

INTRODUCTION TO NATIONAL ASTRONOMICAL RESEARCH INSTITUTE OF THAILAND (NARIT)

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VISION

To be a world-renowned organization in Astronomy, Technology and Innovation



RESEARCH



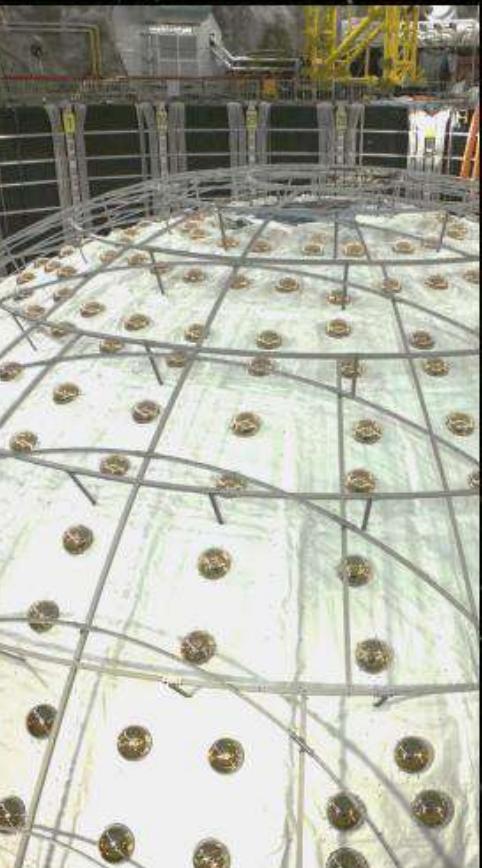
TECHNOLOGY
DEVELOPMENT



ASTRONOMY
OUTREACH

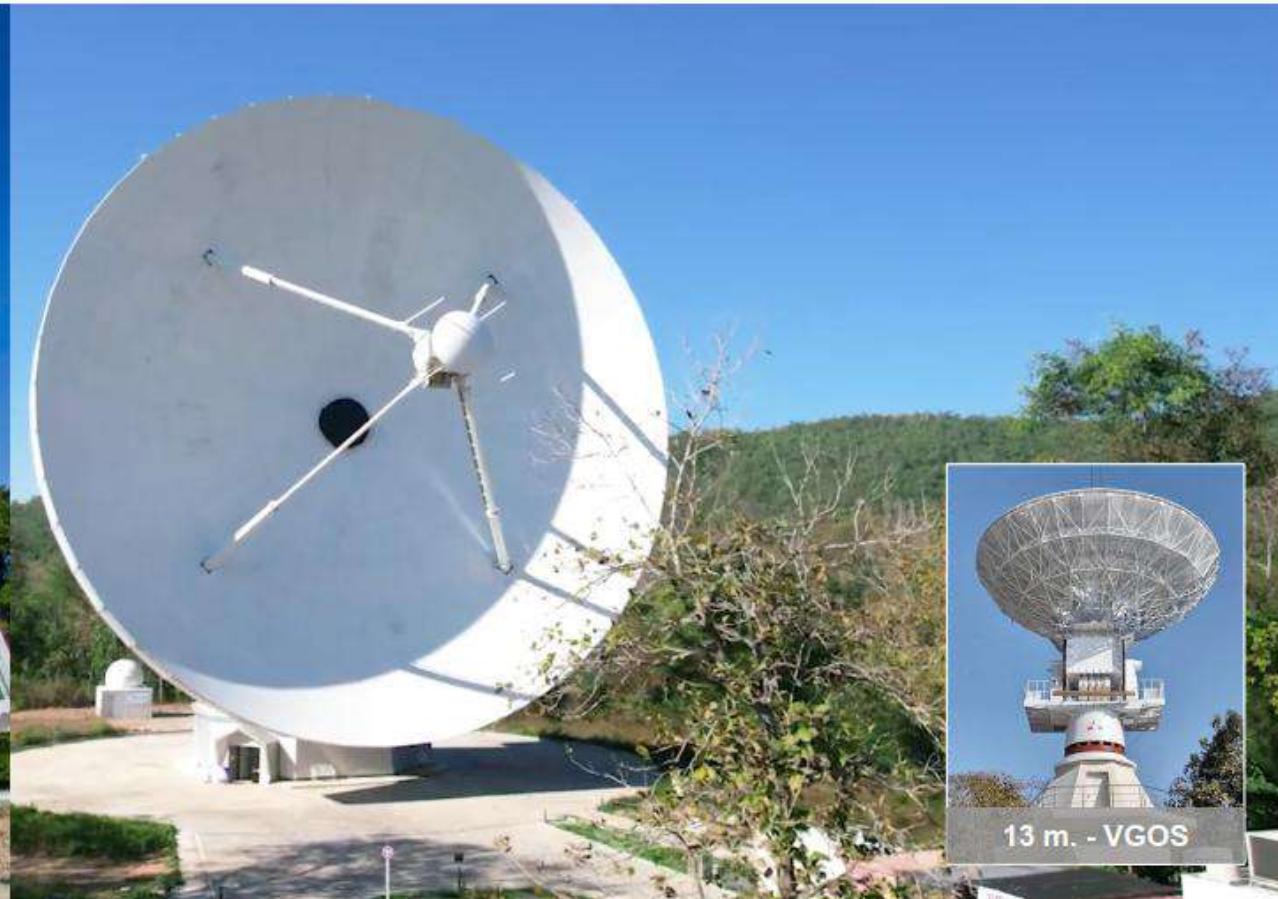
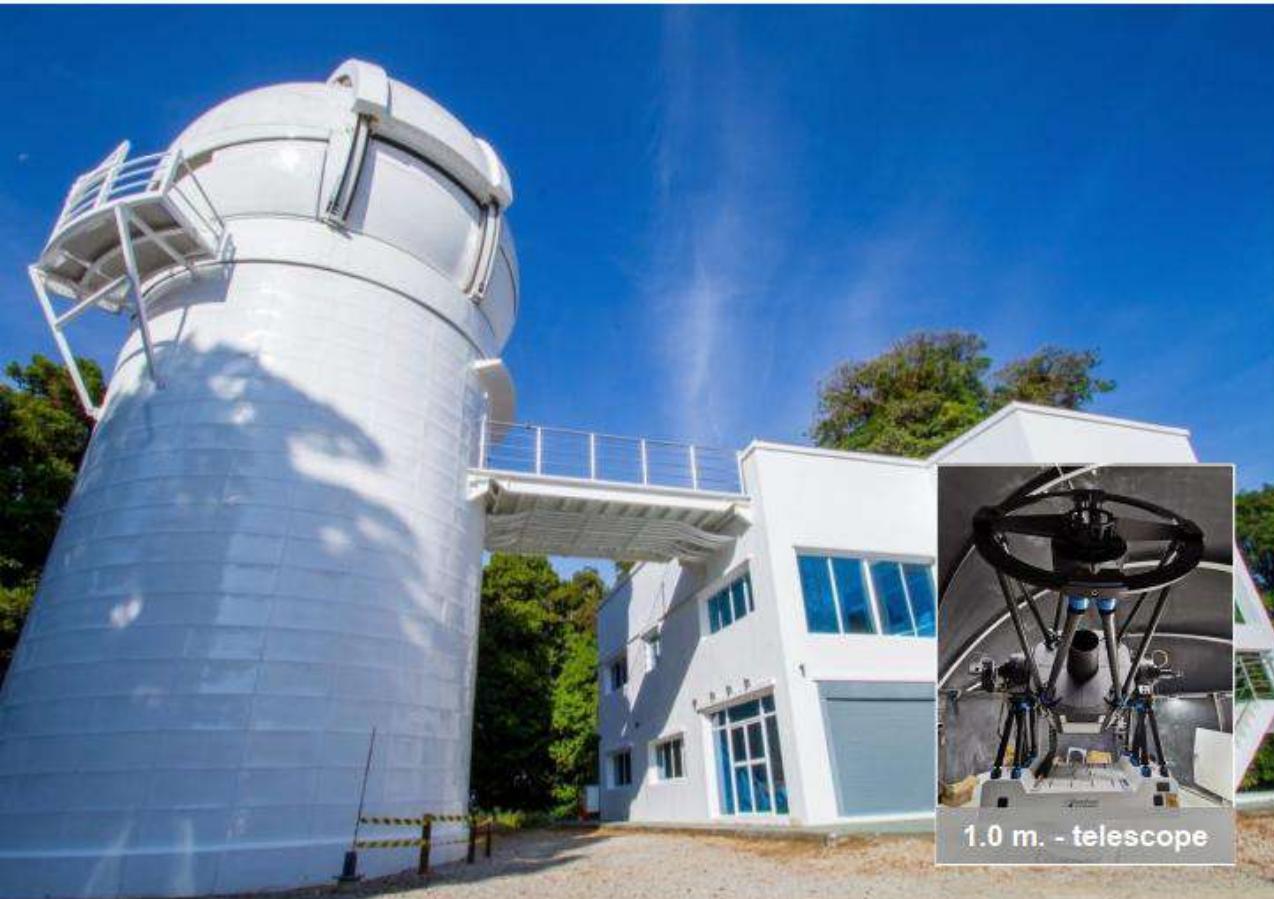


