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Achiktash Valley – Lenin Peak, Bishkek, Kyrgyzstan – Edinburg, UK 2018

Contents

Research of Mountaineering on Lenin Peak 2019 - A critical assessment of mountaineering tourism on Lenin Peak, Kyrgyzstan: *current issues and potential solutions*

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Page $2 \sim 64$

A critical assessment of mountaineering tourism on Lenin Peak, Kyrgyzstan: *current issues and potential solutions*

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Introduction

It has been long recognized that the potential for adventure tourism in Kyrgyzstan is huge due to its extensive mountainous landscape. This potential has been highlighted in a number of studies conducted since the country's independence in the early 1990s. During this time tourism has developed, albeit unevenly and without appropriate coordination and regulation nor the necessary consideration of environmental impacts and tourist safety. It is this background of unplanned growth that necessitates the need for a critical assessment of the current situation and for the identification of an appropriate strategy for future tourism development. Here, this is with specific reference to adventure tourism and, in particular, mountaineering tourism. The focus here is upon the most developed example of this type of tourism which is centered upon the 7,134 meter Lenin Peak

Accordingly, the specific focus of the present study is an assessment of the economic and environmental impacts of mountaineering tourism on Lenin Peak and the wider issues associated with its longer term sustainability. As such, we attempt to provide an overview of the current tourism related activities on Lenin Peak and seek to identify some initial recommendations for improving current practices. As indicated above, the ultimate intention of this research is, through drawing upon the lessons to be learned from Lenin Peak, to develop a model of best practice that will support the future sustainable development of not only mountaineering tourism, but also adventure tourism and other forms of natural area based tourism generally, throughout Kyrgyzstan.

The present study draws upon the experiences of the authors in diverse activities (tour operator activity, sports mountaineering, guiding, rescue work in the mountains, organization of festivals, etc.) gained through mountaineering generally both in Kyrgyzstan and further afield, in addition to direct experiences of mountaineering on Lenin Peak. This background has made it possible to conduct a comprehensive study of the main aspects of the current state of activity associated with mountaineering tourism on Lenin Peak and to identify the key problems and to provide some tentative suggestions as to how to resolve them.

Specific objectives of study

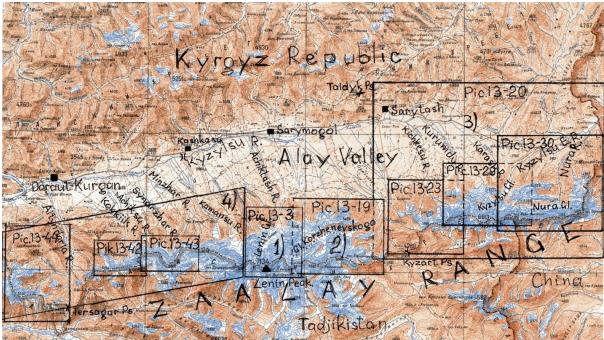
- 1. To explore the nature of the demand for tourism on Lenin Peak and how tourism satisfaction and demand might be increased.
- To identify the nature of the supply-side of tourism on Lenin Peak in terms of its organisation, the associated employment, and how some of the problems outlined here might be addressed.
- 3. To assess the environmental issues associated with tourism on Lenin Peak and propose strategies for managing the ecological impacts identified.
- 4. To outline the safety issues involved with tourism on Lenin Peak and suggest how these might be better managed.

Current situation

At the present time there is limited knowledge regarding Kyrgyz mountaineering tourism in respect of its current, and potential future, scale and value. Similarly, there is little known about its environmental impacts, the tourism experience in respect of satisfaction and safety or indeed the impacts upon, and perceptions of, the local communities affected. The huge potential for mountaineering and adventure tourism more generally in Kyrgyzstan has been highlighted in a number of studies commissioned since the country's independence in 1993. The present study focuses upon the current state of this sector of the tourism industry with a view to assessing its opportunities and how these might be best realised in both the short and longer terms. Here the focus is upon Lenin Peak which represents the largest example of mountaineering tourism in Kyrgyzstan today and offers an excellent case study for investigating and establishing the basis for the sustainable development of mountain-based tourism throughout Kyrgyzstan in the future.

Background on Lenin Peak

The peak is located in the central part of the Zaalay Range, on the Kyrgyzstan-Tajik border. From the northern, Kyrgyzstan side, the Achik-Tash base camp is reached from the city of Osh via Sary-Tash village by vehicle along an excellent asphalt road up to Kashkasu Village (65 km) and then across the Kyzylsuu River bridge and along a 32 km dirt road. The Lenin Peak massive is located between the Razdelnaya Pass (altitude of 6080m) from the west and the Krylenko Pass (altitude of 5820m) from the east. Overall, the length of the Lenin Peak massive from pass to pass is some 9.5 km, and the length from the western shoulder of the summit (6442m) to the eastern shoulder (6601m) is 6.5 km. The northern slopes of the massive are ice covered and these flow down to form the Lenin Glacier in the Gorge. There are now 19 itineraries to the summit of Lenin Peak; 10 routes go from the northern side (Kyrgyzstan) and 9 of them go from the north, going from Achik-Tash through the Razdelnaya Summit (6148m).



Pic. 1. Topographic map of the Zaalai Range and the Alai Valley (from the guidebook "Mountaineering, ski mountaineering and climbing areas of Kyrgyzstan" by V. Komissarov http://asian-alpine-e-news.com/asian_alpine_e-new_issue_no37.pdf in English , 2018) 1) Lenin Peak and Achiktash Gorge.



Photo 1. Lenin Peak massiv.

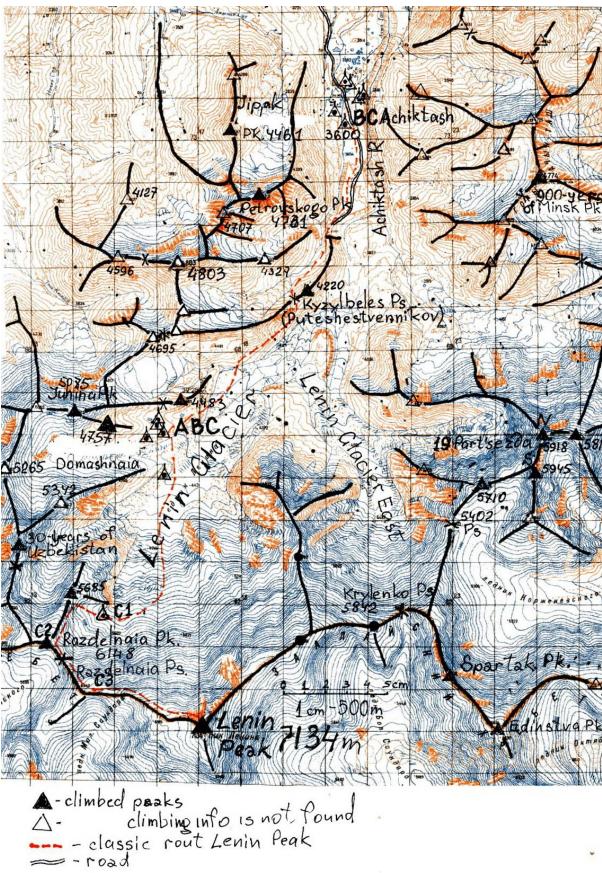


Fig 2. Topo-orographic map of Achiktash gorge and Lenin peak (7134m).

The summit was first described in 1871 by the Russian geographer and traveller A.P.

Fedchenko, who called the summit Peak Kaufman after the local governor-general of that time (https://en.wikipedia.org/wiki/Turkestan). In 1928, the first ascent to the summit was done by a Pamir Russian-German expedition, the climbers being the German pair of Karl Wien and Eugene Allwein and the Austrian alpinist Erwin Schneider who renamed the summit Lenin Peak. Two further ascents to the summit were done before the Second World War. A new stage of exploration of the area started after the Second World War and went through until the end of the 1960s, with the latter part of this era being marked with organization of numerous mass high altitude ascents. Regular ascents to the summit started in 1972 when the first Soviet Union International Mountaineering Camp (IMC) was arranged in Achik-Tash. During the twenty years of its operation until the early 1990s, this camp (MAL Pamir) received mountaineering tourists from across the world.

Origins of mountaineering tourism in Kyrgyzstan

Mountaineering in Kyrgyzstan has a long history, stretching back to the 1920s and the Soviet era, when the first early ascents where made in the great mountain ranges of the Caucasus, the Pamirs and the Tien Shan. Under the Soviet system, mountaineering was actively promoted as a tool for the physical development of the working people and the army.

This active promotion and development of mountaineering by the Soviets, led to the creation, from 1931 onwards, of permanent mountaineering camps in a number of mountainous regions, which included Kyrgyzstan. At the beginning of *perestroika*, five camps operated in Kyrgyzstan: Ala-Archa (Bishkek); Dugoba (Fergana); Ala-Too (Karakol); Vysotnik (Osh); and MAL Pamir (Osh).

