

33RD UN/ IAF SPACE ECONOMY OPPORTUNITIES FOR EMERGING NATIONS

CIVIL SOCIETY, EDUCATION & INCLUSIVE DEVELOPMENT
A REVIEW OF GRASSROOTS-LEVEL SPACE PROJECTS
& A CASE STUDY ON MISSION SHAKTHISAT

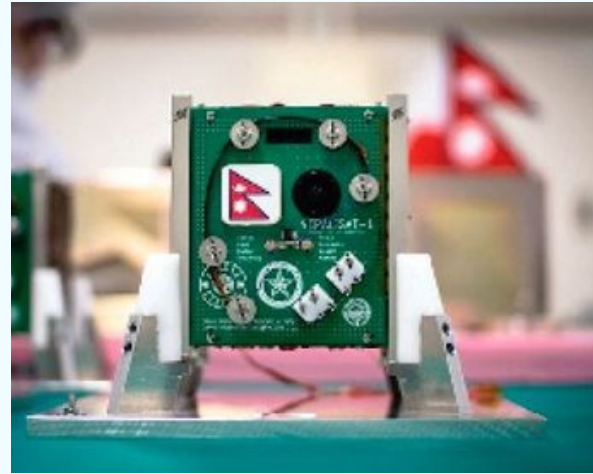
IRA SHARMA

MISSION SHAKTHISAT / MACQUARIE UNIVERSITY
KATHMANDU, NEPAL

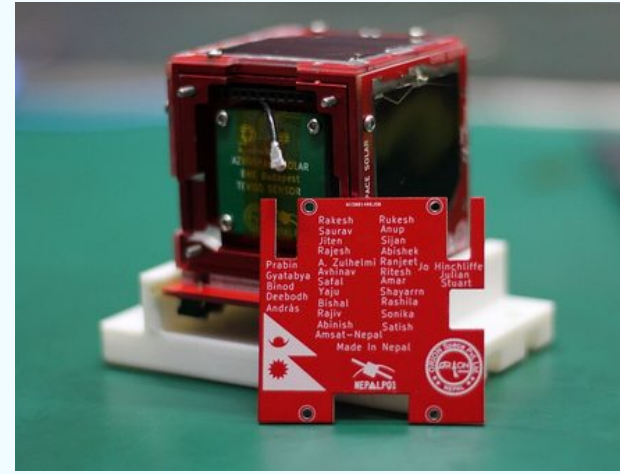




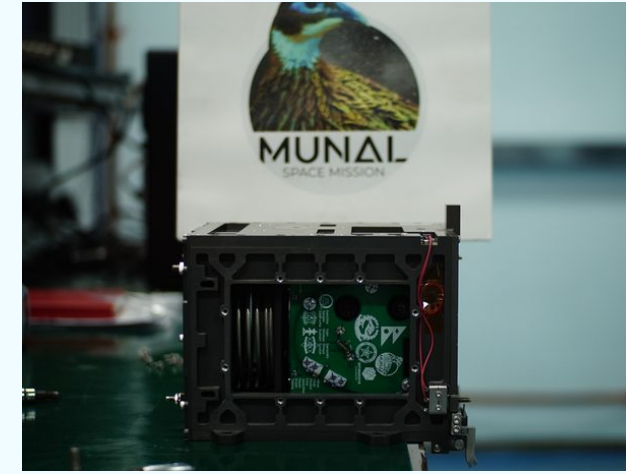
अन्तरिक्ष प्रतिष्ठान नेपाल (NEPAL SPACE FOUNDATION)



NepaliSat-1



SanoSat - 1



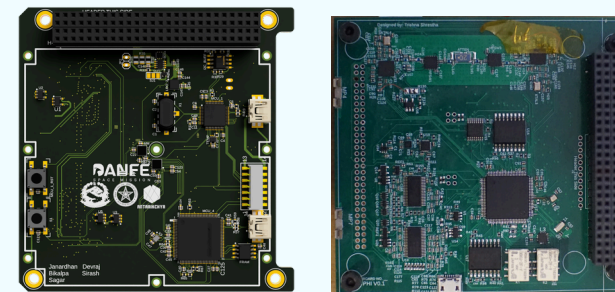
MUNAL



Slippers2Sat



Space-Enabled Urban Solutions



Danfe & PHI Payload Projects



Ground Station Terminals

We intend to put Nepal in space, from ground up.

