



Kilimanjaro Western Breach –Personalized Tour

Wildlife Safari and Mt Meru

Tanzania Safari Tours & Packages

Tanzania is a country of legends, of Great White Hunters and the intrepid explorers of the past. Tanzania, the largest country in East Africa, offers possibly the **ultimate exotic adventure**, in a spectacular world. Legendary names, Serengeti, Kilimanjaro and Ngorongoro reach into the ancient memory, instilling awe.

Tanzania's extensive networks of National Parks are working to protect and conserve an area that affords one of the **highest concentrations of wildlife** in the world where literally millions of animals eternally roam in search of grassland. This safari makes the most of varied programmed in Northern Tanzania in a trip which offers the full flavor of the sights and experiences and obviates any backtracking. See and feel the real Africa. Enjoy privacy and freedom in an area with abundant wildlife.

Tanzania Activities

Tanzania safari activities include a trek to the top of Mt Kilimanjaro, hot-air ballooning over the Serengeti, swimming with Dolphins off the island of Zanzibar and snorkeling and scuba diving around the coral reefs of nearby Pemba and Mafia.

At MEM Tours and Safaris we are passionate about sharing the land we know and love... let us guides you to this African treasure.

Top 5 things to do and places to see

- Migrations in the Serengeti
- Unique eco system of the Ngorongoro Crater
- Olduvai Gorge
- Mount Kilimanjaro
- Spice islands and Zanzibar

IMPORTANT THINGS TO KNOW (also, see the other travel tips found on the FAQ site)

You will need visas for entry to Tanzania. Though you can get these in right at the point of entrance, your travel will go smoother if you get them in advance through the respective embassies. (Please check at <http://www.tanzania.go.tz> if you will need VISA or for closest place you can apply VISA you may also download VISA form from this site)

Make a photocopy or list of the following items: Passports (including the page with the visa stamped in them and the pages with photos and data), plane tickets, yellow booklet showing your yellow fever vaccination, list of all medications you might require, listing of all travelers' cheque numbers, list of serial numbers for cameras, etc. Keep this list someplace apart from where you keep these other items.

Keep track of your passport above all. Loss of a passport can destroy your trip and cost considerable money during the time required to replace it.

On your international flight, pack as if the airline might lose your bags. Keep things you will need right away in your carry-on. It seldom happens, and almost always the bags arrives a couple of days later, but this way, if the bags do not arrive with you, you will be able to continue on your safari while the airline finds them.

WHAT TO DO WHEN YOU'RE BAGS GET LOST AT THE AIRPORT

We naturally hope you don't lose your bags, but it does happen. If your bags do not show up, do the following:

Report the problem to your air carrier INSIDE THE AIRPORT at the Baggage Claim - before passing the CUSTOM -and fill out the required paperwork.

Request compensation for your inconvenience (often \$50.00 for emergency purchases and a bag with simple toiletries and a tee shirt)

Ask them when they expect the bag will arrive and tell them where you will be based on your itinerary. LEAVE THE KEYS AND/OR COMBINATIONS WITH THE AIRLINE so they can clear the bags through customs.

Ask the airline to go with you to advise Customs Officer that bags were lost so there will be no problems further in getting your bags cleared when they arrive.

To make it easier please provide this address to the Airline

MEM Tours and Safari LTD
Station Road Opposite, Nakumatt Supermarket Main Entrance,
P.o Box 146 – Moshi
Tel: + 255 27 2754234 / 2750669
Cellphone: +255 754 482 791 / 764 388 399
Att: Mohammed O.Shabhay

Leave your claim form with our Airport representative so that we can collect your bag on your behalf from Airline.

You must bring:

- Valid passport (International arrival)
- Valid visa - if required (see section pertaining to your trip)
- One other picture ID (e.g. driver's license)
- Photocopy of passport page to carry in wallet
- Air tickets
- Expense money
- Recommended inoculations
- Travel insurance

MEM Tours and Safaris will ensure that you're Tanzanian Safari holiday plans are taken care of to ensure your peace of mind.

Theory about preparation for Climb:

Get FIT

Break in your hiking boots and walk the dog; climb stairs; hike some hills with a pack on -- walking is the best way to prepare yourself for the long hike up Kilimanjaro. You need to build up stamina. It's a good idea to get a basic medical check-up before you come. You don't want to be dealing with an ingrown toenail or worse at 18,000 feet.

Climbing Mount Kilimanjaro is a physical undertaking, so you should prepare yourself accordingly with a trekking training program. Being in good shape is important in many respects. Obviously, strong, conditioned legs make it easier to walk uphill and downhill for sustained periods of time. General aerobic fitness allows the body to function efficiently with less oxygen. And a fit body is more likely to withstand the stress of consecutive days of hiking and camping. Finally, a positive mental attitude can work wonders for you when fatigue and doubts arise.

The best exercise that you can do to prepare for Mount Kilimanjaro is hiking.

There are training regimens on other operator's sites which entail strict, extensive, cross-training programs, featuring hiking, running, biking, swimming, weight training, etc. Do not be alarmed by this. Those programs are excessive and unnecessary to sufficiently prepare for climbing Kilimanjaro. The best and perhaps only exercise you need to do is to hike - period. After all, that is what you will be doing on the mountain. Ideally, you should try to hike as much as possible on hills or mountains to simulate ascension on Mount Kilimanjaro. Doing day hikes is superb training. For those who do not have access to trails, but have membership to a gym, you can train very productively on a stair master machine. If you have no access to trails or a gym, then try to walk as much as you can, with extended walks on the weekends.

You should start training for climbing Kilimanjaro at least two months prior to your departure.

If you've never hiked before, you should start with shorter time intervals, a slower pace, and no weight (in your day pack) and then gradually increase all of the above as your fitness level improves. Remember that on Mount Kilimanjaro, you will walk slowly for prolonged periods, and carry probably no more than 20 lbs in your day pack. Therefore, in your training, it is better to increase the time interval/distance and keep a slow pace than to shorten the time interval/distance and increase the pace. Try to train three times a week, for at least one hour per session, at a minimum. If you can do day hikes for four to six hours, with moderate elevation changes (~1,500 ft/460 m) while carrying a 20 lb pack, or if you can walk on a Stairmaster for 1-2 hours, at 30 steps per minute while carrying a 20 lb pack, then you're probably ready for the real thing.

Your longest/hardest workouts should be performed two to four weeks before your departure. For the last two weeks, you should taper off your training and in the final days, rest so that your body has time to recover before your actual climb. In addition to walking/hiking, you can also supplement your training with exercises such as running or cycling, which will increase your aerobic capacity.

