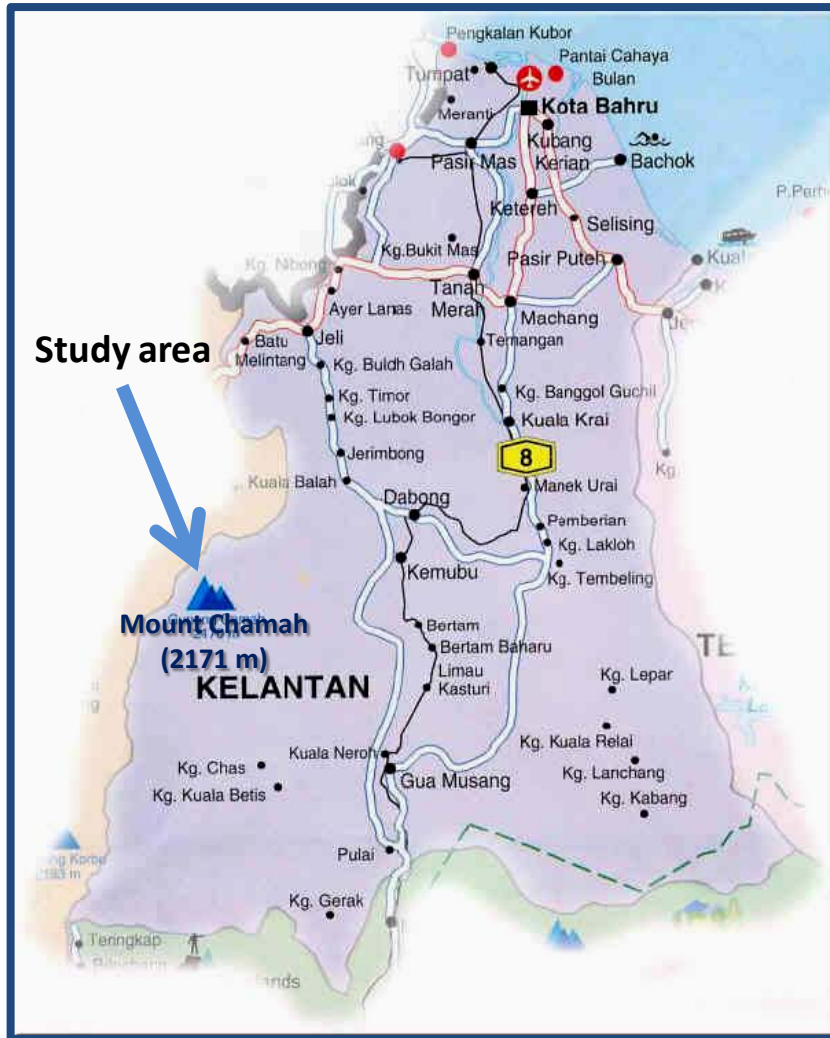


# *Preliminary Mapping of Geotourism Resources in Mount Chamah Area, Kelantan*

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# Location



## Mount Chamah

- The highest point in Kelantan.
- The fifth highest mountain in Peninsular Malaysia and the tenth in Malaysia.
- Situated in the western corner of Kelantan, near the state border with Perak and within the area of Gua Musang district.
- Located along the main mountain range (the Titiwangsa Range). Mount Chamah is one of the peaks of the range.
- Coordinates of the summit:  $5^{\circ}13'43.34''\text{N}$   $101^{\circ}34'24.41''\text{E}$ .

# Background

The Meanings Of The Holy Qur'an, Surah Al-Ra'd (13):3 by 'Abdullah Yusuf 'Ali:

*"And it is He who spread out the earth, and set thereon mountains standing firm and (flowing) rivers; and fruit of every kind He made in pairs, two and two; He draws the night as a veil over the day. Behold, verily in these things there are signs for those who consider!"*



Mount Chamah area is a remote, secluded mountain and a dense forest, but contains some geological attractions, such as mountains, hills, rivers, waterfalls, and rock outcrops. They are all hidden treasures in the state of Kelantan. Some of them have potential as geotourism resources. Therefore, this area should be conserved and developed properly. Mapping of geotourism resources in Mount Chamah area is still in the early stage and was firstly done during the Explore Chamah 2011 programme, organized by Kelantan Forestry Department in collaboration with Universiti Malaysia Kelantan on 24 – 29 July 2011.