The first mountaineers visited Kyrgyzstan in the 1930s as part of the research expeditions to the Pamir and the Tien Shan, during which they made the first ascents of many of the highest peaks. From the 1950s the focus was largely upon the most accessible mountain ranges. The peak of Kyrgyz mountaineering activity occurred in the 1970s and 1980s. During this period the glaciers Ak-Sai and Adygene in the Ala-Archa National Park (not far from the Kyrgyz capital of Bishkek) were visited every year by 4000 mountaineers from all over the USSR. At this time it is estimated that in Bishkek there were around some 600 mountaineers. Under the Soviet system, this mountaineering activity was based on rigid rules and procedures alongside a hierarchy of levels of competence and it was financed by state and trade union budgets.

With the collapse of the USSR in 1991, many of the alpinist traditions and practices established during the Soviet-era mountaineering system were lost. However, this also heralded new and exciting opportunities to attract mountaineers from across the world. As has been identified in a number of studies the quantity and quality of the mountains in Kyrgyzstan have a huge amount of potential to attract larger numbers of mountaineering tourists (and more general adventure tourists) from a global market.

It is exploiting this untapped potential that is the ultimate focus of the current research. By examining, in detail, the issues surrounding the existing activity centered upon the country's single biggest source of mountaineering tourism, Lenin Peak, it is hoped to identify not only how to optimize the sustainability of this present activity, but

also how the future development of mountaineering tourism (and adventure tourism more generally) in Kyrgyzstan can be developed on a sustainable basis.

Climbing Lenin Peak: Key features

As noted above, there have been some 19 routes established on Lenin Peak, with 10 of these from the northern Kyrgyzstan side and the remaining 9 from the sourthern Tajikistan side. It should be noted that the Tajik name for the mountain is Ibni Sino Peak. The vast majority of ascents are made from the northern side via Razdelnaya Peak and this can be considered to be the standard route of ascent. It is useful at this point to provide an overview of the ascent of Lenin Peak to orientate the reader to its key features. These will be referred to throughout the report.

Following the internationally accepted practice of naming camps in the mountains, we refer to the camps as follows: Base camp (BC) in the Achik Tash Valley is located at an altitude of 3600 meters; while Advance base camp (ABC) is at an altitude of 4200 meters. Visiting climbers will spend the majority of their visit in these two camps. Both of these camps can also be used to access other peaks in the vicinity. From ABC the standard route of ascent (Razdelnaya route) ascends up the glacier on the north face of the peak before traversing rightwards at an altitude of 5,200 meters (this area is referred to as the "frying pan" due to the extreme heat during the day) to reach Camp 1 (C1) which is located at an altitude of 5,300 meters. From here the route continues to reach the shoulder of the ridge above C1, which it follows to Camp 2 (C2) which is set at 6,100 meters just below the summit of Razdelnaya (6,148 meters). Sometimes a third camp (C3) is established at around 6,400 meters.

Confusingly, among some climbers, another procedure for naming camps is practiced. This is partly caused by foreign guidebooks using a different naming system, whereby the ABC is incorrectly called Camp 1 (C1), then the next camp (the true C1) becomes called Camp 2 and so on. This is not only confusing, it is also potentially dangerous as it can lead to misunderstandings which can then have severe practical consequences, e.g. in rescue situations and when sharing information about route and weather conditions on the mountain. *It is thus recommended that the convention outlined above is adopted by all those on the mountain*.

One method to help develop this shared use of terminology is to visiting encourage climbers to consult the first edition of the guidebook Mountaineering Areas of Kyrgyzstan by Vladimir Komissarov. This is available in Russian, English and French, and is posted on the Internet. In the guide there is a chapter about climbing Lenin Peak. Currently, the author is preparing a second, updated and expanded edition of the guidebook. As the chapters of this new guide are being written, they are being published in the online edition of the magazine "Asian Alpine E-News" (<u>https://asian-alpine-e-news.com/</u>). A description of the ascent of description of the wider Zaalay Range is published. In addition, there is also some brief information about the area of Lenin Peak and the route of ascent available on the Lenin Peak is published in **volume 23** of this magazine, while in **volume 37** a commercial sites of the tour companies offering programs for climbing Lenin Peak.

While this, when taken together the guidebook and the available commercial information, provides a considerable amount of guidance for climbers, *there is scope to greatly harness its dissemination*. For example, the creation of an Internet portal (which, as suggested below, could be used as a platform for also promoting mountaineering tourism more generally in Kyrgyzstan) that provided links to the Internet sites of all six tour operators and also provided links to access the guidebook and other important information and resources (e.g. general background on the area and its wider attractions, strategies for minimizing environmental impacts, alternative acclimatization strategies, alternative peaks to climb in the area etc.). Additionally, this portal could be used to promote the wider mountain areas of Kyrgyzstan with a view to encouraging and expanding the demand for mountaineering tourism.

Tourism on Lenin Peak: Consumers

The tourism associated with Lenin Peak is centered upon the Achik-Tash valley and it annually attracts a significant number of tourists from across the world. The exact number of tourists is currently unknown as tour operators do not share this information. However, it possible to estimate the size and value of this tourism based on information obtained from various indirect sources. Thus we estimate that in season 2018 around 1,100 people stayed in one of the base camps. This is estimated to split across the six operators as follows: Ak-Sai – 500; Pamir Expeditions – 200; Asia Mountains – 100; Tien Shan Travel – 100; Fortune Tour – 100; and ITMC – 100. It is further estimated that the average spend per tourist is \$600 USD, giving an estimated total of some \$660,000 USD the two month season. It is hoped that the Ministry of Tourism will be able to enable a more accurate number for visitors to be established by providing access to the data on the number of border permits issued for the area. This would also provide more accurate information on the source countries of visitors.

In response to this high level of interest in ascending Lenin Peak, tour operators have developed two general products: (a) a "full program" which is aimed at higher budgets and/or those who require or desire a higher level of local support; and (b) a "budget program" which is aimed at those on a more limited budget and/or who require or desire more limited local support. The full program includes almost all the necessary services for those wishing to attempt an ascent of the peak: the pick-up/drop-off at Osh airport; all transfers to/from the base camp, overnight accommodation in hotels (Osh/Bishkek) and in all the camps on the mountain; border zone permits; registration of passports; visa support, where required; registration with rescue services; access to all facilities provided at base camp (BC) and advanced base camp (ABC) – e.g. meals; toilets; showers; electrical charging points etc. and access to an experienced mountain guide for advice regarding ascent strategies.

The budget program typically includes transfers from the airport to BC and back; border zone permits; registration of passports; visa support, where required; registration with rescue services; access to BC and ABC infrastructure, but using own tents and with no meal provision; and access to an experienced mountain guide for advice.

For an additional fee it is possible for mountaineers to also access the services of a mountain guide for the ascent; porterage of luggage between all the camps, purchase of gas cartridges and the rental of various equipment technical equipment including radios.

The four source markets, and their shares, for Lenin Peak are estimated as follows:

- A. The market segment from <u>CIS countries</u> is about 25% of tourists. This segment is typically accessing a budget program;
- B. The market segment from e<u>conomically developed countries</u> accounts for about 60% of all tourists. It is estimated that 80% of this segment select the full program; the remaining 20% select a budget program;
- C. The market segment from <u>developing countries</u> is in the region of 5-10% and the majority of visitors select a budget program;
- D. The demand from the <u>local market</u> segment is less than 2% and typically a budget program is selected.

Overall, the current tourist demand splits almost evenly between the full program and the budget program with developed countries being the single biggest segment and, by far, the most valuable.

The issue of the low success rate on Lenin Peak

A major attraction of Lenin Peak is its reputation as being one of the technically easiest 7000m peaks in the world. Despite this, or as we discuss below, partly because of this, surprisingly few mountaineers successfully reach the summit. Indeed, while most climbers will reach and sleep at C1, far fewer will actually sleep at C2 (although they may visit C2, thus achieving a highpoint of 6,100 meters). Here we identify the reasons as to why there is such a low success rate on Lenin Peak.