SPACE EDUCATION TRAINING PROJECTS



SastoCube



PaperSat



E-Cube Kit



**The Young Satellite
Children Book**



CAPACITY BUILDING



MISSION SHAKTHISAT

ShakthiSAT is a global female-led satellite project driven by the burning desire to empower girls globally planning the participation of 12800 girls from every corner of the globe, representing 108 diverse nations.

1 student from each participating nation come in-person to network and learn more about the satellite!

Satellite Specs:

12U Satellite: Approximately 9-10 kg

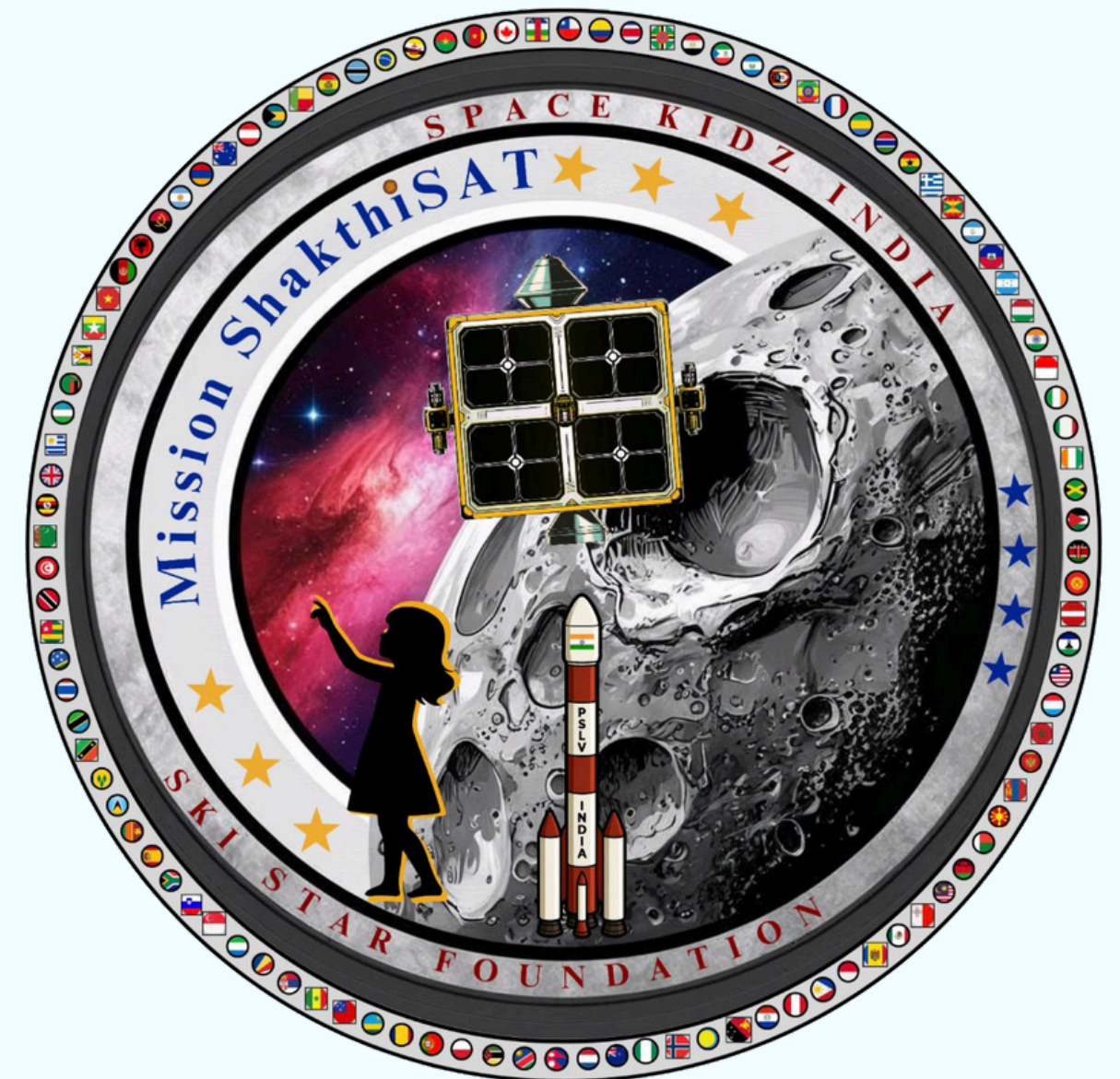
Lunar Satellite: Approximately 750-1,000 grams