It is imperative that during Kilimanjaro training, you wear the boots that you intend to climb with so that they are sufficiently broken-in (to prevent blisters). Additionally, you should wear the day pack you intend to carry so your shoulders/back/hips get used to the points of contact and weight (to minimize chafing and soreness).

Lastly, physical training is just one part of getting in shape. If you have an unhealthy lifestyle, use the climb as your motivation to change. Eat more fruits and vegetables. Reduce your red meat consumption. Don't drink or smoke. Get eight hours of sleep per night. Don't worry. Be happy.

Arrival in Tanzania

Day 1: Moshi to Machame 25Km (16 miles) 30 min drives.

Elevation 1200M (3,936 Ft)

After arrive in Moshi you will be taken strait to **Aishi Protea Hotel**. You will have the opportunity to go over any last minute questions, have the crew check your gear as well suggest to you what to take on Safari. At this point you will also have the chance to leave a bag behind with anything you don't need on the Safari. Your left-behind gear will be secured at the Hotel as you will be staying the same place after the Safari. Stay overnight at **Protea Hotel (Bed and Breakfast)**

Mt. Meru Trekking - Momella Gate

Location: 3.25S, 36.75E

Elevation: 15,000 ft (4565 m)

Mount Meru is an active volcano located just 70 kilometers (44 miles) west of Mount Kilimanjaro. It reaches 4,566 meters (14,978 feet) in height but has lost much of its bulk due to an eastward volcanic blast sometime in its distant past, perhaps similar to the eruption of Mount Saint Helens in Washington State in 1980. Mount Meru most recently had a minor eruption about a century ago. The several small cones and craters seen in the vicinity probably reflect numerous episodes of volcanic activity. Mount Meru is the topographic centerpiece of Arusha National Park. Its fertile slopes rise above the surrounding savanna and support a forest that hosts diverse wildlife, including nearly 400 species of birds, and also monkeys and leopards.

Meru is a **stratovolcano** (A volcano composed of both lava flows and pyroclastic material.) In Tanzania, its history has been quite explosive. It has had four eruptions, the last of which occurred in 1910. Lava erupted from Meru varies from thin flows to thick intrusive domes. The main cone of the volcano has a **caldera** which is 2.2 miles (3.5 km) in diameter. It has a huge breach on its eastern side. A **graben** runs down the side of the volcano from this breach. Many debris flows came through the breach in the caldera. These cover 1500 sq km to the northeast, east and southeast. Following the eruption of this debris, a lava dome and ash cone grew on the floor of the caldera

Day 2: Momella Gate to Miriakamba Hut.

Moshi to Momella gate - 50 Km

Estimated time of driving is 1 hr

Momella Gate 1570 m (5,150 ft)~ Miriakamba 2514 m (8,245 ft)

Altitude gain 944 m (3,096 ft) in 10 km

We will pick clients from Hotel at 08:00 am and then drive to Momella gate. After a registration gate formalities which took about 45 Min we will start walking through the forest toward the crater floor and then steeply up to Miriakamba Hut with a possible diversion into the Crater floor. You reach Miriakamba Hut, at 2514 m. after ascending 944m. In 10km. Walking time is approximately 5-6 hours. **(B, L, D)**

Day 3: Miriakamba Hut to Saddle Hut

Miriakamba to Saddle - 4 km

Altitude gain 2,514 m (8,245 ft) to 3,570 m (11,710 ft)

Time of walking: 2 - 4 hrs

Altitude gain 1056 m (3,464 ft)

Start by following the uphill slightly until.... out into a path which climbs steeply up through pleasant glades between trees. Continue up the path through grassy clearings and over several streambeds to the saddle 3570m. In 4 km. of walking you ascend to 1056 in 2-4 hours. Clients may walk another 2 hours to and from Little Meru for getting acclimatized. **(B, L, D)**

Day 4: Summit

Saddle to Summit - 5 km

Altitude gain 3,570 m (11,710 ft) to 4,566 m (14,976 ft)

Time of walking: 5 hrs going up and 3 hrs of descending

Altitude gain: 996 m (3,267 ft) you will lose the same altitude on descending

Distance covered on this day up and down 10 km

The walk up to the summit is long and a very narrow ridge the slope of the outer wall of the Crater and the sheer cliff of the inner wall. This is one of the most dramatic and exhilarating sections of trekking you reach the socialist point at 4566 m after 4-5 hours and an altitude gain of 1000m in 5 km. The descent to saddle Hut will take approximately 2-3 hours. **(B, L, D)**

Day 5: Saddle Hut to Momella Gate

Saddle hut to Momella gate - 14 km

Altitude lose 3,570 m (11.710 ft) down to 1570 m (5,150 ft)

Time of descending: 5 hrs

Start walking by retracing a route to Miriakamba. The direct route goes through forest for some of the way, then through open grassland. You descend in 3-5 hours to Momella Gate, with an altitude loss of 2000m in km. You will be picked from Momella gate and then drive straight to Moshi for stay overnight at Aishi Protea Hotel B&B.

Machame Route: Much less traveled than the Marangu Route, but still the next-most used route up the mountain. Trekkers stay in tents each night on the climb (this is the same with other routes except Marangu route). The Machame route offers a much better mountain trekking experience and more wilderness than any other route.

The Campsite and gates (with corresponding elevations) are as follows:

- Machame gate (start of trek) (5718 ft/1730 m)
- Machame camp (9927 ft/ 3018 m)
- Shira Camp (12355 ft/3756 m)
- Moir Camp (Final Elevation 4200 m)
- Barranco Camp (Final Elevation 3950 m)
- Arrow Glacier (Summit)
- Mweka (Descent) (10204 ft/ 3102 m)

There two options for Last ascend to the rim of Kibo crater and those are:

- i) Climb through Great Western Breach which we call (GWB - Route)
- ii) Climb through Barafu Stella Route which we call (BSR - Route)

We will explain briefly a different advantage and disadvantage for both routes. However you may attempt both route during the day time or night time depend with the weather situation and the physical fitness of the clients. So we don't fix a day to day schedule the plan is flexible. On both options we recommend 9 days on the mountain.

One benefit of the Lemosho route and Machame route is its quick rise to relatively high elevations (~10,000 ft/~3,040 meters), and a short ascent to the Lava Tower site (~15,000 ft/~4,560 m) before descending back to Barranco Camp (12,700 ft/3,870 m) on the same day. This follows the climber's adage 'climb high, sleep low', and helps altitude acclimation. The initial steep ascent also helps climbers acclimatize better.