TECHNOLOGY
TRANSFER



COLLABORATIONS

National Infrastructure



Thai National Observatory
Inthanon National Park, Chiang Mai
Optical Telescope: 2.4 and 1.0 m.

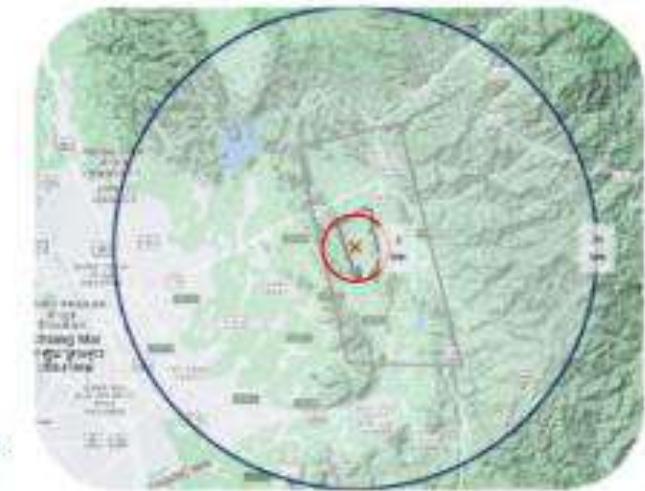
Thai National Radio Astronomy Observatory
Huay Hong Krai Development study center,
Doi Saket, Chiang Mai
Radio Telescope: 40 and 13 m.

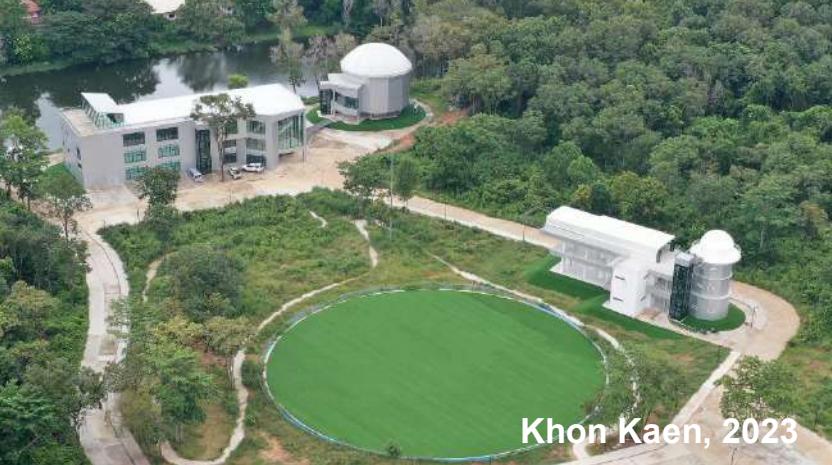
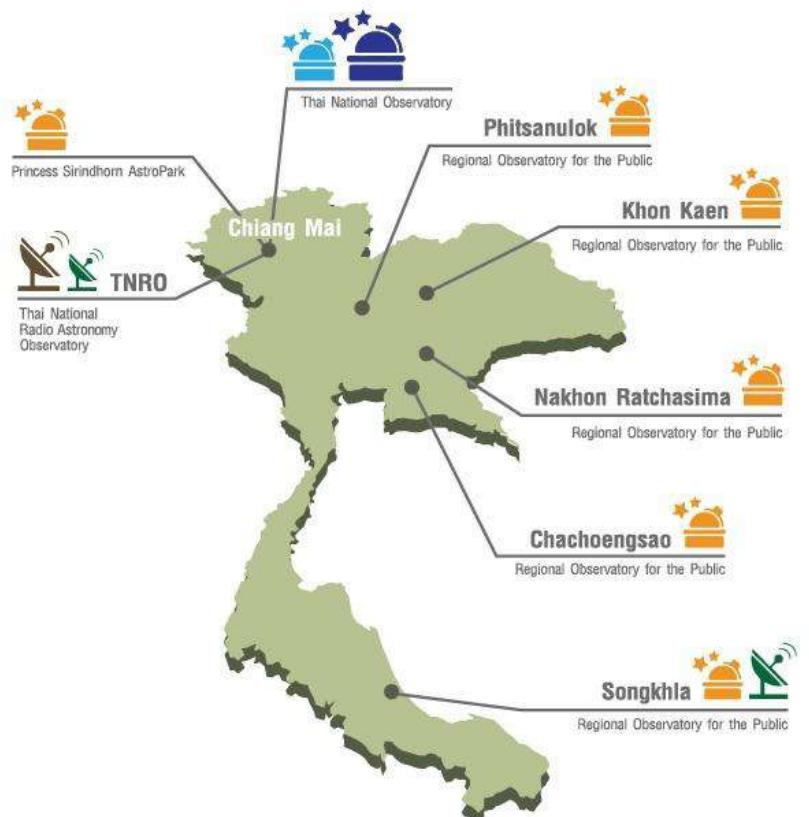
Radio Astronomy – Radio Frequency Interference Mitigation