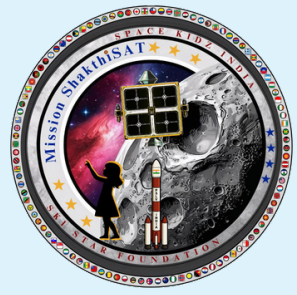
Mission: ISRO

Lunar Mission: iSpace, Japan

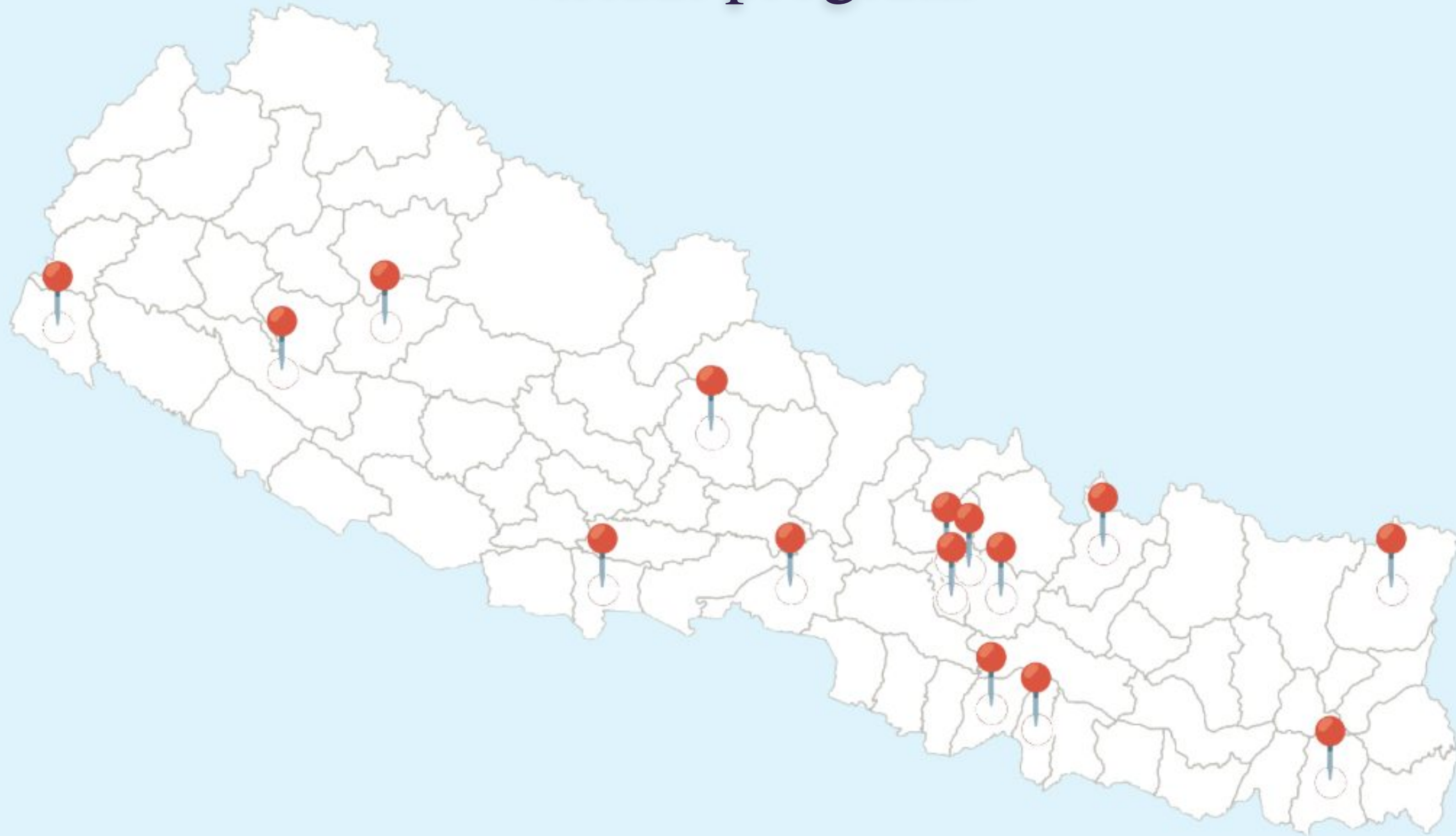
Satellite Payload students learned about and worked on:

