

Asian Consortium of Volcanology The 6th Field Camp



MARCH 5TH – 7TH, 2024

BATUR & AGUNG VOLCANOES, BALI, INDONESIA

ACV member organizations

Asian Consortium of Volcanology (ACV)

<https://kazan.bosai.go.jp/en/acv/>



EARTH
OBSERVATORY
OF SINGAPORE

Earth Observatory of Singapore,
Nanyang Technological University, Singapore



Centre for Volcanology and Geological
Hazard Mitigation, Indonesia

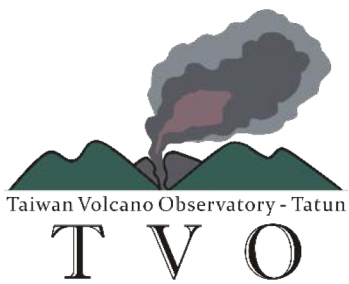


Department of Science and Technology
PHIVOLCS
Philippine Institute of Volcanology and Seismology

Philippine Institute of Volcanology and
Seismology, Philippine



China Earthquake Administration, China



Taiwan Volcano Observatory-Tatun, Taiwan



香港大學
THE UNIVERSITY OF HONG KONG

The University of Hong Kong, Hong Kong



Volcano Specialized Research Center,
South Korea



防災科研

National Research Institute for Earth Science
and Disaster Resilience, Japan

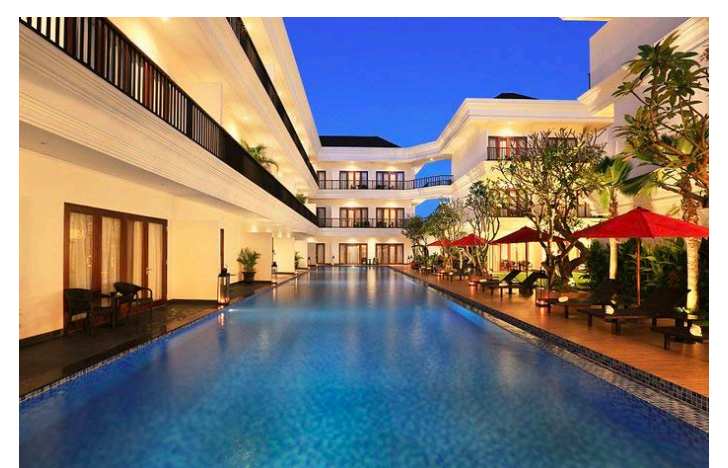
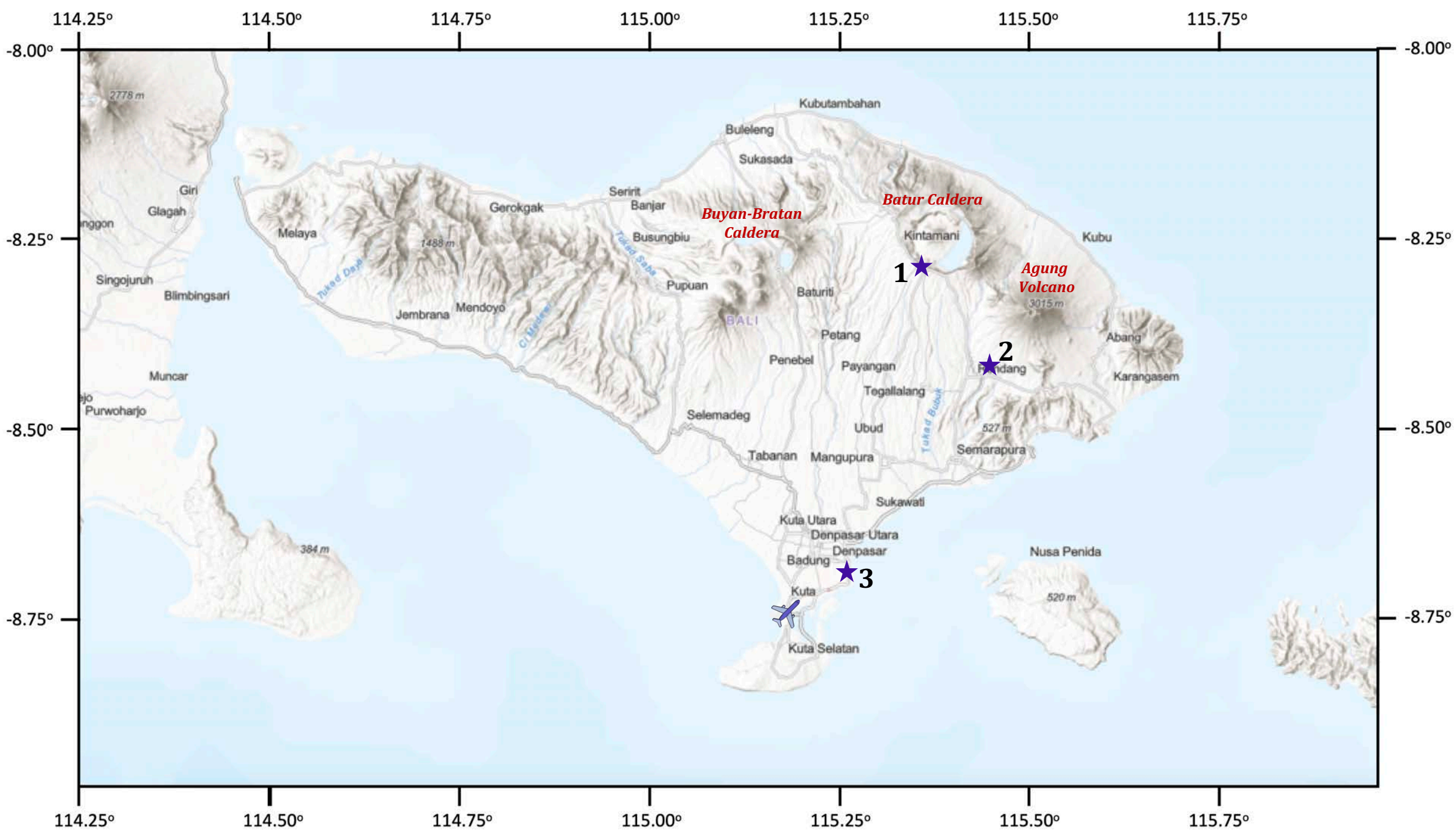
VENUE



