

ASIAN ALPINE E-NEWS

Issue No 95. September 2021



Sichuan-Tibet Highway and Qinghai-Tibet Railway run in parallel at 4400m, Nyainqentanglha

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Challenges of the Sichuan-Tibet Highway

The route from Sichuan Province in China to Lhasa in Tibet is known as the **Sichuan-Tibet Highway** and runs along two separate routes. The northern route is 2,293 kilometers long, while the southern route covers only 2,149 kilometers. Both routes lead from Chengdu, in Sichuan province, direct to Lhasa, and are very different in more ways than just the distance.



Qinghai-Tibet Railway (below), Sichuan-Tibet Highway Northern Route (above) north of Lhasa

The original road was known as the **Chuanzang Road** and was built between April 1950 and December 1954. The road divides into the northern and southern routes 703 kilometers from Chengdu, at the Xindu Bridge. From there the road takes two different routes, with very different landscapes, though both ends at the same place, Lhasa.

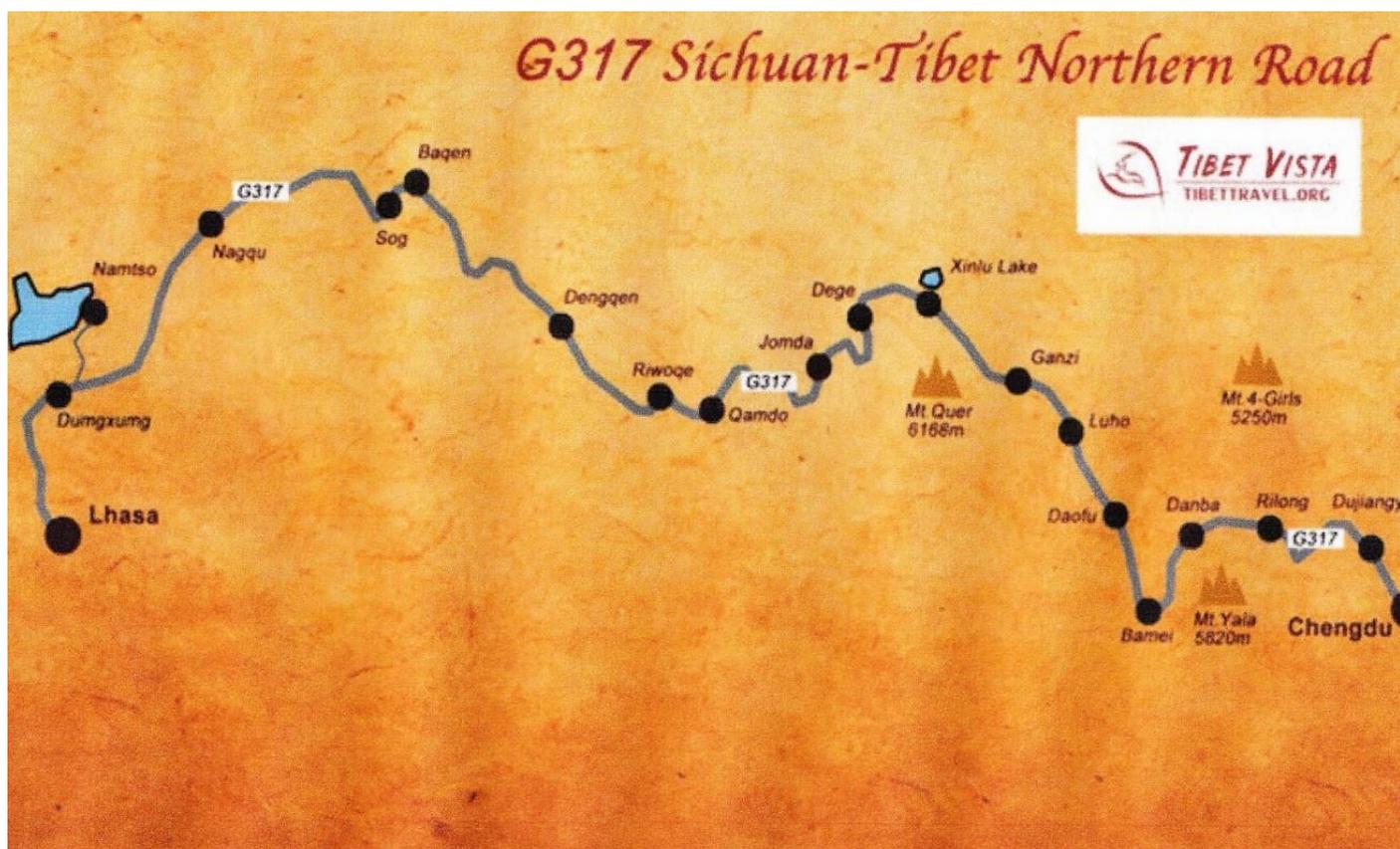
The route overland from Chengdu to Lhasa is rough-risky. Driving along the mountain roads can be hazardous, and there is always a risk of landslides and riptides. The road winds up and down mountainsides, across wide open plains, and passes picturesque river valleys and shimmering lakes. From Xindu, travelers have a choice of taking either route.

Different Travel Routes and Altitudes

Both routes start in Chengdu, at an altitude of 500 meters, and follow the same route through Kangding, at 2,560 meters, to Xinduqiao Bridge at 3,460 meters above sea level. From there, the roads take very different routes, with differing altitude changes along the way.

Northern Route Via China National Highway 317 (G317, 2320km)

The northern route of the Sichuan-Tibet Highway is **150km longer** than the southern route.



After leaving Xinduqiao, the road turns north to Bameizhen (photo as in the next page) at an altitude of 3,453 meters, as it crosses the edge of the Litang Grassland alongside the Yala Jokul Scenic Area. Skirting the northeastern edge of the grasslands, the route bears slightly west until it reaches Garze Monastery (3,375m).

The route west from Garze Monastery is fairly level for most of the trip through Dege (3,290m) and Chamdo (3,238m), until it starts to rise again towards Nagqu, at 4,508 meters above sea

level. From there it is a slow descent to Lhasa, heading through Damxung (4,200m), as the road loops round, passing Lake Namtso before turning east again and heads into Lhasa at 3,656 meters.

Chengdu to Danba - 348km of tar road

Danba to Bamei - 82km of tar road

Bamei to Garze - 243km of tar road

Garze to Dege - 205km of tar road

Dege to Chamdo - 253km of tar road

Chamdo to Lhasa - 989km of tar road

Total Distances from Chengdu to Lhasa – 2,120km



Bamei, Sichuan-Tibet Highway Southern Route

Southern Route Via China National Highway 318 (G318, 2140km)

In contrast to the Northern Route, the Southern Route runs at a slightly higher elevation after leaving Xinduqiao. The road across the Litang Grasslands rises slightly to Litang, at 3,956 meters, then drops slightly, and runs at a fairly level altitude through Markam (3,871m) and Zogang (3,816m), before rising again towards Ranwu, at 3,900 meters.

From Ranwu Lake, the road loops around the Kangri Garpo Mountains ranging some 280 kilometers along the Parlung Tsangpo to the north of the Dibang Wildlife Sanctuary in Arunachal Pradesh.