# Objective



- To identify and to map the hidden treasures of Mount Chamah area which are potential as geotourism resources.
- To make general observations of the geotourism potentials in the area.

# Questions to be answered!



1. **What** are the importances of Mount Chamah?
2. **Why** is Mount Chamah important?
3. **Which** parts of Mount Chamah are important?
4. **When** to make Mount Chamah become important?
5. **How** to make Mount Chamah important?

# Methodology

- **Field observation:** during the Explore Chamah 2011 programme, organized by Universiti Malaysia Kelantan in collaboration with Kelantan Forestry Department on 24 – 29 July 2011.
- **Rock sampling**
- **GIS application**

# Explore Chamah 2011 Programme



24 – 29 July 2011



The office of South Kelantan Forestry Dept., Gua Musang



The road to Kuala Betis village



Kuala Betis village



The road to the first camp, Pichong village



The first camp, called "Abdullah Sani Camp", Pichong village



Trekking to the peak!



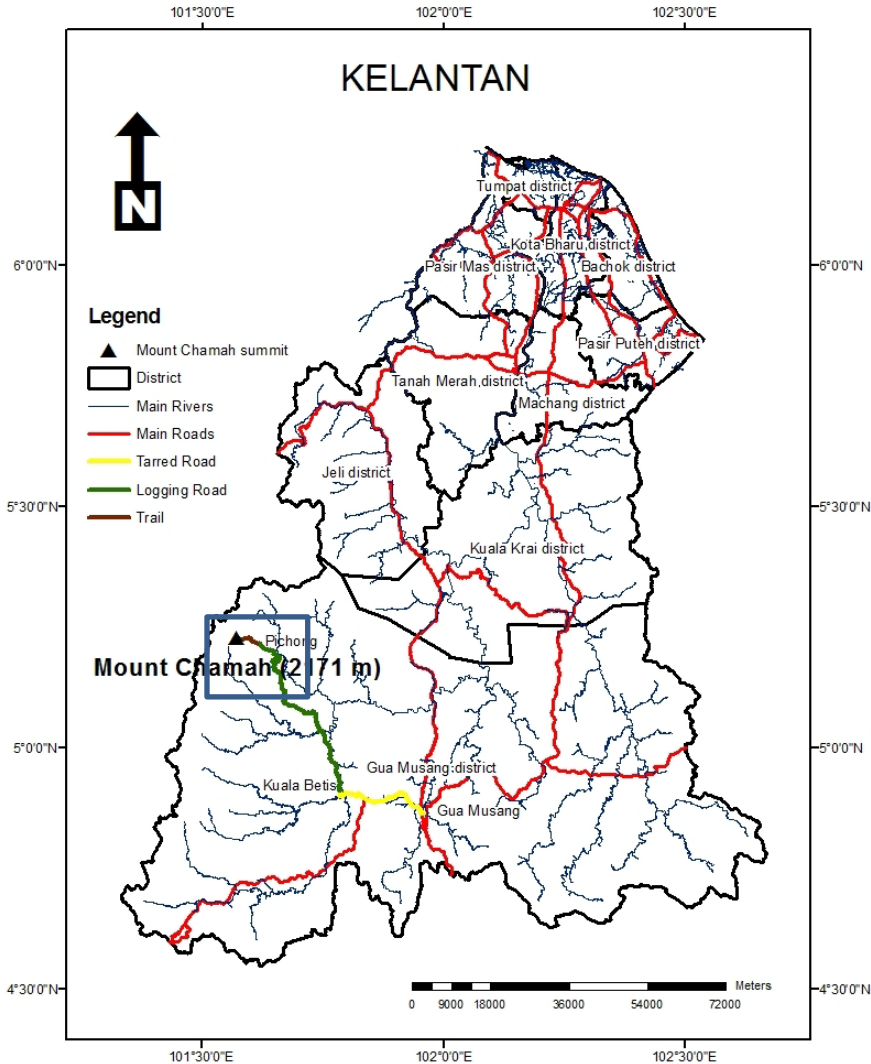
The second camp, called "Barat Camp"