The routes on Kilimanjaro (except for the Marangu Route) generally offer two choices for the approach to the summit.

Option I) Western Breach: An alternate approach to the summit is via the harder Western Breach route. Instead of hiking across the Barranco Valley to Barafu Camp, trekkers divert to the Arrow Glacier Camp at the base of the Western Breach. The climb up the Western Breach gains 2,800' in about 1.25 miles, on a very steep trail. There are a few sections of rock scrambling to climb on the Western Breach, so it is considered the more difficult approach. If covered by ice and snow, the Western Breach could be very intimidating. However, in the dry season, I was quite comfortable going up it. Under good conditions this is not considered a "technical climb." Some groups begin their climb up the Western Breach at around midnight, and follow a schedule like the one described above (Barafu). However, many companies offer the choice of climbing the Western Breach during the daylight, and camping within the volcanic crater just below the peak. With this option, you can enjoy the spectacular views on the long, steep climb in the day time (and you can also see where you are hiking, which to me seems like a real plus).

Option II) Barafu: The majority of people camp at Barafu Camp (15,100') before their summit bid. Trekkers usually begin their 4,100' climb around midnight. They climb in the cold temperatures and darkness up a steep slope of soft scree to the crater rim (at Stella Point). From there it is another one hour walk up a gentler slope to Uhuru Peak, the highest point on the mountain. If things work-out perfectly, climbers see a beautiful sunrise from the peak. Climbers then descend 7,000' (Millennium Camp) or 9,000' feet (Mweka Camp). This approach route makes for a very difficult 12-18 hour day for most people. But this is not the case on those who visit and stay at Kibo crater.

The first day: from Machame Gate to the first camp you will be trek upwards through the montane rainforest, characterized by dense vegetation, is the long walking on rain forest which you will enjoy than any other route on Kilimanjaro Mountain to the first campsite, Machame Camp, is right after the dense tree cover in an area with lower but still thick bush lands.

The second day: continues through increasingly sparse trees and bushes into moorlands. Picturesque hanging mosses often cover trees and offer an ethereal quality to the landscape. The day finishes with Shira Camp, which is on a small plateau in the high moorlands, and features views of Kibo in the northwest and Mount Meru towards the east. White necked ravens can be seen throughout the day. There is also a set of small caves a short walk from the campsite known as the Shira Caves. The Garden of the Senecias, with part of Kibo in the background will be giving you an amazing feeling.

The third day: continues through increasingly sparse trees and bushes into moorlands. Picturesque hanging mosses often cover trees and offer an ethereal quality to the landscape. The day finishes with Shira Camp, which is on a small plateau in the high moorlands, and features views of Kibo in the northwest and Mount Meru towards the east. White necked ravens can be seen throughout the day. There is also a set of small caves a short walk from the campsite known as the Shira Caves.

The fourth day: starts in the moorlands and moves into alpine desert, with fewer trees and more rocks. The highest point is the base of the Lava Tower, after which the trail descends into the Barranco Valley. More vegetation is present in this zone, especially the area just before the campsite. This area is called the 'Garden of the Senecias' which features many of the huge *Senecias* plants. Shorter lobelia plants are also present.

The fifth day: starts with the ascent of the Barranco Wall, which is considered a scramble in climbing terms. The top of the Wall has attractive visitors of Kibo and the surrounding landscape. The trail continues with many up and down sections across small streams and rivulets, you will be staying at the same camp Barranco however the walking through the area and gain altitude as well loose it again will help to assist you well to coop with situation at Western Breach. (*This is very important day as it will give you a choice of going through western Breach or through Barafu is a place where you will have the opportunity to decide with your guide after evaluation of the weather and physical fitness*)

The sixth day: Let's assume that at this point, you are fit enough and the weather is good for the final ascend, the first choice will be ascending through the Western Breach. Slow walking to Arrow Glacier Camp proceeds slow ascending to the higher altitude. Read the fact and fictions of the Great Western Breach next page.

The Great Western Breach--Fact & Fiction

There is much misinformation about the Great Western Breach which is the ascent path used most commonly by the Shira Route among others. Below, we have addressed some of the common misconceptions about this route with the corresponding realities:

FICTION: The Western Breach (Shira) is an easy climb

FACT: The Western Breach is in fact the most physically challenging trekking climb to the summit on Kibo Peak. The Western Breach ascends a three-thousand foot nearly vertical rock face from Arrow Glacier Hut to the Crater's rim (from 15,700 to about 18,600), and it requires one to raise the legs high, like climbing very large stairs. Additionally, while ascending the Breach, one must use caution to ensure that the rocks being used to steady one are not loose or prone to being dislodged. Also, at certain times of the year, icy sections can be found on this route, making crampons necessary.

FICTION: There is no night climbing (starting at midnight) on this route.

FACT: While it is technically correct to say that the summit day does not begin in the weak hours of the morning (when staying overnight in the Crater), it is misleading because the day prior to the summit (the climb up the Breach) does begin rather early (between 2AM and 3AM). This is because the Breach freezes up over night and, thus, becomes more stable. Once the sun arises, the ice that holds many of the rocks securely to the wall of the breach melts; therefore, there is a constant rock fall during the day. The goal of the climbing party is to reach the Crater's rim just after sunrise for optimum safety.

FICTION: Only the Western Breach climbers may stay in the Crater overnight.

FACT: Climbers may choose to spend the night in the Crater on any of the three ascent paths of Kibo Peak (Marangu, Mweka (Machame) or Western Breach). Staying in the Crater makes the most sense on the Western Breach route because there is a rather steep climb from the Crater's floor (from Furtwangler Glacier) to Uhuru Peak; whereas on the other routes, the climbs to the summit are more gradual once the climber reaches the Crater's rim. Spending the night in the Crater is good in a such a way that gives one a chance to rest and enjoy the crater, but most people find their time in the Crater to be quite taxing on mind and body.

FICTION: The Shira Route is less crowded than the Machame Trail.

FACT: While this was true not long ago, in recent times, more and more people are opting for the Shira Route. At times, the Lava Tower and Arrow Glacier Huts can have quite a large number of climbers at them. The most densely populated area for both, the Machame Trail and Shira Route is the Shira Plateau which is accessed by both of these routes. Furthermore, the large suppliers who run climbs on the Shira Route can place as many as 15 or 16 climbers at the various huts, excluding climbing staff. Certainly, at these times, the Shira will have more people on it than the Machame Trail. If you really prefer a very secluded climb, the most private route combination would be Rongai, Summit Circuit North and Western Breach. On this route combination, you can climb for two full days and never see another climber except for your party.

