Himalayan Field Exercise Program for Japanese and Nepalese Students and Outline of the 13th Geotour in March 2025

(Recommended by: Geological Society of Nepal, International Association for Gondwana Research, Japan Society of Engineering Geology, Nepal Landslide Society, The Association for the Geological Collaboration in Japan)

Forward

In central Western Nepal to the north of Pokhara, there are two 8000-meter peaks of Annapurna and Daulagiri. In walking along the world-deepest Kaligandaki valley flowing between the two peaks, beautiful mountains and valleys, distinct geology, geomorphology, climate and vegetations change dramatically. The Kaligandaki valley is the world-best course of field exercise to learn Himalayan natural environment, geologic structures and natural hazards.

Regarding the geology that forms the foundation of nature, we can observe all geological zones and their boundary mega faults that constitute the Himalayan Orogen: they include from the south to the north, the Gangetic Plain (Terai), Himalayan Frontal Thrust, Sub Himalayan Zone, Great Boundary Thrust, Lesser Himalayan Zone, Main Central Thrust, Higher Himalayan Zone, South Tibetan Detachment, and Tethys Himalayan Zone. The tour covers the course from north to south, Muktinath to Lumbini by 7 days including one day tour surrounding Pokhara. One field team will accommodate 10 - 20 participants and is associated by 2 - 4 academic guides (senior and active university teachers) of Japan and Nepal to lead the team and teach participants. The time of the tour is early to middle March every year. The first tours was conducted in March 2012 and the 13th tour (SHET-13) is planned to be done in March 2025. The outline of the program is given below.

Outline of the SHET-13

Time, period, itinerary and course: The program will be conducted in March every year and all the tours since 2012 were successfully carried out by now. For the SHET-13 in 2025, the total duration in Nepal is about 15 days including 10 days of

field excursion along the traverse Kathmandu-Pokhara-Muktinath-Pokhara-Tansen-Lumbini-Kathmandu, four days in Kathmandu having pre-excursion seminar, two times of friendship dinner parties, summary seminar, and two times of Kathmandu city excursion mostly to observe world heritages, environmental problems and earthquake measures of the city (Fig. 1, Table 1). Throughout the meetings and city excursions interaction among Japanese and Nepalese students will well be done.

Participants: Students from any country including Japan learning geosciences including geology, natural hazards and natural environment. Young engineers newly employed by companies with related fields are also welcome. Teachers of student, and supervisors of the young engineers will also be accommodated. Citizens who are interested to see the Himalayan geology and scenery are also welcome.

Participants of the SHET-13 are strictly requested to join the travel insurance.

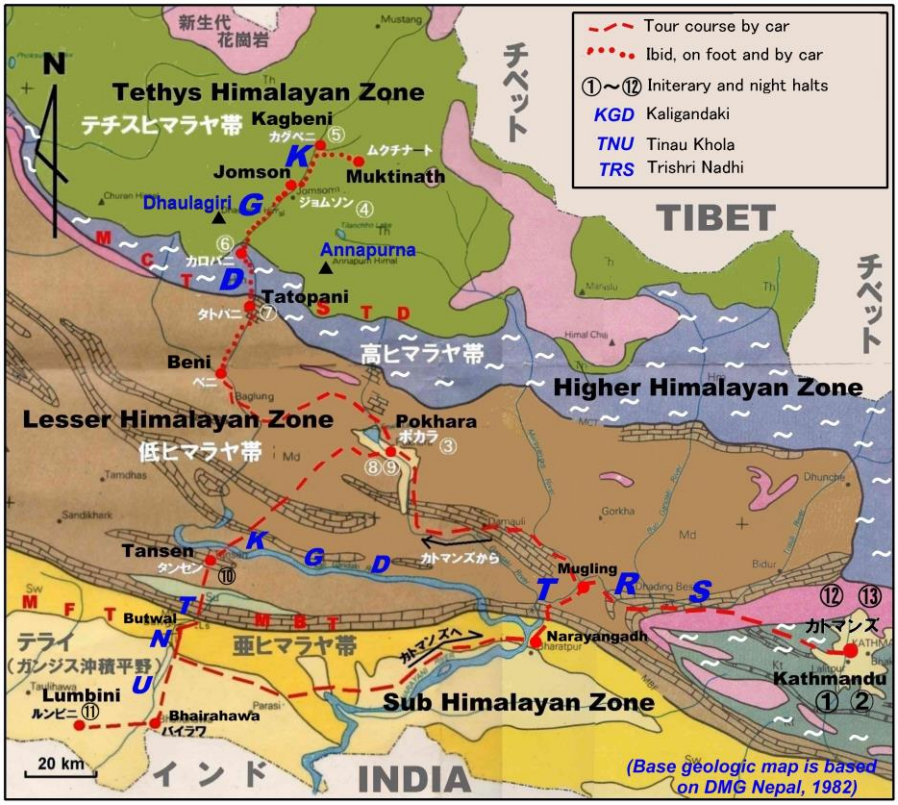

Fig. 1., Geologic outline of the tour area including tour route and dates of stay as a model itinerary