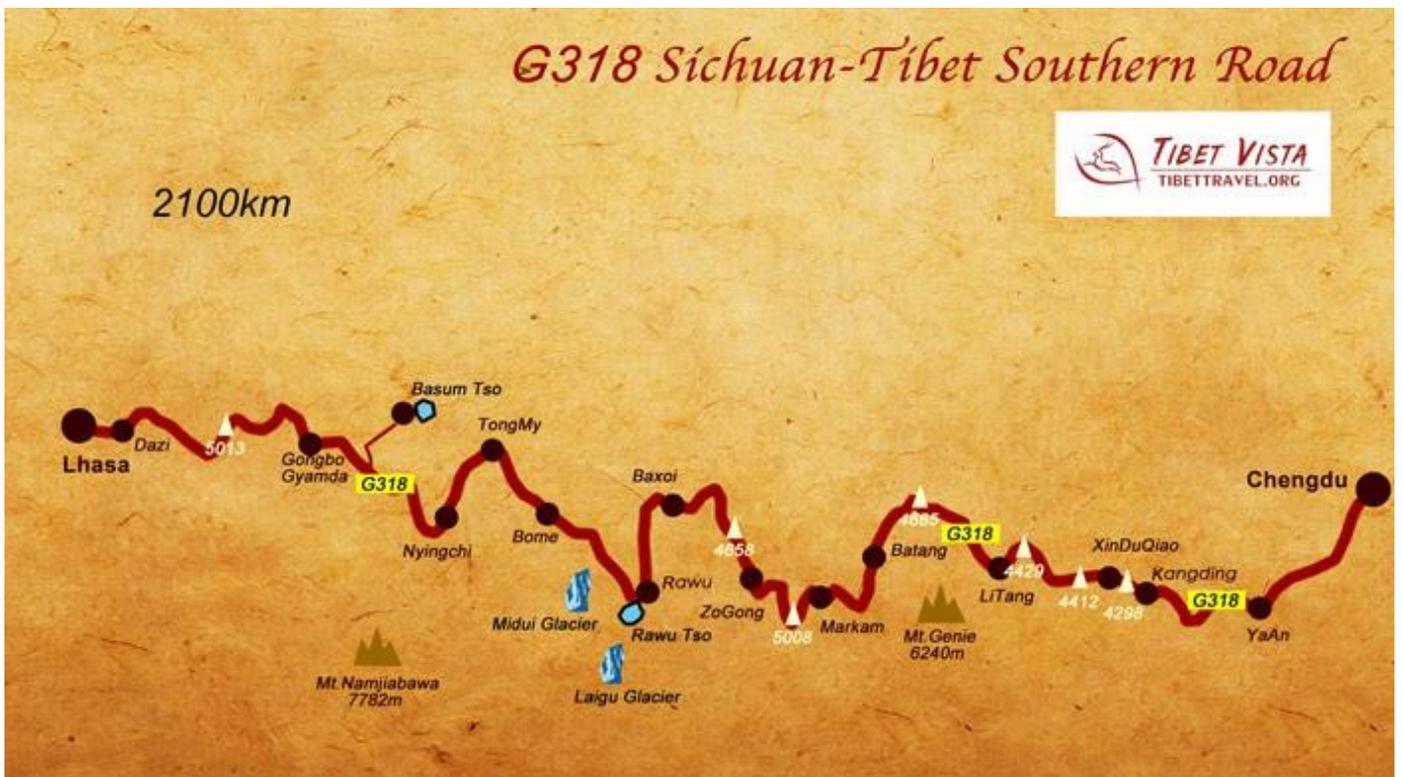
Ranwu Lake & Kangri Garpo Mountains

The road crosses a high pass Se-Ti La 4,500 where the overwhelmingly soaring the west face of Namcha Barwa 7,782m is dominant within hailing distance, then drops around 1,000 meters as it reaches Nyingchi, at 2,992 meters, the 4th largest city in Tibetan Autonomous Region (TAR)



Namcha Barwa 7782m west face from Se-Ti La, Easternmost of Himalaya

From Nyingchi, the route runs across Shannan towards Lhasa, rising again as it lifts once more, following the Lhasa River valley to the Tibetan Capital - Lhasa.



Distances

Chengdu to Kangding - 297km of tar road

Kangding to Xinduqiao Bridge - 71km of tar road

Xinduqiao Bridge to Litang - 205km of tar road

Litang to Markam - 276km of tar road

Markam to Zogang - 157 km of sand road and tar road

Zogang to Ranwu - 290 km of sand road and tar road

Ranwu to Nyingchi - 358 km of sand road and tar road

Nyingchi to Lhasa - 401 km of tar road

Total Distances from Chengdu to Lhasa – 2,055 km

Different Scenery and Topography

While the elevation differs only slightly, the topography of the two routes varies greatly. The Northern Route has a more level road, from Xinduqiao to Chamdo, as it traverses the high-altitude plains and grasslands, skirting the higher mountains until it reaches Chamdo. From there the topography changes as the road winds its way up and down mountains and along valleys towards the Nagqu grasslands. Then it becomes more level again, as it crosses the vast prairie and heads up to Nagqu Town. This level road continues from Nagqu, on past Namtso Lake, and along the valley floor, until it once again moves into a more mountainous landscape as it reaches Lhasa.

On the Southern Route, however, it is a very different matter, as the majority of the route traverse mountainous areas, with the road winding between the high mountains, crossing passes, and wending its way west in a snake-like pattern. With more winding turns, it is hard to see how the Northern Route is often rated as the more dangerous, and the Southern route crosses more mountainous terrain all the way from Xinduqiao to Maizhokunggar, where it turns into the Lhasa River Valley, and follows the valley floor all the way to Lhasa. Each of the routes has its own unique scenery, with many places of interest and beauty to see along the way.

Northern Route

After leaving Chengdu, you will first come across one of the world's most unique water conservation projects. The **Dujiang Dam** was built in the Qin Dynasty and is still in perfect working order. “

The dam called as Dujiangyan (都江堰) is an irrigation system developed by the state of Qing..

This system is primarily used for the Min River (岷江) which runs through central Sichuan province. This mix of irrigation system and dam was created to give relief to the people who lived near the river as they were continuously plagued by high water levels and floods.

This site is now part of the UNESCO World Heritage Site since 2000 together with the Qingcheng Mountain, with its Taoist monastery at the top.

Further along you will see one of the top sights of this route, the Siguniang Mountain, near Xiaojin. These four mountains are all at an elevation above 5,000 meters and house a variety of plants in this alpine climate. En route from Garze to Dege lies the beautiful Yulong La-tso, a stunning alpine lake that is backed by huge glaciers.



Mt. Siguniang 6250m south face in autumn, north of Chengdu, Sichuan



Mt. Chola 6168m east face and Lake Yulong La-tso



Lake Namtso

On the last stretch of the road to Lhasa lie two of the most spectacular sights in Tibet. **Lake Namtso** is one of the most scenic spots in Tibet and is the largest saline lake in the region. And as a last side trip before reaching Lhasa, you can make a visit to **Yangpachen**, which is famous for its natural hot the highest hot springs in the world, and the geothermal energy is harnessed using the Yangbajing Power Station to provide electricity for Lhasa.



