The Geosites of Mount Apo Geopark



1 Mount Apo's Seven Peaks and the gods and a goddess of the Bagobo Tagabawa Tribe

The Davao City Peak (Home of Baye't Pande)
As the goddess of wisdon, the tribesmen believed Baye't Pande contains all the tribe's knowledge.

The Sta. Cruz Peak (Home of Apo Manama)
Apo Manama is the benevolent god of love and central figure in the tribe's prayers and offering.

The Digos Peak (Home of Apo Matulos)
Apo Matulos, head of the Bagobo Tagabawa pantheon, is revered as their divine guardian, provider and spiritual father.

The Bansalan Peak (Home of Apo Taragume)
Apo Taragume, the god of water, blesses the tribe with abundant springs said to be be stored in the area's algae and mosses.

The Kidapawan Peak (Home of Apo Mandarangan)
Apo Mandarangan is the god of bravery and enforcer of nature's laws. Guardian of warfare, hunting, and forest passage, the tribe seek his blessing before a dangerous journey.

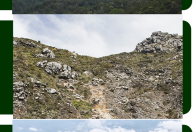
The Crater Peak (Home of Apo Manunggod)
Apo Manunggod is the god of giving, whom the tribe prayed for food and all the things they needed within Apo Sandawa.

The Unknown Peak (*Home of Apo Anito*)
Apo Anito is the god of healing who is believed to be the guiding hand of the tribe in gathering medicinal plants to treat illnesses.

2 Sandawa Collapse
Largest collapse feature on Mount Apo, formed when heat, gases, and fluids weakened rock layers until they gave away. It also contains multiple other geosites within.



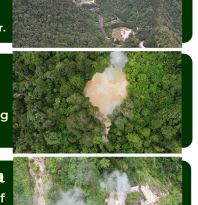
3 87-90 Degrees Ascend
A steep ascent that traverses a prominent escarpment formed by the exposed sheer cliff face of the ancient Sandawa Collapse.



4 Mindanao Geothermal Production Field
A renewable geothermal energy facility within the Sandawa Collapse which exemplifies sustainable volcanic resource use that contributes to the Philippines' status as world's third-largest geothermal producer.



5 Lake Agco
Formed by geothermal activity, Lake Agco is about 60 meters wide that originates from heated rocks interacting with groundwater that seeps through faults and cracks.



6 Mandarangan Solfatara
A volcanic/sulfur vent at the trailhead of Mandarangan that emits sulfur gases, generating acidic, high-temperature conditions through interaction with groundwater and rocks.



7 Pabunsaran Waterfall
This waterfall is situated in the central part of Sandawa Collapse along the main channel of the Marbel River.



8 Mainit Waterfall
This waterfall is situated parallel to the Pabunsaran Waterfall along the tributary of Marbel River to which it relatively shares its geomorphological feature.



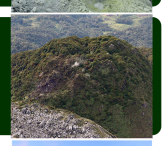
9 Petrified Layer
The fossilized leaves and branches were rapidly buried in volcanic ash, then mineralized by silica-rich hydrothermal fluids before they could decay.



10 Collapsed Solfatara
It forms when heat and volcanic gases weaken subsurface rock, causing the ground to collapse and fissures to appear. A clear evidence of ongoing geothermal activity beneath Mount Apo.



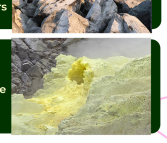
11 Baby Apo
A small conical peak southwest of Mount Apo along the Kapatagan Trail, features fumaroles and altered andesitic rock, reflecting its volcanic origin. It shares geological characteristics with Mount Apo.



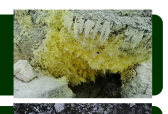
12 Boulder Face
A striking geological feature formed by volcanic activity, chemical weathering, and mechanical breakdown. Over time, weakened rocks collapse, leaving behind a trail of uniform volcanic boulders that showcase nature's transformative power.



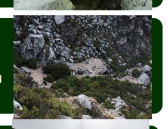
13 Kapatagan Trail Solfatara
These geothermal vents release steam and gas where magma heats the groundwater close to the surface. When these hydrogen sulfide gases redeposits it becomes a native sulfur which is yellow in color.



14 Sibulan Trail Solfatara
The solfatara or sulfur vents extends from the southeast flank towards the summit the air here is heavy with the sharp, sulfuric scent (rotten egg smell) of the solfataras.



15 White Sand E-Camp
Hydrothermal alteration dissolves dark minerals in solfatara rocks, weakening them through weathering and produces medium to coarse sand ranging from bright to dirty white depending on alteration intensity and impurities.