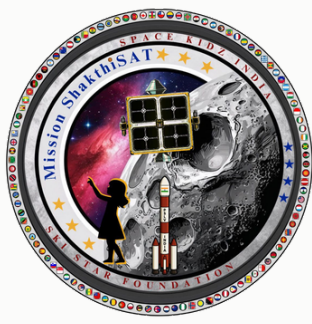
1. Rayman Sail
2. JEMPERA
3. CAFE Project
4. Malya
5. RXT Magnetic Sensor
6. ASPIRE



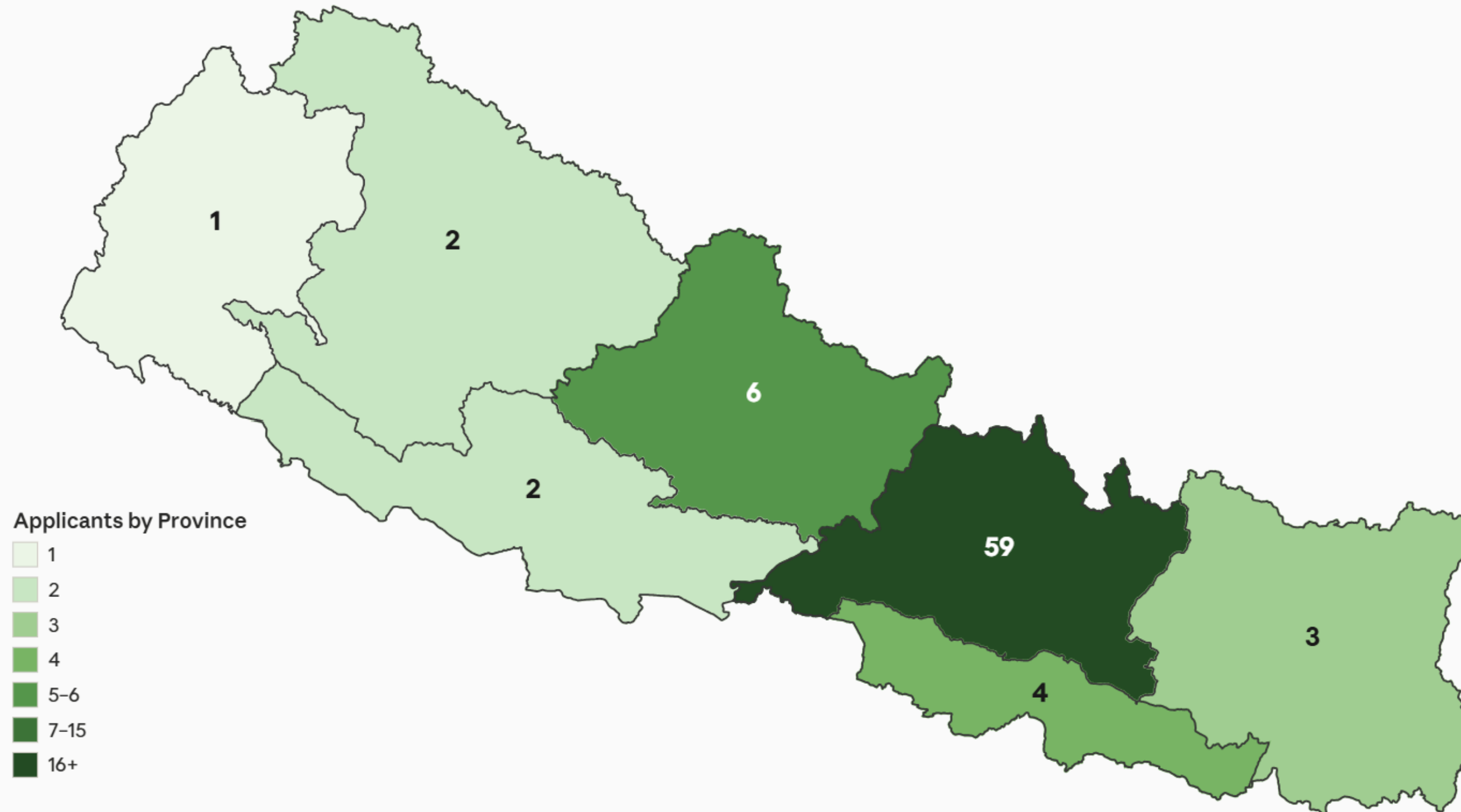


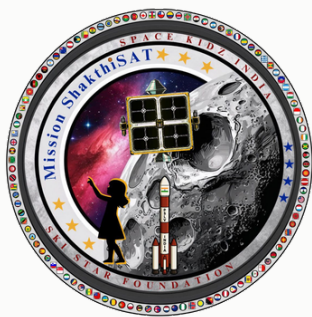
Participants' location from all over Nepal for the virtual program