1. Batur Geopark Museum



2. Agung Volcano Observatory



3. Grand Palace Hotel – Sanur, Bali

PROGRAM

"Caldera forming eruption and Caldera unrest"

Mon, March 4, 2024

Inbound travel to Denpasar, Bali

Day #1: Tue, March 5, 2024

Lectures & poster presentations

Time	Activity	Person in charge
0800 - 0815	Opening ceremony	
0815 - 0945	Batur caldera forming eruption & activity	Dr. Nugraha Kartadinata
	Introduction to Batur caldera field trip (~45 min)	
	Mt Agung eruption & volcano monitoring (~45 min)	Dr. Devy K. Syahbana
0945 - 1015	Coffee break	
1015 - 1200	<i>Case examples of recent Caldera activities:</i>	
	Taal volcano (by PHIVOLCS) ~ 35 min	Ms. Mariton Bornas
	Raung volcano (by CVGHM) ~ 35 min	Dr. Hetty Triastuty
	Aira & Sakurajima (by SVO) ~ 35 min	Prof. Masato Iguchi
1200 - 1345	Lunch break	
1345 - 1455	<i>Case examples of recent Caldera activities:</i>	
	Krakatau (by CVGHM) ~ 35 min	Mr. Kristianto
	Miyakejima/Aso (by NIED) ~ 35 min	Dr. Eisuke Fujita
1455 - 1515	Coffee break	
1515 - 1625	<i>Case examples of recent Caldera activities:</i>	
	Changbaishan/Mt. Paektu (by CEA) ~ 35 min	Prof. Xu Jiandong
	Revealing Volcanic Insights: Harnessing Data, Algorithms, and Collaboration for Safer Communities (by EOS) ~ 35 min	Prof. Benoit Taisne
1625 - 1800	Poster presentations I (each presenting 5 minutes talk)	
1800 - 1900	Break	
1900 - end	Dinner at Rooftop	

PROGRAM

"Caldera forming eruption and Caldera unrest"

Day #2: Wed, March 6, 2024

Field trip

Time	Activity	Person in charge
0700 - 0900	Field trip: Hotel to Batur Caldera	
0900 - 1200	Field sites inside Batur Caldera (lava, outcrops, etc.)	Mr. Oktory Prambada Dr. Nugraha Kartadinata
1200 - 1230	Back to Museum	
1230 - 1330	lunch at Museum/caldera rim; to view Mt. Batur from Caldera rim	
1330 - 1500	Visit Museum Geopark Batur	
1500 - 1545	Museum to Pos PGA Agung	
1545 - 1700	Visit Agung Volcano Observatory (volcano monitoring & eruption history)	1. Mr. Ahmad Basuki 2. Mr. Agoes Loeqman 3. Dr. Devy K. Syahbana
1700 - 1830	Return to hotel	
1830 - end	Free time	