16 Pyroclastic Flow
A fast-moving, superheated currents once swept down the slopes and solidified, depositing materials such as volcanic ash, pumice, and rock fragments over ten meters thick in some areas.



17 Palaka Hotspring
This geothermal feature is via the Sibulan Trail, Sta. Cruz. It is a series of natural hot springs situated in the foothills of the volcano, which originates directly from the volcano's internal heat source.



18 Lake Jordan
It occupies a natural depression southwest of the summit that lies in a grassland area, where rainwater and runoff have accumulated over time, giving rise to its formation.



19 Lake Maag
An endorheic lake shaped by lava and pyroclastic deposits, later filled by rain and runoff, with seasonal water levels shifting due to rainfall and evaporation.



20 Old Landslide Scarps
A very steep gradient and highly fractured lithology of the area are significant factors contributing to these old mass movements. Evident in three crescent-shaped scars on the cliff face, now covered with tall grasses that marks the historic landslide events.



21 Old Apo Crater Lake
Summit crater formed after a violent phreatomagmatic eruption, when magma and groundwater interacted to form a powerful explosion.



22 Lake Venado
An endorheic lake formed by lava flows and pyroclastic deposits, where rain and runoff gradually filled the depression due to the lack of natural flow.



23 Talomo Old Crater
One of the three volcanic centers of the geopark and is classified as an inactive volcano, Talomo edifice represents an older phase of volcanism in the Apo Volcanic Complex. It stands as a massive, forested testament to the deep geological history that feeds major river systems, including the Talomo-Lipadas watershed of Davao City.



Legend

- Geosites
- Bansalan Trail
- Century Trail
- Davao City Trail
- Digos City Trail
- Kidapawan City Trail
- EDC Trail
- Magpet Trail
- Makilala Trail
- Santa Cruz Trail
- Road Network
- Political Boundary
- Municipal Boundary
- Mt. Apo Geopark Boundary
- Bagobo Tagabawa Cultural Village
- Geopark Ranger Station
- Mt. Apo Geopark Office (MANP-PAMO)
- PA and Geopark Information Center

24 Almendras Falls
Created by a change in elevation along a river that has carved its way through layers of volcanic deposits and debris from Mt. Talomo that forms the cascading waterfalls.



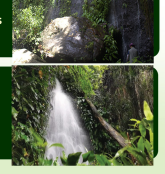
25 Tarusuban Ka Mal'Long
Also known as Tumari Falls, it is a captivating natural attraction that showcases the power of water to carve the landscape which exhibits columnar jointing of andesites. The falls are formed where the river has cut through layers of resistant volcanic rock and softer ash deposits on the lower slopes of the mountain.



26 Mini Asik Asik Falls
A wide, curtain-like wall of lush, moss-covered rock from which hundreds of small streams and trickles of water cascade from various cracks and fissures in the stone face located at the foothills of Mt. Sibulan



27 Karamagan Falls
Picturesque waterfalls showcasing mixture of the hydrologeology and cultural signifance of the area



28 Sibulan Old Crater
One of the three volcanic centers of the geopark, an inactive volcano in Santa Cruz. Its eroded slopes now cloaked in dense mossy forests. Once a site of volcanic activity, it now plays a vital ecological role as a watershed, sustaining major river systems such as the Sibulan and Langan Rivers.



29 Pilan Rock Formation
Along the Pilan River renowned for its distinctive columnar andesitic-basaltic features. This site offers a tangible, visual demonstration of the physical processes of volcanic cooling and erosion.



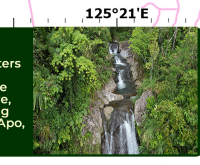
30 Tacub Laya Falls
A natural cascade formed on the lower slopes of the Apo-Talomo volcanic complex. The waterfall reveals the underlying volcanic bedrock as the flowing river has carved its path through layers of solidified lava and ancient volcanic debris.



31 Balas'song Falls
A picturesque cascade formed by a river flowing over volcanic rock in the lower part of the Apo volcanic complex located in a tranquil spot, tucked away in the lush vegetation near the Bagobo Cultural Village.



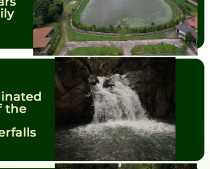
32 Tousuvan Ecopark
Features a striking, about 30 meters high falls with a wide pool below with cold crystal-clear waters. The falls are a key hydrological feature, with crystalclear water originating from the upper slopes of Mount Apo, and channeled through ancient volcanic deposits



33 Lake Cometa
A scenic low-elevation lake lies within Kapatagan's agri-eco tourism park, it was observed that the lake appears to be a simple depression primarily storing surface runoff water.