While there are ten established routes of ascent on the northern (Krygyz) side of Lenin Peak, the *vast majority* of climbers will attempt the peak by the Razdelnaya route as this is the safest and technically most straightforward route. Some sources estimate that as few as 10-15% of attempts are successful, while others suggest a more optimistic 25%! Given that Lenin Peak is considered to be "easy", both estimates are surprisingly low. The obvious question here question is: *Why do so few climbers reach the summit?*

The first reason is almost certainly that too many people underestimate the challenge involved. As it is widely considered to be "easy", many people overlook the fact that, regardless of the low degree of technical difficulty, it is still a 7000m peak with all the associated implications and challenges of dealing with high altitude, bad weather and the general high mountain environment. Accordingly, too many climbers are not adequately physically and/or mentally prepared when they arrive at base camp. Additionally, too many climbers do not adequately acclimatize for the ascent. For example, our own research and experience suggest that where climbers use a "one stage acclimatization" strategy, only 6% ultimately made a successful ascent. Where climbers used a "two stage acclimatization strategy" the success rate was 30%. It is

estimated that typically only 20-25% of climbers use a two stage acclimatization strategy. *It is this combination of lack of preparedness and the adoption of an inadequate acclimatization that appears to account for the very low success rate.*

In short, climbers must arrive adequately prepared in terms of both their physical and mental condition (and have adequate technical skills) plus they need to adopt a two stage acclimatization strategy, if they are to maximize their chances of success on Lenin Peak.

Improving success rates

Essentially, there is only so much tour operators can do here and this consists of ensuring clients are given good advice as early as possible to enable them to make the necessary plans and take the necessary actions. Having a dedicated Internet portal with the key information on planning and preparing for an ascent of Lenin Peak would greatly help here (and perhaps for mountaineering more generally in Kyrgyzstan). First and foremost, climbers must arrive with appropriate levels of fitness and the necessary basic skills. However, ensuring that this is the case is far from easy. For their part, the tour operators can try and communicate the need for clients to address these two basic prerequisites. Similarly, the communication of suitable itineraries for a two stage acclimatization strategy can help climbers ensure they allocate sufficient time to their ascent and to adopt an approach to doing do so that not only increases their chances of success but also increases the safety of their ascent.

Improving customer satisfaction

While some of the current level of failures might be addressed by the suggestions above, inevitably there will continue to be a significant number of mountaineering tourists who fail to summit Lenin Peak. This will constitute a highly negative experience for many visitors, particularly those whose summit hopes end very early in their trip when it becomes clear that they may not have the necessary fitness for an ascent to over 7000 meters. Here the development of a range of separate itineraries on surrounding lower peaks could provide suitable and satisfying alternatives for this segment. Additionally this, along with the proposal in Section 7.6 regarding alternative acclimatization itineraries, helps to disperse the impact over tourism over a wider area, thus minimizing the impacts on C1 in particular (see Section 7.2). As well as alternative mountaineering objectives, the promotion of other natural area tourism activities such as horse riding and trekking could be promoted which would also provide additional income to local people. More generally, drawing upon the existing tourism infrastructure (e.g. that provided by the members of the Krygyz Community Based Tourism association – KCBTA) and by the base camps of the tour operators, scope exists to develop the Achik-Tash valley as a hub for generating demand for adventure tourism both locally and more widely in the Chon-Alai district. Such an approach has already been successfully implemented in the eastern part of the Issy-Kul region.

The promotion of Kyrgyz mountaineering tourism

Due to the sheer scale and quality of its mountains, the relative popularity of Kyrgyzstan as a mountaineering tourism destination is considerably higher than the country's general popularity for attracting tourism. *In short, Kyrgyzstan has a much greater potential to be a world class destination for mountaineering tourism than it has to be a general tourism destination*. By sustainably exploiting this natural resource, Kyrgyzstan can not only greatly increase the number of mountaineering tourism, but ultimately increase its amount of natural area tourism generally.

While Kyrgyzstan has developed a strong reputation within the global alpine community, other than reports and articles by previous expeditions published in climbing magazine and online (e.g. via the American Alpine Club) and information provided by commercial tour operators, there is no independent and comprehensive easily accessible source of information on mountaineering in Kyrgyzstan. In addition, there is an absence of any coherent strategy to disseminate information about Kyrgyz tourism generally never mind specific areas of adventure tourism such as climbing, mountaineering and ski-mountaineering etc. While for Russian speakers there is quite a lot of good information on Kyrgyzstan's mountains is available via the Internet, a huge gap exists for reaching English speakers. Accordingly, an immediate priority for improving the promotion of mountaineering tourism in Kyrgyzstan concerns the development of a universal/one-stop Internet portal providing all the necessary information for potential visitors.

Presently, the promotion of Kyrgyzstan as a mountaineering tourism destination is very poor. While private sector tour operators do selectively market their own offers, they do not actively promote more general mountaineering (and adventure) tourism demand. To a limited extent, this wider promotion is undertaken by some non-profit public sector bodies, e.g. the Kyrgyz Alpine Club (KAC) which as an active member of the Union of Asian Alpine Associations (UAAA) promotes Kyrgyzstan as a mountaineering destination to the developed Asian countries. The KAC has developed a number of successful initiatives, such as the Mountain Spirit project, which has been running for the last five years. This invites young alpinists from member countries to come to Kyrgyzstan, free of charge, in return for them writing and publishing reports on their experiences, with a view to encouraging other young alpinists to visit Kyrgyzstan. This has led to an increased numbers of Asian climbers visiting. Similarly, the recent ascension in 2017 of the Kyrgyz Mountain Guides Association (KMGA) to full membership of the International Federation of Mountain Guide Associations (IFMGA) has greatly increased the country's visibility as a mountaineering destination. Scope to increase this influence and visibility exists through membership of the International Union of Mountaineering Associations (UIAA) which is effectively a global version of the UAAA.

Given the widespread use of the Internet there exists scope here to develop a resource for the general promotion of Kyrgyz mountaineering tourism to a global audience. As suggested above, this could be *initially* based upon an Internet portal developed specifically for promoting Lenin Peak which is currently the single biggest mountaineering attraction in Kyrgyzstan.

Tourism on Lenin Peak: Suppliers

Over the last four to five years, there have been six tour operators providing tourism services on Lenin Peak. In the past this has been as high as fifteen operators. The six companies and their relative market shares were highlighted above. This shows that Ak-Sai Travel have about 45% of the market, Pamir Expeditions 18% and the remaining four: Tien Shan Travel; Asia Mountains; Fortune Tour and ITMC have about 10% each.

Types of employment

Although a short season of about two months, running from early July to early September, the tourism demand generated by Lenin Peak creates a significant amount of employment for around 200 people. The range of positions includes: camp managers/chiefs; cooks; kitchen workers; handymen/laborers; drivers; horsemen; high-altitude porters; mountaineering instructors; mountain guides and medical doctors.

The vast majority – circa 80%– of those employed at Lenin Peak are Kyrgyz citizens. Typically, they are employed in the lower skilled, lower paid occupations (e.g. kitchen staff; handymen; and drivers) while non-Kyrgyz citizens occupy the higher skilled and higher paid roles (e.g. camp managers; mountain guides; and high altitude porters). These labor migrants are drawn from the CIS countries and mainly from the EEU. The local population from the Alai Valley provides all the horsemen and many of the handymen and kitchen workers.

In addition to the services (and associated employment) provided by these six tour operators, additional services (e.g. transport from Osh to BC and porterage between the various camps) are provided by a range of different sources. Transfers to and from Osh are either provided by the tour operators or by specialized transport companies based in Osh. Porterage services, using horses, between BC and ABC are provided by residents of the Chon-Alai district. Typically, each tour operator has a permanent local partner offering this service to users of each BC. Additionally, there are a number of other local horsemen providing a similar (typically cheaper) service directly to tourists. As discussed below, mountain guides and high altitude porters are frequently self-employed, although some may have a special relationship with one or more of the tour operators.

Mountain guides

A key occupation is that of the mountain guide. It is the role of the mountain guide to supervise the ascent and provide advice and technical support, ensuring client safety. Since 2018 the Kyrgyz Mountain Guide Association (KGMA) has been a full member of the International Federation of Mountain Guide Association (IFMGA) and all qualified KGMA guides are recognized as having a professional standard equivalent to guides in, for example, France, Switzerland and the USA. While in some countries (e.g. the alpine region of Western Europe and in North America) the use of the title "mountain guide" and the provision of mountain guiding services is restricted to those individuals who have obtained the required professional qualifications, this is *not* the case in Kyrgyzstan at present. Consequently, it is possible for anyone to designate themselves as a mountain guide and perform this role. This current issue might be addressed in the future by proposed legal changes in relation to Kyrgyzstan's tourism industry.

However the current situation is a cause for concern as the well paid nature of the work attracts unqualified climbers to provide mountain guide services and there is no effort to monitor the suitability of those providing such services. This raises concerns about the safety of their clients and the general quality of what is being provided. It is estimated that current demand, excluding those tourists who bring their own guide, is for around 40 professional mountain guides on Lenin Peak. However, in season 2018 it is estimated that only 20% of those who were locally based and performing the role of mountain guides, held an IFMGA qualification (guide's carnet). Those acting as non-qualified guides are typically citizens of CIS countries.

