



ANNUAL
REPORT
2020



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ACRONYMS

ATCF	Adventure Travel Conservation Fund
BZMC	Buffer Zone Management Committee
CBO	Community-based Organizations
EBC	Everest Base Camp
ESA	Everest Summiteers Association
GMG	Garbage Management Group
HAT-J	Himalayan Trust of Japan
KCC	Khumbu Climbing Center
KPLRM	Khumbu Pasang Lhamu Rural Municipality
MoCTCA	Ministry of Culture, Tourism and Civil Aviation
NMA	Nepal Mountaineering Association
NMGA	Nepal Mountaineering Guide Association
NTB	Nepal Tourism Board
SNP	Sagarmatha National Park
SPCC	Sagarmatha Pollution Control Committee



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Message from the Chairperson

It is my pleasure to present you SPCC's Annual Report for the FY 2075/76 (2018/19) & FY 2076/77 (2019/20). This report presents updates on our continuous efforts to improve waste management situation in settlements, trekking trails and mountains of Khumbu Region; mapping out a safer route through Khumbu icefall; and monitoring illegal climbers in the mountains and peaks.

In FY 2018/19, we were able to launch and implement new waste management programs, while continuing to implement existing programs. We have successfully conducted the 'Mt. Everest Cleanup Campaign - 2019' through which we collected 11 tons of garbage and four dead bodies. The campaign created a platform for all three tiers government (central, provincial and local), the Nepali Army, non-profits organizations such as SPCC, NMA and WWF Nepal, and corporate companies, such as Coca Cola, commercial banks and airlines having common interest to come together and work collectively to preserve the environment of the world's highest mountain. In Autumn 2019, we started recycling of waste paper to produce briquettes and also launched the 'Carry Me Back Program', a crowdsourced waste removal system to transport semi processed waste from Khumbu for proper recycling. The Carry Me Back program was well received with about 2,500 participants during the pilot period.

2020 has been a challenging year due to the onset of the global COVID-19 pandemic. The pandemic shut down the spring Everest expeditions and trekking in the Khumbu Region, which is the mainstay of local economies. With prolonged nationwide lockdown imposed by the government and shut down of tourism industry, we had to cut pays for



Ang Dorjee Sherpa
Chairperson

our staffs, cancelled support to local partners and scaled down our programs in FY 2019/20. This year has also been a remarkably sad and difficult year for us, as we lost our Patron and 1st Vice Chairperson. Our patron, the Venerable Ngawang Tenzing Jangpo (Tengboche Rinpoche) was not only a spiritual leader, but also a visionary thinker and a great supporter of environmental and conservation initiatives. In early 1990s, he mobilized the local people of Khumbu to take initiative in pollution control, which eventually led to the formation of SPCC. Our 1st Vice Chairman, Nim Dorjee Sherpa who was also the Chairperson of Khumbu Pasang Lhamu Rural Municipality has been a long-term supporter of our organization.

As I approach to the end of my second term as the Chairperson of SPCC, I am proud of all the initiatives we have taken and many accomplishments we have made to make Khumbu clean and well-managed region. I would like to take this opportunity to express my sincere gratitude to all partners, committee members, staffs of SPCC and other supporters for their continuous cooperation and immense support.

Ang Dorjee Sherpa
Chairman

Executive Board

Patron

Late Venerable Ngawang Tenzing Jangpo
(Tengboche Rinpoche)

Advisors

Mr. Ang Phurba Sherpa, Namche
Mr. Ang Rita Sherpa, Khumjung
Mr. Sonam Geljen Sherpa, Namche
Mr. Kedar Prasand Dahal (Legal advisor)

Executive Members

Chairman – Mr. Ang Dorjee Sherpa (Namche)
Vice-Chairman I – Mr. Lama Kaji Sherpa (Namche)
Vice-Chairman II – Late Mr. Nim Dorjee Sherpa (Lukla)
Vice-Chairman III - Mr. Tenzing Tashi Sherpa (Khumjung)
General Secretary – Mr. Lhakpa Geljen Sherpa (Lukla)
Secretary – Mr. Laxman Adhikary (Khumjung)
Treasurer – Mr. Pemba Tshering Sherpa (Khumjung)
Member – Mr. Ang Gara Sherpa (Gumila)
Member – Mr. Mingma Tshering Sherpa (Tekka)
Member – Mr. Ang Tenzing Sherpa (Namche)
Member – Mr. Nima Tashi Sherpa (Namche)
Member – Mrs. Ang Serki Sherpa (Khumjung)
Member – Mr. Nawang Nuru Sherpa (Khumjung)
Member – Mr. Palden Namgay Sherpa (Phortse)
Member – Mr. Pemba Tenzing Sherpa (Phakding)
Member – Mr. Ang Temba Sherpa (Khunde)
Member – Mr. Ang Nuru Sherpa (Thamo)