Day #3: Thu, March 7, 2024

Half day field & Cultural trip

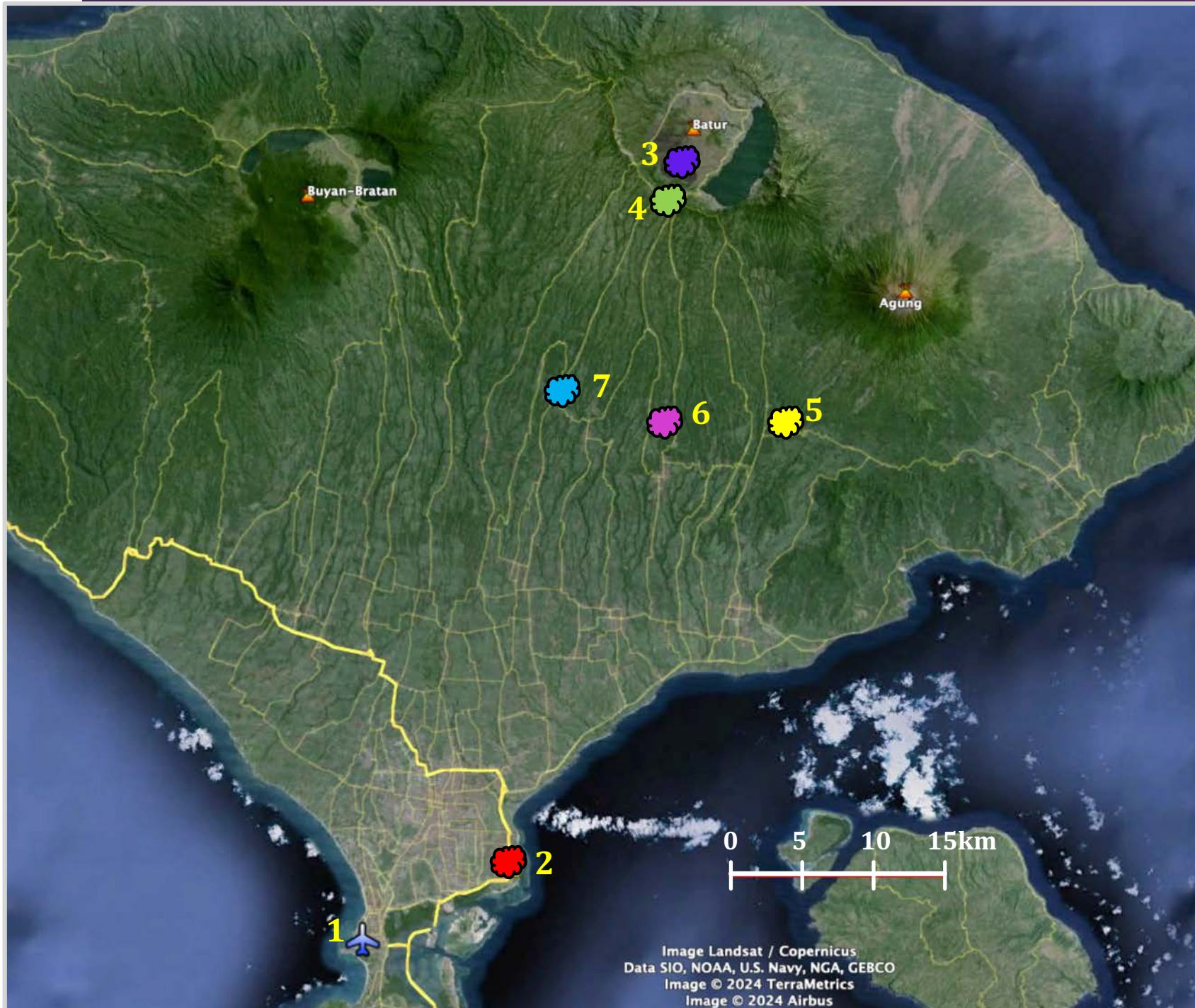
Half day lectures & poster presentations