FICTION: Only the Shira Route can use the Western Breach

FACT: Any climb that accesses the Shira Plateau can ascend the Western Breach including the Machame, Shira and Rongai via the Summit Circuit North Route.

All in all, both the Shira Route and the Machame Trail provide excellent climbs of Kilimanjaro. Both are challenging and beautiful, and both are very sparsely populated in comparison to the Marangu Trail.

Machame Route

Day 6: Machame Gate 1800 M (5,904 ft) to Machame Hut 3,000 M (9,840 ft)

Hike time: 7.5 hrs, Elevation changes: +1200 M (3,936 ft)

Estimated distance: 10km (6 miles), Final elevation: 3000 M (9,840 ft)

Waypoint	MACHAME START	S3 10.406 E37 14.338	5718 ft GPS Altitude
Waypoint	MACHAME HUT	S3 05.721 E37 15.975	9927 ft GPS Altitude

Early pick-up drive to Machame gate (5,904') where trekking formalities take about 1 hrs (depend with the number of climber). From the gate, we begin our trek following an easy track for the first hour through the dense forest. The path continues to follow the ridge, rising steadily with several steep sections. The gradient eases slightly as the forest merges into heather covered ground we will reach Machame Hut in 10 km (6.2 miles) after a 1,200-meter (3,936') ascent and 5-7 hours of walking. (B, L, D)

Day 7: Machame Hut to Shira Hut (12,300')

Hike time: 7 hrs, Elevation change: +800 M

Estimated distances: 6km, Final elevation: 3800 M

Waypoint	SHIRA CAMP	S3 04.028 E37 16.576	12355 ft GPS Altitude
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From the Machame Hut we cross the stream onto its west bank and follow the path up the steep rocky ridge crises-crossing a few times before reaching Shira Hut at the base of a semi-circular wall of rocks. We will have ascended 900 meters (3,000') in 5-7 hours and about 6 km (3.72 miles) of walking. (B, L, D)

Day 8: Shira to Moir Hut

Estimated Distance 6 km, Hike time 2 - 3 hours

Final Elevation 4200 m, Elevation changed +250

Waypoint	Shira Camp	S 3° 03.898' E 37° 16.567'	12,860 ft GPS Altitude
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Today we have another reactively short half day hike, taking us to an area visited by very few groups. This camp is located near the Lent group of side volcanoes, which erupted considerable volumes of lava as Kilimanjaro grew. Lunch is taken in camp and we have plenty of opportunity in the afternoon for an acclimatization walk and to explore some beautiful volcanic features.

Day 9: Moir Hut to Barranco via Lava tower

Estimated Distance 3 km, Hike time 5 - 6 hours. During the day gain altitude up to 400m

Final Elevation 3950 m, Elevation change loose - 250m

Waypoint	Moir Camp	S 3° 02.535' E 37° 17.973'	13,660 ft GPS Altitude
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We pass traverse across glacier gouged valleys, taking time and letting our bodies acclimatize. We will reach Lava Tower camp by around 1pm or 2 we have no rush. The Lava tower area around is another exciting region of Kilimanjaro with its glacier around the southern flank of Kibo, and slowly descends into the spectacular Barranco Valley, interspersed with giant lobelia and Senecias plants. After arriving at our most spectacular campsite, everyone stands in awe at the foot of Kibo Peak, looming high above, on our left. Our camp is only 465 feet higher than where we were last night, but during the day, we will have climbed to just over 14,000 feet. This is one of our most valuable days for acclimatization.

Day 10: Barranco Camp to Arrow Glacier

Estimated Distance 5 km, Hike time 3 - 4 hours.

Final Elevation 4850 m, Elevation changed 900m

Waypoint	Barranco Camp	S3 05.741 E37 19.777	13,066 ft GPS Altitude
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We had a serious gain of altitude today, so it's better to take it slow. If we find is massive we might spend a night at Lava tower. The route ascends up scree from the last major glaciations and so progress can be slow, but we have plenty of time to reach the camp and normally this section takes around 3 or 4 hours. Once again we have enough time at the camp for relaxing, and in the afternoon we maintain the climber's adage of walk high sleep low by going for a short acclimatization walk before heading back to camp for dinner.

Day 11: Arrow Glacier to UHURU PEAK (19,340 ft.) to Mweka CAMP (9,550 ft.)**SUMMIT DAY!***Summit time: 1 hrs, Elevation change: +200 m**Estimated distance: 5km (3 miles), Final elevation: 5896 m (19,340 ft)**Descent time: 5 hrs, Elevation change: -2800 m (-9,184 ft)**estimated distance: 12km, Final elevation: 3100 m (9,550 ft)*

Waypoint	Arrow Glacier Camp	S3 04.344 E37 20.177	15,971 ft GPS Altitude
Waypoint	Kibo crater rim	S3 04.682 E37 21.759	18471 ft GPS Altitude
Waypoint	KILIMANJARO SUMMIT	S3 04.585 E37 21.240	19098 ft GPS Altitude

The hike is challenging today, you go through a strenuous walk and a bit of rock scabbling. Though difficult, it is entirely 'doable' and not a technical trail or climb. The ascend through Western Breach in a morning hours, a very dramatic part of the mountain where up to 100,000 years ago as Kilimanjaro spewed forth it's last significant eruptions, earth quakes led to the collapse of this section of the summit.

We ascend very slowly - with less than half the oxygen than at sea level that is hardly surprising, but with persistence we all make it to the rim of Kibo in around 6 - 8 hours. There are some places that require scrambling and if there is some ice on the trail, the guides clear and secure the route ahead. Guests do not require technical experience. At the rim it is a much gentler walk to the camp, situated near the Furtwangler glacier. The guide will be checking you regularly all the time while you are relaxing.

Hiking on a Western breach will bring you unforgettable experiences; you will go through the dramatic features of the Kibo ancient volcano logy. You will be able to see the spectacular views of the Barranco valleys, Umbwe forest and Machame on the south part of the mountain, Shira and Mount Meru in the west just after dawn and reach Uhuru peak at around 7 am, just as the sun starts to warm the desolate roof of Africa and herald in a new day. A plethora of emotions is normal here and with luck the sun will add to the splendor of this unique place and momentous moment.

From the Crater rim, rugged Mawenzi Peak is a thrilling sight, with the Kibo saddle still in darkness beneath you, and the crater's ice-walls looming ahead. We now continue to Uhuru Peak (1-2 hrs.) This is the highest point in Africa, and the world's highest solitary peak (19,340 ft). It is the best view in Africa! The descent is invigorating. It is a good idea to have a little rest once in a while as you continue down back to Barafu Camp (4 hours), and then down the Mweka route to Mweka camp (5 hours). This is where we spend our last night on the mountain.

