

1<sup>st</sup> EDITION

## PROFESSIONAL GEAR

# GUIDE BOOK

A mountaineering outfit might be weighty and hard to choose when it comes to the body of survival in mountain life. But here we have made things much more possible easier with our decade of experience in the climbing community. Those are the outfit, which Sherpa and climbers choose on above 6000m, 7000m, and 8000m mountains.



## ACKNOWLEDGMENT

*These 8000 meters climbing gears offer a guide to use on the different mountains in the category of 6000 meters, 7000 meters, and 8000 meters mountains based on the country Nepal, India, China, Tibet, and Pakistan.*

*The book consists of professional guidance from the past decades and is purposely reviewed each year. This book is its first publication.*

*The detailed gear illustration gear list is provided for reference which has been used throughout many expeditions. The item's match should not be the exact as shown. Following this guidebook, it will help to make your trip safe and smooth.*

*To avoid any confusion and doubt we have made this book easy to read and follow with pictures and illustrations. If you find any difficulties and queries feel free to write an email to us.*



## Head Wear

Sun Cap  
Desert Cap  
Balaclava  
Fleece Hat/ Warm Hat  
Neck Gaiter

## O<sub>2</sub> Regulator

## Upper Body

Thermal Top Base Layer  
Fleece Jacket  
Gore Tex Jacket  
Wind Proof Jacket  
Down Jacket  
Cotton T-Shirt

## O<sub>2</sub> Cylinder

## Ice Axe

## Lower Body

Thermal Bottom Base Layer  
Fleece Trouser  
Gore Tex Pant  
Mid Weight Pants  
Light Weight Quick Dry Trekking Pants  
Gaiters for trekking boots  
Down Pants  
Under Wear

## Harness

(ATC guide, figure of 8, ascender, tape sling, lock-carabiners, unlock carabiners, ice screw and rescue rope)

## Foot Wear

Summit Boot - 8000m.  
Climbing Boot - 6000m.  
Normal Socks  
Summit Socks  
Trekking Shoes  
Light Trekking/Sports Shoes  
Gaiters  
Camp Booties  
Slipper

## Crampons

## HEAD WEAR



### SUN CAP

Any cap designed to protect your head, and face from the direct sunlight in the mountain. This could be of any style and design.



### DESERT CAP

Any cap or hat which is capable of protecting your head, face, and neck from sunburn on the mountain. It will be much better if it is Lightweight, cotton fabric, and has UV sun protection properties.



### BALACLAVA

It is designed to expose only part of the face, that is eyes and mouth which helps to avoid frostbite to your face at a high altitude. It helps to block the wind and helps to cover the full face. We prefer breathable and stretchable materials manufacturer products.





## FLEECE HAT/ WARM HAT

It should cover your ears and head with air penetrable to avoid moisture in the head.

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## NECK GAITER

A neck gaiter is designed to cover your neck and face to protect you from the sun and cold conditions. It's now available with UV resistance which can cover the most exposed skin.

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## UPPER BODY



## THERMAL TOP BASE LAYER

A base layer is a layer of clothing that is closest to your skin, almost acting as 'second skin' that can keep you warm or cool. Base layers and thermal underwear provide a layer of warmth while, at the same time, absorbing and removing your sweat to keep you comfortable while on the move. We prefer lightweight and comfortable to use beneath other layers.

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## FLEECE JACKET

In extremely cold temperatures, fleece jackets can be used as mid-layer jackets. Put it on under a heavier coat for optimal warmth.

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## GORE TEX JACKET

The Gore-Tex jacket is also known as a softshell jacket which is important for a mountaineer to provide protection from rain, snow, and wind. It should be waterproof, breathable, and windproof.

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## WARM JACKET

The warm jacket can be used as a layering which can be synthetically made with insulations. We prefer models with hoods that are more versatile. You can use this jacket as layering when traveling to a higher altitude, where insulation handles body moisture without any problems and dries quickly.

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## WIND PROOF JACKET

This is a hard-shell jacket that can be worn, potentially, in overall layers excluding an insulated jacket. We prefer for helmet compatibility jacket; it should be only used in extreme wind and snow.

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## DOWN JACKET

This down jacket is also known as an expedition jacket below 6000m because it can be used in extreme cold. It should have properties of down insulated with hooded (not synthetic), +800 fill power down filled.