- **Policy & Regulation** : Working with domestic body (NBTC – National Broadcasting and Telecommunication Commission of Thailand) and International body (ITU – International Telecommunication Union and APT – Asia-Pacific Telecommunity).
- Performing both **corrective and preventive measures**.
- **Stakeholder engagements** and compromising among Thai stakeholders.

Zones of TNRT's RQZ

- **Restrict zone (3-km of radius)**
- **Coordination zone (20-km of radius)**





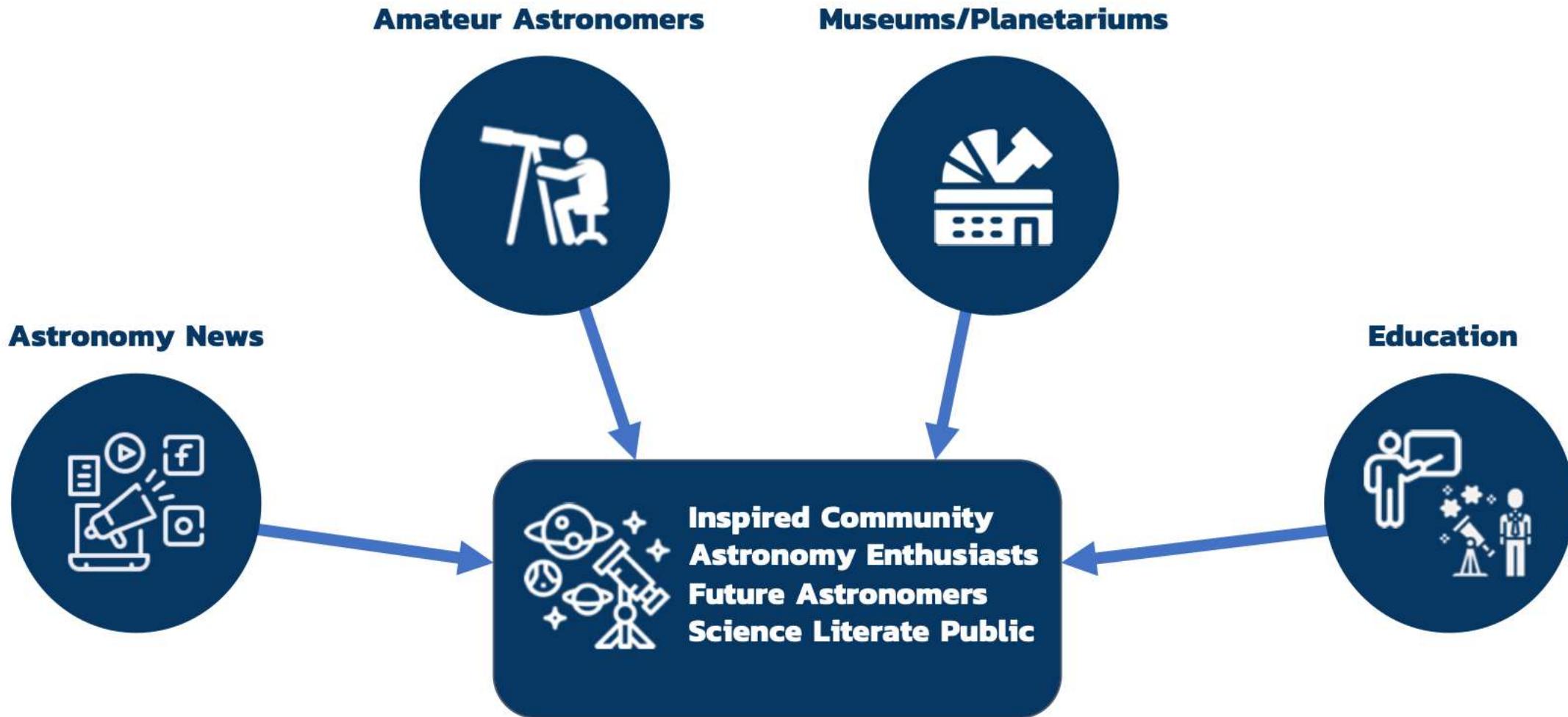
Regional Observatories for the Public

Objectives

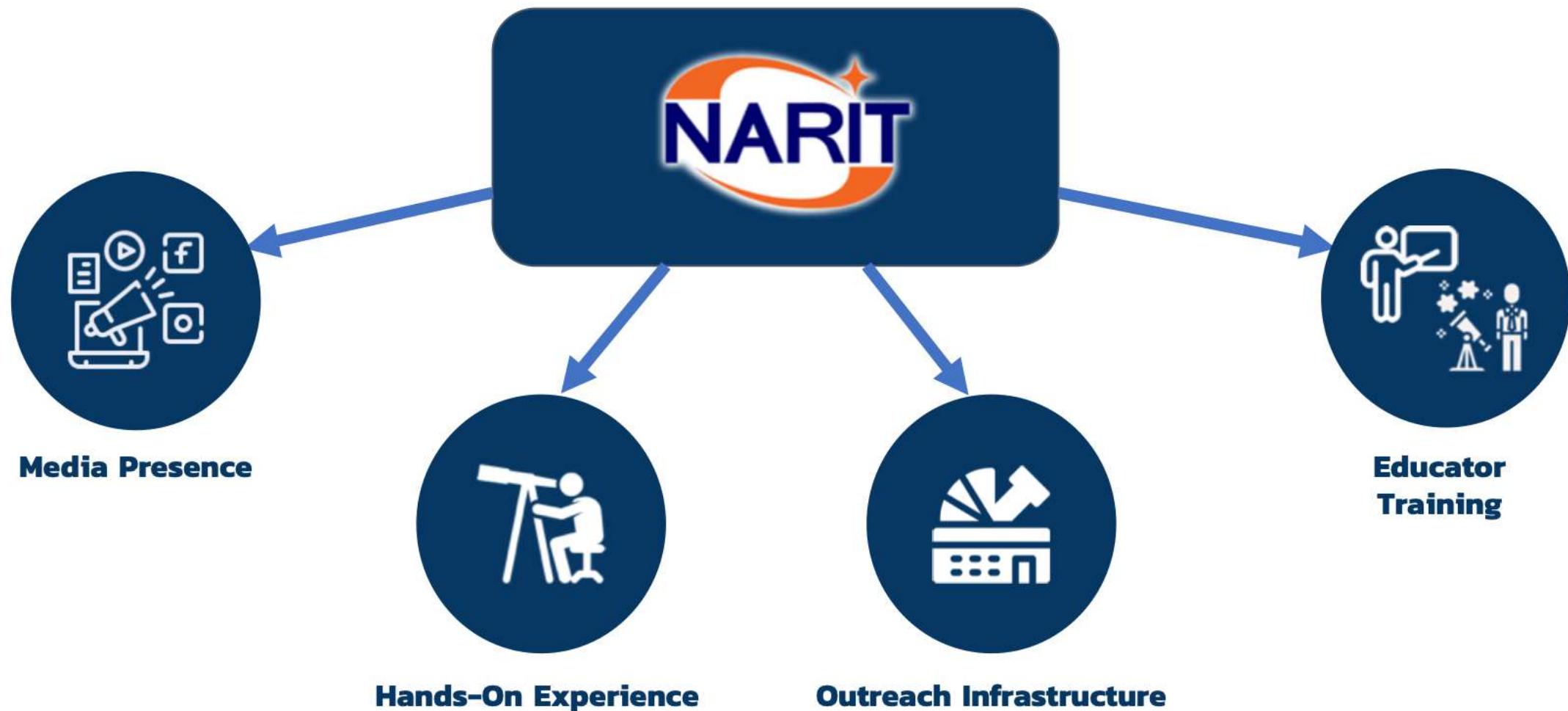
- Astronomical learning centre
- Incubator for academic sectors: educational and research
- Globally localised astro-tourism

Phitsanulok, 2026

“Bottoms-Up” Approach



“Top-Down” Approach





AMAZING DARK SKY IN THAILAND

Since 2022

Amazing Dark Sky in Thailand

Raises public awareness on the impact of light pollution and conserve the dark sky via establishing “Dark Sky Preserve” and public awareness campaign



Dark Sky Preserve



Dark Sky Community



Private Dark Sky
Preserve



Suburban Dark Sky
Preserve