Day 12: MOSHI*Descent time: 4 hrs, Elevation change: -1250 m (4,100 ft)**estimated distance: 10km (6 miles), Final elevation: 1828 m (5,996ft)*

Waypoint	Millennium Camp	S3 07.918 E37 22.339	12599 ft GPS Altitude
Waypoint	Mweke Hut	S3 09.383 E37 22.027	10204 ft GPS Altitude
Waypoint	Mweke Gate	S3 13.176 E37 20.479	5423 ft GPS Altitude

In the morning we walk down to the road head. This takes about 3 - 3^{1/2} hours after a lunch, it is time to say "kwaheri" to the porters. Then we get a lift back to the Hotel for Bed & Breakfast

Wildlife Safari

Day 13: Lake Manyara

Lake Manyara National Park

Approx time for game drive is: 6 hrs

After Breakfast in the hotel you will visit Lake Manyara National Park. Lake Manyara is a shallow, alkaline lake which attracts masses of pink flamingoes. The park is well known for its herds of elephants, and for its unusual tree-climbing lions. This was the location for the comprehensive research and subsequent book "Among the Elephants" by Iain and Oria Douglas-Hamilton. The park is also home to hippos, baboons, giraffes, zebra, wildebeest, and is particularly good for bird watching with over 380 species having been recorded. You will be staying at Lake Manyara, Twiga Campsite (B, L, D)

Day 14: Lake Manyara to Serengeti

Crater rim to Naabi Hill Gate 85 Km

Time: 1:30 hrs

Approx time for game drive in Serengeti 8 hrs

you will drive through the Ngorongoro Conservation Area this morning and stop at the famed Olduvai Gorge, where some of the earliest remains of our species were unearthed by the dedicated Leakey family. Here in these desolate gullies the jawbone of Zinjanthropus Man was discovered. The Gorge Museum explains the Leakey's methods and their remarkable finds.

From Olduvai, you will begin the journey into the great Serengeti. The Serengeti covers an area of over 14,763 sq kms, and is inhabited by more than 3 million mammals, including; lion, cheetah, leopard, elephant, buffalo, gazelles, antelope, giraffe, hyena and all of the little animals - rock hyrax, bat eared foxes, mongoose, honey badger, dik-dik, jackals, monkeys, baboon and African hare . There are also nearly 500 species of birds. The multitudes and diversity of species is unrivaled. You'll see herds of animals swiftly running across vast open spaces, and predators hunting prey. Dinner and Stay overnight at Seronera Campsite (B, L, and D)

Day 15: Serengeti to Ngorongoro Conservation Area

Seronera to Ngorongoro 145 Km

Time: 100 min

estimated game drive in Serengeti 8 hrs

The sunrise game drive in Serengeti plains and then back to the lodge/Campsite for breakfast. After breakfast, Will proceed with game view in Serengeti before proceed back to the rim of Ngorongoro Crater for stay overnight. You'll head toward Ngorongoro Crater, entering the lush green foothills of the Ngorongoro Conservation Area and reaching a higher altitude where temperatures are cooler. As you reach the crater rim, your first look will take your breath away. 2,000 feet below the rim, the collapsed caldera is a "Garden of Eden". The crater contains and entire own eco-system with a river, swamps, lakes, forests and savanna. Drive straight to the Simba Campsite (B, L, D)

Day 16: Ngorongoro to Moshi

Ngorongoro to Moshi 270 Km

Time: 180 min

Estimated game drive in the crater 6 - 7 hrs

early descending to Ngorongoro it does always help to enjoy your game drive you will descend 2,000 feet into the magnificent crater to view wildlife. Here a nearly perfect balance of predator and prey exist within the 102 square miles of the crater floor. Experience an unforgettable spectacle of African wildlife: a teaming world of elephants, rhinoceros, lions, hyenas, zebra, wildebeest, to name a few, living in harmony in this self contained environment. At the end of the day you will leave the Ngorongoro Crater and then drive to Arusha where you will have your room to clean up before dropped at Kilimanjaro International Airport.

Price for this Combo trip is USD 3150 per person. (2 pax) USD 3000 (3 pax – 5 pax) ~ (this are prices are already discounted)

Land costs include:

- All night in hotel accommodations (double occupancy) B&B
- All transportation in Tanzania for those on the regular (official) schedule
- All group equipment for the climb (Tents and Cooking utensils)
- All meals (Unless indicated on Schedule)
- All park fees and climbing permits for participants and staff

Land costs do not include

- Visas for Tanzania
- Meals and hotels outside the regular itinerary
- Excess-luggage charges and airport taxes
- Personal gear
- Single-room supplement for hotels
- Medical/Evacuation trip insurance
- Charges incurred as a result of delays beyond the control of Moshi Expedition and Mountaineering
- Tips and gratuities

Each trip to Kilimanjaro is a custom one, with a minimum # of people only and no large groups filled with strangers! All prices are above, No hidden cost.

Health Information's

Trekking on Mt. Kilimanjaro has unique medical implications. Fortunately, the nature of the mountain allows a large number of non-technical, less prepared climbers to reach the summit. All routes on Mt. Kilimanjaro can be safe but preparations must be made to ensure safety. Epics are easier to prevent than extricate oneself from, and thorough planning has significantly reduced mountain sickness cases in our company.

Persons trekking on Mt. Kilimanjaro should be in excellent physical condition with a reasonable goal being the ability to run four to five miles in forty-five minutes. There is no absolute medical contra-indication for climbing to this altitude except for certain cardiac and pulmonary diseases for which effected persons should consult their physician. Good conditioning will allow the trekker to enjoy his work at altitude, without total fatigue.

Here at M.E.M

In preparation for your trip we include good food, water and protection from the elements. The trekker should consume three to four liters of fluid and eat approximately four thousand calories of food a day. Most estimates by exercise physiologists rate consumption of calories at five thousand per day for trekkers, but weight loss will be inevitable as it is almost impossible to force this many calories down. Appetite tends to fall away and the planned menu must be especially appetizing to entice one even to cook it. A diet high in carbohydrates seems to help reduce symptoms of acute mountain sickness and increase a blood oxygen level as well as being in high calories. We provide a type of food, which will give carbohydrate in lunch and breakfast, and protein food in dinner. A large variety of fruit flavorings are also conducive to increasing fluid intake and preventing dehydration.