As noted above, in the other countries whose national mountain guide training is recognized by the IFMGA, anyone using the title of mountain guide typically must hold a recognized professional qualification (of that country or another member state of the IFMGA) and would be working under strict regulation, being licensed to practice in much the same way as a medical practitioner. This is currently not the case in Kyrgyzstan. Such a change in legislation should be actively considered for implementation in order to protect the quality and safety of guided mountain tourism, not only on Lenin Peak, but throughout Kyrgyzstan.

The current shortfall identified of qualified mountain guides is problematic on Lenin Peak. In the *short term* any change in the law, requiring only IFMGA guides to be employed in this role, would create a significant undersupply in the necessary labor due to the lag caused by the rigorous training and certification scheme. Recognition of this fact requires that an acceptable and pragmatic solution is devised that ensures the safety of tourists and provides them with a positive experience.

One potential solution is to create a cost effective and timely customized certification "Lenin Guide" scheme, taking approximately three weeks, just for Lenin Peak. This *fast –track* route would be available to those individuals who had the necessary technical training and background for guiding on Lenin Peak; the required client knowledge and skills; and a record of successful ascents of the mountain. In the short term this could fill the gap in qualified mountain guides and go some significant way to improving the safety and experience of tourists. The KMGA has the necessary resources and experience to provide such a scheme.

While the KMGA accredited mountain guides have full professional equivalence with other IFMGA recognized guides, there does remain a shortfall in respect of their access to insurance cover for professional indemnity; public liability; and their own personal accident cover. This is something that IFMGA guides from other countries would almost certainly hold (and be required to hold by law) and it is something clients would expect their guide to have. The KMGA needs to address this issue (perhaps with the support of the IFMGA) in the immediate future to protect the safety and wellbeing of both its members and their clients, as well as protecting the reputation of Kyrgyz mountain guides.

High altitude porters

The second category of specialized employment on Lenin Peak is that of the high altitude porter (HAP). The work this role entails is both physically demanding and dangerous. Consequently, it attracts a high rate of pay, with a single porter earning in the region of 200,000-300,000 Soms (approx. \$3,000-\$4,500 USD) in the short two month season. For tourists, this is a service which can add a considerable amount of additional cost to their trip and consequently may directly contribute to the number of tourists using a "one stage acclimatization strategy". Certainly, the feedback gathered during own research, suggests that for some climbers the costs of porterage to the higher camps is an influence upon their behavior and decision making regarding acclimatization while on the mountain. Additionally, the pricing of porterage services is an area that tourists frequently report as a source of dissatisfaction and this probably merits closer investigation.

Given the hazardous nature of the work of a HAP, under the Kyrgyz law on Technical Regulation, the employer has an obligation to ensure that anyone employed to perform the role of a HAP has the necessary professional knowledge and skills in order to comply with health and safety requirements. Where HAPs are self-employed, there needs to be requirements that anyone performing the role of a HAP, under patent/license or as an IP, has the necessary certification. The nature of the role of an HAP needs to be formally recognized and clearly differentiated from the very different traditional occupation of 'porter' with which it is typically associated. The professional training of HAPs is carried out by the School of Industrial Mountaineering of the Kyrgyz Alpine Club which has a license for educational activities in this area.

There is a number of problems associated with HAPs and these are evident on Lenin Peak. First, tour operators are reluctant to employ HAPs due to the high costs of doing so and also, due to the dangerous nature of the work, with the associated difficulty of providing the necessary level of safety and the potentially high costs of any rescue or compensation arising as the result of an accident. Consequently, many HAPs work on a self-employed basis and will typically have none of the desired insurance cover due to the specialized insurance for this type of work not being available from Kyrgyz insurers. In the event of an accident, this lack of insurance cover can mean difficulties in organizing any rescue effort, due to the associated high costs, and also means that any lost or damaged goods carried on behalf of tourists are not subject to any compensation.

Dealing with the employment issues

As with mountain guides, the current situation with HAPs on Lenin Peak is a barrier to the future development of safe and high quality mountain tourism, not only on Lenin itself, but more widely throughout Kyrgyzstan. As suggested above, in the longer term, there is a strong case for establishing regulations on mountain guiding similar to those found elsewhere, e.g. as in France. In the shorter term the proposed "Lenin Guide" certification scheme offers a practical way to address some of the issues identified. Similarly, there is the need to develop appropriate guidelines and regulations regarding the work of HAPs in Kyrgyzstan. This would be greatly aided and supported if there was the introduction of some form of required certification scheme for those undertaking HAP work.

An important and additional consideration, central to the concept of sustainable tourism, concerns the involvement of the local community. As identified above, in terms of employment this mainly involves the horsemen working between BC and ABC. Potential exists here to increase local employment. For example, young local men could be trained to be HAPs by introducing the sort of scheme developed by the Swiss Helvetas project, in collaboration with the KAC, to train young men from Kash Kasu and Sary Mogol to be HAPs. Similarly, young local women could work in catering at BC and ABC if they were given the appropriate training in foodservice hygiene and language training required to work with tourists. Both of these initiatives would increase the level of local employment on Lenin Peak.

Tourism on Lenin Peak: Environmental issues

Overall, the general ecological and sanitary conditions in the Achik Tash valley of: (i) the mountaineering camps; (ii) the shepherds' summer pasture camps; and (iii) the Lenin glacier is of great concern. The activities of the camps in this aspect are regulated by the existing SANPINs (these are the official state sanitary and epidemiological rules and regulations) for both temporary tourist camps and the summer shepherds' camps. While the operations of the base camps at an altitude of 3,600 meters can be generally considered to be meeting the necessary SANPINS regulations, this is not the case elsewhere on the mountain. As is highlighted below, while some of the tour operators do appear to be attempting to observe the regulations in their operation of camps at ABC, this is not always the case. Additionally, due to their high altitude, the operation of C1 and C2 present challenges and this too is discussed below. In assessing the state of the camps, we did not set ourselves the task of verifying the full compliance of these camps with the requirements of SANPINs as this is the task of the specialists of the state sanitary and environmental inspections. We have made a consumer assessment of the presence of garbage bins and garbage in the camps and adjacent areas, the presence and condition of toilets and water intakes.

The specific locations of the camps at base camp and advanced base camp are allocated to the tour operators who assume full responsibility for their operations including environmental impacts and observation of the established SANPINS. The camps located higher on the mountain (i.e. Camps 1; 2 and 3) while the specific locations are not allocated directly to the tour operators, they are still subject to the relevant SANPINS.

Base camps (BC)

The six base camps operated by the tour companies, the summer shepherd camps and the abandoned Soviet mountaineering camp are located in the Achik-Tash valley at an altitude of 3,600m. These are subject to state sanitary inspection 2-3 times during the summer season of July-August. It would appear that the requirements of the established SANPINs are being met in these camps.



Photo 2. Location of Base Camps in Achiktash Gorge.

Advanced base camps (ABC)

The advance base camps (ABC) are located at an altitude of 4200-4300m on the left bank moraines of the mid part of the Lenin Glacier. The camps are concentrated around two specific territories. In <u>location 1</u>, The Ak-Sai, Tien Shan, Asia Mountains and ITMC camps are on the leftmost and relatively stable moraine of the glacier and some 2-3 km from the start of the standard (Razdelnaya) route to Lenin Peak. Further south, in <u>location 2</u>, the Pamir Expeditions and Fortuna Tour camps are located on the crest of the very mobile moraine immediately adjacent to the left bank of the main glacier, some 500 meters from the beginning of the standard Razdelnaya route.

Overall, the ecological and sanitary condition in the various ABCs are not quite as high as found in the base camps. This is almost certainly due to a combination of the higher costs associated with the implementation of the various SANPINs and the absence of any enforcement of these through an inspection program. As highlighted above, the tour operators locate their camps at one of two specific geographic locations and here significant variations in environmental practices can be observed between these two zones. In <u>location 1</u> it appears that the four tour operators are broadly complying with the requirements of SANPINs as there are no visible garbage accumulations in the area. In some, but perhaps not all camps, there are garbage containers for the separate collection of waste (e.g. food, glass and metal, paper and cardboard, plastic). Within the area some waste is disposed of and buried (and in some cases burned) on site, while other waste is removed and taken down to BC. The exact system of waste management for each camp does need to be verified, but there were no explicit external signs of violation of the applicable SANPINs. As such, location 1 of ABC can be considered to be *generally* clean.



Photo 3. ITMC company Advance Bace camp.

However, in <u>location 2</u> on the mobile moraine on the left edge of the main glacier, it is a very different situation. Here, the moraine immediately above (to the south west) and in particular below (to the north east) of the two camps in this location (Pamir Expeditions and Fortuna Tour) is *very heavily* littered with significant concentrations of mixed waste over an extensive area. This waste starts within 20m of the Pamir Expedition's camp on the crest of the moraine where exposed human waste was observed and recorded. This specific occurrence is due to the highly mobile nature of the ground disturbing an old latrine site and underlines the difficulties of placing camps in this location. The existence of such poor conditions can be attributed to both the lack of observing the required SANPINs by these camps and the lack of effort by the local inspection authority to enforce the established regulations. During the summer season there are no SANPINs inspections at ABC.