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## COTTON/QUICK DRY T-SHIRT

Short sleeve (full synthetic will wick moisture and dry more quickly) and can have extra pair of T-shirt too. and long sleeve base layer shirt is designed to be close-fitting for comfort beneath another layer.

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## LOWER BODY



## THERMAL BOTTOM BASE LAYER

Its thermal layer provides a layer of warmth while, at the same time, absorbing and removing your sweat to keep you comfortable while on the move. We prefer lightweight and comfortable to use beneath other layers.

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## FLEECE TROUSER

Fleece is made of polyester with many brands utilizing recycled plastics that is extruded into fine fibers and then woven into fleece cloth. Because it's made from plastic, fleece is naturally hydrophilic (water repellent) fleece (unlike down or cotton) will keep you warm even when it's wet.

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## GORE TEX PANT

The Gortex Pants is also known as the softshell pants form which is important for a mountaineer to provide protection from rain, snow, and wind. It should be waterproof, breathable, and windproof.

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## HEAVY WEIGHT PANTS

This is a synthetic insulated pant, it is used during the camp acclimatization rotation. It is the alternative of down. It is a layering that can be synthetically made with insulations.

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## MID WEIGHT PANTS

It is known for hard-shell pant which is designed to protect from rain, snow, and wind. It is used for layering and is made up of hard garments.

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## LIGHT WEIGHT QUICK DRY TREK-

It is lightweight trekking pants and used over your thermal layer for climbing, trekking, and climbing plants. These are comfortable pants with good flexibility, breathable and easier movement.

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## UNDER WEAR

Choose moisture-wicking, quick-dry underwear: You'll want to avoid cotton and choose breathable underwear made from a synthetic material, like polyester, or merino wool. Unlike cotton, these materials wick moisture away from the skin and dry quickly.

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## DOWN PANTS

These are also known as 8000-meter pants, they should be down-insulated (not synthetic). It is combined to wear with an expedition down jacket. It should include full side zips for the bathroom and be sized to accommodate wearing all other layers beneath.

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## GAITERS FOR TREKKING BOOTS

This is a tube fabric made materials used over the boots to avoid snow and other stuff from entering your boots. For high mountains, we recommended taller gaiters, shorter is for well-known trekking route and the alps.

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## HANDS WEAR



### THIN FLEECE GLOVES

This kind of gloves can serve you well in the mountain as a layer for hand protection. We recommend for possible the one which fit on your hand.



### WIND STOPPER/SCREEN TAP GLOVES

These kinds of gloves are specially made to stop wind and snow. We recommend touch sensitivity for mobile use at a higher altitude.



### HEAVY GLOVES (GUIDE)

It is a high-altitude guide glove, it is a kind of softshell design with synthetic materials most probably leather palm grip.





## SUMMIT GLOVES -8000M.PANTS

Its an insulated gloves with a waterproof/breathable shell and removable inner synthetic gloves. It is specially made for the summit.

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## FOOT WEAR



## SUMMIT BOOT -8000M.

Its mountaineering boots are made with a removable insulated inner with durable waterproof. There are Three-layer taped fabrics: waterproof, windproof, and wear-resistant. Puncture-resistant, wear resistant fabric with waterproof and breathable membrane.

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## CLIMBING BOOT -6000M.

It should be lightweight, comfortable, and a good grip for a long walk through the terrain. Any variety of lightweight shoes can serve well as trekking shoes. We prefer Gortex shoes.

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## NORMAL SOCKS

The socks are specially designed for high mountains which are comfortable and warm. It should be synthetic fiber (no cotton). The extra length is for warmth and increases blood flow to the feet on a longer expedition.

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## SUMMIT SOCKS

These are very lightweight socks that are designed to remove moisture away from the skin, and help reduce blisters providing warmth during climbing period.

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## TREKKING SHOES

As an alternative to trekking shoes or in a lighter version. These shoes are on purpose for the short trail on the mountain.

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## HIKING/SPORTS SHOES

These are non-technical boots used for walking and stay in the camp, it should be warm, waterproof.

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## CAMP BOOTIES

These are non-technical boots used for walking and stay in the camp, it should be warm, waterproof

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## SLIPPER

For your comfortable and free walk around the camp, it should be of good traction.