Our Advice

any trek, except for solo ascents, requires team thinking. All must establish good communication between team members and set known goals. Every individual will have personal desires and these should be honestly expressed and "aired" prior to ascend. Much tension and hostility can be avoided in this manner.

Mountain Gear

we want to make sure you have all the gear you may need for ascending because the cold can cause problem ranging from minor discomfort to deadly hypothermia. Preparation is always the solution. A person should dress in layers so that proper ventilation can be achieved. It's easy to become overheated while climbing, which produces large amount of perspiration, causing dehydration and a wet body and clothes. Stopping physical activity in such a condition can be a "chilling" experience; also the temperature change between sunlight and shade, day and night is large, so it's best to have extra warm clothes available.

Three major routes of heating loss occur:

- a) **Evaporation**, which is mainly cause by wind blowing across the body, so use a wind - breaker.
- b) **Conduction**, this is when the heat loss by sleeping direct on the ground, to prevent this loss use the insulation pad like closed-cell foam or air mattress.
- c) **Radiation** that is best controlled with reflective material, hats should be worn. The old adage is "cold feet, put on your hat". A person can lose 30% of his or her body heat via head because the vessels of the scalp cannot constrict in response to cold, thus losing valuable warmth.

There are two serious forms of **cold pathology**

Frostbite is the destruction of soft tissue, usually in the finger and toes, secondary to the freezing of fluid into crystals in and around the cell of the tissues. Its initial presentation is whitening of the skin; it then turns red and feels hard. Frostbite is usually accompanied by numberless and tingling sensation. Blisters and the darkness of the skin are larger signs. Privation is the key, good wool mittens" warmer than gloves because of physical limitations of the insulations properties of an individually wrapped finger." with over mitts are important. Wool socks and good mountaineering boots provide adequate protection for the feet.

Hypothermia is the lowering of the body's core temperature, and is considered mild to 35 deg centigrade, moderate to 30 degree centigrade. A person can go from normal to severe hypothermia very quickly, particularly if immersion in cold water occurs. Although they can be tremendously uncomfortable, cold feet and toes do not indicate hypothermia, as they do not accurately reflect core temperature. Unfortunately regular fever thermometers do not work well in these temperature ranges. Predisposing factors include improper ventilation and layering of clothes; allow one to become wet from rain or perspiration, inadequate clothing, exhaustion and starvation. The first sign of hypothermia is shaking chills and mental, emotional and intellectual dulling. A person with these symptoms should be kept active and warmed with additional clothing, and near a fire or other heating source. Psychological preparation is good, but has no real temperature changing effect.

To prevent such emergencies the technique of controlled bivouacking is important to learn. If bivouac is a possibility, a bevy bag, preferably Gore-Tex and good quality sleeping bag are essential when embarking on any camping routes.

Hypoxia is low oxygen in the air, which occurs with increasing altitude. This is reflected in the body by low oxygen in the blood called hypoxemia.

Hypoxemia usually noticeable above 3,500 meters and it marked above 5,000 meters. It is heralded by shortness of breath even with mild exertion. The body responds to hypoxemia by acclimatization. There are three physiological effects of acclimatization. The most immediate change is due to chemical being released to help the blood free more oxygen for the tissues.

Current medical thought is that high altitude disease is related to decreased breathing while sleeping at altitude. Thus, the adage, "*climbing high sleep low*". It is known that at high altitude many trekkers hear their tent mates breathing periodically, with long pauses between breaths "Cheyenne-stroke breathing". This is considered normal, within limits, but thought to be related to mountain diseases. Specific high altitude diseases are divided into three categories: -

Acute mountain sickness "AMS" is the most frequent high altitude disease, and is a failure to acclimatize. Symptoms include headache (common), nausea, vomiting, anorexia, fatigue, insomnia, swelling of hands, feet or face (peripheral edema), and decreased urine output. Nearly all trekkers will have some of these symptoms. Persons with severe symptoms should stop ascending and consider descent for a few days. These symptoms can be reduced or prevented by slow ascent and acclimatization. DIAMOX "acetazolamide", a mild diuretic, has a side effect of preventing acute mountain sickness. It is not a substitute for slow ascent or acclimatization.

No one knows why a small number of trekkers get the potentially deadly high altitude pulmonary edema or high altitude cerebral edema is unknown. The most single denominator is rapid ascent without acclimatization. HAPE and HACE have not been shown to be associated with sex, race, physical conditioning, or previous symptoms free high altitude work.

Pulmonary edema is heralded by increased shortness of breath even at rest, gurgling breath sounds "rattles", which can be heard with an ear directly placed on chest "the sound like hair being rubbed together next to the ear"; and sometimes the production of a frothy white sputum. The patient usually has a cough and may produce this sputum, blood tinged." always assume with these symptoms high altitude pulmonary edema until proven and do not make mistake of treating just for pneumonia."

Cerebral edema is heralded by severe headache and incardination. Hallucinations frequently occur, but are usually denied. There are several medical diagnostic signs but only a couple which do not require equipment for testing: 1) a headache unresponsive to aspirin or acetaminophen with codeine; 2) ataxia "incardination". The test for the latter is heel to toe straight in straight line. All people will have some problems with this at high altitude due to cold and clumsy boots, so have a second person walk the line for comparison with the possible HACE patient. If a person cannot walk a competent heel to toe straight line, he or she considered to have HACE until proven otherwise.

Exhaustion: obviously, both mental and physical exhaustion are part of mountain climbing.

Forcing fluids and forcing eating can minimize physical exhaustion; neither of which is pleasant at high altitudes. Adding curry or cayenne pepper to food can usually encourage intake of fluid in most trekkers.

Mental exhaustion is tougher to prevent and treat. It is important to be in a good condition psychological shape, but setbacks and fatigue can frustrate a person into depression. Forcing oneself to carry regular routine of duties at all altitudes seems to add some sense of stability, which can help.

Feet: probably the most common and painful maladies in the mountain are sore feet and blisters. Prevention here is also the best approach. Boots should be well broken in and two or three pairs of socks should be worn. Some prefer wearing tennis or running shoes up to the actual base of technical climb, or until cold conditions are reached.

Lacerations and Abrasions: when a laceration (cut), or abrasion (scrape), occurs on the mountain, there two main treatments: a) pressure on all bleeding sites; this will stop bleeding if held long enough; and b) scrubbing the area well with plain soap and water; antibacterial soap is best, but any other soap will do. Do not place creams or ointments of kind on cuts or scrapes. They make the wound moist and slow healing. Besides they do virtual nothing to kill bacteria. Wounds heal better clean and dry no matter how big.