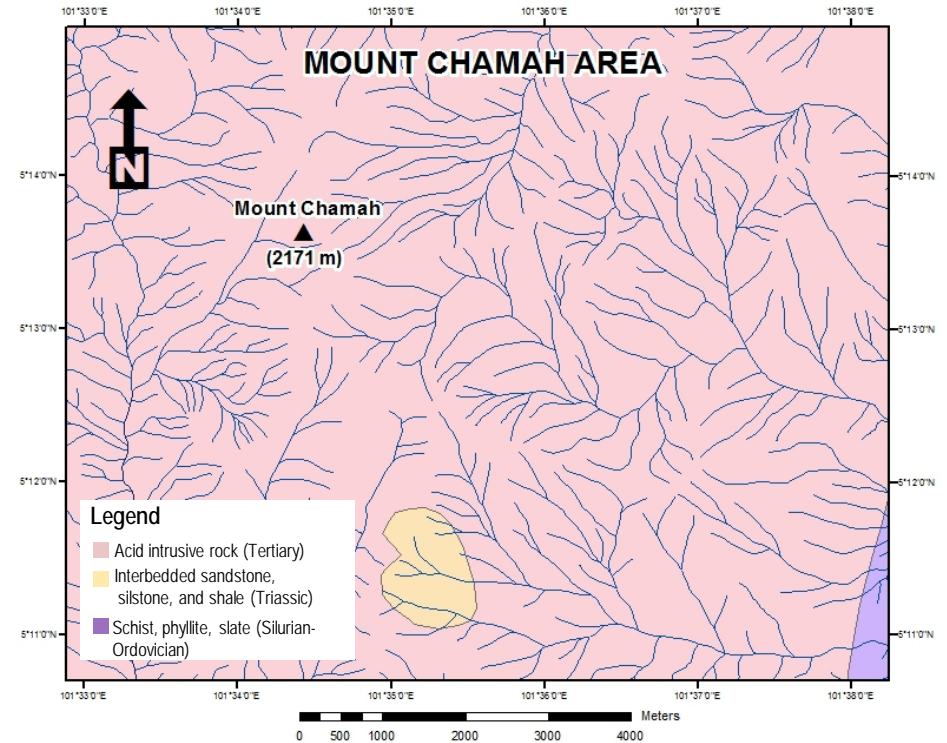
The summit!

# Geology of Mount Chamah Area

## Location Map



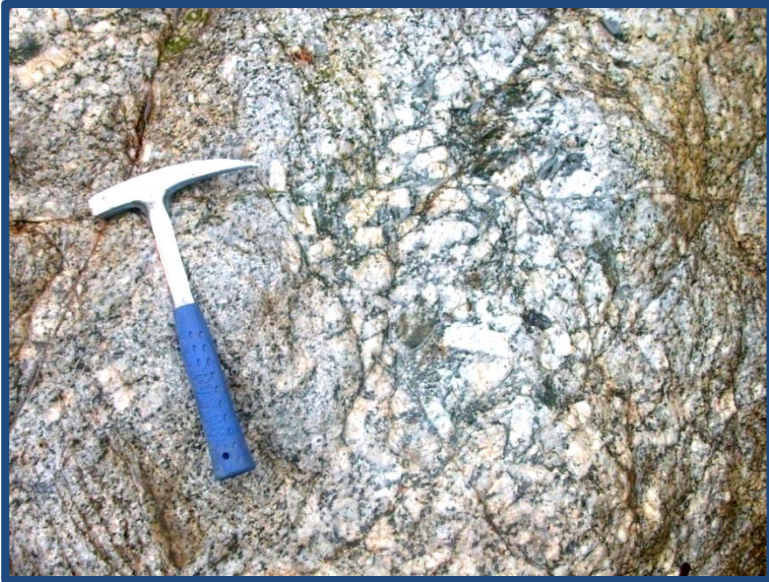
## Geological Map





# Lithology

Fresh & Weathered



**Acid intrusive/plutonic rock  
(Main Range Granite/Pegmatite)**

- Texture: coarse to v.coarse grained/ large phenocrysts/ megacrystic granite.
- Minerals: quartz, feldspar, biotite, etc.