Yangbajing Power Station

The northern route is sparsely populated, so do not expect to see many people and villages along the way. However, watch out for the nomads and their herds on the high prairies, especially around Lake Namtso, as these nomadic herdsmen live the same way they did centuries ago.

Southern Route

Following the southern route of the Sichuan-Tibet Highway, the first, and probably most unique site is the **Mugecuo Lake** (next page).

This high-altitude lake is known locally as the “savage sea”, and it is comprised of several lakes, forests, hot springs, snow peaks, and strange, standing stones. It is undoubtedly one of the most beautiful places along this route within China.



Mugecuo Lake near Kangding, Sichuan

Nearby, before you leave Kangding, you can pay a visit to **Hailuoguo**, which includes high-altitude glaciers, ice falls, and untouched virgin forests. To the west of Litang town lie the Maoya Grasslands, huge expanses of open prairie lands surrounded by high mountains.



Hailuoguo

From here the road conditions get worse, and you will find you are driving up mountains on sand or dirt tracks, as you head into the alpine-forested hills of the Chamdo Prefecture.

This area has been a major hub for traffic since ancient times and has a high-density population compared to most of the route. However, as you move across Chamdo, you will cross another huge expanse of grasslands, the **Bangda Prairie**. Here you will see many groups of nomads with their herds, grazing on the open plains.

Ranwu Lake is a hauntingly beautiful place, which incorporates high, snowy mountains with the crystal blue waters of the lake, and the lush green of the surrounding grasslands. And as you continue your journey, you will soon come across the Midui Glaciers, the most famous glaciers in southeastern Tibet. The main peak of these glaciers sits at an elevation of 6,800 meters and is the most beautiful glacier in China.

The last spots of significance before you reach Lhasa, are the waters of **Nyang River** and **Basum Lake**. The river is a major river in south-west Tibet, and is the longest tributary of the Yarlung Tsangpo River, the longest of all Tibetan rivers. Basum Lake (picture below), on the other hand, is a sacred lake for the local people, and is now an international forest park.



Different Culture Landscape

Along both routes, you can find a wealth of Tibetan culture and landscapes, and each journey is an experience of a different kind.

Northern Route

The northern route is one that is sparsely populated, which means less people, but it has **a lot of temples and monasteries**. There is no better way to learn about the Buddhist culture of Tibet, than to visit the monasteries and see for yourself how the people follow this unique religion. Buddhism is a major part of Tibetan culture, and it is often hard to know where the culture ends and the religion begins, since the two are so intertwined in the everyday lives of the Tibetan people.

No visit to Tibet to explore Tibetan culture would be complete without **a trip to Danba County**.



Jiaju Villages, Danba – Stone Towers

Along the route there are several monasteries that you can visit, to learn more about Tibetan Buddhism. **Huiyuan Monastery**, in Bamei, was built by the seventh Dalai Lama, and is located just 8km north of the town. Unlike most monasteries in Tibet, Huiyuan is a small, low-level monastery, with simple, two-story buildings.

Bamei is famous for being the birthplace of the 11th Dalai Lama and is worth a visit to see the simplicity that some Buddhist monasteries have.

Nyitso Monastery is a 450-year-old Gelugpa monastery and is one of the largest monasteries in the Garze region. Garze also has other monasteries, including the Garze Monastery, which was built in 1642 by Qosot Mongols, and Den Monastery, another small, simple monastery.



Huyuan Monastery in Bamei



Garze Monastery

Larung Gar Buddhist Academy

Larung Gar Buddhist Academy, situated in the Larung Valley in Seda County of Sichuan, is the main center for ecumenical training in Tibetan Buddhism.

The academy has been largely responsible for meeting the needs for the renewal of meditation throughout Tibet, and areas where Tibetan Buddhism is strong.

It was founded in 1980, by Khenpo Juigme Phuntsok on the site of his own home. The academy has grown massively since the first group of a hand-full of disciples gathered together and now houses over 40,000 residents.



Larung Gar Buddhist Academy, Seda County, Sichuan

Bakong Scripture Printing Press Monastery

Dege is an important stop if you want to learn more about Tibetan Buddhism. In the heart of Dege lies the **Bakong Scripture Printing Press Monastery**, which houses more than 217,000 engraved blocks, used for printing the Tibetan Buddhist scriptures, from all the Tibetan orders including Bon.

This single collection makes up for over 70% of the region's literary heritage, and includes texts on music, medicine, geography, and astronomy. The monastery is still working, and the monks produce over 2,500 scripts per day. The printing house is shown below.



Bakong Scripture Printing Press Monastery

Chamdo, Historical Forbidden City

Jampaling Monastery in Chamdo, is one of the most popular spots for tourists along the northern route, and at its height housed more than 2,500 monks.

The area has an average temperature of just 7.6 degrees centigrade, and now houses some 800 monks Monastery.

To the western Explorers, Chamdo remained as remotest, isolated, mysterious and least-known forbidden city in eastern Tibet for a long time.