Sunburn: the strength of the tropical sun is easily underestimated. Its destructive U.V rays penetrate cloud and are more powerful with increased altitude; snow is also a very effective reflector. (60% to 95 %) This reflected light is the most damaging as it often sticks normally unexposed skin, such as the nose and chin. The lips, neck, and the backs of the knees are also very vulnerable sites. Protection is in the form of barriers: silk scarf for lower face and neck, hat, beard, long-sleeved shirt, long socks, etc. The ones containing Para-amino benzoic acid (PABA) or PABA esters such as Pabanol, Pre Sun, are the most successful. Choose on with a high sun protection factor 5% or no 8 at least, and apply before exposure to sunlight and at intervals depending on the degree of sweating.

Violent Injury: Some simple rules: a) Check breathing, pulse and then reassure the patient. b) Prevent further injury. c) Keep warm and dry feed and hydrate. d) Splint for fractures, both for comfort and control internal breathing. e) Trekkers rarely need or request pain medication. Once given, it decreases the injured climber's ability to cooperate or make decisions. f) Send for help if someone is available and give complete information on the situation.

Equipment Check list for trekking:

Each and every item on this list has been chosen to maximize your comfort and safety while hiking on the mountain. Please read through the entire list very carefully. If you have any questions about items on this list, or about the suitability of your own equipment, please contact us, or a reputable mountaineering equipment dealer.

FOR THE HEAD AND FACE:

- **Pile or Wool hat:** Bring one that covers ears -- a balaclava type is excellent.
- **Shade Hat:** Visor hats with good brims are essential for protection from the equatorial sun.
- **Sunglasses:** Essential for eye protection in the tropics and at altitude. Bring a good quality pair, preferably with an IREX protection rating of 100. Attachable side shields are necessary, or bring glacier glasses.
- **Sunscreen:** Bring plenty of complete sun block with a sun protection factor (SPF) of 15 or more. Unless you have spent time in equatorial sun you will probably underestimate the amount necessary, so bring lots. Sunscreen is difficult to find in Tanzania.
- **Lip Balm:** With SPF rating of 15 or higher.
- **Bandanas:** Tied around the neck, they give good sun protection. Can also be used for cleaning glasses, as wash cloths, etc. They dry very quickly.

FOR THE UPPER BODY:

- **T-Shirts:** Two T-shirts that you don't mind getting dirty while on the mountain. Synthetic is best -- no cotton on summit day.
- **Upper Body Layers:** For climbing the mountain we recommend you have three warm layers for the upper body. Items must be made of wool, synthetic or pile. Make sure all layers fit comfortably over each other and supply good insulation. A good combination is a long underwear top, a sweater, and a pile jacket or heavy wool shirt. Cotton items do not provide adequate insulation and are completely useless when damp.
- **Rain Parka:** Afternoon showers are common in East Africa, especially on the mountain. Bring a good parka of Gore-Tex or waterproof nylon that has been "seam sealed".
- **Wind Shirt:** (optional if you have Gore-Tex rain gear) A nylon wind shell (not waterproof), roomy enough to fit comfortably over all upper body layers. Gore-Tex is good for both this wind shirt and for the rain coat.
- **Poncho:** (Optional) Quick and handy protection for body and rucksack. Poor protection in windy rain.
- **Gloves or Mittens:** Wool or pile. One pair of heavy mittens and a light pair of gloves work well.
- **Mitten Shells:** One pair to go over your mittens. These are for use against the winds sometimes encountered in the crater and on the way to the summit.

FOR THE LEGS:

- **Quick Dry Hiking Shorts:** 1 pair. Good for hiking at lower elevations on the mountain.
- **Long Underwear Bottoms:** One pair. Wool or synthetic.
- **Wool, Bunting or Pile Pants:** One pair that fit loosely and is comfortable. These are essential to be worn over the long john bottoms.
- **Rain Pants:** Bring a good pair of rain pants of Gore-Tex or waterproof nylon that has been "seam sealed".
- **Wind Pants:** (optional if you have Gore-Tex rain pants.) One pair. These are used often on the mountain for protection against wind. They should be breathable nylon and roomy enough to fit comfortably over wool or pile pants.
- **Tights:** Lycra types are best. These are comfortable to hike in, help prevent nettle stings, provide good warmth on cool misty days, dry fast and prevent sunburn.
- **Undergarments:** Enough for the duration of the trek.
- **Crampons & Ice axe:** This in case you in counter ice on last ascend (Only for Western Breach ascend)

FOR THE FEET:

- **Thin Socks:** Two pair of synthetic socks to wear under heavy wool socks. These help prevent blisters and keep feet dry.
- **Thick Socks:** Six pair of heavy wool or synthetic socks to wear for warmth with hiking boots.
- **Hiking Boots:** One pair medium weight hiking boots large enough to be comfortable with one liner sock and one heavy wool or synthetic sock.
- **Gaiters:** One pair of either high or low gaiters made of breathable material to keep dirt and snow out of your boots.
- **Crampons:** As we will attempt the summit through western Breach is important to have then as backup we mint not use it but is worth having it.
- **Tennis Shoes:** These are to wear in camp after a day of hiking.

FOR SLEEPING:

- **Sleeping Bag and Stuff Sac:** On the mountain temperatures can get down to zero degrees Fahrenheit at night so bring a warm bag.
- **Sleeping pad:** A closed cell foam camping mattress is OK. An inflatable Thermal Rest type is more comfortable.

FOR DRINKING:

- **Water Bottle:** Two, one liter wide-mouthed plastic bottles.
- **Water Treatment:** This is very important. The water in East Africa is not unhealthy although its flora content is different from what you are used to. To keep your system running normally we recommend you bring two bottles of "Potable Aqua" or "Polar Pure", crystal iodine in a bottle, to treat drinking water. Filtration pumps are also effective, but costly and rather bulky.
- **Water Flavoring:** Wyle's lemonade, Tang, Gatorade, etc. These mixes are hard to come by in Tanzania and make treated water taste much better. Double bag these.

FOR CARRYING YOUR GEAR:

- **Frameless Pack:** A medium size comfortable pack is adequate to carry personal gear. The pack should fit properly and have a good waist belt. Side pockets are recommended for soft packs. Personal loads with camera gear, water for the day and warm clothes are often between 18 and 25 pounds.
- **Pack Cover:** Something waterproof to cover your pack when hiking in the rain. Otherwise bring a large plastic bag to line the inside.
- **Duffle Bag:** Medium size with lock for mountain gear. This will go into our mountain bag that the porters will carry.
- **Duffle Bag:** Large enough to hold your non-mountain gear. This will meet you at the hotel after the climb.
- **Plastic Bags:** Several, to double bag your sleeping bag and clothes on the mountain. It can rain every afternoon.