Photo 4. Tents of ABC Fortuna tour company. Right side of moraine are plenty trash



Photo 5. Fresh trash near Fortuna tour company ABC.



Photo 6. Fresh trash covered by stones near Pamir Expedition ABC.

Camp 1(C1)

The first high camp on the mountain is Camp 1 (C1) and this is located at an altitude of 5,300 meters, under the northeastern slopes of the Razdelnaya Peak, through which the standard route to Lenin Peak passes. Here, unlike BC and ABC, there are no specially designated places for tents. The exact location for tents is selected annually depending on the condition of the slopes in an immediate radius of 100-150 meters of the preferred location. Each season the tour operators select and prepare tent pitches within a compact area of this location. Independent climbers also pitch

tents within this shared location for the first high camp on Lenin Peak. Here there are very significant accumulations of waste over the short season. The camp area is littered with plastic bags of rubbish and human waste left by both clients of the tour operators and by the independent climbers.



Photo 7. Camp 1.

In some, probably a minority of cases, individuals do exercise responsibility and remove their own rubbish, but in too many others this does not happen. Some tour operators may endeavor to remove the rubbish of their clients, but the extent to which this is undertaken in a systematic basis is unclear. Regardless, by the end of each season there are significant rubbish accumulations evident and the dumping of waste bags in open crevasses has been observed.

While, in both base camp and advanced base camp, tour operators organize and maintain toilet facilities for their clients, this is *not* the case in the high camps. Thus, in C1, there is a number of locations used for the disposing of human waste. In the lower part of C1, which is on the wet glacier, a large number of holes are dug in the glacier during the season. On the drier upper part of the camp, where most tents are located, a rocky terrace is the site used and here high concentrations of human excrement are clearly visible spread across a wide area. Overall, C1 is a *very* unpleasant place and, as such, it draws much negative comment from visitors.

If we consider the causes of the deplorable state of camp C1, then the following reasons and circumstances come to the surface. First, the exact locations of the camps C1 and C2 are installed annually in new places, depending on the ice and snow conditions, thus the territories are not entirely fixed for the tour operators (unlike BC and ABC). The tour operators and the independent climbers select the location which is deemed most suitable in a given season. This contrasts with the situation at both BC and ABC where the specific sites for camps are allocated to operators and they assume direct responsibility (and can be held accountable) for their condition. Second, while tour operators and responsible climbers may remove their garbage, the less responsible climbers simply place garbage in plastic bags and leave these at the high camps. Tour operators need to do more to promote appropriate behavior amongst visiting climbers.

The issue of human excrement at C1 is a more intractable problem. Tour operators have so far failed to establish a workable solution and no effective controls for managing human waste are currently in place. Given the long term, cumulative impacts of human excrement being concentrated in one location, much greater consideration to effectively tackling and addressing this issue needs to be given collectively by the tour operators and the establishment of agreed rules and procedures. This may require external consultation and reference to best practice in similar environments elsewhere. Current practice is certainly not sustainable and it attracts a great deal of negative feedback from visiting climbers.

Camp 2 (C2)

The second high camp is Camp 2 (C2) and this is located just below the summit of Razdelnaya Peak (6,148 meters) at an altitude of 6,130-6,140 meters. Generally speaking, the condition of this camp is much less of a concern than that of C1, due to the simple fact that is reached by much fewer climbers (as we observe above, C1 marks to *the* sleeping high point for a significant number of would be ascenders) and those that do reach and sleep at C2 tend to be more the experienced and environmentally responsible climbers. This situation, combined with the perceived physical challenge of carrying down rubbish, probably goes a very long way to account for the rubbish observed in C1 and elsewhere on the mountain. This suggests that tour operators probably have an important role in raising environmental awareness in their clients and *actively* promoting (and enforcing) appropriate behaviors amongst tourists when on they are on the mountain.



Photo 8. Camp 2.

Camp 3 (C3)

The third high camp, Camp 3 (C3) on Lenin Peak is located on its western shoulder at an altitude on 6,400 meters. Since this site is rarely used (some guided parties use this location to shorten the final summit day to improve the chances of clients' success) or during poor weather conditions. Since this location is rarely used, there is currently no immediate concern regarding its environmental condition. However, given the suggestion below in respect of establishing an emergency shelter at this location for safety reasons, this is something that might need to be monitored in the future.

The discussion above raises the question as to why there is such a poor state of the ecology and a failure to observe the established SANPINs in the higher camps? It is possible to identify two main reasons for the differences: (1) the much higher costs associated with the implementation of SANPINs in the ABC camps and (2) the complete lack of control over their implementation by the controlling authorities and the absence of adequate controls by the tour operators. If we consider the reasons for the deplorable state of camp C1, then the following causes and circumstances can be identified: (1) the locations of camps C1 and C2 change annually depending on the ice and snow conditions; (2) the territories are not assigned to firms and they are thus not responsible for permanent areas as is the case for the base camp locations; (3) the tour operators and independent climbers select locations which are the most convenient and safe for them; (4) the low level of social responsibility of some climbers combined with the impacts of mountain sickness on others; (5) the significant effort and cost required for cleaning and transporting garbage; and finally, (6) the physical impossibility of monitoring the state of the camps on the route by the state.

More serious, and potentially more intractable, is the situation with the toilets in camp C1. Current efforts to establish and manage toilets by the tour operators are limited and ineffective. The high day time temperatures regularly experienced at C1 quickly reveals human excrement and rubbish throughout the area occupied by the camp. It would appear that a more permanent and effective solution is required and this will necessitate the joint efforts of the tour operators and the local state authorities.

Lenin Glacier

As indicated above, the ecological state of the mid part of the Lenin glacier (circa 4,300 meters), designated as location 2, which is occupied by Pamir Expeditions and Fortuna Tour camps, is a cause for serious concern. Here, along the moraine's crest and either side of it (particularly the eastern one adjoining the exposed glacier) for a distance of around 1,500 meters there are significant concentrations of camp garbage. Photographs which were taken over a number years up until 2018, clearly show these accumulations. While one might speculate at the origin of this garbage, it is clearly mostly recent, but perhaps may spread as far back as twenty to twenty five years.



Photo 9. Trash on the Lenin Glacier.



Photo 10. Trash on the Lenin Glacier.



Photo 11. Trash on the Lenin Glacier moraine.

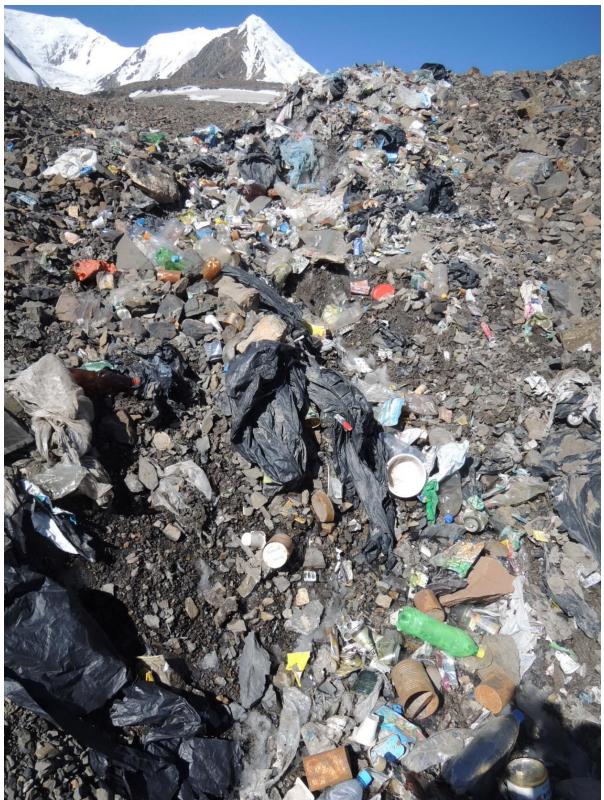


Photo 12. Trash on the Lenin Glacier moraine.



Photo 13. Trash on the Lenin Glacier moraine.

The presence of the rubbish on the mid Lenin glacier was first recorded by us in 2012. This was subsequently reported at various governmental meetings, right up to the level the Council for Investments and the Economy under the Prime Minister of the Kyrgyz Republic. In 2014, the Prime Minister directed the State Agency of Environment and Forestry to clean the glacier of Lenin, and this clean-up operation was allocated about 2 million Soms from the state environmental fund. While these funds were apparently spent, the glacier was never cleared. The huge scale of the problem on the Lenin glacier is now such that it is very difficult to see how it might be resolved without direct government intervention and support. However, in light of this corruption and given that state monies have already been spent to tackle this problem, but the necessary cleanup activities were not performed, it would seem doubtful that, without appropriate controls being put in place, that the state can be expected to allocate further funding to this area.