34 Nagsanga Falls
A notable Y-shaped waterfall originated from two branching tributaries of the Goma river located in Barangay Goma,an area known as the "waterfalls capital" of the city.



35 Mahilak Falls
A multi-tiered waterfall situated within a forested ravine with pyroclastic materials. One of the prominent hydrological features within the geopark that exemplifies the demonstration of how fluvial forces sculpt and reshape the landscape over time.



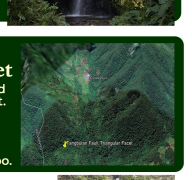
36 Ladyungan Cave
A massive volcanic boulder forms a natural overhang, creating a historic alcove. Once a refuge for the ancient Bagobo warrior Ladyungan during times of conflict, this culturally significant shelter stands as both a geological marvel and a testament to local heritage.



37 Dumagok Falls
It is a remarkable natural exposure located at Sitio Karamagan, Barangay Sinoron, Santa Cruz, where the river has cut a dramatic, steep wall into massive pyroclastic deposits that form the footslope of Mount Sibulan.



38 Tangbulan Fault Triangular Facet
A striking, roughly triangular-shaped slopes on the southwest flanks of Mt. Apo, along the trace of the active Tangbulan Fault in areas between Makilala and Bansalan. This geosite highlights the dynamic tectonic environment surrounding Mount Apo.



39 Tudaya Falls
A majestic single-tier waterfall where the Sibulan River cascades over a steep volcanic rock face. Its sheer cliffs reveal ancient layers of hardened lava and pyroclastic deposits, showcasing the volcanic history of the region.



40 Kamandag Falls
A series of multiple waterfalls (often counted as seven falls) which each waterfalls exhibits distinct morphological characteristics. It varies from stepped and tiered cascades, near-vertical drops, and twin cascades.

41 Langan Falls
A picturesque waterfall along the Langan River cascades through the lower slopes of Mount Sibulan. Its surrounding terrain and riverbed reveal the erosive force of water, sculpting volcanic rock into dramatic cascades and tranquil pools.

42 Sang'ngawan Hotspring and Falls
A rare natural sanctuary where the powerful geothermal activity of Mount Apo meets the refreshing cold waters of a mountain stream. It is known for its rare combination of hot and cold spring pools existing side-by-side with a natural waterfall.

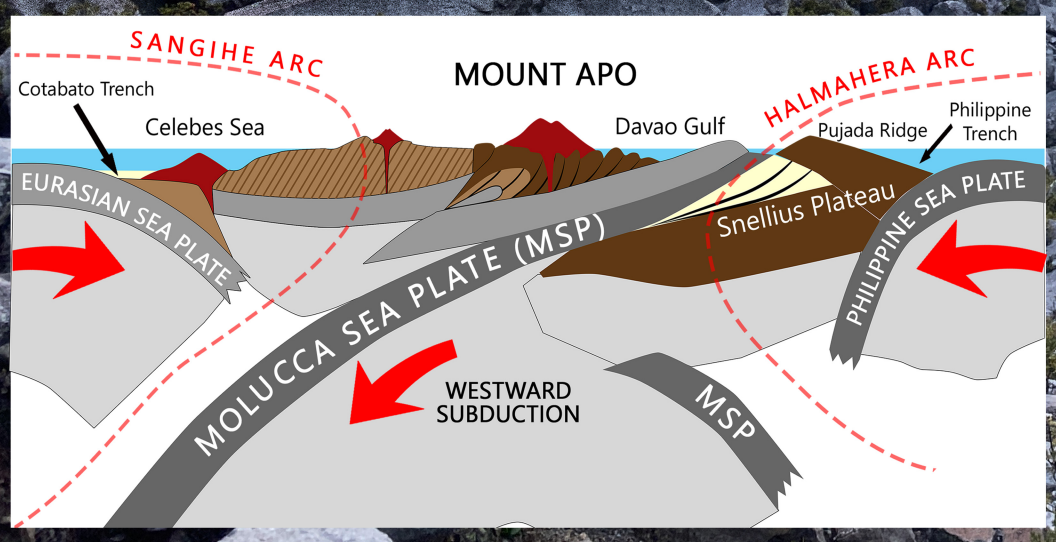
43 Kansal Falls
A cascading waterfalls that has a well-developed jointing or natural fractures that directly control the shaping of both the geomorphology and hydrology of the falls.