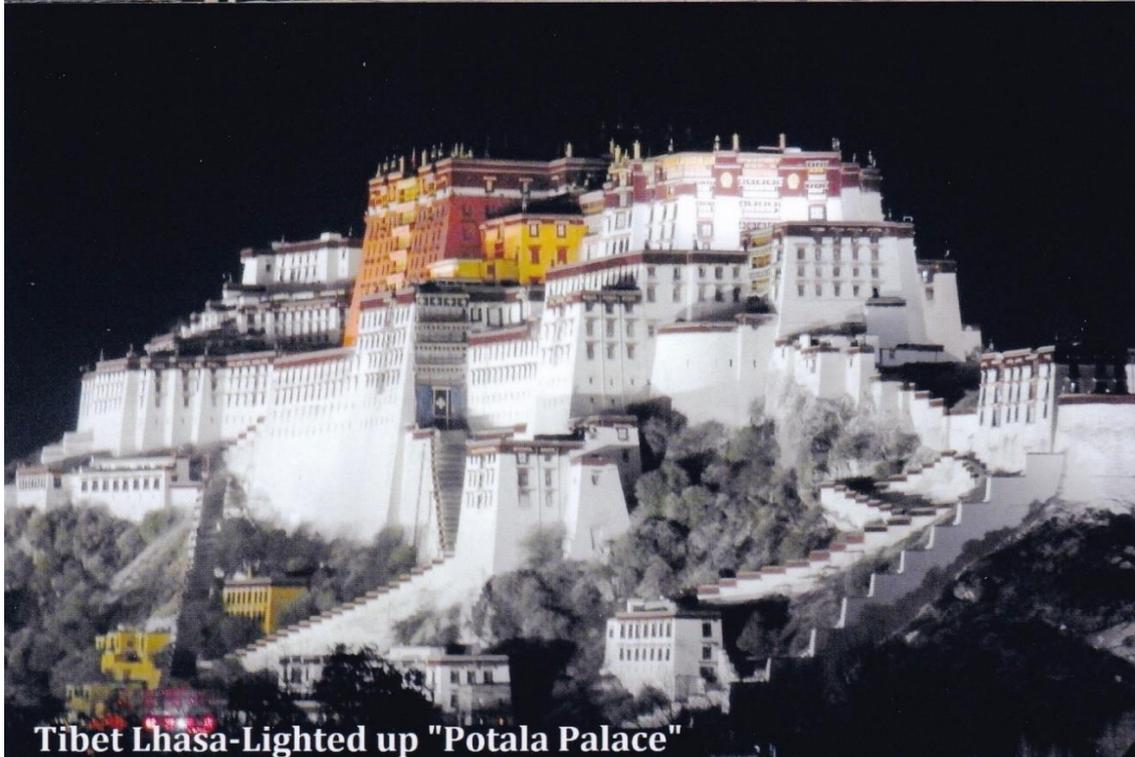
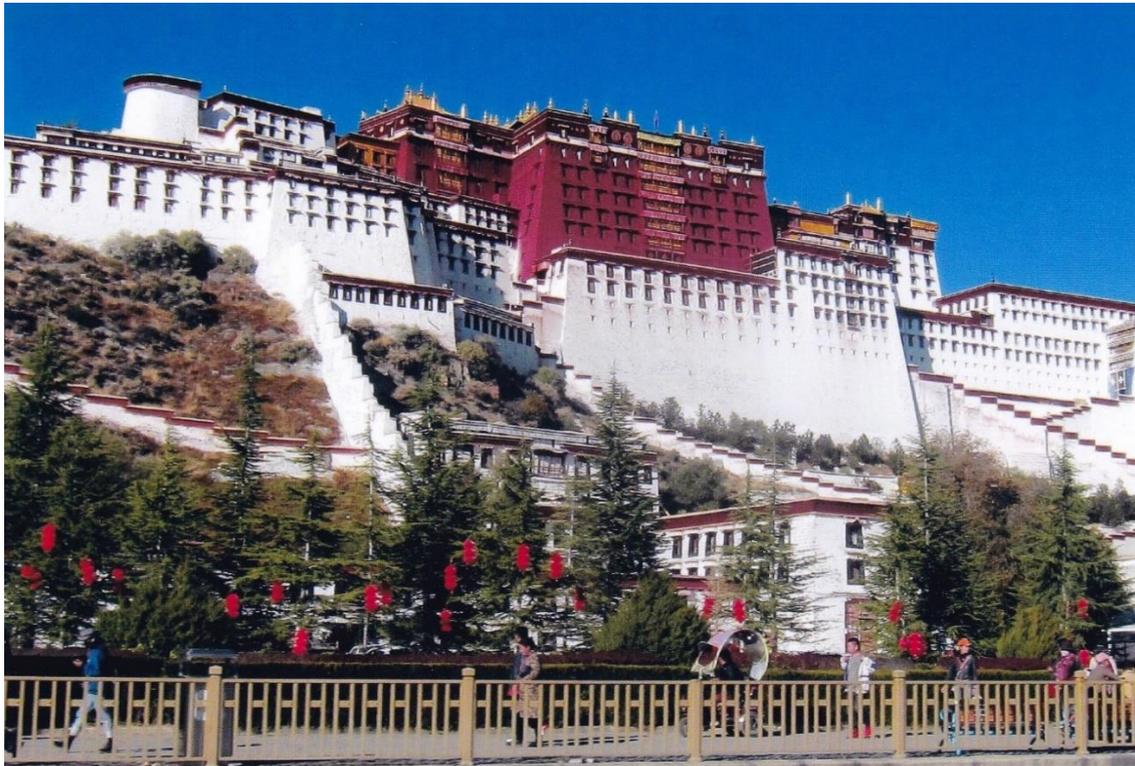


Historical Chamdo Monastery (above), Chamdo city and Mekong River (below)



Holy City in Tibet – Lhasa

Lhasa, the end of the journey, is famous for being the most holy city in Tibet and is the location of two of the Tibet's most famous Buddhist sites. **Jokhang Temple (next page)** is in the center of the city, the most revered temple in Tibetan Buddhism. The **Potala Palace** below is a symbol.





Southern Route

In stark contrast to the sparsely populated route to the north, the southern route is more densely populated, and there are a lot of villages and towns along the route. The southern route follows a path that is less dangerous and strenuous than the northern route, and one that travels through an area that has been heavily populated for centuries. **However, the southern route has the most stunning natural scenery of the two and is a photographer's delight.**

With a much better road, traveling along this route is much easier, and less hazardous, giving you the chance to stop and get out almost anywhere to take in the beautiful, alpine scenery, and make the most of your camera. While the route does go past many lakes and mountains and takes in such amazing sights as the Hailuoguo Glaciers and Mugecuo Lake, it also incorporates a lot of other beautiful scenery as well. At Xindu Bridge the road from Chengdu splits into the two different routes, and the scenery there is some of the most beautiful in the world. Xindu Bridge is widely known for being the best place for landscape photography and is a snapper's delight.



Annual Horse-racing Festival in Litang



Vast Maoya Litang Grasslands

Nearby you can see the low-lying plains of Litang, which host the annual horse-racing festival. From the 1st to 7th of August, this small-town set in a long, broad valley, plays host to tens of thousands of visitors who come along to watch the races.

These local Khampas, residents of what used to be the ancient region of Kham, fill the valley with their colorful tents during the festival, and makes it one that is definitely worth stopping for.

Nearby, before you leave Kangding, you can pay a visit to **Hailuogou**, which includes high-altitude glaciers, ice falls, and untouched virgin forests. To the west of Litang town lie the Maoya Grasslands, huge expanses of open prairie lands surrounded by high mountains and hilly grasslands.

On the road to Batang you can find the largest area of natural hot springs in Sichuan. The **Pucuogou Natural Ecological Reserve** contains hundreds of natural hot springs, in an area known as the Chaluo geothermal area. If you are feeling achy after driving or cycling, then this is the perfect place to stop.

Once you are actually in Tibet, you will pass through Zogang County, the ancient hub for traffic in the region. The natural scenery of the river valleys is stunning, and very unique to that area, and both the Licang River and the Nujiang River cross this region. The valleys in Zogang were carved out millions of years ago by now vanished glaciers, and evidence can still be seen along the sides of the valleys in the cliff faces and hillsides.

Nearby, before you leave Kangding, you can pay a visit to **Hailuogou**, which includes high-altitude glaciers, ice falls, and untouched virgin forests. To the west of Litang town lie the Maoya Grasslands, huge expanses of open prairie lands surrounded by high mountains and hilly grasslands.

Altogether, the scenery along the southern route is some of the most spectacular landscapes in Asia and is well worth the long drive to see it all. And it ends with a long drive along the beautiful Lhasa River Valley, which is full of wetlands and small lakes full of wildfowl and cranes, to your destination at the capital city of Tibet.

Different History

Northern Route

The journey along the Northern Route goes through the wild, mountainous, and remote Tibetan areas of Western Sichuan, and you will be amazed to see that **Tibetan culture is in many ways better preserved** here than in other areas of Kham. The route offers an insight to the rich culture, costume and tradition of Khampa people and their lifestyle. Monasteries are an unavoidable part of their day-to-day life and from there you will feel their faith in religion. From Kangding to Dege, the region is populated by the ancient Khampa people, whose history is much more warrior-like than the people of the Tibet Autonomous Region.