This littering on the Lenin Glacier reflects the absence of any proper ecological or sanitary regulations for the operation of tourist camps during the first fifteen to twenty years following Kyrgyzstan's independence. Over this same period, there was an absence of social responsibility exercised by both the tourism operators and their clients. However, even once the relevant SANPINs were established these have not been adequately enforced to ensure the necessary controls upon the activities of both the tour operators and tourists. This general situation is exacerbated in the more remote and difficult to access locations such as the high camps (C1 and C2) on Lenin Peak.

The question of ethics and morality.

There is another question, that can not stay away. Periodically, the remains of the glacier are melted from the glacier (Photo 49) of those whom the mountain "took for itself" in the history of its development. Finding a place for them is probably the responsibility of those who go to the mountain today. However, this is a subject for discussion and finding a solution.



Photo 14. Mummies on the glacier

Tackling the environmental problems

As a first and obvious step, there is a need to ensure the enforcement of the existing SANPINs in both BC and ABC. This will require that a systematic scheme of inspection is adopted and implemented across the tourist season. Aligned to this, is the requirement for greater regulation and control of independent tourists arriving at Achik Tash and the impacts associated with their informal camps. These camps are absent of all the infrastructure provided by the tour operators and can have a disproportionate impact on the local environment. This would benefit from the adoption of the sort of protective practices introduced in similar wild locations in places like Nepal. This would require action by the local government authorities to enact the necessary legislation which could be jointly administered via a formal public-private partnership with an appropriate organizational grouping of the existing tour operators (e.g. a Lenin Peak Tour Operators Association), particularly in respect of enforcement at ABC and above.

An important additional consideration for lessening impacts, particularly in C1 and C2, would be to develop suitable alternative acclimatization itineraries using the neighboring peaks surrounding BC and ABC. This could significantly reduce the number of nights climbers spend in the high camps (C1 and C2) and thus dramatically reduce the current level of impacts. Tour operators would need to devise and promote suitable alternative acclimatization itineraries with the caveat that proactive steps be taken to minimize and contain the impacts of visits to these new peaks.

Two further measures, which have the capacity to help tackle the identified environmental problems, would also require the introduction of new legislation. The <u>first</u> of these would be the introduction of some form of landscape protection status such as "national park" or similar for the Achik Tash valley at the local or, *preferably* at the state level. This could be combined with the <u>second</u> measure, the introduction of an ecological/environmental tax on visitors <u>which would be directly linked</u> to funding the necessary landscape protection e.g. rubbish removal and monitoring of ecological impacts of tourism within the area and the general operation of the park.

Tourism on Lenin Peak: Safety

While there is an absence of reliable statistics for accidents on Lenin Peak for the entire period since Kyrgyz independence, it is possible to develop an accurate overview of this issue by drawing upon a range of sources. This includes interviews with those who have a long term association of working on Lenin Peak, our own fieldwork and observations, as well as relevant information posted on the Internet.

In each short summer season on Lenin Peak there are typically 5-10 serious accidents, of which a third (1-3) are fatal. These accidents occur due to both <u>subjective</u> <u>hazards</u> (i.e. those created by climbers themselves) and objective hazards (i.e. those caused by the terrain and weather). However, there is typically an overlap between these two types of hazards. Thus, while accidents may be attributable to an objective hazard such as avalanches, ultimately this can be the result of poor decision making (a subjective hazard) upon the part of those involved.

As a general observation, the highest proportion of accidents occur with commercial groups (where climbers pay a fee to a tour organization to join a group for the purposes of ascent) who are often accompanied by a "guide" or may hire a guide locally on arrival. This does sound somewhat counterintuitive as logically, hiring a guide should *reduce* the risk of being involved in an accident. However this high incidence of accidents amongst guided parties serves to underline our earlier concerns expressed above about the number of unqualified guides working on Lenin Peak. This scenario with commercial groups can be contrasted with independent groups (who have a lower incidence of accidents) that typically consist of appropriately experienced and highly motivated climbers who self-organize for the purposes of the ascent.

Due to the lack of any effective regulation concerning who can lead parties on Lenin Peak (and elsewhere in Kyrgyzstan) commercial groups do not always have properly qualified and certified IFMGA (or equivalent) mountain guides responsible for their time on the mountain. As these qualified guides *are* expensive (they are the highest paid category of worker on Lenin Peak), those providing commercial expeditions can greatly reduce their costs by employing lower qualified (and thus, cheaper) individuals. This can include those holding a mountain leader or other lesser guiding qualification or those who are unqualified but experienced mountaineers. This scenario is exacerbated by: (a) the current shortfall in available properly qualified mountain guides on Lenin Peak as noted above; and (b) the fact that many overseas commercial groups, not subject to any regulation concerning this area, bring their own guide who may or may not be properly qualified. The number of unqualified, or insufficiently qualified people, working as mountain guides on Lenin Peak must be considered a serious matter and one which undoubtedly does not contribute to the safety of tourists seeking to ascend the mountain. Again, this underlines the need for some form of effective action in respect of the regulation and control of the guiding activity.

Subjective hazards

The main type of danger here is the carelessness of people (both mountain guides and climbers) and is reflected in an underestimation of the danger of objective factors and an overestimation of personal strengths, knowledge, skills and abilities. In the case of Lenin Peak, this underestimation is almost certainly exacerbated by the widely held belief that it is the "easiest 7,000 meter peak in the world". It should be noted that many of the tour operators typically promote Lenin Peak in this way to increase business without perhaps *also* emphasizing the necessary caveats that climbers require to be adequately prepared and experienced to ensure a safe and successful ascent. This mismatch, between climbers' abilities (and expectations) with the reality of the challenges for a successful ascent, is undoubtedly a key source of many of the accidents which do occur. This summation is supported in the vast majority of accidents which we have examined on Lenin Peak, but this is not too surprising *as this scenario is typically the case in mountaineering accidents elsewhere in the world too.*

Objective hazards

These types of hazards are dangers which reside in the physical environment of the mountain, i.e. crevasses, avalanches, bad weather and high altitude. Lenin Peak is heavily glaciated and the standard Razdelnaya route from ABC ascends and then traverses below the north face of the mountain to reach C1. From here it ascends to and continues along a ridge which rises to C2 just below Razdelnaya Peak before continuing towards the summit. On the first part of this ascent to C1, the terrain is extensively crevassed, while on the traverse section it is threatened by avalanches. These crevasses pose a significant danger and requires that climbers are in roped parties and have the necessary equipment and training to respond to any falls into crevasses. When these conditions are observed any falls into crevasses rarely lead to serious accidents. Unfortunately, while in most (but not all) cases climbers are in roped parties, too often the necessary skills and equipment for safe glacier travel (and crevasse rescue) are not always evidenced. In addition, solo (un-roped) climbers are sometimes observed, frequently these being the high altitude porters. This is not only highly risky behavior, which needs to be discouraged to protect the safety of those doing it, but it also sets a bad example and helps encourage this poor (and dangerous) practice amongst visiting climbers.

Crevasses

To ensure safe conditions on the glacier, particularly as the season progresses and large crevasses begin to open, it is increasingly necessary that crevasses are bridged with ladders and protected with fixed ropes. In recent seasons (possibly due to the effects of climate change) this is becoming a more serious problem around 4,500-4700 meters where the glacier is at its steepest. While there is obviously a cost in the supplying and installing of the necessary ladders and ropes, currently there is no organized system for this activity. Given its importance to safety, this requires that a more systematic and reliable arrangement is established for ensuring that a reliable route through the glacier is established and maintained throughout the season. At present it would appear the largest tour operator Ak-Sai is mainly performing this role. This suggests the need for a more equitable arrangement based upon formal cooperation between the six tour operators to spread the cost of maintaining safe passage and to provide an appropriate basis for the effective organization of the required activities.





Photo 15. Zone of crevasses, 2018.



Photo 16. Crevasse traversal by avalanche.



Photo 17. Crevasse crossing by ladder.

<u>Avalanches</u>

The danger of avalanches is present on all snow covered mountains. The scale and altitude of Lenin Peak means that the threat of avalanches is always present, and particularly so after heavy snowfalls which can and do occur during the tourist season. Indeed, the area just to the south of the current C1 was the site, of what is possibly the worst single loss of life in a climbing incident, in 1990 when a huge avalanche was triggered by an earthquake, killing all 43 climbers sleeping at the old site of C1 at 5,200 meters on the plateau referred to as the "frying pan". Avalanches are a regular occurrence at Lenin Peak and this fact is well known. Accordingly, it is vitally important that mountaineers are familiar with the factors which increase the likelihood of their occurrence and have the necessary rescue equipment and knowledge of how to use it should this be required. This can greatly increase the survivability of those unfortunate enough to be caught in an avalanche. However, avoidance of the risk of avalanches remains the best strategy.