**Granitic soil**

- Reddish brown



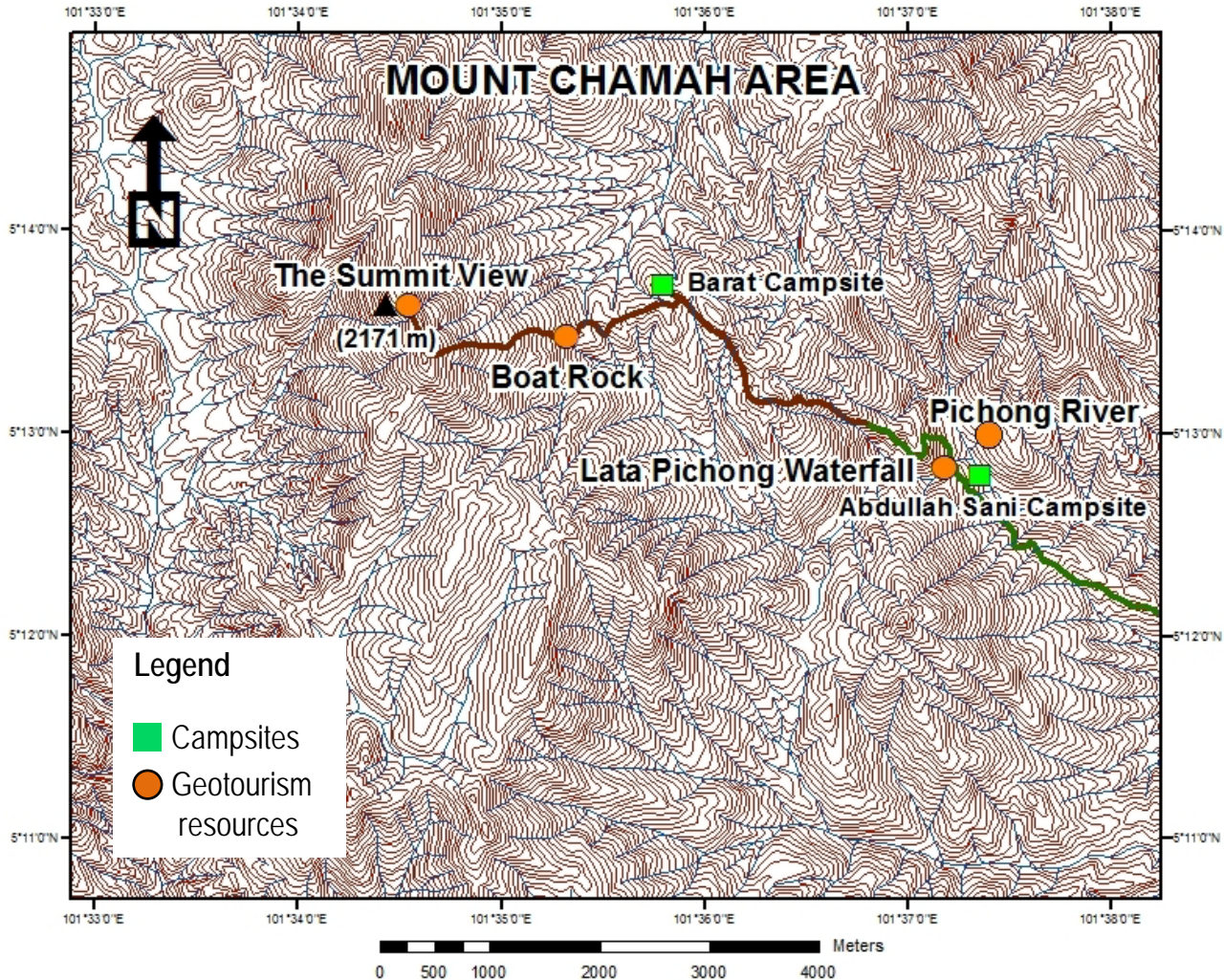
Some

**Geotourism**

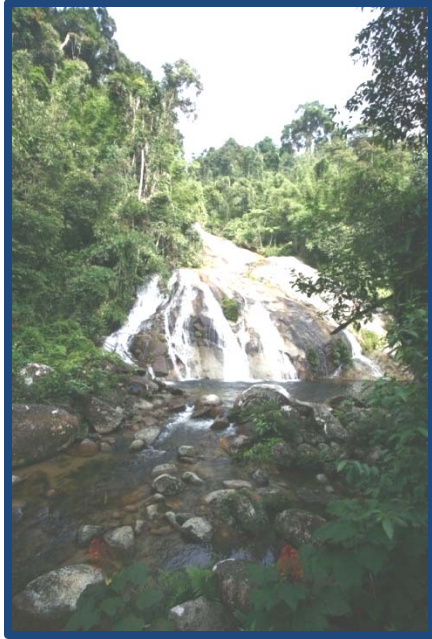
Potentials of

**Mount Chamah**

# Geotourism Map



# 1. Lata Pichong Waterfall



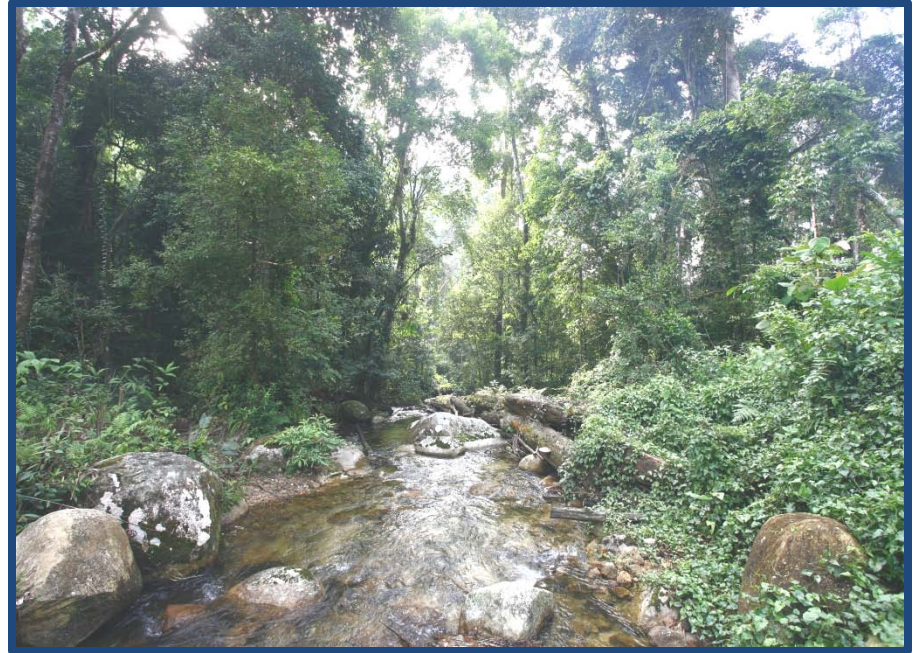
*Side view*



*Front view*

- This waterfall is a part of Pichong River which is near the first campsite (elevation: ~891 m).
- It has around 7 m height and around 20 m width.
- The underlying rock here is monotonous granitic rocks (coarse-grained porphyritic quartz granite) and constitutes part of the Main Range Granite.
- Its water is so clean and cool.
- This waterfall is very attractive and suitable for the recreational place. Visitors can swim and take a bath here.

## 2. Pichong River



- This river flows through the Pichong village, near the first campsite (the Abdullah Sani Camp).
- Not like most rivers in Kelantan, it has the cold and crystal-clear water that are not easily found today.
- This river is very important to secure freshwater resources.

