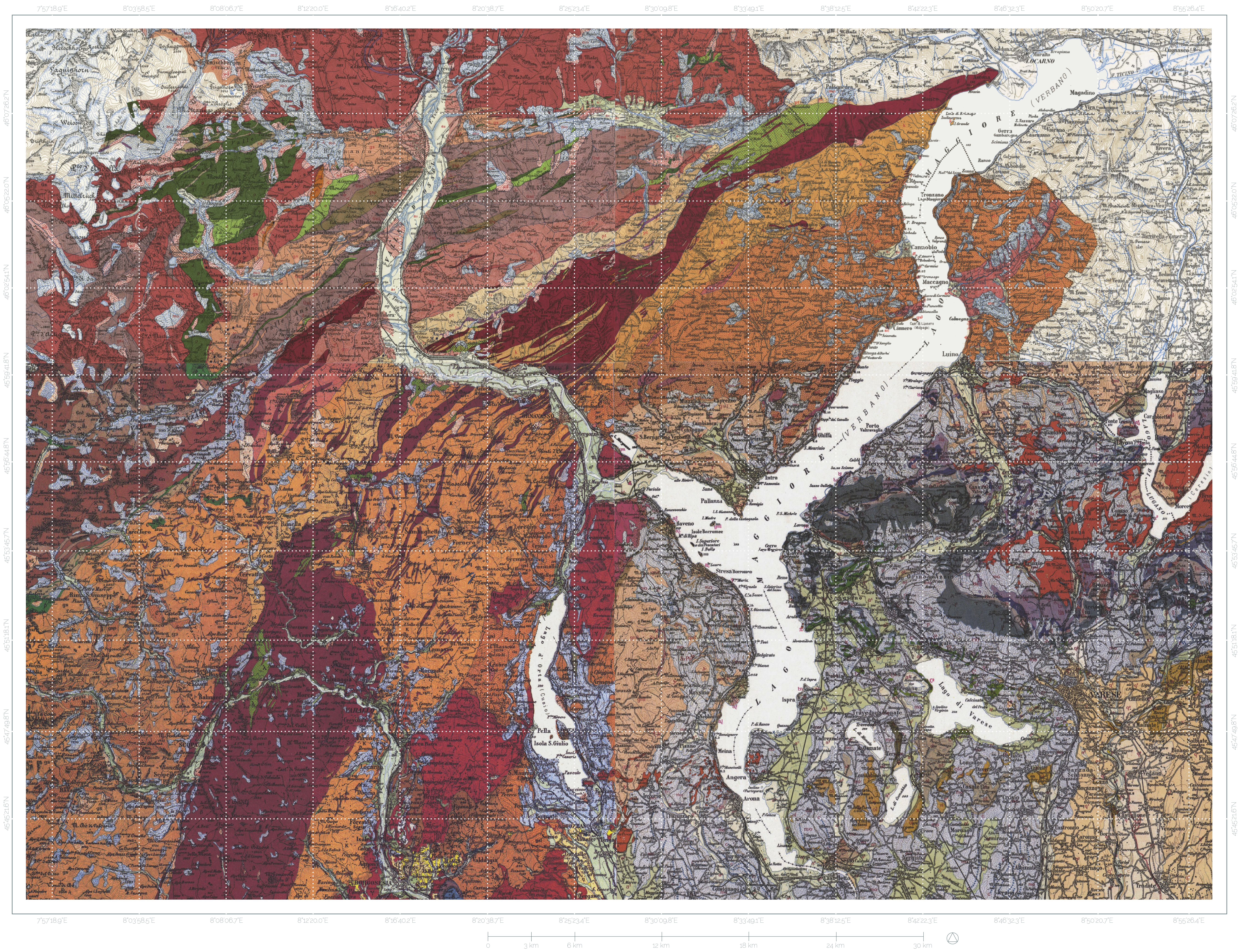
MONTE MOTTARONE

Geological framework



National Geological Map

The creation of the **National Geological Map** involves the production of the **652 geological and geothematic sheets** at a scale of 1:50,000 to cover the national territory.

The Geological Survey of Italy, now part of **ISPRA** (Istituto Superiore per la Protezione e la Ricerca Ambientale), has the task of surveying, updating and publishing the **Geological Map of Italy**.

Legenda

Quaternary

- Recent floods, dejection cones, groundwater debris.
- Alluvium and terraced dejection cones
- Moraine, moraine cordons
- Ferreted pre-Wurmian alluvium of high terraces
- *Ancient*
  - Pre-Wurmian terraced deposits
  - Pre-Wurmian Ferretised Deposits and Stump Banks
- *Recent diluvial and alluvial*
  - Recent flooding. Filled lakes
  - Dejection cones. Groundwater debris
  - Rock landslides
  - Terraced alluvium
  - Wurmian, post-Wurmian and recent moraines
- *Pliocene*
  - Sandy clays
  - Sandy clays

Tertiary

- Sands, sandy clays, marls with marine fossils
- Sandstones and conglomerates
- Marly limestone

Cretaceous

- Grey-blue variegated schistose marls
- White or greenish limestone with flint lenses

Lias

- Calcareous sandstones and calcareous sandstones
- Seicose limestone with sandstones, black and red limestones and zoned jaspers

Triassic and Jurassic

- *Triassic and Jurassic*
  - Biotitic and amphibiolic calcschists
  - Micaceous-filladic schists
  - Biotite gneissic quartzites
  - Prasinites and amphibolites
  - Serpentines and Serpentinoscists
- *Triassic*
  - Dolomite and dolomitic limestone
  - Complex limestone-schist zones
  - Crystalline limestones
  - Micaceous plasters with anhydrites
  - Micaceous quartzites
  - Garnatic mycascists
  - Thickly zoned dolomite
  - Main Dolomia in Worthenia Songavati
  - Varicoloured marls alternating with layers of more or less marly limestone

Pretriassic

- *Green Stones*
  - Calcareous and crystalline limestones
  - Prasiniti
- *Gneissic massif series*
  - Minute schistose gneiss
  - Minute gneisses and micascists
  - Crystalline limestones
  - Amphibole gneisses
  - Serpentine, soapstone
  - Gneiss minute muscovite and sericite
  - Gneiss ghiandone porphyry
  - Tabular and massive orthogneisses
  - Sericeous phyllodes
  - Amphibolites
- Gneissic granites

Precarboniferous

- *Dioritic-Kinzigitic series*
  - Stronalites, kinzigites, gneisses and sillimanite micacists
  - Crystalline and calciferous limestones
  - Melanocratic diorites
  - Peridotites and ultra-basic rocks
  - Listed gneiss
- *Lakes series*
  - Minute, schistous, granular and compact gneisses
  - Very biotic gneisses
  - Zoned amphibolite
  - Biotite and muscovite mycascists
- *Canavese area*
  - Clayey shales
  - Filiades and sericic schists
  - Diabasi
- *Lanzo Valley Series*
  - Mycascists and Eclogitic minute gneisses
  - Protogynous gneisses
  - Crystalline and micaceous limestones
- *Lanzo Valley Series*
  - Porphyries with or without quartz
  - Syenite
  - Contact zone of syenitic and granitic masses
  - Biotitic granites
  - Two-mica pegmatites and granites