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## EQUIPMENT



## CLIMBING HELMET

The helmet you wear should be lightweight, ventilated, and easily adjustable with hardened with foam liner. It should fit well also need to support a head lamp.

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## SUMMIT DOWN SUIT -8000M.

It is designed for surviving the harsh conditions at high altitudes for its full body insulation. With durable reinforcements and a waterproof, windproof, and breathable shell, it's a necessity for exploring the Polar Regions or climbing 7000/8000 peaks or above. This down suit will keep you warm in extreme heights. Fully taped seams for waterproof, windproof and ventilation.

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## CRAMPONS

It must fit with your boot perfectly first rules. We prefer 12 pointed crampons with anti-balling plates steel made. It can be attached to your boots via straps or by bale system with packing cover attached.

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## ICE AXE WITH SPIKE AND AXE

It should be a straight-shafted axe with a pointed spike. These axes are used as a piolet for stability, for self-arrest in a fall, and chopping ice.

*You can choose as follows:*

*Under 5'2" - 50 cm axe*

*5'8" to 5'11" - 60 cm axe,*

*5'3" to 5'7" - 55 cm axe*

*6'0" to 6'2" - 505cm axe Above 6'3"- 70 cm axe*



## HARNES

An alpine-style climbing harness is a lightweight, primarily webbing-based seat harness designed for attachment to a climbing rope. Your harness must offer sufficient size in the legs and waist to be put on over top of your outermost layer.

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## BELAY DEVICES (FIGURE OF 8)/ATC

When rappelling, you feed a bight (bend) of rope through the large hole and loop it around the outside of the small hole till it rests on the “neck” of figure 8. The small hole is clipped to your belay loop on your harness. Figure 8s are frequently used for search and rescue, caving and rappelling.

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## JUMAR/ASCENDER

An ascender is a device (usually mechanical) used for directly ascending a rope, or for facilitating protection with a fixed rope when climbing. It is usually designed for left and right hands, choose as per your preference, some require both hands to operate.

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## LOCK CARABINER

These are the secured close lock. These carabiners are of large and small size available. Large sizes are used in your harness. Lock carabiner is preferred more secured than twist.

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## UNLOCK CARABINER

For mountaineering, lightweight D-Shaped models with wire gate closure are recommended since solid gates freeze more easily. Unlock carabiner is a metal loop designed to unlock from a spring gate. It allows the climbers to fasten the rope and create an anchor for the crevasse rescue haul system.

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## TAPE SLINGS

The slings (120 cm) are recommended. These will be used for rigging your ascender and safety for climbing.

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## SNOW GOGGLE (SUMMIT PURPOSE)

Its application is when glacier glasses cannot block the blowing wind and snow. These snow summit goggles are made to face these sorts of hazardous moments to face it. For prescription goggles, it is also available.

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## GLACIERS GLASSES

This glass is made to avoid harmful UV rays and snow reflection at increasing altitudes. Your glasses must cover your face 100% coverage from above, below, and side. These are also said as the summit goggles attached.

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## HEAD LIGHT 400-500 LUMENS SPARE

We recommend models with 700 lumens of output (this measures the brightness). You will use your headlamp to see at night in your tent and for pre-sunrise starts. Weather-resistant models offer a significant advantage in the harsh conditions of the mountains. Your headlamp should fit comfortably on both your helmet and head.

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## SATELLITE PHONE

An easy-to-use satellite phone, users can make phone calls and send SMS messages in satellite mode. Re-load your prepaid SIM card with a credit payment.

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## GPS TRACKER

A GPS tracking unit, a tracking unit, or simply a tracker is a navigation device normally on the person.

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## PRUSIK LOOPS

Used primarily for making prussiks (friction knots used to ascend a rope or create a crevasse rescue system), the accessory cord is a key item for most mountaineers. Often, a cord can be purchased on foot from climbing gear.

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## ALTIMETER WATCH

The watch features an altimeter, barometer, and compass and can track the weather and sun, with an intelligent storm alarm that alerts you to bad weather, activated by a rapid drop in air pressure over a three-hour period, a huge pro for hikers and campers.

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## WALKING STICK/TREKKING POLE

Trekking poles (also known as hiking poles, hiking sticks or walking poles) are a common hiking accessory that function to assist walkers with their rhythm and to provide stability on rough terrain.