Table 1. Provisional Itinerary and contents of exercise of the 13th SHET

Itinerary of the SHET-13, March 2025 M. Yoshida 2024.5.15 (REV 0901)

Days	*March*	*Route*	*Details*	*Remarks*
	4th	Depart Japan	International flight	Nigh halt in the plain or airport
	5th	Arrive KTM	International flight	
Day 1	6th	KTM Stay	Pre-tour seminar at TU in the morning, and town excursion in the afternoon, escorted by TU students. Introductory Dinner with TU teachers.	No car necessary
Day 2	7th	KTM-PKR by a chartered bus (Stay)	Viewing landslides, colluvium, talus, terrace, Lesser Himalayan geology, Krishnavir landslide.	A chartered Bus, with a good quality speaker
Day 3	8th	PKR-Kalopani by 2 chartered busses (Stay)	Some stops viewing Annapurna Range, briefly observing Fagfog quartzite, Kuncha phyllite, GLOF sediments and terraces.	Busses with tough driving ability and attched with a good quality speaker.
Day 4	9th	KLP-bus-Muktinath-walk - KGB (Stay)	Several stops to learn geomorphology and geology of Quaternary and of Tethys Sediments.	Observation stops are only fromKuktinth to Kagbeni.
Day 5	10th	KGB-car, walk-KLP (Stay)	Tethys Sediments, STDS, Higher Himalayan Gneisse, Morain hills. Observation and sketches.	KGB-KLP: Walking and driving, same bus as above
Day 6	11th	KLP-bus, walk-TTP (Stay)	Higher Himalayan Gneisses, MCT, Lesser Himalayan Metasediments, Landslides.	KLP-TTP, mostly trekking, accompanied by the bus.
Day 7	12th	TTP - bus - PKR (Stay)	Lesser Himalayan Metasediments, GLOF sediments, Terraces	TTP-PKR, mostly driving the bus, making several stops.
Day 8	13th	PKR (Stay)	GLOF sediment, Landslides, Sand subsidence, Mountain Museum, World Peace Pagoda-Annapurna Range view	One day city tour by the bus.
Day 9	14th	PKR-bus-TAN (Stay)	Mahabharat Range topography, Lesser Himalayan Metasediments, Palpa Klippe.	Drive by the bus, with several stops.
Day 10	15th	TAN -bus-Lumbini (Stay)	Lesser Himalayan Metasediments, Gondwana Sediments, MBT, Siwaliks, MFT, Gangetic Plain, Maya	Drive by the bus, with several stops.
Day 11	16th	LMB- bus - KTM (Stay)	MFT, MBT, Lesser Himalayan Metasediments.	By the bus, with several stops.
Day 12	17th	KTM (Stay)	Morning Free time, to prepare presentation at the summary seminar. Afternoon, Summary seminar at TU with TU teachers and students.	No car necessary
Day 13	18th	KTM (Stay)	Morning-Afternoon: World heritage observation in Kathmandu escorted by TU students. Evening: Farewel dinner with TU teachers and participant students.	No car necessary
	19th	Depart KTM	International flight	Nigh halt in the plain or airport
	20th	Arrive JPN	International flight	

TU: Tribhuvan University, KTM: Kathmandu, PKR: Pokhara, KLP: Kalopani, KAG: Kagbeni, TTP: Tatopani, TAN: Tansen, LMB: Lumbini

Education system in the geotour: Academic guides including 2 - 4 active and/or retired university teachers from Japan and Nepal whose specialty lies in the Himalayan geosciences will associate with the geotour and give guidance, lectures and exercise to participants. After the field tour, participants are requested to submit reports on not only field excursion but also all matters in the tour. An excursion guidebook that carries introduction to the Himalayan geology and natural hazards, topographic maps with observation locations, explanations on observation points with photos and/or figures is distributed to participants. In case the tour is recognized as to form a part of the formal curriculum of the university/company to which participants belong, teachers will send the evaluation of reports of the participants to the university/company.

Number of participants for the geotour to be conducted: The geotour is conducted in case the number of participants attains 3 people. In case the application of participation comes over 20, the earlier-to-be-accepted principle will be adopted, i.e., those who registered earlier will be preferred. There is a possibility that more than one geotour will be conducted according to the number of applicants for participation.