Benefits of Dark Sky Preserves in Thailand



Attraction
Bringing tourists to
local area



Economy
Provide economic
incentives to the
region



Learning Space
Provides science
and astronomy
learning space to
schools and the
public

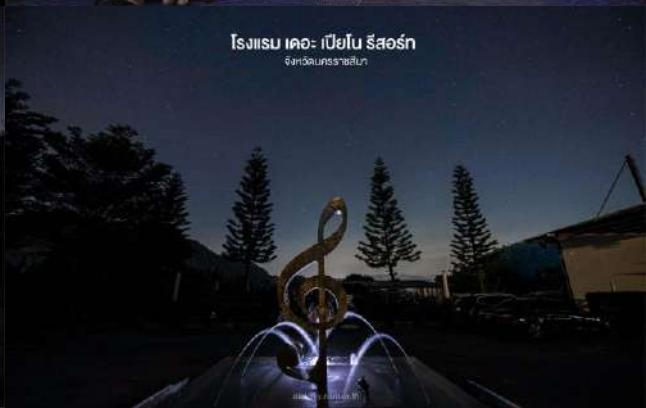


Energy Reduction
Saving electricity
usage in the long run



Environment
Reduce impact of
light pollution to the
local environment

Examples of registered dark sky sites in Thailand



Dark Sky Star Party

**Pha Taem National Park,
Ubon Ratchathani Province.**
~ 2,535 Participants
~ 3.5 Million Thai Baht (110K
US Dollars) in Economic
Value (for Local Community)





Thank You

darksky.narit.or.th



Appendix

Thailand Dark Sky Preserve

Special designated area aimed to promote astrotourism that has reduced light pollution, has sufficient darkness, light pollution management, suitable observational area, capable of observing stars, milky way, and deep sky objects.



Application Process



SELECTION CRITERIA



1. Sky Darkness
2. Observation Site
3. Light Pollution Management
4. Amenities
5. Personnel and Equipment
6. Accessibility