### 3. "Boat rock"

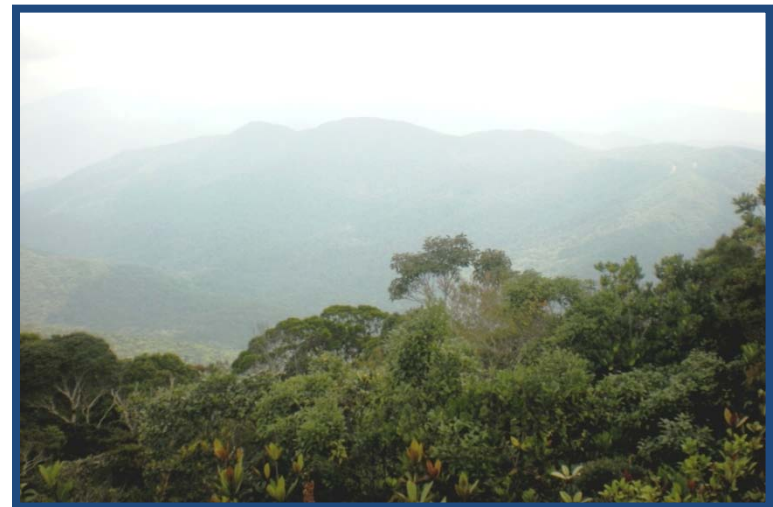
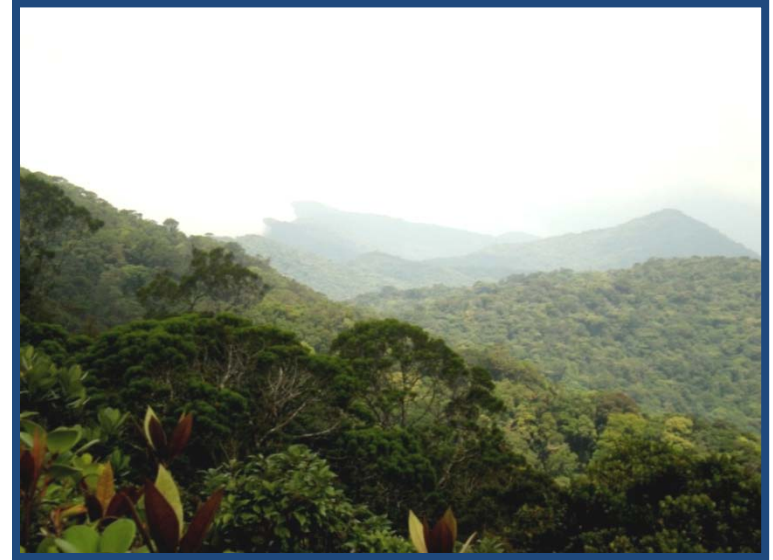


*The shape of this granite outcrop is just like a **boat!***

- Boat Rock (“Batu Perahu” in Malay) is actually a name given by staff of Kelantan Forestry Department to a unique outcrop of granitic rock in Mount Chamah area. This outcrop is unique because of its shape which is like a boat.
- Boat Rock is a 2.5-metre overhanging natural wall of granite which extends for a length of about 10 m.
- The granite is interpreted to undergo fracturing before some parts of it weathered. The weathered part of granite is then eroded by rainwaters running off the exposed part. Here the rock was slowly dissolved. When the weathered and dissolved part of granite was removed due to erosion, a tilted and smooth slope was revealed. The outcrop looks like a boat in this time. The process occurred over a long period of time.



## 4. The Summit View





# Non-geological attractions



The *Orang Asli* (aboriginal tribe) settlement



Location of Dakota plane fell



A bud of *Rafflesia Kerri*, before grooming

# Conclusion

- Mount Chamah area contains some geological attractions which are potential for geotourism resources such as Lata Pichong Waterfall, Pichong River, "Boat Rock" outcrop, and the peak area.
- Geologists play an important role to identify, to map, and to promote the geotourism potentials of the area.
- Detail geological and geotourism mapping of Mount Chamah area are needed to be conducted.
- Build the supporting elements in the area, such as the proper roads (accessibility) and facilities for researchers, hikers, tourists and general public.
- Propose attempts for conservation and development planning, such as proposing the status of "State Park" for the area.

# Acknowledgments

- State Government of Kelantan
- Faculty of Agro Industry and Natural Resources,  
Universiti Malaysia Kelantan
- Kelantan Forestry Department
- Mount Chamah villagers

# Certificate of Recognition



Some UMK's hikers in the summit of Mount Chamah, 25 July 2011 @ 1 PM



*The End...*

THANK YOU

*The Orang Asli girls (Temiar group ethnic) in Mount Chamah area*