

## Report of the 7th Student Himalayan Exercise Tour

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The 7th Student Himalayan Exercise Tour (SHET-7) was conducted by the Gondwana Institute for Geology and Environment (GIGE) in collaboration with the Department of Geology, Tri-Chandra Campus, Tribhuvan University (TU), for 15 days from the 4th to the 18th of March in the western to west-central Nepal. The tour team was composed of 11 students, one citizen and a leader/teacher from Japan and 4 students and one teacher from Nepal, totally 14 males and 4 females. In spite of sincere trial of invitation to become a leader/teacher since June last year, there was nobody willing to take the charge. Thus Yoshida worked again as the last year as the leader/teacher of the tour and Laxman Subedi of the Geology Department, Tri-Chandra Campus, Tribhuvan University (YU) was dispatched from the Department as the subleader/teacher.



*Photo 1. The tour team with the beautiful Dhaulagiri on the back.*

The China Southern Airlines, which we tried to use the first time this year, carried us to Kathmandu within the same day of the departure from Japan, and the return flight was the midnight, arriving Japan next day. Because of the above, the tour could have had

additional two days than tours in the past and could stay a night in Tansen and use a full day for the city tour in Kathmandu.

On the 2nd day in Kathmandu, we had a pre-tour seminar at TU, where 4 lectures “Himalaya, its constitution and formative processes”, “Geologic outline of the study area”, “Danger and measures for it in the Himalayan geo-exercise”, and “Highlights of the exercise tour” were delivered. After the seminar, participants formed three groups assembling TU students of equal number and each group individually visited Swayambunath (World Heritage site) which was severely damaged by the 2015 Gorkha Earthquake. On the 3rd day and onwards, the field tour was conducted using a bus for the Kathmandu-Pokhara-Lumbini-Mugling-Kathmandu section along highways and 5 jeeps for the Pokhara-Muktinath-Pokhara section along the Kaligandaki Valley. An exercise tour guidebook of Yoshida and Ulak (2017) was used all through the field tour.



Fig. 1 Geologic outline of the survey area and the SHET-7 tour course.

Along the Kaligandaki Valley course, we made observations on the Tethys Himalayan, Higher Himalayan and Lesser Himalayan zones and their boundary faults including the South Tibetan Detachment System and the Main Central Thrust.

After Kaligandaki, we stayed in Pokhara for 2 days and visited the world peace pagoda hill south of the Phewa Lake from where we could observe topography surrounding Pokhara. Then after we visited Seti Khola to observe gravels of various kinds of rocks coming from all sections of the Himalayan Orogen through which the Seti Khola is flowing, Mountain Museum, and observed a huge amount of debris flow deposits that fills up the Pokhara Basin from a trail on the high terrace of Seti Khola that flows in front of the Mudeum.

In the section Pokhara-Lumbini-Mugling-Kathmandu, we observed the Lesser Himalayan and Siwalik zones and Gangetic Plain along with their boundary faults including the Main Boundary Thrust and the Main Frontal Thrust. Because we used 2 days from Pokhara to Lumbini, staying in Tansen, we could manage easily the tour of this section with a small time strain. In Lumbini, we visited the Sacred Garden where Sakyamuni Buddha was born.

During the field tour, a seminar for review of the day and preparation for next day was conducted every evening. At the seminar, participants were requested to present, comment, or question in English.



*Photo 2. Beautiful wind ripple was observed on of the riverbed of Kaligandaki.*



*Photo 3. Newly appeared beautiful outcrop TS: Tethys sediments, TG: Tertiary granite*

After returning Kathmandu, we had a summary seminar at TU to which some teachers and students of TU also joined. At the seminar, all participants reported in English 1) the most impressed geological phenomenon, 2) most impressed matter apart from geology, 3) any others. In the afternoon, participants were free, and in the evening a farewell dinner assembly was held at a Japanese restaurant Momotaro in Thamel. On the next day from the morning to the evening, joint Japan-Nepal city tours were conducted. Participants formed three groups with TU students of equal number and each group individually did the city tour with the budget of 4000 rupees. In the midnight of the same day the tour group departed Kathmandu for Japan and next day in the noon time arrived in Japan as scheduled.