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## POCKET/SWISS KNIFE

For climbing & mountaineering applications, knives should be simple, small, and lightweight. Very trim multi-tool knives can be nice on longer expeditions where the ability to repair a broader range of equipment is desirable. For shorter climbing trips, simple blade-only models are preferable.

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## SLEEPING MATERIAL



## SLEEPING BAG (BASECAMP)

This sleeping bag is specially designed for 6000 meters. We prefer to use down insulated rather than synthetic due to its bulky weight.

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## DOWN SLEEPING BAG

*This sleeping bag is specially designed for 8000 meters. We prefer to use down insulated rather than synthetic due to its bulky weight.*

*Extreme Comfort -40°C*

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## THERMAREST MATTRESS (CELL FOAM)

It's a closed-cell foam pad made to be used for outdoor activities. It is used to provide extra insulation when sleeping on snow, glaciers, or frozen ground.

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## DOWN MATTRESS (INFLATABLE)

It's a closed-cell foam pad made to be used for outdoor activities. It is used to provide extra insulation when sleeping on snow, glaciers, or frozen ground made by down with insulation.

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## SLEEPING BAG LINER

Sleeping Bag liners are inserted inside your sleeping bag to add extra warmth and prevent dirt from reaching your bag to keep it clean.

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## INFLATABLE PILLOW

It will save you space in your pack, they have some downsides. They're hot, don't stay where you want, and it's tough to get that "real" pillow feel when they over-inflate. It's better than nothing, but not ideal.



## BAG PACK



## RUCKSACKS

*It's a single-day-use bag pack. It should be lightweight possible a pouch for the crampon to keep and oxygen to fit. It can be used to take to the summit.*

Net Volume: 35L-50L



## DUFFLE BAG

*This is a single zip bag pack made to fit all your equipment in a single bag pack. It should be waterproof and strong materials made of up to avoid damage during the trip and movement.*

Net Volume: 90L-120 L



## WATER PROOF STUFF SACKS

This pouch is to keep your stuff safe from snow and water damages. Your Passport, Travel paper, and others can be kept inside your backpack with this one. We prefer medium and large also for your laundry.

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## SUN STUFF & OTHER ESSENTIALS



### SUN CREAM

This sunscreen with high zinc and sweat resistance will help to keep your skin from sun and snow burn.

Ref:  
*Banana Boat/Nivea Sun Cream -50 SPF*

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### HAND AND TOE WARMER

Toe and feet warmers can reach temperatures of 165 degrees Fahrenheit if left out. Make sure to use your warmers in enclosed spaces only, such as gloves, and mittens. and boots, and avoid using them in shoes or gloves that have ventilation.

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## MOISTURISER/LOTION

The lotion that contains high zinc and sweet resistance will help to keep your skin from sun and snow burn. Please consult before purchasing.

## LIP GUARD

It should contain high zinc and sweet resistance will help to keep your lip from sun and snow burn.

Ref:  
-30 to -50 SPF

## EATING AND DRINKING

Items that are essential such as Water Bottle (1 Litre), Thermos Mug (1/1.5 Litre), Spoon/ Fork, Bowl, etc.



## TOILETRIES (PERSONAL)

The hygiene items needed for daily use such as toilet paper, wet tissue, toothpaste, toothbrush, soap, shampoo, towel, garbage bag, etc.

## MISCELLANEOUS

Those extra items that you might want to carry such as Nail Cutter, Umbrella/Rain Coat, Hot Water Bag, Pee Bottle (1 Litre), Tenacious Tape Repair Kits, Camera, Power Bank, etc.

## MEDICAL/FIRST AID

The first aids that might come in handy while on the journey such as Brufen/Ibuprofens, Antibiotic, Diamox, Paracetamol, Handy Plaster, Crack Bandage, Tincture Iodine, Ondem, Cetirizine, Electrolyte, Minil 10mg (Palpitation, anxiety), Codopar (Headache & chest pain), Salbetol 4mg (Breathless), Azithromycin 500mg (chronic tonsillitis, fever, nose, throat infection-must take 5 days), Flupen 250mg (prevent wound infection), Allegra 120/180mg (Allergic tonsil), etc.





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