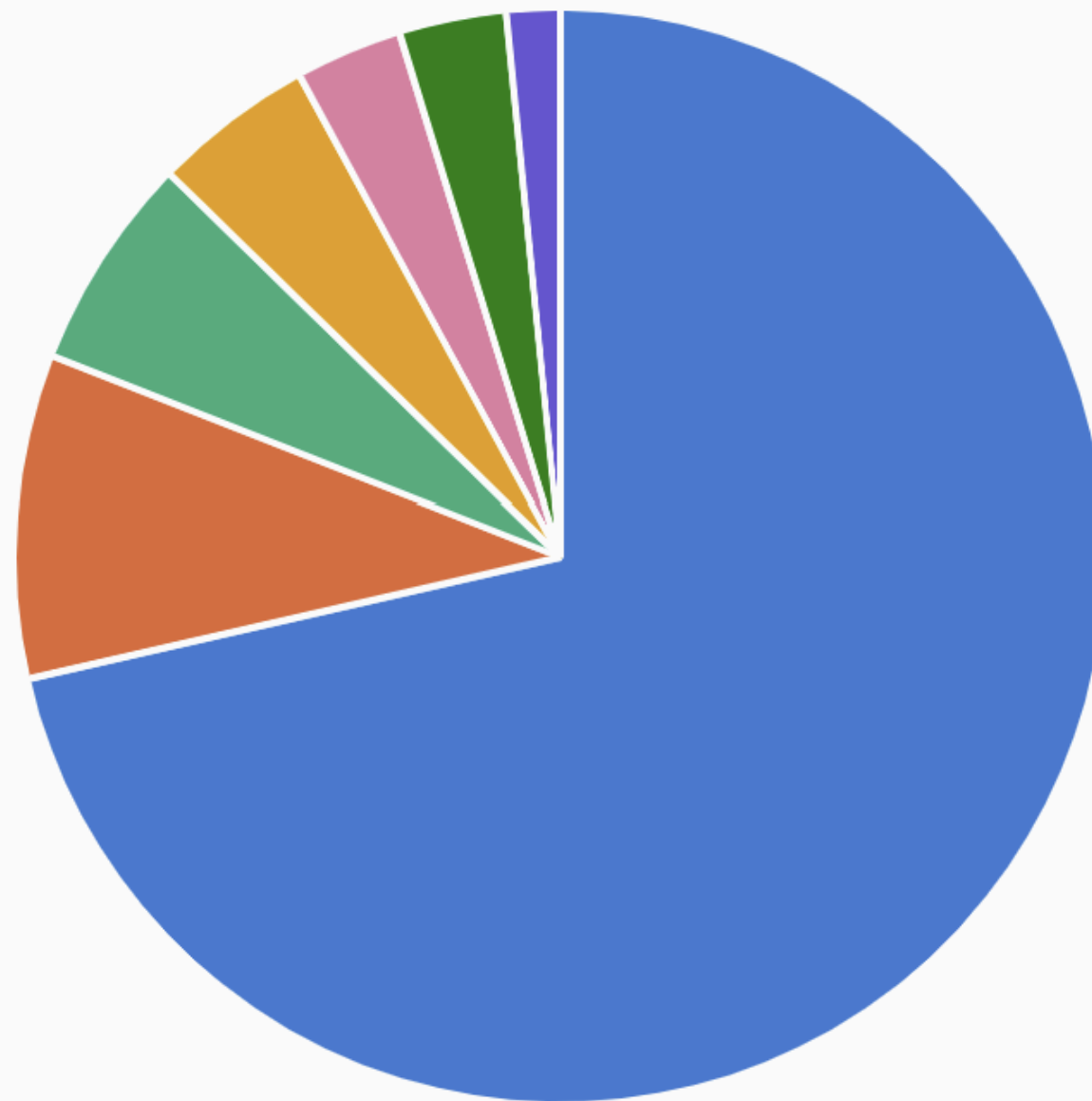
Applicants by provincial location





Impact based on geographic distribution

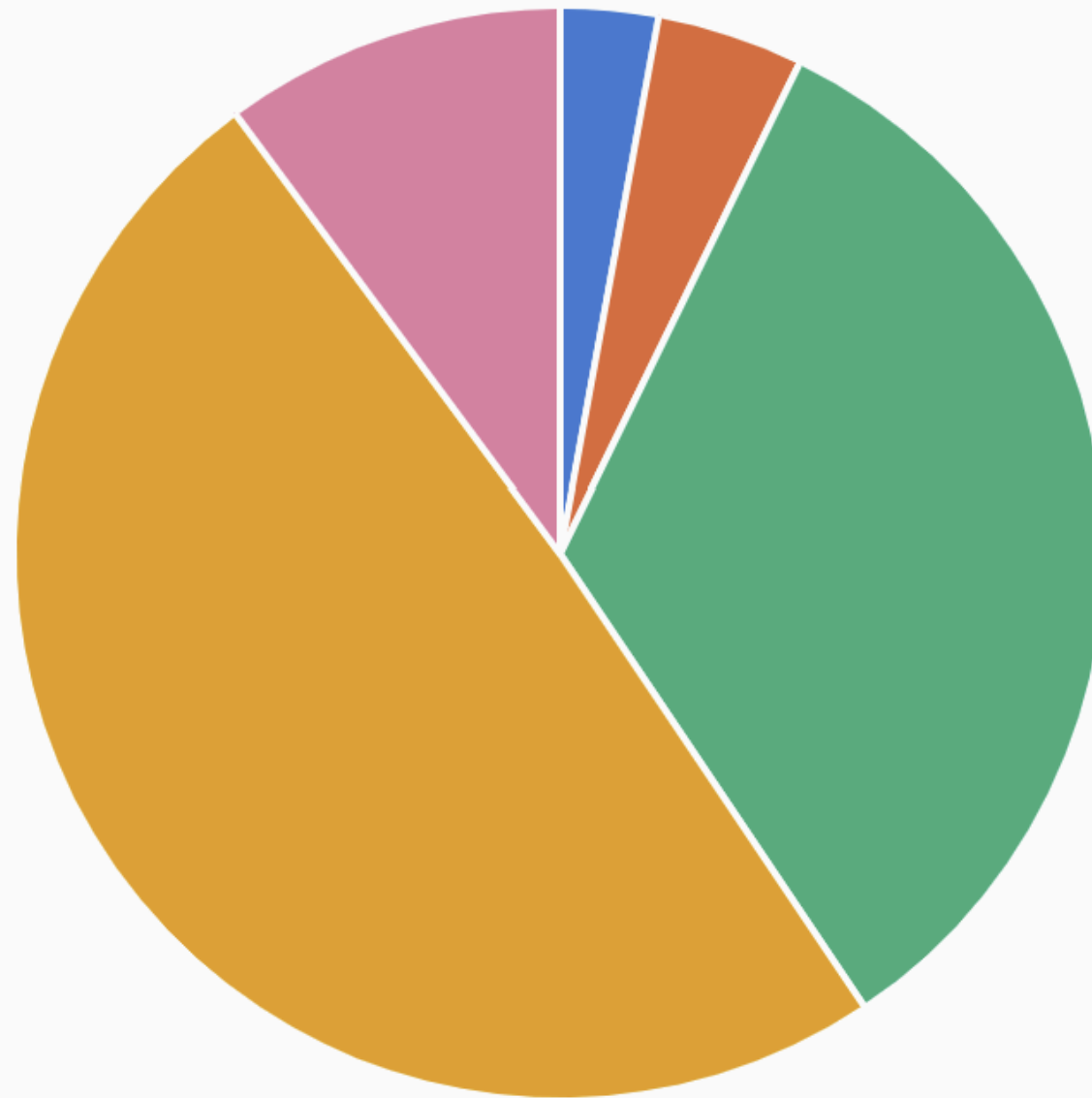
■ Bagmati 71% ■ Gandaki 10% ■ Madhesh 6% ■ Koshi 5% ■ Karnali 3% ■ Lumbini 3% ■ Sudurpashchim 2%





Impact based on different age group in Nepal

10-11 2.9% 12-13 4.3% 14-15 33.3% 16-17 49.3% 18+ 10.1%





SATELLITE INTEGRATION IN INDIA



10 days of rigorous in-person meetup in India in August 2026