Observation and explanations during the field tour followed the exercise tour guidebook (Yoshida and Ulak, 2017) which was written in English and participants used to see the guidebook at every observation stop. Lectures, reports, comments and questions during the pre-tour seminar, summary seminar and all seminars during the field tour by teachers and participants were done in English sometimes mixed with Japanese. The ratio of speaking in Japanese to English decreased day by day. Further, intermingling with Nepalese students every day prompted participants to listen and speak English. Through all these experiences, participants should have increased their familiarity to English speaking/hearing environment.



*Phot 4. Joining with TU students who escorted the participants to the city tour. (in the Tri-Chandra Campus)*

Road construction including pavement was under the way on every section of the tour course. Because of this, there happened traffic jams here and there and the tour was obliged to be delayed from its schedule day by day. However, in Jomson, a beautiful concrete bridge was already made on the Kaligandaki river, thus the worry on the difficulty in crossing the river by a jeep is thoroughly resolved. Further to our surprise, from Kagbeni to Muktinath, the road was totally paved above the east terrace of Kagbeni, and we could enjoy a wonderful car driving up to Muktinath with only 30 minutes. We felt that the traffic conditions in Nepal would drastically be improved in these years.

For the early half of the tour we could enjoy clear sky and full sun shine every day and were blessed by beautiful Himalayan views every day. Participants were all fine and friendly each other and the team was cheerful and lively. However, on around the last day onwards, nearly half of participants got gastroenteritis and diarrhea, and some were found to have been suffered food poisoning after returning to Japan. .

As a whole, although there happened some health problems, participants declared good appreciation on the tour in their reports delivered at the summary seminar as well as their e-mail contacts with the leader after the tour. They evaluated not only the great attraction of the Himalayan geology and scenery, but also on the interaction with Nepalese students, Nepalese culture and their possession of familiarity in English. .

The budget of the tour is as follows. The income of the tour is composed of participation fee of Japanese students 200,000JPY x 11 persons, participation fee of a Japanese citizen 250,000 JPY x one person, participation fee of Nepalese student 5,000 NRs x 4 persons, and donations 300,000 JPY by 2 organizations, the sum comes 2,770,725JPY in total, resulting in an average of about 230,894 JPY per one Japanese participant. The expenditure of one Japanese participants includes the preparation fee of 24,776 JPY, average Airfare of 60,460 JPY, payment to the local trekking agency of 98,415 JPY, and local miscellaneous expenses of 11,100 JPY, resulting in the sum of 194,750 JPY per one Japanese participants in average. The balance of the average income minus the average expenditure comes 36,144 JPY, which will be returned to every Japanese participant.

Because the evaluation of the tour by participants is very good and the logistics of the tour is becoming easier every year, the SHET will be able to continue next year onwards (please refer the homepage below). Those who are positively interested in the present program are kindly requested to advertise the SHET program to their students and friends. The SHET receives not only students, but also welcomes teachers and citizens. Those who have problems on walking can also join because the tour is accompanied with vehicles all along the tour course and participants can catch a vehicle anytime when they will have faced problems in walking. Any details could be questioned to M. Yoshida by the following e-mail address.

The present program is calling for donations from any organizations as well as individuals, so that participation fee could become further economical and poor students who have a passion to see Himalayan geology can easily join the tour. Contacts on this issue is awaited to be sent to M. Yoshida below.

In the last, the Project acknowledges individuals and organizations who have been supporting the program, and societies and an association including the Geological Society of Japan, the Association for the Geological Collaboration in Japan, Japan Society of Engineering Geology, Nepal Geological Society, Nepal Landslide Society, and International Association for Gondwana Research (IAGR). We further acknowledge the IAGR who kindly donated 200,000 JPY as a participation fee of two Nepalese students, and the GIGE who donated 100,000 JPY for the tour.

(SHET home Page: [www.geocities.jp/gondwanainst/geotours/Studentfieldex\\_index.htm](http://www.geocities.jp/gondwanainst/geotours/Studentfieldex_index.htm))

Yoshida's e-mail address: [gondwana@oregano.ocn.ne.jp](mailto:gondwana@oregano.ocn.ne.jp))

### **Reference cited**

Yoshida, M. and Ulak, P.D. (Ed), 2017, *Geology and Natural Hazards along Kaligandaki and Highways Kathmandu-Pokhara-Butwal-Mugling: Guidebook for Student Himalayan Exercise Tour*. GIGE Misc. Pub. 35, 145 pages. Field Science Publishers, Hashimoto.

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