1

Our history

With the successful ascent of Mount Everest by Sir Edmund Hillary and Tenjing Norgay Sherpa in 1953, Khumbu Region has become a popular tourist destination attracting thousands of mountaineers and trekkers from around the globe. In absence of concrete rules and regulations for the disposal of garbage generated by tourists, there had been a serious concern over solid waste management issues in the late 1980's. This led to the formation of a local environmental organization named 'Sagarmatha Pollution Control Committee' (SPCC) – a non-profit and non-governmental organization established in 1991 by the people of Khumbu with support from WWF Nepal and Ministry of Tourism, Culture and Civil Aviation (MoCTCA). SPCC is legally registered under the District Administration Office in Solukhumbu district (Registration no- 20) and also registered with Social Welfare Council (Registration no-10989).

Our works

SPCC is the lead organization working to manage waste in Khumbu Region, which form the Sagarmatha National Park and its Buffer Zone and also encompass the core Everest trekking area. SPCC has been continuously working to keep Khumbu clean through development of appropriate waste management infrastructures, and integrating sustainable waste management approaches, such as setting up a system for waste segregation,

About SPCC

strengthening community participation in waste management, dissemination of public education, and finding opportunities for waste reduction, reuse and recycling.

Since 1997, SPCC has been contracted by the Ministry of Culture, Tourism and Civil Aviation (MoCTCA) to set the climbing route through the Khumbu Icefall. The SPCC also works to check climbing permits, monitor illegal climbing, and implement waste management strategies at the base camps of the Khumbu area's mountains and peaks including Mt. Everest. We also manage garbage in settlements and along trekking trails in direct coordination with local communities. We conduct all waste management activities including building of waste management infrastructures, waste collection, segregation, transportation and diversion/disposal. Currently, we focus on developing sustainable waste management strategies with a long-term goal of keeping Khumbu clean.

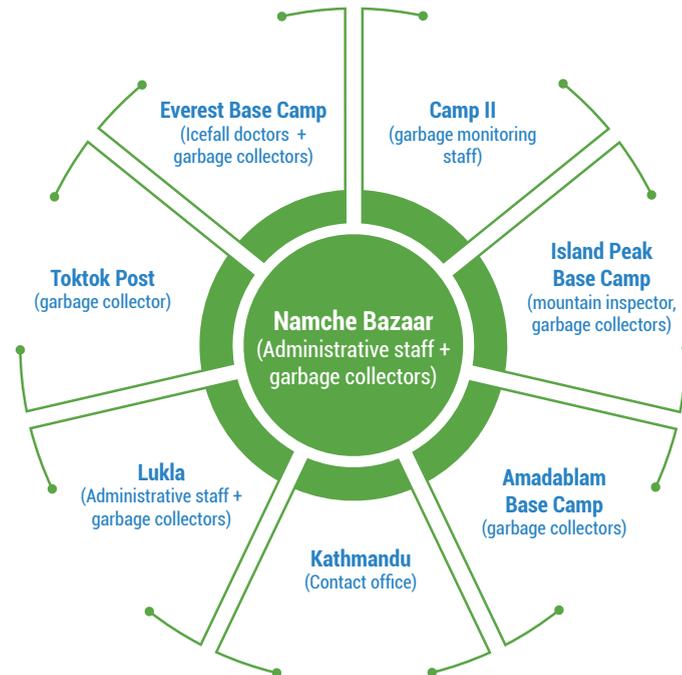
(SPCC is a local non-governmental organization (NGO) working in waste management sector in the Khumbu Region since 1991)

Our working areas

Our working area covers ward no. 2, 3, 4 and 5 of Khumbu Pasang Lhamu Rural Municipality, located within the Sagarmatha National Park and Buffer Zone (SNP BZMC). Our waste management activities cover all the trekking trails, base camps of mountains and peaks, and all settlements located within Khumbu Region.