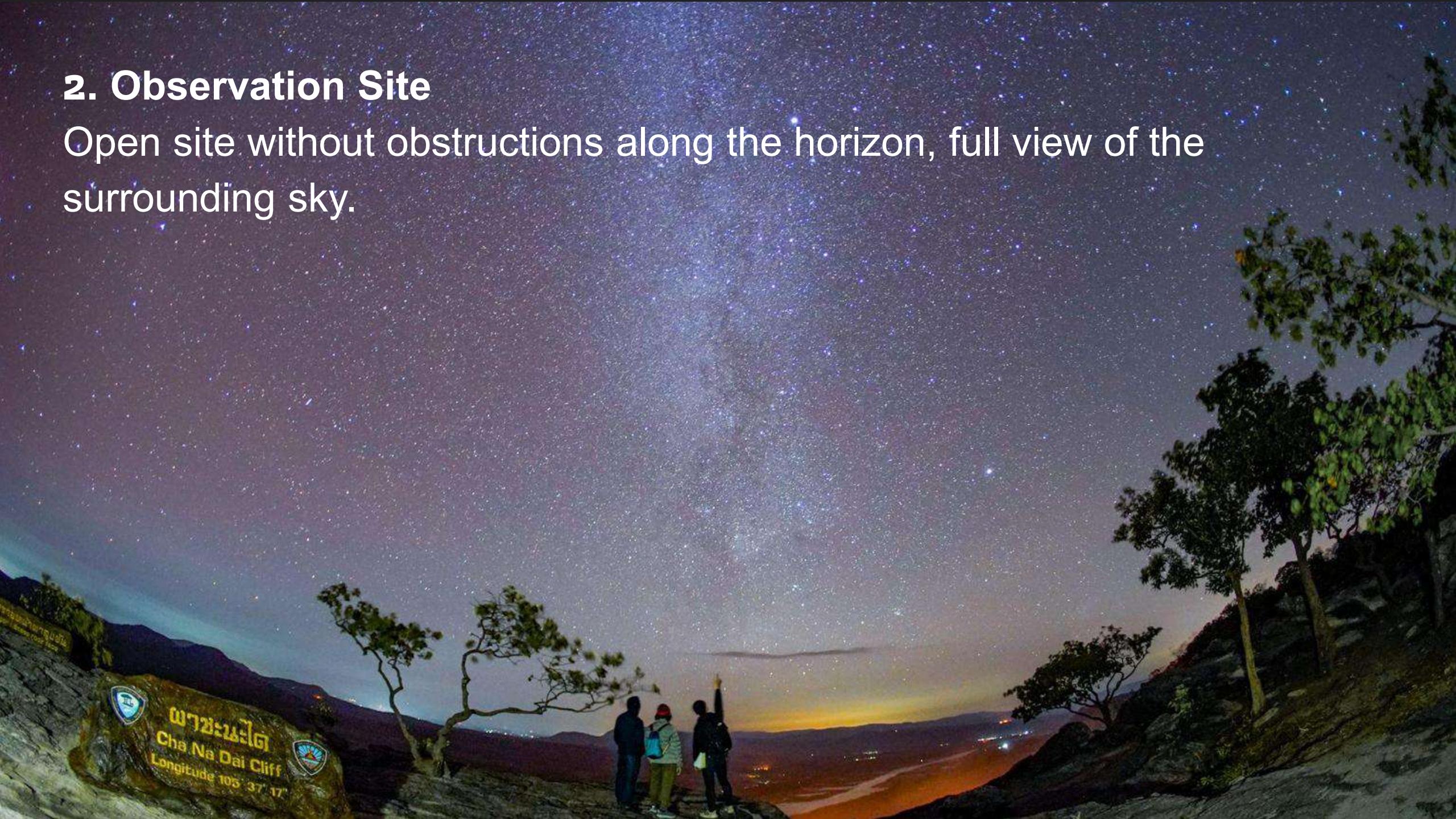
1. Sky Darkness

Having sufficiently clear sky with adequate darkness suitable to observation of galaxies, nebulae, clusters, and the Milky Way.

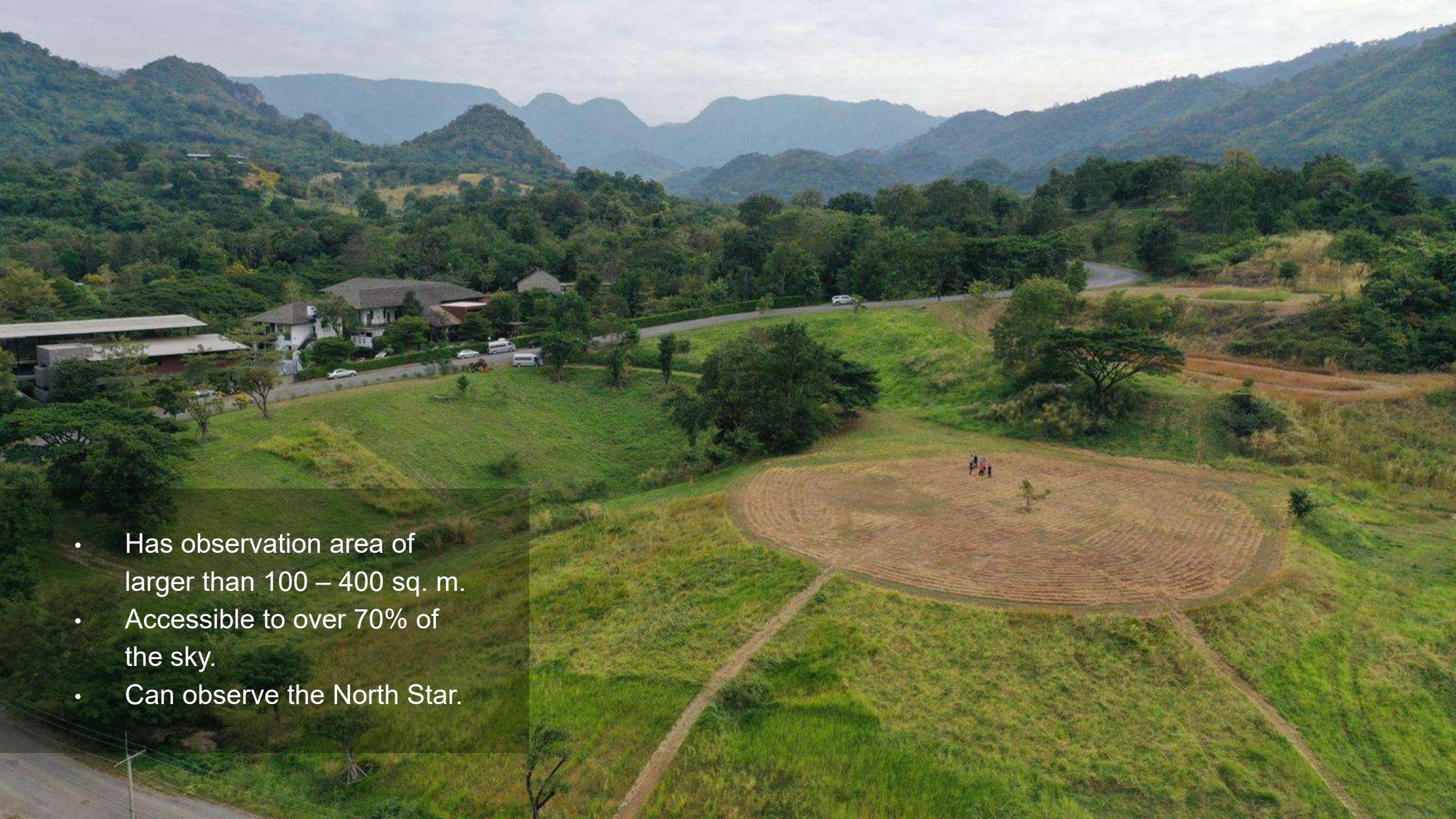


2. Observation Site

Open site without obstructions along the horizon, full view of the surrounding sky.