Photo 57. An avalanche on a plateau ("griddle") below camp C1.

Bad weather

Above C1, while some risk of avalanche exists in the area immediately below C2, the principle danger here is bad weather, particularly in the form of high winds. As the entire route above C1 is on the crest of a ridge, it is highly vulnerable to very strong winds. These can prevent summit bids even when skies are clear and the weather is fine lower on the mountain. While heavy snow falls can occur during the summer season and disrupt ascents, it is these high winds, particularly above 6000 meters, which are probably the biggest source of disruption. Climbers often need to spend

several days at C2 waiting for a suitable weather window and many simply run out of time while doing so. When climbers do make ascent attempts in high winds (not uncommon, given their frequency), a combination of factors – the high altitude and the length of the summit climb, along with the associated physically tiring effects of the high winds – can exhaust climbers, creating serious problems on the decent back to C2 after a summit bid (be it a successful or an unsuccessful one). In this situation the installation of two to three emergency tents (possibly equipped with oxygen and a hyperbaric chamber) at the location of C3 (6,400-6,500 meters) could be potentially lifesaving. Again, this activity needs to organized and supported through the cooperation of the six tour operators.

Similarly, a reliable and readily accessible system for the provision of accurate weather information and forecasts in all the ABCs; C1 and C2 is vitally important to enable climbers to safely plan their ascents to coincide with the best weather. It is worth further noting that too many climbers do not allow enough slack in their program to account for bad weather which can in turn lead to pressure to make summit attempts during poor weather conditions. It is suggested that this latter problem can be partially addressed through providing more information and ensuring that climbers, at the planning stage, have a more informed understanding of the amount of time required for a successful ascent.

Mountain sickness

Finally, perhaps the single biggest objective danger to all climbers is that of high altitude mountain sickness (AMS) which, if not detected and dealt with soon enough (a quick descent frequently resolves many of the problems), is frequently fatal. AMS is a serious potential danger for even experienced climbers who can succumb to problems associated with altitude, but are less likely to do so as they are much more aware of the need to properly acclimatize and the strategies for doing so. With inexperienced climbers there is a much greater danger of AMS due to them failing to properly acclimatize and also for them to be less aware of the symptoms of high altitude sickness. Additionally, the typical early symptoms of AMS (a sore head; difficulties in breathing, sleeping and eating etc.) while not dangerous in of themselves, are probably the single biggest factor leading to climbers to abandon their attempts on the mountain. It is worth noting, that while a high level of personal physical fitness does not guarantee successful acclimatization, the absence of it can certainly contribute to failing to acclimatize and thus increases the risk of suffering AMS. Additionally, this highlights the importance of the role of gualified mountain guides for ensuring the safety of less experienced climbers as they can reduce the likelihood of AMS through ensuring a proper program of acclimatization and can also monitor visiting climbers and detect any early signs of AMS before it becomes too serious.

Many accidents in the mountain environment typically occur when a number of the subjective and objective dangers combine, something which can happen very quickly. This is where the importance of mountaineers having the necessary personal experience and knowledge to make appropriate decisions at the appropriate time. In the absence of this experience and knowledge, the safety of mountaineers relies on the knowledge and expertise of those guiding them. Without this personal knowledge

and experience or the guidance of others, Lenin Peak can become a very serious and dangerous mountain.

Medical Assistance

Lenin Peak is remotely located and when tourists fall ill (e.g. AMS) or have an accident, there is a need for immediate access to medical expertise. Currently the level of medical assistance is inadequate. The Ak-Sai camp at ABC does have a medical worker available and the Asia Mountains had a trainee doctor working at its ABC in 2018. Those using other camps also have to access these sources of medical advice on an informal basis. This arrangement appears to work, after a fashion, but it is not an adequate solution.

There is a need for a qualified doctor at ABC who is available to all those requiring medical assistance and a medically qualified person (e.g. a paramedic) working under this doctor's supervision, located at base camp. Once again, this is a facility that needs to be formally organized through the active cooperation of the six tour operators.

Rescue arrangements

Official responsibility for conducting mountain rescue in Kyrgyzstan resides with the Ministry of Emergency Situations (MES). However, as the MES has no trained mountain rescuers it has no practical role to play in mountain rescue operations on Lenin Peak or on the other mountains of Kyrgyzstan. Alternatively, there is another organization with over twenty years experience in rescue in Kyrgyzstan which is the publicly funded "Rescue in the mountains". This organization carries out mountain rescue work involving technical complexity and high altitudes. The organization has no permanent rescue staff but contracts with mountain guides, mountaineering instructors and experienced climbers to carry out rescue operations. Such operations require that payment is guaranteed by either an insurance policy or an appropriate institution. These ad hoc rescue teams are formed as and when required. A similar arrangement exists on Lenin Peak.

Normally, tourists will have specialist insurance cover that will cover the costs associated with any rescue operation. Where a rescue helicopter is involved these costs can be considerable. On occasion there is no suitable payment guarantee in place and this can delay rescue while a volunteer rescue team is formed. Where there is no insurance in place then it falls to the friends and colleagues of the affected individuals to organize and undertake the necessary activities. Within mountaineering, as reflected in the traditions of the Soviet school of mountaineering, there is an established culture of self-help and solidarity.

Typically, rescue efforts on Lenin Peak are conducted in a professional manner, but do tend to rely upon informal cooperation between the tour operators and volunteers. It is common practice for other climbers in the vicinity of an accident to come to the aid of fellow climbers and this sort of informal response can often be observed on Lenin Peak. Given the importance of having a reliable rescue facility on a mountain like Lenin Peak, there is scope for a more formalized arrangement between the tour operators to ensure a more systematic and effective response to rescue scenarios can be established. This more systematic and formalized arrangement between the tour operators would act to both improve the current performance of rescue activities and ensure a more equitable division of the associated workload.

Improving safety on Lenin Peak

To improve safety on Lenin Peak requires that an integrated approach is taken. The first of these involves what can be considered proactive activities. This includes providing accurate information to tourists before they arrive to make them more aware of the actual nature of the challenge of an ascent and the need to be properly physically and mentally prepared. Additionally, this involves highlighting the mountaineering skills required and the vital importance of having an appropriate acclimatization strategy and sufficient time to undertake it, allowing for potential (perhaps, inevitable) weather disruptions. Much of this can be achieved through developing an Internet portal to disseminate the key information for appropriate planning and advance preparation as suggested above.

The second proposed group of activities concern supporting safety once the tourist has arrived. The nature of these activities is such that they suggest the need for the creation of a more formal cooperative agreement between the six tour operators (i.e. a Tour Operator's Association). Such an arrangement would focus upon the organization and resourcing of <u>three</u> key activities: (1) the creation and maintenance of a safe glacier crossing between ABC and C1; (2) the provision of medical services at both ABC and base camp; and (3) the provision of a more formalized rescue capacity, which would include the provision and maintenance of an emergency shelter at C3 (6,400 meters).

Summary and Recommendations

This report has provided an overview of the current nature of tourism on Lenin Peak. The intention is to establish the basis for ensuring sustainable tourism, not only on Lenin Peak, but more widely across the mountains of Kyrgyzstan. Mountaineering tourism in Kyrgyzstan has a long tradition stretching back to the 1950s under the Soviets and it has significant future potential as a world class mountaineering destination. However, to fulfill this potential it is necessary to establish the basis for the sustainable development of mountaineering tourism in Kyrgyzstan. Here, by identifying and addressing the current issues associated with tourism on Lenin Peak it is hoped to provide the foundation for a realistic model of sustainable development. Below is a summary of the identified issues and suggested solutions which hopefully, as a minimum, offer the basis for a productive dialogue on the way forward on Lenin Peak and more generally in respect of mountaineering and adventure tourism throughout Kyrgyzstan.

At the outset, the issue of the low rate of successful ascents (estimated to be in the region of 10%-25%) was highlighted and the underlying causes of this problem were identified. It was suggested that the development of an Internet portal to provide prospective climbers with general advice on the need to be adequately physically and technically prepared, coupled with the necessary information and guidance required to enable the adoption of a more effective "two stage" acclimatization strategy, could improve not only success rates, but also safety levels on the mountain. Additionally, the potential to improve tourist satisfaction by providing alternative mountaineering itineraries, and indeed alternative activities, was highlighted.