The houses are made of wood or stone, instead of the traditional concrete and mud-brick houses on the plateau. And the influence of the Han people is rarely found in the northern areas of Kham, with a very small Han Chinese presence in the region, which has long had a reputation for unruliness and independence.



Along the Sichuan-Tibet Highway Northern Route 1



Along the Sichuan-Tibet Highway Northern Route 2

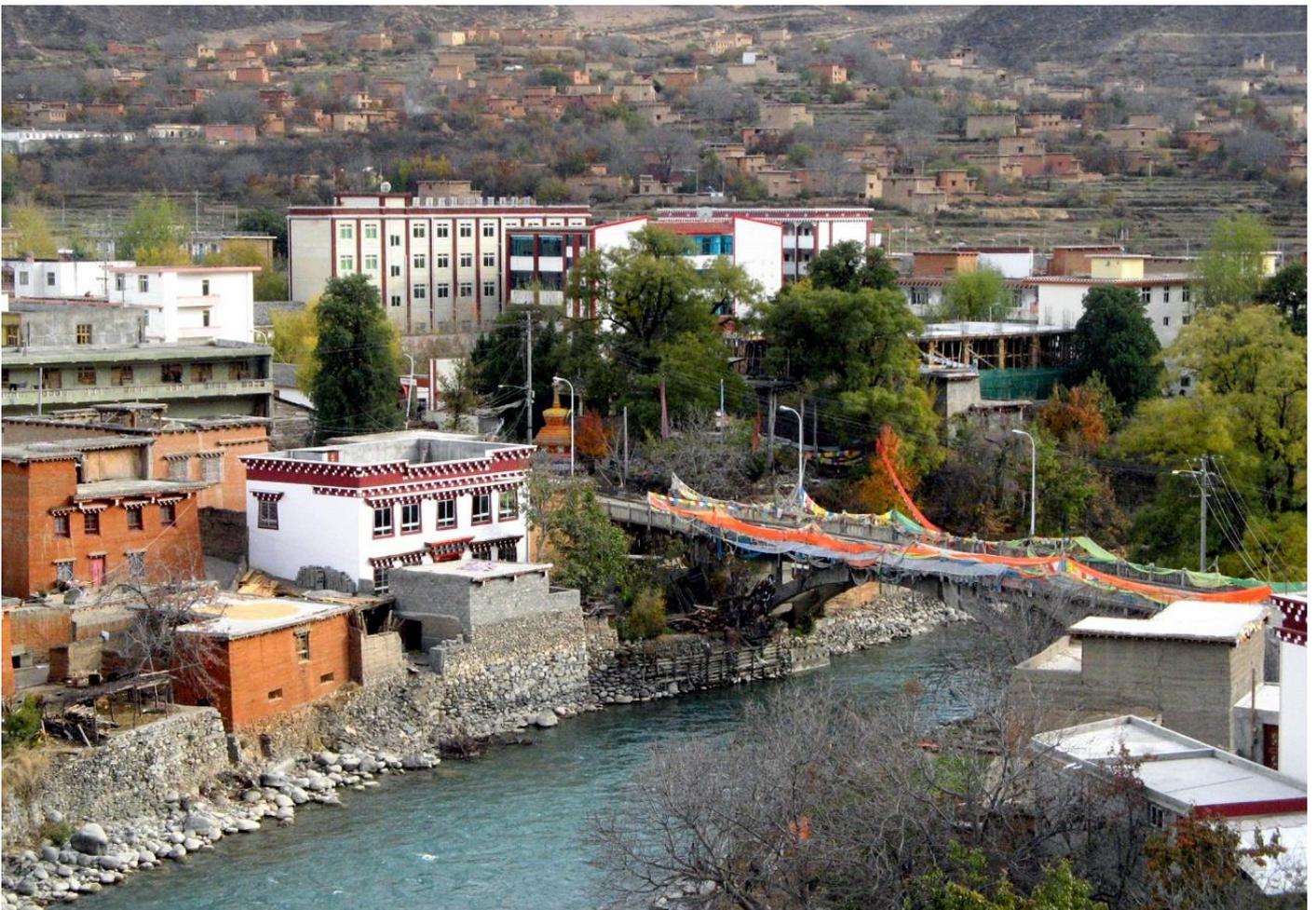


A high pass over 5000m of the Sichuan-Tibet Highway Northern Route

Southern Route

While the culture of the Tibetan people along the Northern route is closer to the original Tibetan culture of the days of Tibetan kings and living Buddhas, the Southern Route is flavored a little **more with the influence of the Han Chinese**. With a bigger population along the course of the route, which follows the old trail of the ancient Tea and Horse Caravan Road, there are more modern facilities, with a distinct Chinese character to them on the section of the road from Chengdu to Batang.

Once you pass Batang Township, you are in the Tibet Autonomous Region, and again the culture changes along the route of the highway. As you move further west, the Chinese influence appears to lessen, and the traditional Tibetan culture takes hold more, with the houses changing to those of the mud-brick variety, and the traditional ways of farming and herding that can be seen all across Nyingchi.



Batang town, Sichuan

While the G318 across western Sichuan and on to Lhasa follows the **ancient Tea and Horse Road**, it would appear that the route was in use long before it became an avenue for the tea and horse trade during the Tang and the Song dynasties.

The route was an important connecting corridor for the ancient cultures of Tibet, Yunnan, and Sichuan, from before the influx of the Han people in the regions. Archaeological sites have been discovered that date back to around 1,600 BCE, with cist tombs that pre-date the Shang Dynasty.

These tombs are mainly found in Sichuan and Yunnan and are quite close to the old route of the Tea and Horse Road. Which means that the route has been an integral part of the history of the region for 4,000 to 5,000 years.



Upper Mekong River west of Markam and Sichuan-Tibet Highway (Southern Route)