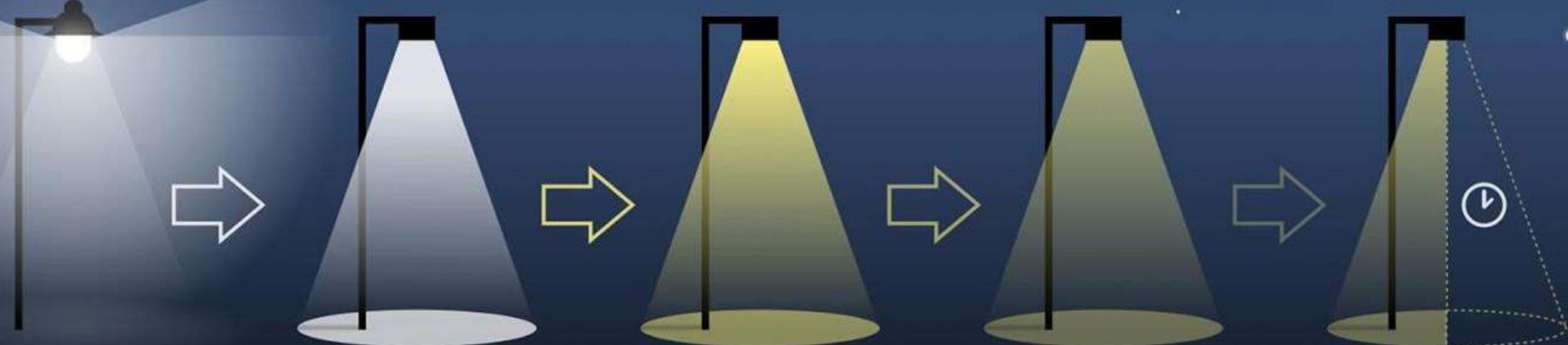


- Has observation area of larger than 100 – 400 sq. m.
- Accessible to over 70% of the sky.
- Can observe the North Star.



3. Light Pollution Management

Sufficient light pollution control with proper light fixture and proper usage of light



ติดตั้งโคมไฟกดแสง

ใช้แสงสว่างสีเหลือง

ปรับความสว่างให้ที่จำเป็น

ติดตั้งเซนเซอร์ / ตั้งเวลาเปิด-ปิด
แสงสว่าง



สปอร์ตไลท์



ไฟก้างเต็น



หลอดไฟเปลือย

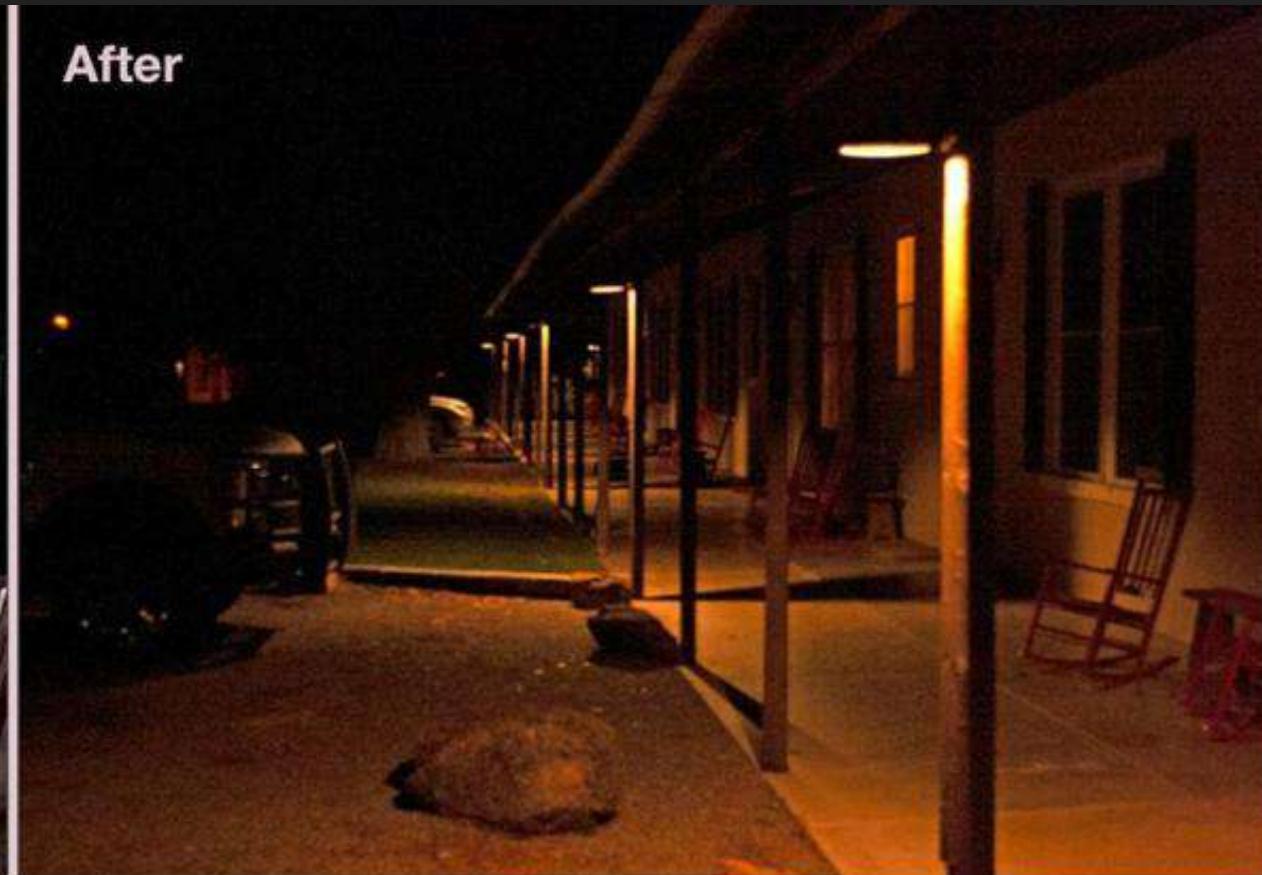


ไฟก้างเต็น

Before



After



4. Amenities

Provides proper amenities to tourists such as lodging, camping sites, toilets, power outlet, parking spots, etc.