Learn → Practise → Build → Integrate → Collaborate → Lead



Nepal's selected student representative takes part in building the EM of the satellite



CHALLENGES

- **Unreliable internet for many to run the virtual training in the first phase**
- **International co-ordination and management**
- **Reaching out to educational institutions**
- **Funding and sponsors backing out**
- **Experts and professionals in the field of systems engineering**
- **Maintaining the timeline of the project**
- **Environment Testing Facilities**
- **National and International collaboration**
- **Government support in funding and authorization**
- **Doing it as a personal project alongside everything else**

THANK YOU

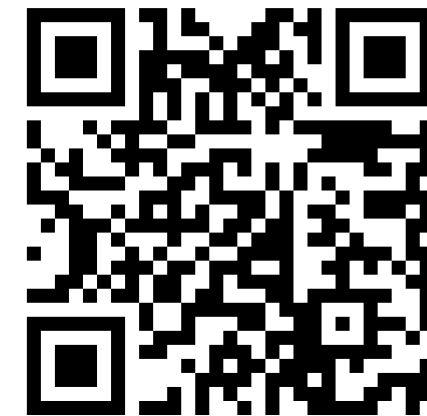
Nepal Space Foundation



Website:
www.antarikchya.org.np



Patreon:
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ShakthiSat Donation:
shakthisat.org



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