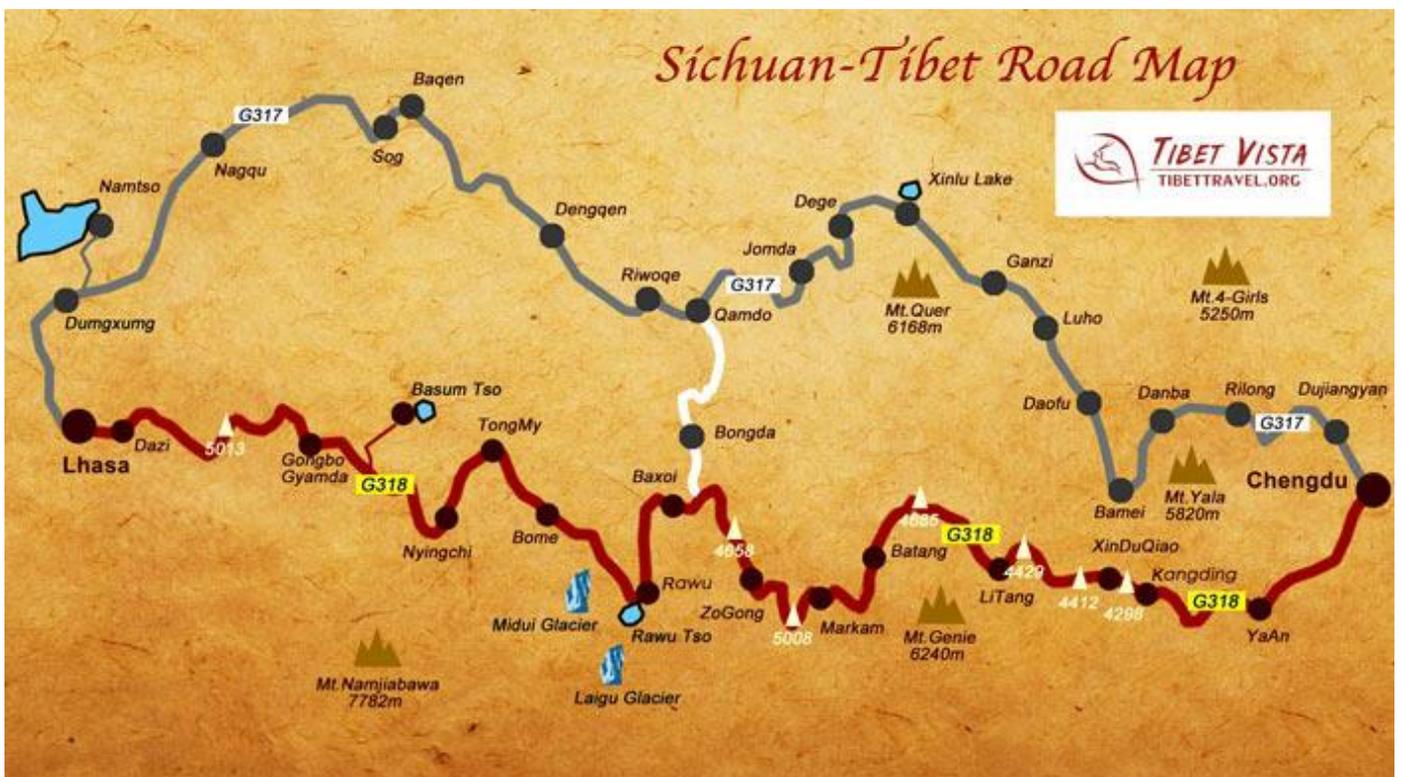


**Stream of Parlung Tsangpo in between Kangri Garpo and Nyainqentanglha East Mountains,
Sichuan-Tibet Highway Southern Route**

Different Road Condition

As with everything else about the two routes from Chengdu to Lhasa, even the road conditions are very different. While the Northern Route is almost completely covered with a tar-based blacktop, the Southern Route has extended sections that are just sand or dirt, and often these are the parts that climb mountains and head over high passes. From Markam to Nyingchi, there are several sections of the road that are not paved, and which get bogged up whenever it gets a little wet, causing major traffic problems that can back up for miles.

The road conditions along the more-used Southern Route are also damaged by the constant running of heavy trucks, that ply the route from Sichuan to Lhasa, and beyond to Shigatse, carrying goods that, once the railway is completed, will eventually be transported by train. For now, the trucks keep running, and it is hard to keep the repair work up with the damage that is caused. Another hazard that affects the road conditions along the Southern Route is the propensity for landslides. Avalanches of mud and rocks can come hurtling down from the mountains at any time.



Northern Route

For tourists driving from Sichuan to Tibet, the Northern Route is the better suited one for **drivers without experience and a sense of extreme adventure**. Although the road is considered more dangerous, with many sharp bends and the twists and turns up and around the mountains, a steady driver would have little problem traversing this asphalt-covered road, with its small and few sections of dirt covering.

Southern Route

On the Southern Route, However, it is a different story, with just as many switchbacks and bends as the Northern Route, it is made all the more hazardous because of the poorer road conditions along a major portion of the route. It is recommended that **only very experienced drivers traverse the Southern Route** and remain attentive to the road conditions and the weather, which can make this hard drive even harder.

Different Ways to Travel from Sichuan to Tibet

Self-driving

Driving along either route can be hazardous, despite the southern route having some fairly good roads. Both routes can be subject to flash floods and mudslides in the wet, monsoon season of summer, as there is higher rainfall in southeastern Tibet than on the rest of the plateau. Moreover, both routes are long, each more than 2,000 kilometers from start to finish, and driving such long distances can be exhausting. More so when doing it at higher altitudes. Taking regular rests along the way, and stopping overnight, is essential for safe driving.

It is also a good idea to leave plenty of extra time for this road trip, as it is best to ascend to higher altitudes slowly. You may have to stop and rest for a day after making a climb to an altitude you have not experienced before. For the northern route in particular, it is a good idea to have some experience of driving on rough, hazardous terrain. The route includes some roads that have only sand or dirt as a surface and are normally best driven using a 4x4 vehicle. Inexperienced drivers should stick to the easier, southern route. Finally, always check your

vehicle before you start, and carry some basic spare parts for the journey. And take note of the road signs and warning signs along the way.

Cycling

Take care along the side of the highway, and always remain on the correct side of the road keeping as close to the edge of the asphalt as is safe. Stop and wait in bad weather, as riding these roads in heavy rain or snow. Keep warm and wear a hat to protect from sunstroke. Check your bicycle at every stop, and make sure you prepare for the next day the night before. Ride safely and do not take photos while riding. Avoid and ignore wild dogs on the route, as they will soon quiet after you pass. Panicking will make them more aggressive. Be environmentally aware, and do not throw litter on the roadside.



Cheto Shan Pass at 4297m immediate north of Kangding west of Chengdu, Sichuan

Best Time to Travel Via Sichuan-Tibet Highway

The best time to travel along the highway, whether by bicycle or car, is in the **spring or fall**. Summer is the rainy season, and the monsoon rains can easily sweep you off the road, and the route is more prone to landslides at this time of year. Spring and fall have milder weather with clearer skies, which make for better viewing of the local scenery.

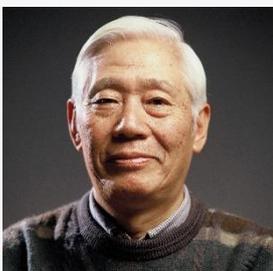
Other Tips

Make sure that you pack well for the high altitude and colder climate of Tibet, Warm clothes are a must, and will be handy even if the days are warm; the nights can still get very cold. Always carry plenty of water and snacks with you, as you may not be able to replenish in some of the longer, more remote stretches of the highway. Altitude can be a problem when traveling along the highways and you should always be aware of dramatic changes in elevation. Being prepared with a small oxygen canister is a good idea, even if you end up not using it.



About the Author - Lobsang Tsering

I am a tour guide in Tibet and was Born in Kham Tibet, I am the father of 2 little girls, bachelor's degree. I have more than 7 years of experience of being a tour guide in Tibet. I am a warm, friendly, knowledgeable and attractive guy.