WHY MOUNT APO IS A UNESCO GLOBAL GEOPARK CANDIDATE?

Mount Apo, part of the Central Mindanao Volcanic Field (CMVF), was formed through a rare arc–arc collision that began around 2.3 million years ago. This collision triggered basaltic–dacitic magmatism and gave rise to the Central Mindanao Volcanic Arc (CMVA) and the Mount Apo Volcanics. Such tectonic activity is exceptionally rare, underscoring the site's global scientific importance.

This uniqueness is exemplified by the Cenozoic double-verging subduction of the Molucca Sea Plate, a key process in Southeast Asia's tectonic evolution. Volcanism in the CMVA is believed to originate from the detached Molucca Sea Plate beneath Mindanao, making it the world's only ongoing arc–arc collision. Its rarity stems from very specific conditions: narrow, short oceanic plates and the closure of archipelagic seas through orogenic accretion.

The Apo Volcanic Complex, which defines the Mt. Apo Geopark, is composed of three volcanic systems: Mount Talomo, Mount Sibulan, and Mount Apo itself—the Philippines' highest peak. According to Sajona (2000) and Pubellier et al. (1999), this collision was driven by the Eurasian Plate pushing the Sangihe Arc eastward, while the Philippine Sea Plate pushed the Halmahera Arc westward into the Molucca Sea.



Mount Apo's Rich Cultural Heritage: The Seven Peaks and its Seven Gods and a Goddess

Mount Apo, the Philippines' tallest volcano, formed its Seven Peaks through eruptions, dome collapse, tectonic uplift, and erosion. Geologists interpret the crown-like summit as a remnant of a collapse volcanic dome within a transtentional regime.

For the Bagobo Tagabawa tribe, each peak is a sacred home to seven gods and goddesses embodying nature, spirit, and ancestral wisdom. This transforms the landscape into a living cultural map, where geology and indigenous belief intertwine.

The Seven Peaks is tied with international significance of Mount Apo Geopark, which is crucial in its bid for UNESCO Global Geopark status. It exemplify the integration of geological heritage and living cultural traditions, making it a globally relevant model of geodiversity, indigenous stewardship, and sustainable development.

Benefits of a UNESCO Global Geopark Designation

- Enhanced programs by attracting support and partnership from various international and local organizations.
- Boost sustainable tourism, creating livelihood opportunities for local communities
- Preserve and strengthen the cultural heritage of the indigenous cultural communities.
- Serve as an outdoor classroom for geoscience, biodiversity, and cultural studies.

Mount Apo GEOPARK

The Sacred Peak of the South:

Philippines' Highest Peak and An Aspiring UNESCO Global Geopark

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MT. APO NATURAL PARK
PROTECTED AREA MANAGEMENT OFFICE
GEOPARK MANAGEMENT UNIT

Welcome to Mt. Apo Geopark!

A Living Monument of Nature and Culture

- Philippines' highest peak, reaching 2,954 meters above sea level
- Straddles Davao Region (Davao City, Digos City, Bansalan, Sta. Cruz) and SOCCSKSARGEN Region (Kidapawan City, Makilala, and Magpet)
- A potentially active stratovolcano within the Central Mindanao Volcanic Arc.
- Legally gazetted under Philippine Republic Act No. 9237
- One of the pioneering ASEAN Heritage Parks
- Home to the three Indigenous Cultural Communities, namely, Bagobo-Tagabawa, Bagobo-Klata, and Ubu Monuvu
- It hosts numerous endemic plant species, including the Mt. Apo Wild Blueberry (*Vaccinium fallax*) and the Philippine Eagle (*Pithecophaga jefferyi*), the country's national bird.


The Philippine Eagle


Mt. Apo Blueberry




Delias butterfly







Abiotic Ecosystsem Services of the Geopark's Geodiversity

PROVISIONING

Renewable Energy (geothermal and hydroelectric);

Irrigation;

Potable water for the people

CULTURAL

Geotourism and leisure;

Cultural, spiritual and historic associations of the tribes;

Therapeutic landscapes for health and well-being

REGULATING

Terrestrial process (rock cycles, carbon and other biogeochemical cycles);

Siltation and erosion control;

Geological hazard mitigation;

Climate regulation;

KNOWLEDGE

Earth history and evolution of life;

Environmental monitoring and forecasting;

Education and employment

SUPPORTING

Soil process that help shape the forests and habitats for wildlife;

Land as platform for human activity