The short season on Lenin Peak generates a significant amount of employment, some which is locally sourced, although some scope exists to increase local employment. Two key occupations are that of mountain guides and high altitude porters. In the case of mountain guides, there is a significant shortfall in appropriately qualified guides with too many unqualified guides working on the mountain which is a threat to both the quality of the tourist experience but, more importantly to the safety of tourists. In the short term this needs to be addressed by the introduction of a fast track "Lenin Guide" training and certification scheme for suitable candidates. In the longer term, legislation needs to be introduced limiting the provision of guiding services to those holding an IFMGA recognized qualification.

With regards high altitude porters (HAPs), a similar situation exists concerning the unregulated nature of the activity. It is a demanding and dangerous role which needs to be performed by individuals who have appropriate training and recourse to adequate support in the event of an accident. Again, the introduction of an appropriate training and certification scheme and appropriate controls on those working in this occupation is required. In respect of both mountain guides and the HAPs, there is currently a shortfall in in respect of adequate insurance cover and this needs to be addressed to protect both tourists and these workers.

Over the years, the considerable numbers visiting Lenin Peak have had, and continue to have, a major impact on the mountain's environment. Particular concern was raised in respect of parts of ABC and C1. At ABC there is a serious problem with rubbish on the moraine of the immediate left bank of the glacier. A considerable effort is required to remove this rubbish which has built up over more than a decade. In addition, the operation of the existing controls and regulations (SANPINs) need to be enforced to safeguard against future damage to this environment. At C1 there exists an ongoing problem with rubbish being discarded and an absence of any systematic basis for dealing with human waste. Here, there is the need for tour operators to collectively devise and implement appropriate solutions regarding the management of the impacts caused by climbers on this part of the mountain.

More generally, the development of appropriate alternative acclimatization routes would significantly reduce the impacts at C1 in particular. This initiative, coupled with the introduction of an appropriate form of landscape protection, could provide the basis for securing the longer term sustainable management of mountaineering tourism on Lenin Peak. With the support of the government, the introduction of an environmental tax on visitors to Lenin Peak could provide the necessary funding for the required landscape management activities. Moreover, by the creation of a "Lenin Peak Tour Operators Association" (LPTOA) it would be possible for a public/private partnership

to be established in conjunction with Chon-Alai district local authority to perform the necessary management role concerning all the issues associated with ensuring sustainable tourism on the mountain.

Importantly, it is the creation of such an operators association that is also necessary to address the crucial issue of the safety of both those working and visiting Lenin Peak. This is a major area of concern, for as we note, every year there are over a dozen serious accidents, with a third of these involving fatalities. The LPTOA would have the key role in addressing the issues involved here. This would include working towards increasing the number of gualified guides and the joint development of an Internet portal by the LPTOA to disseminate vital information to those planning ascents. This would help to increase climbers' awareness of the need to be better prepared (e.g. in terms of physical conditioning and the required necessary technical skills and to support the development of more realistic acclimatization itineraries) and would help to improve both safety levels and success rates. Additionally, it could be used to promote and reinforce more environmentally aware behaviours amongst visiting climbers. The LPTOA would also assume responsibility for maintaining safe passage between ABC and C1, plus the organizing of any rescue operations (this includes an emergency shelter at 6,400 meters). Finally, the LPTOA would assume responsibility for ensuring that an appropriate medical resource is available to those visiting and working on the mountain.

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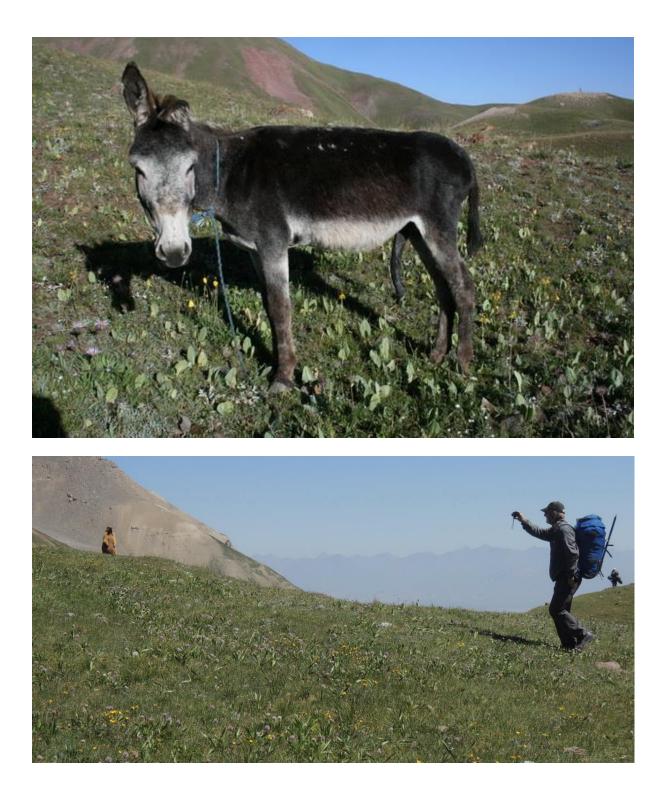


Dr. Stephen Tailor, Professor of Edinburgh Napier University, UK

Photos of Lenin Peak life.





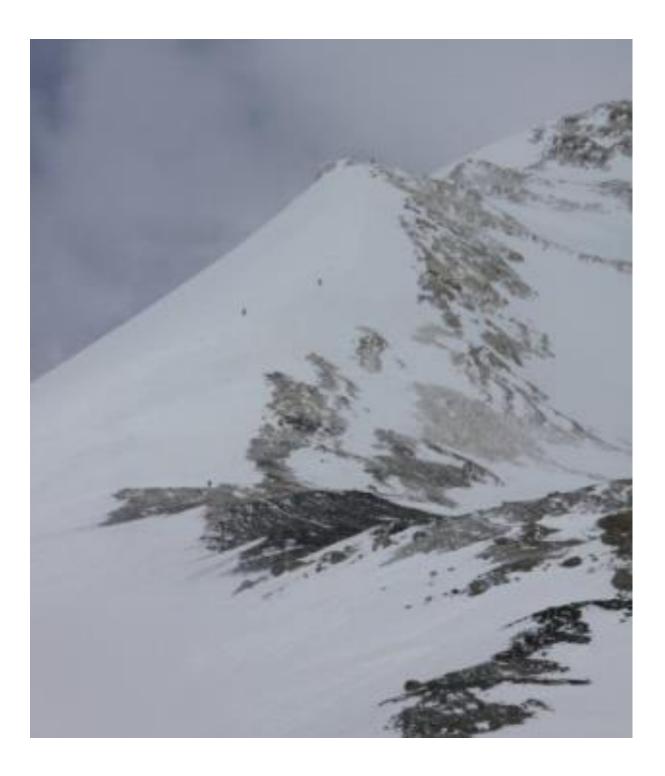


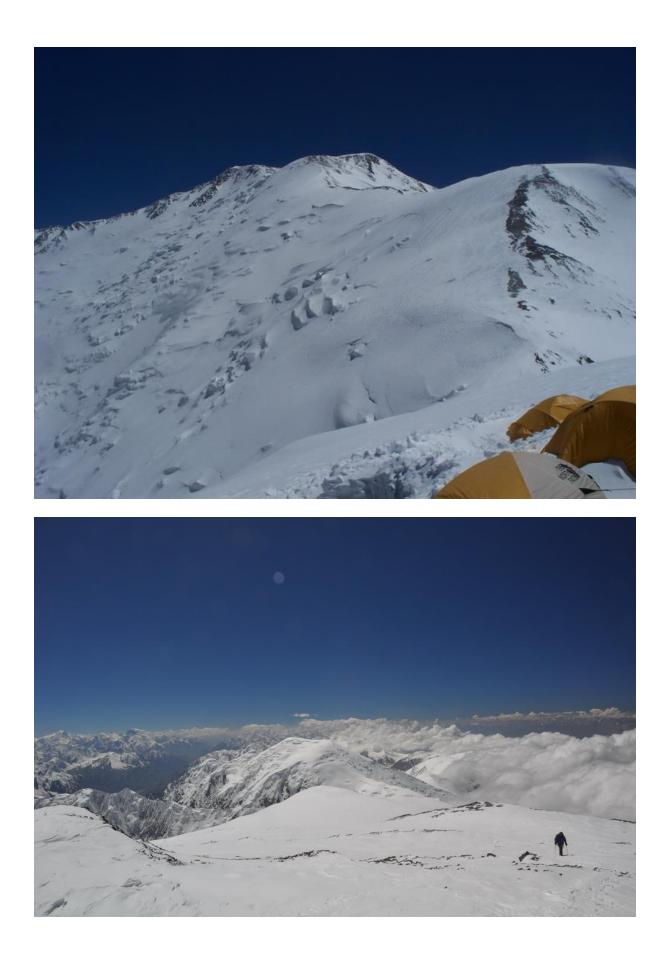




















Photos of Lenin Peak first ascent 90 Anniversary

