Tom Nakamura, Honorary Member of the Alpine Club (UK), the Japanese Alpine Club

Supplemented pictures

- [Arunachal Pradesh](#)
- [News](#)

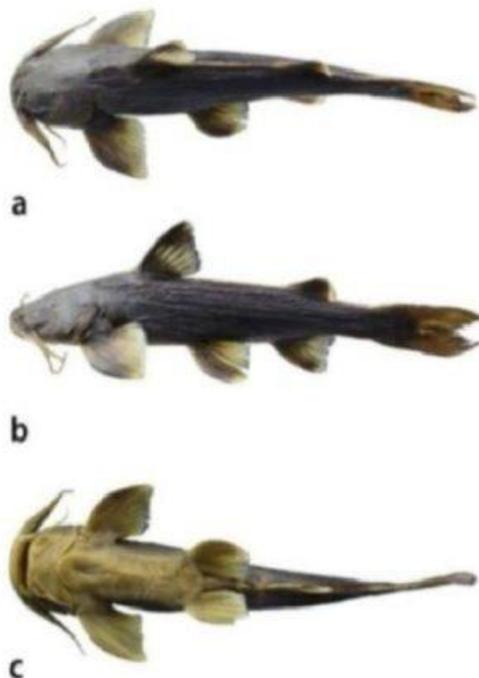
Arunachal Pradesh: New catfish species found, named after forest official involved in its survey

By

Editorial

-

August 24, 2021



A new catfish species discovered in Arunachal Pradesh's [Siang river](#) has been named after a range forest officer in the frontier state's [Mouling National Park](#).

Specimen of the catfish

A team of researchers from the [Zoological Survey of India](#)'s freshwater fish section, Laishram Kosygin, Pratima Singh, and Shibananda Rathi, obtained a specimen of the catfish from the Siang, which was eventually identified as *Glyptothorax repair*, a new sisorid catfish.

"It differs from its congeners in the Indian subcontinent by a combination of characters such as the presence of plicae on the ventral surface of the pectoral spine and first pelvic-fin ray and a posteriorly serrated dorsal-fin spine."

"The body with two longitudinal pale-cream stripes, densely tuberculated skin, and the presence of numerous tubercles on the dorsal surface of pectoral and pelvic-fin rays also differentiate it from other related species," the researchers said in their paper published recently in the journal, *Zootaxa*.

Also Read: [*Arunachal government draft plan on property rights to girls*](#)

The species is from the Jambung stream



According to the researchers, the Ganga-Brahmaputra basin has 17 of the 24 genuine Glyptothorax species found in the Barak-Surma-Meghna basin.

The species is now only known from the Jambung stream, a tributary of the Siang River near Hawa Camp in Arunachal Pradesh's Upper Siang district (Brahmaputra River basin), according to the paper.

Naming of the new species

S. Rupir Boli, a range forest officer in the Ramsingh area of Mouling National Park in Arunachal Pradesh, was honored with the new species' named after his name, for his assistance in collecting specimens during the researchers' first survey.

Vladimir Komissarov, Mark Diggins

Assessment of the safety of adventure tourism in the mountains

The requirement.

Safety in tourism, together with other characteristics of a tourist product, refers to its quality and level. The tourist product itself consists of the totality of all services received by tourists in the host country, starting from entry into it and ending with departure. The responsibility for the safety of services lies with those who perform them and with the state, which is responsible for creating conditions/legislative norms that guarantee their (services) safety.

The requirement for an independent objective assessment of the safety of adventure tourism in a particular country has long been hovering among those who are engaged in such tourism, organize and conduct it.

In assessing the level of safety, the Project participants proceeded from the fact that tourists in matters of safety of adventure tourism in the mountains need to have:

- 1) safe conditions of stay;
- 2) guarantees of assistance in the event of an emergency;
- 3) comprehensive and easily accessible information on the security of their stay.

In turn, in order to realize this requirement to the subjects of the tourism industry need, on the one hand, legislative norms that provide the necessary safety, on the other hand, the obligation implementation of these norms is necessary. In addition, it should be taken into account that such measures as rescue operations and medical assistance close the safety chain, and well-organized preventive legislative, informational and educational measures begin it, which are necessary to reduce the number of accidents and mitigate their consequences. These preventive measures are an obligatory component of any security system. They include complete and working legislation, reliable and easily accessible information about the area with an emphasis on awareness of risks and safe behavior, knowledge about the system and availability of rescue services, personnel trained in accordance with professional standards.

Based on this, the principles of ensuring the safety of adventure tourism are proposed:

- 1) Completeness and availability of safety information;
- 2) Ensuring the safety of the conditions of stay;
- 3) Guarantees of assistance in the event of an emergency.

Completeness and availability of information on security issues. On this issue, there is also a need for a legislative norm on its availability, content and responsibility. At the same time, the main information components are:

- 1) The status of all safety issues and their independent assessment;
- 2) Various types of forecast for possible risks associated with objective factors (avalanches, weather, etc.);
- 3) Information about the area with an emphasis on awareness of risks and safe behavior,
- 4) Information about the organizations and access to rescue and medical services;
- 5) Information about existing services, methods and means of signaling and communication;
- 6) Description and analysis of the rules governing adventure tourism services and the responsibility for their implementation

Safe conditions of stay. Here we consider the conditions inherent in adventure tourism. Some safety components are inherent in all types of adventure tourism without exception - *universal components*, while others are only specific types of it.

Universal components:

- 1) Regulation of activities/services on which the life and health of tourists depends – in our case, this is:
 - * Guides, adventure tourism instructors and mountain rescuers (members of emergency rescue units) in terms of their obligatory compliance with at least national professional standards and;
 - * Organizations or sole proprietors providing services (enterprises of ski services, adventure tourism camps in the mountains, etc.) and their compliance with safety standards.
- 2) Forecast of possible natural disasters that pose a threat to human life and health;

3) Guarantees of the obligation, efficiency and effectiveness of rescue services in the event of an emergency and their availability.

Guarantees of assistance in the event of an emergency. They are provided by legislation, the completeness and efficiency of the relevant infrastructure and trained personnel. The legislation should prescribe not only the norm of obligation, but also the instruments of execution and responsibility.

Who needs information about the safety status?

- First of all, these are tourists who are going and are already in the host country,
- * tour operators who are going to take tourists to the mountains,
- * guides, instructors and tour leaders who are going to accompany tourists,
- local tour operators,
- * insurance and assistance services and, finally,
- * local state tourist administrations to understand the state of safety in their country.

2. Existing opportunities for assessing the state of security for a particular country.

How and where possible to get objective and independent information about the level of safety of adventure tourism in a particular country?

- 1) The Internet. However, there is no complete, objective and independent information on this issue for any country. There is fragmentary and sometimes contradictory information.
- 2) Direct sources from those who provide services. As a rule, they are limited by profit-making motives and do not cause complete confidence.
- 3) The experience of professionals who have already visited the country. These are the most reliable sources, but as a rule they are not systematized, are not brought to a single standard and are quite difficult to collect.

The proposed Project is devoted to the assessment of the safety of adventure tourism of countries on the example of adventure tourism in the mountains. Why are the following tasks solved:

- * a methodology for assessing the level of safety by the main safety components is being developed,
- * conducting safety studies in countries that practice adventure tourism in the mountains and,
- * ranking of these countries.

What will the implementation of this Project give?

1. Standardized information on the level of safety of adventure tourism in the mountains in different countries according to agreed safety criteria. This is important when assessing risks and making a decision about engaging in adventure tourism in a particular country.
2. Assessment and place in the safety rating will indicate to national administrations interested in the development of adventure tourism and which is affected by the level of safety, will show a place in the international safety rating, ways to improve the rating and increase the level of safety.