Our work stations and staff

SPCC head office is located at Namche Bazaar. We have several branch offices and seasonal offices located at various settlements and base camps. Currently, SPCC employs 20 permanent staff and more than 50 seasonal staff to conduct our programs.



Waste Management Infrastructures



GARBAGE BINS

119

Garbage bins built and managed by SPCC at major resting points along trekking trails and at schools



COLLECTION CENTERS

12

Collection centers established and managed by SPCC for collecting and storing non-burnable garbage in major settlements



WASTE MANAGEMENT FACILITIES

2

Waste Management facilities located at Namche and Lukla to segregate and pre-process waste for recycling



BURNING CHAMBERS

9

Enclosed burning facilities established and managed in several settlements



WASTE STORAGE HOUSE

3

Waste storage houses for storing recyclable garbage

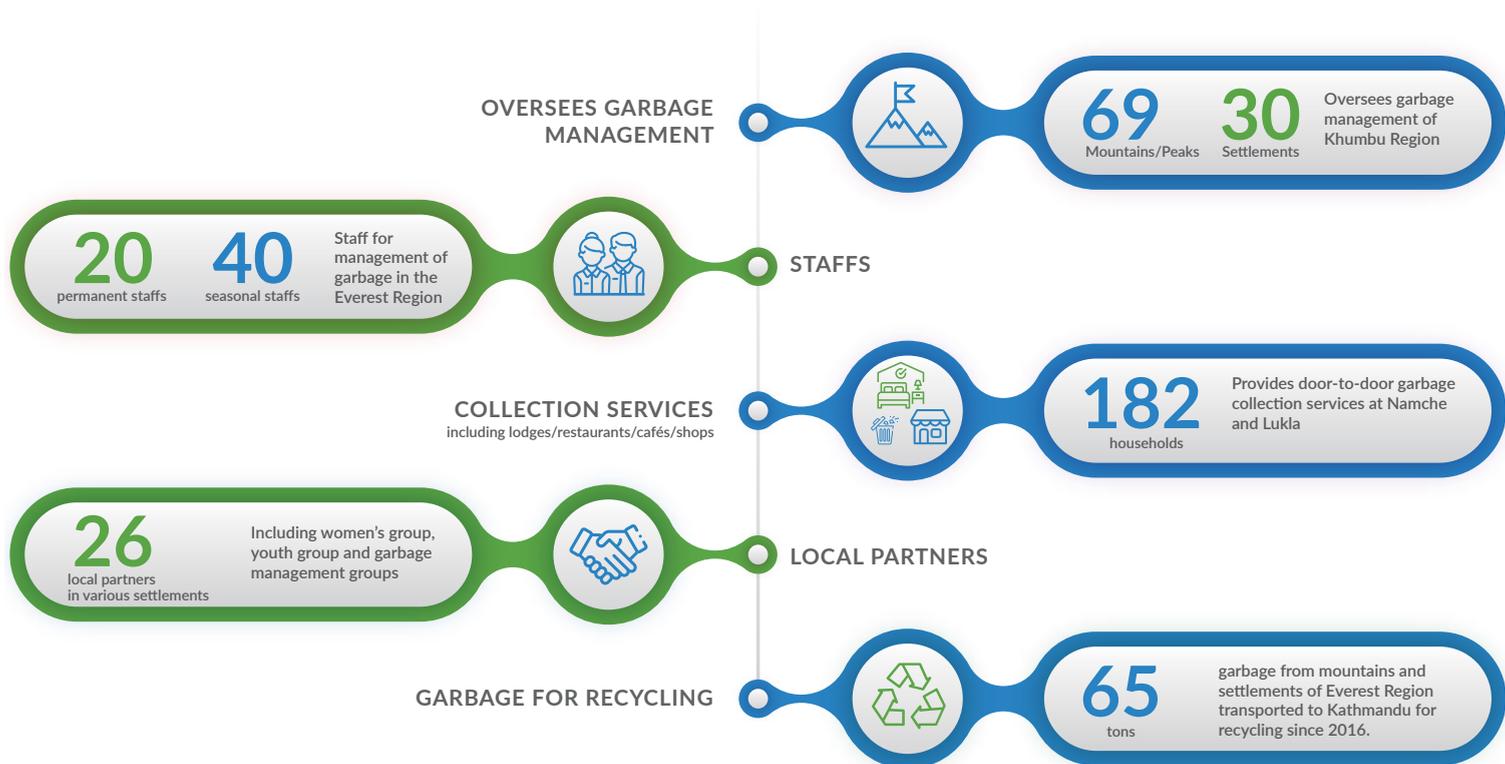


TOILETS

4

Toilets established and managed by SPCC along trekking trails.