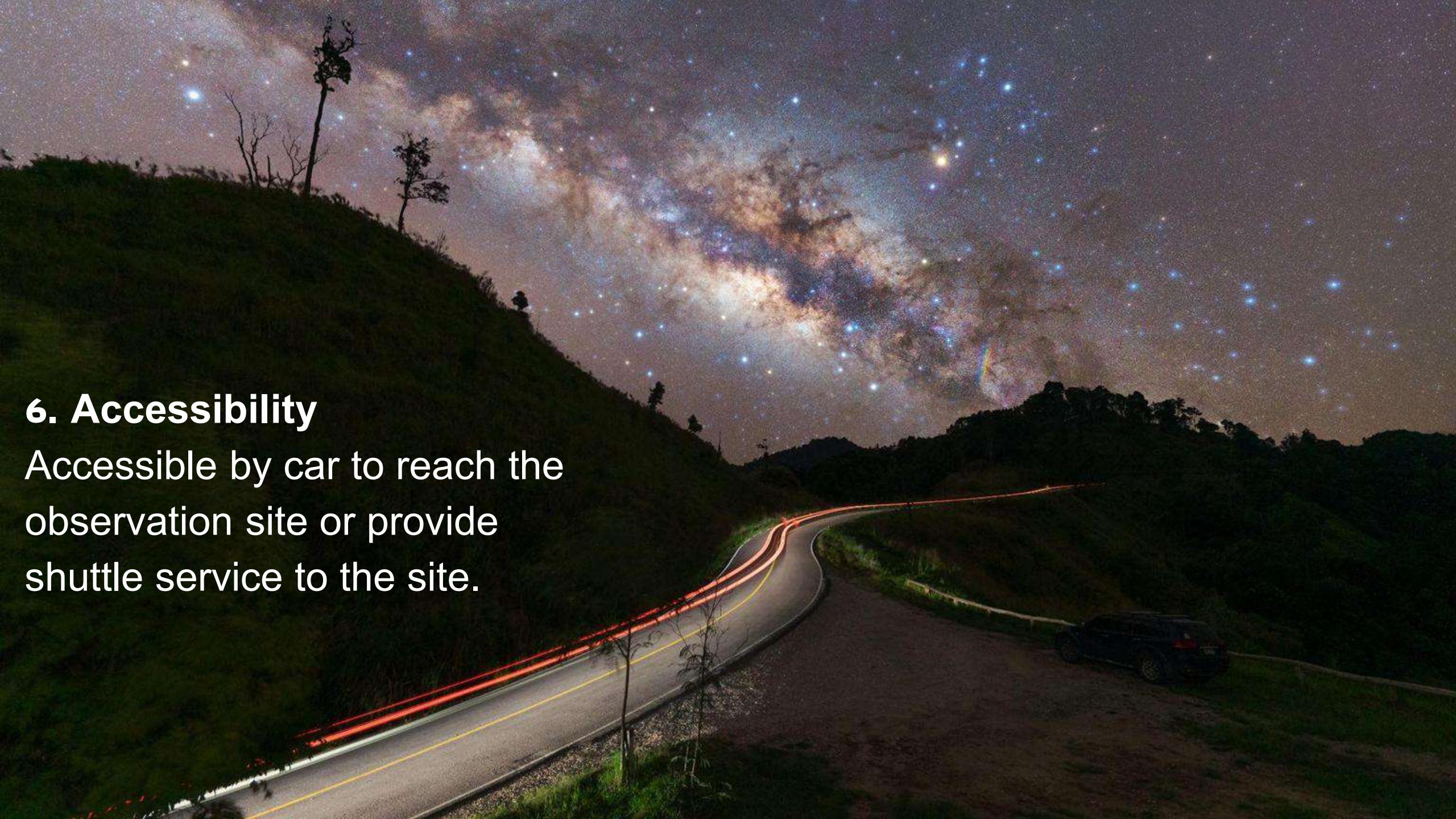
5. Personnel and Equipment

Offer personnel who can provide knowledge and information in astronomy and basic astronomical equipment.



6. Accessibility

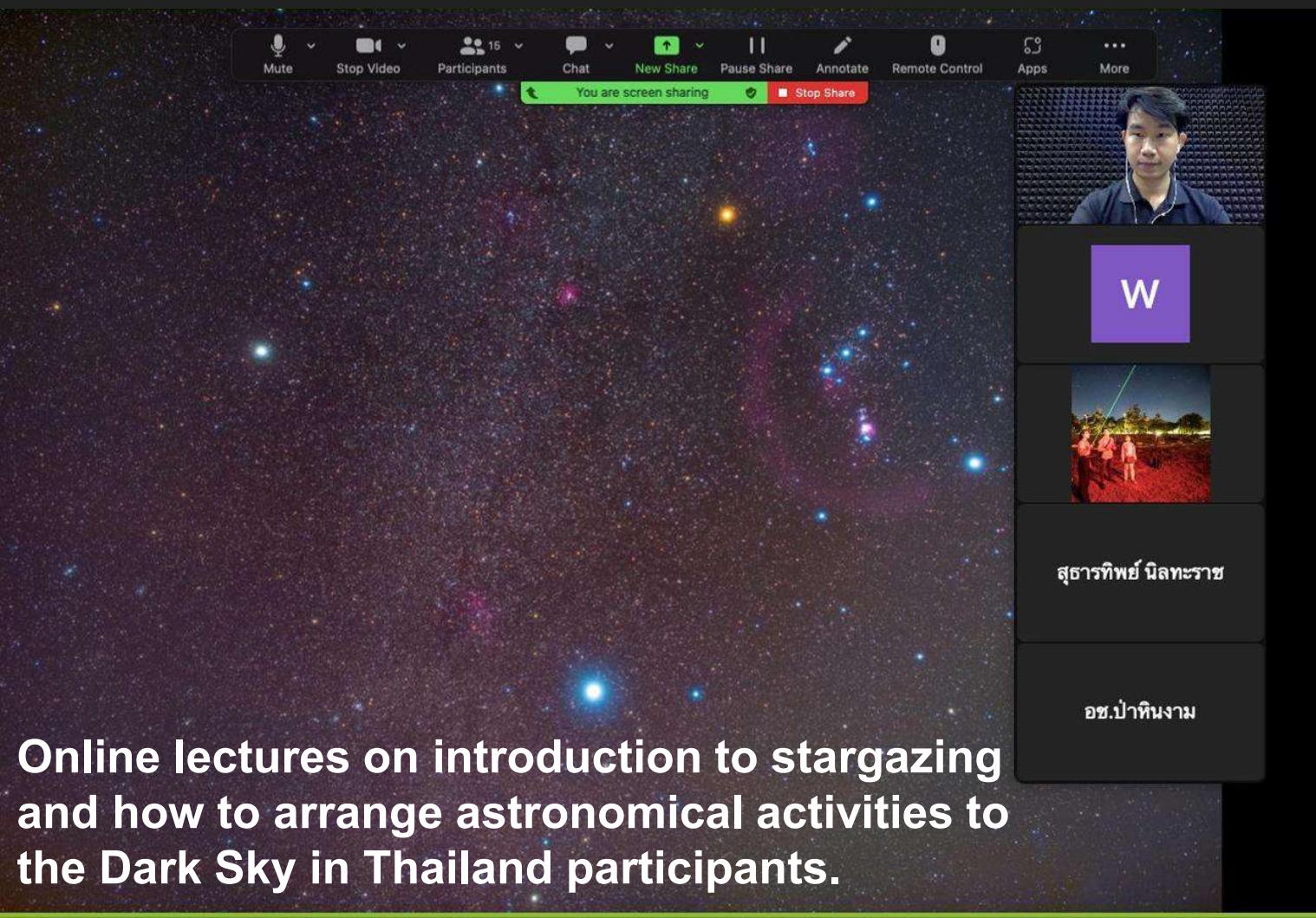
Accessible by car to reach the observation site or provide shuttle service to the site.