Necessary fee for the participation to the geotour: Participating fee for Japanese students will be about 100,000 JPY (ca 700 USD, with the rate of 1USD=145 JPY), other individuals: about 150,000 JPY or less, and those who are officially dispatched are about 200,000 JPY or less. For students of other countries who join the tour in Kathmandu, the participating fee will be around 100,000 Nepalese rupees. Organizer is strictly prohibited to gain any economical interests from the tour, i.e., it should be zero, and any amount of exceeding income (such as financial support from organizations and/or individuals) related to the geotour should be refunded to participating students. Actually the participation fee for a Japanese students was 168,8774PY in average of 11 tours since 2012 including overseas air flight.

The participating fee includes: All necessary expenditures related to travel in Nepal includig lodgings, meals and all necessary fees for the field excursion (local transportation, lodgings, meals, necessary snacks and drinks in the field, employment of porters and guides, preparation for the geotour including the preparation of the tour, formation of excursion guidebook, and participating

expenses for the academic guides (Japanese and Nepalese teachers). Fees for overseas travel are not included for participants joining in Kathmandu.

Expenses that are not included in the participation fee: Rescue, medical treatment or hospitalization, for personal accident and/or sickness, snacks and drinks of personal favorite throughout the tour, gifts, medicines specific for individuals for daily use. Passport and VISA for Nepal are to be obtained by participants. Expense of the travel insurance also belongs the participant.

Measures for the accident: The SHET-13 team takes sincere and maximum care for accident. Leaders and subleaders are responsible to avoid accident. However, in case of any accident and damage of health, life, and belongings of a member could only be covered by the insurance that is contracted by each member. The SHET-13 and its leaders, supporters, and any related people and organizations cannot bear to cover the damage and necessary expenses.

Organizers of the geotour: Gondwana Institute for Geology and Environment (Hashimoto, Japan)* takes the all organizations in collaboration with the Department of Geology, Tri-Chandra Campus, Tribhuvan University, Kathmandu, Nepal*.

Accounting of the geotour: Accounting of the geotour is in the responsibility of accompanying Japanese teacher(s). He/she has to report the accounting of the geotour within a month after the geotour to the organizer. The account report is included in the formal report of the SHET-13, distributed to all participants and is disclosed to the public through internet.

Report of the geotour: All participants are requested to submit a tour report of some pages to the tour leader. A formal report of the geotour is made by academic guides who joined the geotour and submitted to the organizers. The main organizer (GIGE) has to prepare a formal report of the program including the account report of the program, and has to distribute it to all participants and related organizations within 2 months after the last day of the tour.

Collaborators of the program: A Nepalese trekking agency (Kathmandu or Pokhara) to help organization of the geotour in Nepal will be identified in time.

Supporters of the program: Academic societies, related organizations, groups, companies, and eminent individuals of academic, governmental and business worlds will extend their nominal support to the SHET-13. Donations by organizations and companies of related fields of activity as well as by individuals who hope to encourage participating students will be searched for to reduce participating fee of students. Presently 2 Academic societies of Japan, 2 societies in Nepal and 1 international society have provided nominal support to the program.

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Conveners for the Student Himalayan Exercise Project, Tetsuya Sakai (Chairman), Masaru Yoshida (Co-chairman), Bishal Nath Upreti, Kazunori Arita,

www.gondwanainst.org/geotours/Studentfieldex_index.htm
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ORGANIZING BODIES:

*** Gondwana Institute for Geology and Environment (Hashimoto):** The main office of the Gondwana Institute for Geology and Environment (GIGE), which is an international NGO/NPO and is situated in Hashimoto, south of Osaka, SW Japan. The GIGE is a group of loosely connected world's geoscientists belonging to countries located mostly in Gondwanaland crustal fragments. About 50 scientists are registered as the Fellow of GIGE. There are 6 GIGE chapters in the world covering 5 countries including Japan, Nepal, India, Kuwait, Tanzania, and D. R. Congo. Work of the main office is generally conducted by some to ten volunteer scientists of GIGE fellows. Gloss budget of GIGE main office in 2023 was about eight million JPY, and major work of the main office in 2023 included the eleventh Student Himalayan Exercise Tour in Nepal jointly with the Department of Geology, Tri-Chandra campus, geological research of the Nepal Himalaya jointly with scientists of Nepal chapter, and editing of geotour guidebooks of the

Himalaya with members of the Nepal chapter, etc. (Website: http://www.gondwanainst.org/)

***Department of Geology, Trichandra Campus, Tribhuvan University:** This is the largest and most advanced geological education and research body in Nepal and includes 16 teachers and about 100 undergraduate students. Since the inauguration of the department in 1960s, staffs of the department have made efforts in research and educating students in the Himalayan Orogen. The Department staffs have been conducting advanced research in the Himalaya on geology and natural hazards in collaboration with scientists worldwide including Japan. The Department has an intimate relationship with Japan since long, such as that over half of the staff with D.Sc degree received education and degree in Japan, and over a half of the staff has an experience of or even now conducting collaborative research with Japanese researchers.

(Website: http://www.geology.edu.np/)