FOR PERSONAL HEALTH AND COMFORT:

- **Toiletries:** Bring enough for entire trip. Keep simple and light. Few toiletries are available in Tanzania, however, so bring enough for all your needs.
- **Ear Plugs:** To block out snoring and hut noise, to insure peaceful rest.
- **Flashlight and/or Headlamp:** Important on summit day and just plain handy in camp. Plenty of batteries.
- **Pocket Knife:** Simple Swiss Army type with scissors.
- **Personal First Aid and drug Kit:** Please see recommended list below.
- **Trail Munchies:** Although plenty of snack food is provided, trekkers like that taste of home in their pack. Touted as an important accessory by those who have brought them in the past!
- **Hot Drink Mixes:** We will provide plenty of coffee, cocoa and tea, but non-caffeinated drinks are not readily available here. Bring a supply of your favorite herbal teas.
- **Towel:** For washing up in camp, a small one is fine, or you can use a bandana.
- **Towelettes:** Such as "Wash'n'Dries" for general hygiene.
- **Spare Glasses:** For contact wearers in dusty conditions and any eyeglass wearer while on vacation.
- **Umbrella:** Very useful against rain and sun. Most guides use one.

RECOMMENDATIONS FOR YOUR PERSONAL FIRST AID AND DRUG

KIT: We will have gauze, tape, aspirin, medicated soap, antibiotic ointment, antacid tablets, some antibiotics, pain killers, eye treatments, and anaphylaxis kit, Imodium, Compazine and Diamox. Because of liability problems, prescription drugs will only be dispensed in emergencies. We suggest you bring the following medical items. Please discuss this with your physician prior to coming on this expedition.

- **Intestinal disorders:** Compazine. 25mg rectal suppositories, for severe nausea, vomiting. Imodium to decrease diarrhea and cramping. Tetracycline, Cipro or Bactrin antibiotics for initial treatment of severe diarrhea. Activated charcoal has proven to be an effective first stage treatment.
- **Cuts and scrapes:** It is wise to bring a supply of "Band-Aids" to treat those abrasions that sometimes occur.
- **Infections:** Antibiotic ointment for cuts and abrasions. Erythromycin or amoxicillin tablets for skin or soft tissue infections.
- **Blisters:** It is wise to bring your own small supply of blister treatment items to insure that you avoid letting any blister get out of hand.
- **Headaches:** Tylenol and Tylenol with codeine** to help relieve possible altitude headaches. Nothing stronger than codeine should be taken for fear of masking potential severe altitude problems while on the mountain.
- **Insomnia:** Halcion** 15mg tablets. In high altitude mountaineering restlessness is not uncommon and sleep is very important. Halcion is a light sleeping pill; we do not recommend using any sleeping pills above 15,000 feet.

High Altitude Sickness: Diamox** (acetazolamide) 250mg tablets to be taken twice a day from 13,000 feet to the top. This drug is widely used in high altitude mountaineering and is very highly recommended by our staff

INSURANCE

a) Health Insurance

it is compulsory to have full medical, **emergency evacuation** and repatriation cover for the period of time you are away.

b) Cancellation and Curtailment

you might have to cancel or curtail your safari due to unforeseen circumstances. If you cancel a trip close to departure date for any reason you could lose all that the safari was going to cost you. Should you have to leave the safari early, we cannot refund you the portion of the safari you do not complete. Dependant on the reason for cancellation and curtailment, insurance may cover you for this eventuality.

c) Baggage & Money Insurance

it is advisable to take out baggage and money insurance, especially if you are carrying a large amount of cash or expensive and valuable camera equipment. You should always carry such equipment as "carry-on" luggage. Do not put anything of value in your checked baggage!

Claims

If you anticipate an insurance claim upon your return, be sure to document as accurately as possible any accident, injury or loss. Doctor's notes and police reports will aid any claim

TANZANIA NATIONAL PARKS (TANAPA) Western Breach Requirements
OBLIGATIONS AND ACTIONS REGARDING THE RE-OPENING OF WESTERN
BREACH ROUTE (ARROW GLACIER)

1. TOUR OPERATORS OBLIGATIONS / ACTION

IMMEDIATE.

1. All climbing parties should wear mountain helmets right from leaving Arrow Glacier camp until they reach the crater rim to provide head protection.
2. All the climbing parties should depart Arrow Glacier camp no later than 5:00 am to be able to cross the area of most exposure within the first hour of sunrise (7:00am).
3. Guides leading groups on this route must be trained on rock fall protocol and be able to brief client and porters before they embark on the craters summit.
4. All pre-trip information to potential clients booking for Western Breach route (including website) must contain rock fall risk factor in order to seek informed consent from the clients.
5. All clients should be informed by their agents on the danger of rock fall on Western Breach route; thus, this will enable them to climb with the knowledge of the danger of the route.
6. Tour Companies should consider reducing the number of support staff to accompany clients during the hike from Arrow Glacier to crater rim to reduce the number of porters subjected to high risks and reduce the level of dislodging rocks in this area.
7. Every group must have at least two ice axes possibly carried by a guide to help cut steps on icy snow conditions to aid balance and stable foothold by climbers.
8. Every group must have life saving equipments, (gammov bag, oxygen cylinder, 1st aid kits) during crater summit attempt.
9. Each Tour Company should develop and implement a written emergency response plan. This is a document which will be elaborating procedures to be done in case of emergencies by both people in the field and those down in the offices in regard to responsibilities of patient care and transport so as to manage transition period from point of incidence on the mountain to the road head.
10. Porters should carry the luggage on their back using rucksacks so as to make their hands free. This will assist climbing and help them respond positively during rock fall incidences.
11. All Tour Operators must possess/carry mobile toilets during the climb to be used only in the crater. One toilet for crews and another for Clients. The human faeces or waste in crater must be conveniently deposited in pit toilets at Barafu hut. No one is allowed to leave (burry, hide, etc) human excreta inside the crater areas.

MID-TERM.

1. Following provision of radio channel by TANAPA, Tour Companies should procure and issue their staff with UHF radio handsets with rechargeable batteries in order for the guides to communicate with KINAPA rescue teams in case of emergence on the Western Breach route.
2. Tour Companies should develop and implement an effective Post Traumatic Stress Redress Programme for their staff as part of emergency response plan to help with healing support of those exposed to extreme trauma (this should include option to seek medical attention if necessary).