to greyish white dolomites.
 - Galyang Formation: Dark grey shales with black limestones, thin calcareous slates and grey dolomitic limestones, black carbonaceous slates with fine grained dull calcareous sandstone beds. Grey to black siliceous limestones with thin marble bands.
 - Pokhara Sub-Group**
 - Ghan Pokhara Formation: Black carbonaceous phyllites and slates, grey to greenish shales with limestone bands.
 - Naudanda Formation: Fine to medium grained white quartzites with ripple marks and thin intercalations of green chlorite-phyllites.
 - Sati Formation: Grey to greenish grey phyllites, grey quartzites with minor conglomeratic layer. Basic intrusions are also noted.
 - Kushma Formation: Greenish grey and white fine to medium grained at places, ripple marked massive quartzites intercalated with green phyllites. Basic intrusions are abundant.
 - KATHMANDU GROUP**
 - Sarung Khola Formation: Fine textured, dark grey to greenish white quartz-biotite-schists, quartz-feldspar-biotite-schists, occasionally garniferous interbedded with quartzites and micaceous quartzites with intrusions of pegmatites. Calc-silicate: Calc-silicate rocks and marble bands.
 - Tawa Khola Formation: Coarse grained, dark grey graniferous muscovite-biotite-quartz-schists with intercalations of greyish white quartzites and amphiboles in lower part.
 - Maksang Formation: Grey to greyish white, fine grained quartzites with thin layer of muscovite-biotite-schists with well-bedded with fine sericitic partings.
 - Udaipur Formation: Grey, greyish black crystalline limestones and grey massive dolomites with phyllitic schists intercalations.
 - Shiprin Khola Formation: Coarse textured, highly garniferous muscovite-biotite-quartz-schists, calc. silicate rocks light green chlorite schists and metabasic rocks.
 - HIMAL GROUP**
 - Himal Gneiss: Two mica-gneisses, granitic gneisses, banded gneisses, kyanite bearing gneisses and migmatites with thin bands of marbles.
 - Panglima Quartzite: Fine grained compact quartzitic schists and quartzites occasionally crystalline limestones.
 - Dware Kharka Schist: Medium to coarse grained quartz-muscovite-biotite-schists garnetiferous schistose gneisses and kyanite-schists.
 - TIBETAN SEDIMENTARY ZONE**
 - Paleozoic: Cambrian to Permian. Lower part mainly calcareous, middle part pelagic and upper part is rich in detrital sediments. Limestones, sandstones and shales. Early Permian flood beds with plant fossils and focal spilitic lava flows.
 - HIGHER HIMALAYAN CRYSTALLINES**
 - Precambrian high grade metamorphic rocks comprising gneisses, quartzites and marbles. Migmatites and granite gneisses present predominantly in the upper part.
 - Tertiary (Miocene): Two mica leucocratic granites with tourmaline.
- SYMBOLS**
- Ulleri Formation: Feldspathic schists with augens of feldspar and quartz, augen gneisses. Intrusions of granite are noted.

PHYSIOGRAPHIC FEATURES

- District Headquarter
 - Province Headquarter (Temporary)
 - Peaks with Height in Meter
 - Province Boundary
 - International Boundary
 - Highway, Feeder Road, Other Road
 - Stream, River
 - Spot Height in Meter
 - Temple, Town, Village
- STRUCTURE**
- Geological Contact
 - Inferred Contact
 - Alluvium Boundary
 - Thrust
 - Fault
 - Anticlinal Axis
 - Synclinal Axis
 - Overtuned
 - Overtuned Anticline
 - Overtuned Syncline
- ATTITUDE OF BEDDING**
- 0°
 - 1°-19°
 - 20°-39°
 - 40°-59°
 - 60°-79°
 - 80°-89°
 - 90°
- MINES**
- Limestone
 - Quartz
 - Red Clay

Horizontal Datum

Spheroid: Everest 1830
 Projection: Modified Universal Transverse Mercator
 Origin: Longitude 87° East, Latitude 0° North
 False co-ordinates of origin: 500 000m Easting, 0m Northing
 Scale factor at Central Meridian: 0.9999

Published under the authority of
 Mr. Ram Prasad Ghimire, Director General
 Department of Mines and Geology
 Lainchaur, Kathmandu, 2020

Data Sources

This map is compiled from the published "Geological map of Nepal (1:1,000,000)", "Geological Map of Eastern Nepal (1:250,000)" by Department of Mines and Geology (DMG) and "Geological Map of Petroleum Exploration Block no.8,9 and 10 (1:250,000)" by Petroleum Exploration Promotion Project (PEPP), Nepal.

Topographical Base:
 1:25,000 & 1:50,000 Map of GoN, Survey Department, Kathmandu, Nepal