Time	Activity	Person in charge
0700 - 0815	Hotel to Panglipuran village	
0815 - 0930	Visit Panglipuran village	
0930 - 1030	to Pura Gunung Kawi Sebati	
1030 - 1145	visit Pura Gunung Kawi Sebati	
1145 - 1300	return back to hotel	
1300 - 1500	Lunch at hotel	
1500 - 1645	Poster presentations II (each presenting 5 minutes talk)	
1645 - 1700	Coffee break	
1700 - 1810	<i>Petrology & geochemistry of Caldera:</i>	
	Laboratorium Analysis (by CVGHM) ~ 35 min	Dr. Hanik Humaida
	Petrology (by EOS) ~ 35 min	Prof. Euan Mutch
1810 - 1900	Closing ceremony	
1900 - end	Dinner at Rooftop	

Fri, March 8, 2024

Outbound travel from Denpasar, Bali

Field & Cultural trip



1. Denpasar Airport
2. Grand Palace Hotel Sanur
3. Batur Caldera
4. Batur Geopark Museum
5. Agung Volcano Observatory Post
6. Desa Panglipuran
7. Pura Gunung Kawi



Field & Cultural trip

Sanur Beach

The Grand Palace Hotel is situated in Sanur, a charming seaside town in the southeastern part of Bali. Known for its picturesque stretch of beach with shallow waters, Sanur is adorned with colorful jukung fishing boats resting on the sand, complemented by a scenic cycling path along the coastline. Moreover, the leafy main street, Jalan Danau Tamblingan, is adorned with art galleries and restaurants, adding to the town's vibrant atmosphere.

Batur Caldera

Batur volcano, situated within two concentric calderas northwest of Agung volcano, boasts a rich geological history. The outer caldera, formed 29,300 years ago during the Bali Ignimbrite eruption, now hosts a caldera lake on its southeast side. Meanwhile, the inner caldera, created about 20,150 years ago by the Gunungkawi Ignimbrite eruption, lies beneath Lake Batur. Within this inner caldera, the Batur stratovolcano has been constructed, with vents scattered across its surface. Notably, Batur volcano is located within the Batur UNESCO Global Geopark property. Recorded eruptions have displayed mild-to-moderate explosive activity, occasionally accompanied by lava flows reaching the caldera floor and the shores of Lake Batur.

Batur Geopark Museum

The Batur Geopark Museum was established after the Batur Caldera region became a member of the UNESCO Global Geopark network in September 2012. The museum's design follows an earth park concept, highlighting geological, biological, and cultural diversity. Visitors can explore various exhibits, including detailed dioramas depicting Bali Island's formation process over 23 million years ago due to volcanic activity under the sea. One notable diorama illustrates the formation of Bali Island from volcanic activity, coral reef deposition, and the transformation into limestone reefs. Additionally, the museum showcases dioramas detailing other volcanoes in Bali, such as Buyan-Bratan and Batur, which erupted approximately 30,000 years ago. These eruptions shifted towards the east, leading to the formation of Mount Agung and its parasitic mountain, Mount Pawon. The Lesong Volcano represents the final volcanic activity that shaped the island of Bali.

Agung Volcano Observatory Post

Agung, Bali's highest peak, stands at the island's eastern tip. This symmetrical stratovolcano overlooks the Batur caldera and extends to the coast. Despite few eruptions recorded since the 19th century, the 1963-64 eruption was particularly devastating, causing widespread damage and loss of life. The most recent eruption occurred from 2017 to 2018. The Agung volcano observatory post is part of a network of 74 posts, serving as the frontline of volcano hazard mitigation in Indonesia. Operated by the Ministry of Energy and Mineral Resources, these posts are vital for public safety and provide essential services to communities. Their development aims to establish comfortable and well-equipped centers for volcanic observation and research, while also serving as public information and tourism service centers in their respective regions.

Desa Pangelipuran

Pangelipuran village, situated in the Bangli regency of East Bali, is renowned for its picturesque setting and rich cultural heritage. Despite the influence of modernity, the village maintains its traditional charm with meticulously preserved layouts and customs. Each compound reflects a commitment to preserving traditional aesthetics, with manicured gardens adorning the stone-paved street leading to the village temple. The timeless allure of Pangelipuran is further enhanced by its ancient arched entrance gates and concealed houses, offering a glimpse into Bali's rich cultural tapestry.

Pura Gunung Kawi

Candi Gunung Kawi stands as one of Bali's largest ancient temple complexes, boasting a remarkable collection of shrine reliefs carved directly into the face of a rock cliff made of Batur ignimbrite. This archaeological wonder not only captivates with its stunning uniqueness but also holds significant spiritual importance for the Balinese people.