Supportive Activities from NARIT



Online Talk & Discussion

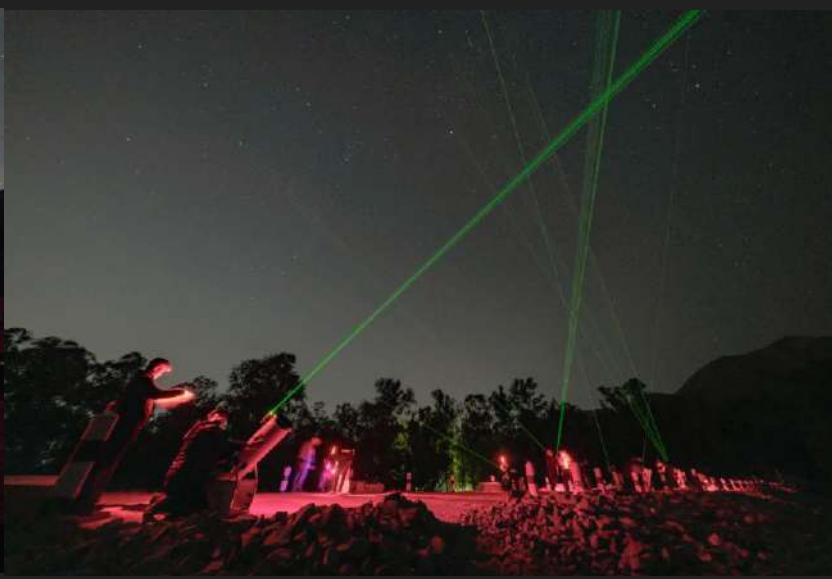
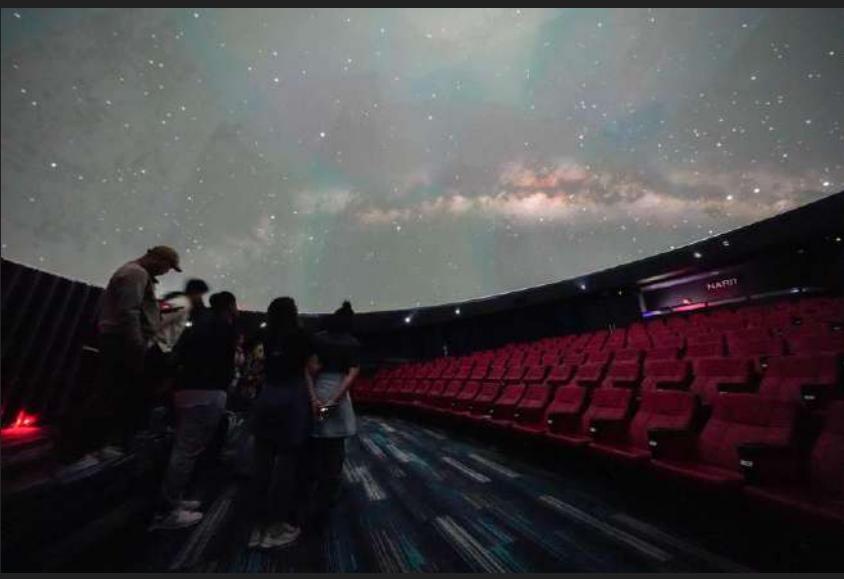


Online lectures on introduction to stargazing
and how to arrange astronomical activities to
the Dark Sky in Thailand participants.



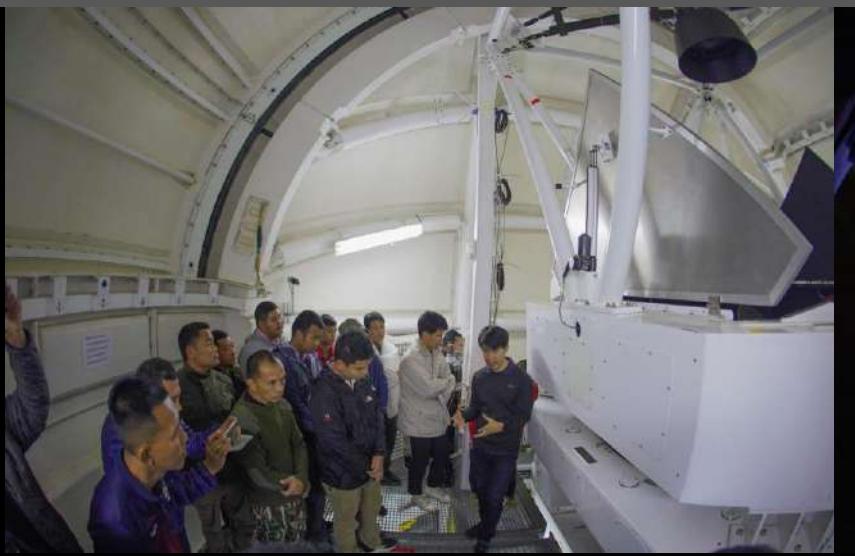


Astroguide Training





Astronomical Training for Park Rangers



Astrophoto Training



Exhibitions Promoting Astrotourism



Free E-book (Amazing Dark Sky) in Thai



<https://www.madamscreator.com/ebook/Amazing-Dark-Sky/>