The latter is especially important in order to push the governments of countries where the rating is at an unacceptable level for safety to solve this problem. Otherwise, adventure tourism in these countries may not be recommended with all the ensuing consequences for the country's tourism.

Project participants: Kyrgyz Mountain Guides Association (KMGA), International Commission of Alpine Rescue (IKAR), Kyrgyz Mountain Rescue Service (KMRS),

The project is supported by International Federation of Mountain Guides Associations (IFMGA), Kyrgyz Alpine Club (KAC), Kyrgyz Silk Road Tourism Association (KSRTA)

Private participants: Hayley Wright (Montenegro).

Project leader – Vladimir Komissarov, PhD, KMGA President

Stages of implementation.

Stage 1. Development of a methodology for assessing the level of safety in adventure tourism in the mountains. Primary testing in Kyrgyzstan.

Stage 2. Testing of the methodology and taking into account the international experience of industry experts, clarifying the methodology.

Stage 3. Involvement of interested international specialized organizations in the Project, such as the UIAA, ATTA and others, and the development of an international safety rating system for countries of adventure tourism in the mountains.

Stage 4. Assessment of the safety of adventure tourism in the mountains in mountain countries and compiling their rating.

The level of implementation of the Project to date.

Stage 1. KMGGA (Vladimir Komissarov) and IFMGA (Mark Diggins) are implemented. Made by:

- 1) The criteria (components) for the safety assessment have been selected.
- 2) The importance of components in the security system is determined
- 3) A safety assessment methodology has been developed
- 4) An acceptable level of security has been determined
- 5) The methodology has been tested on the example of Kyrgyzstan.

Stages 2-4 are developed.

How did the Project come about?

1. The project was proposed by KMGGA after conducting a research on the safety of adventure tourism in Kyrgyzstan, funded by the Swiss Government. The Kyrgyz Mountain Rescue Service (KMRS), the Kyrgyz Alpine Club (KAC), the Silk Road Association of Kyrgyzstan (SRTAK) joined the Project implementation from the Kyrgyz side.
2. IFMGA and ICAR were invited to participate in the Project. The proposal was immediately accepted by the IFMGA, but only as part of the assistance to Kyrgyzstan to improve the safety system of adventure tourism in the mountains. After some time, ICAR included to participate in the Project .
3. To date, a Draft safety assessment methodology has been proposed, which has yet to be tested by experts on the safety of adventure tourism in the mountains.
4. The search is being carried out for international specialized organizations of adventure tourism in the mountains to participate and support the Project.

Application.

Methodology for assessing the safety of adventure tourism in the mountains.

(the methodology was developed by Vladimir Komissarov and Mark Diggins)

The assessment of security components is carried out on a 5-point scale, and their share in the country's adventure tourism security system is in %.

Table of criteria for evaluating security components

Criteria for estimation	Estimation
No evaluation process has been considered.No compliance exists.	1
An evaluation has been carried out but compliance is of minimum standard and will not offer security.	2
An evaluation has been carried out and the level of compliance is only satisfactory. Significant improvements are still required.	3
An evaluation has been carried out and the level of compliance is generally good in all aspects with only some improvements required.	4
An evaluation has been carried out and the level of compliance provides complete security.	5

Rating table with example for Kyrgyzstan

Adventure tourism safety components	Maximum share of the component in the rating, %	Rating on a 5-point scale and the significance of the rating in the rating, %	Rating of the components for Kyrgyzstan and % rating
1 Legislation. The state has a regulatory framework that ensures: The safe stay of tourists. The quality of service they receive. Assurance that rescue operations are provided in emergency situations. Emergency medical care is available. A mandatory obligation to implement these standards exists;	17		

1.1.	There is a regulatory framework for mountain rescue, which contains: <ul style="list-style-type: none"> the existence of the profession "rescuer in the mountains" Professional rescuer standards A system of professional training and certification. A system for monitoring the implementation of standards for the creation and operation of rescue groups. 	7	1 - 0% 2 - 1% 3 - 5% 4 - 8% 5 - 10%	1 = 0%
1.2.	The existence of a regulatory framework for ensuring the safety standards of adventure tourism services and the obligation to comply.	9		
1.2.1.	Professional standards of personnel (guides and instructors) in the adventure tourism industry. There is a system of : Training. Certification. Monitoring.	2	1 - 0% 2 - 0% 3 - 1% 4 - 2% 5 - 2%	3 - 1%
1.2.2.	There is national regulation of the activities of guides and instructors of adventure tourism in terms of: compliance with professional standards. a system for monitoring the implementation of standards.	4	1 - 0 2 - 0 3 - 2 4 - 4 5 - 4	1 - 0%
1.2.3.	There are safety standards for adventure tourism facilities and a system for implementation, control and monitoring/inspecting.	3	1 - 0 2 - 0 3 - 1 4 - 5 - 3	1 0%
1.3.	Legislation on the availability of information on the safety of adventure tourism in the country	1	1 - 0 2 - 0 3 - 1 4 - 1 5 - 1	1 - 0%
2	Information related to safety and security is easily available that relate to: Risk factors. Security related issues. Advice on areas tha may be visited .	3	1 - 0 2 - 0 3 - 2 4 - 3 5 - 3	3 - 2%
3	Rescue service adapted to mountain conditions and its infrastructure	40		
3.1.	Availability of organizations conducting rescue operations in the mountains	7	1 - 0 2 - 0 3 - 7 4 - 7 5 - 7	3 - 7%
3.2.	Availability of trained and equipped rescue teams at adventure tourism facilities	5	1 - 0 2 - 0 3 - 5 4 - 5 5 - 5	2 - 0%
3.3.	Availability of trained rescuers for mountain tourism	8	1 - 0 2 - 0 3 - 5 4 - 8 5 - 8	3 - 5%
3.4.	The presence of a helicopter rescue service in \ from remote and hard-to-reach areas for rescuers and victims	16	1 - 0 2 - 0 3 - 5 4 - 16 5 - 16	1 - 0%
3.5.	Availability of rescue stations in mountainous areas with a large concentration of tourists;	2	1 - 0 2 - 0 3 - 2 4 - 2 5 - 2	1 - 0%
3.6.	Equipping rescue units with the necessary equipment and transport.	2	1 - 0 2 - 0 3 - 2 4 - 2 5 - 2	3 - 2%
4	Security of provided services	40		
4.1.	Personnel services. Availability of adventure tourism service personnel (guides and instructors) that meet professional standards and the training systems for such personnel	20	1 - 0 2 - 5 3 - 10 4 - 20 5 - 20	2 - 5%
4.2.	Infrastructure services (Artificial climbing centres, Structures, Ski centers, jumping camps etc). Compliance with safety standards	20	1 - 0 2 - 0 3 - 5 4 - 20 5 - 20	2 - 0%

Acceptable safety rating – 75%	100%		$\Sigma 22\%$
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Resources:

1. "Winter tourism safety in the Kyrgyz Republic" Safety research of adventure mountain tourism in Kyrgyzstan. Bishkek 2020.

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