Waste Collection and Diversion



2

- SPCC oversees waste management in **69** mountains/peaks in the Khumbu Region permitted for climbing by the Government of Nepal.
- In partnership with MoCTCA and NMA, SPCC manages expedition wastes through the 'garbage declaration and clearance system'. Expedition waste comprises climbing equipment and gears (ropes, tents, epi gas, ladders etc.), tins, cans, human waste and kitchen waste.
- **992** climbers attempted to climb various mountains including Mt. Everest in FY 2018/19, while there were only **493** climbers in FY 2019/20 as Everest expeditions were cancelled due to the COVID-19 pandemic.
- **5,365** climbers attempted to climb various peaks of Khumbu Region in FY 2018/19, while the number drop down to **2,243** in FY 2019/20 due to the pandemic
- **60,000** kgs expedition waste managed by SPCC in FY 2018/19 and about **7,500** kgs expedition waste managed in FY 2019/20.
- **11** tons of garbage and **4** dead bodies collected from Mt. Everest through the 'Mt. Everest Cleanup Campaign 2019'.

Waste Management in the Mountains

Garbage declaration and clearance system

SPCC is the authorized local organization responsible for monitoring garbage in the permit-required mountains under MoCTCA, and NMA registered peaks through garbage declaration and clearance system. As per the system, all expedition group/climbers are required to register at the SPCC office and declare their equipment and food list. Upon completion of their climbing period, each group has to submit all burnable and non-burnable garbage to the SPCC office to get a garbage clearance certificate, which is required to get their garbage deposit refunds from MoCTCA/NMA. SPCC manages the burnable garbage generated by climbers at our waste management facilities in Khumbu, whereas takes all non-burnable garbage to Kathmandu for further treatment at recycling centers.

SPCC manages expedition wastes generated by climbers and expedition groups in various mountains/peaks through garbage declaration and clearance system

RULES FOR CLIMBERS AND EXPEDITION GROUPS IN KHUMBU

1. Garbage should be segregated into burnable, non-burnable and biodegradable categories at the base camp. All garbage must be handed over to SPCC to get a garbage clearance certificate.
2. Every climber ascending beyond Everest's base camp must bring back at least 8 kg of garbage, and climber ascending above Amadablam base camp must bring back 3 kg of garbage.
3. Human waste (toilet) produced at the base camps must be collected in portable plastic barrels
4. Burning or burying garbage at the base camps is strictly prohibited.
5. Painting on rocks is not allowed.
6. Climbers must obtain permit from the Government of Nepal to climb mountains and peaks. SPCC can check permit any time during the expedition period.

Garbage management at the base camps of mountains and peaks

In every spring climbing season, SPCC mobilizes staff at our seasonal office at Everest Base Camp and Camp II for monitoring of garbage generated by climbers climbing Mt. Everest, Mt. Lhotse and Mt. Nuptse. Expedition groups are required to collect and submit all garbage generated by their team during their expedition period to our representative at EBC. Since 2015, SPCC also monitored the 8 kgs garbage rule formulated by the Nepal government for Mt. Everest, according



SPCC staff transporting garbage from Everest Base Camp

to which every climber ascending above Everest base camp must bring back at least 8 kg of garbage. Climbers need to submit their 8 kgs garbage to the SPCC representative at our designated site at Everest Base Camp. SPCC also has a seasonal office stationed at Island Peak Base Camp in spring and autumn climbing season. Our staff at Island Peak Base Camp Office monitored garbage management at Island Peak, Mt. Amadablam and Lobuche Peak.

Human waste management at the base camps of mountains and peaks

SPCC manages human waste at Everest Base Camp, Amadablam Base Camp, Island Peak Base Camp and Lobuche Peak Base Camp through a portable toilet system. As these base camps are either located on the glaciers or nearby major water sources our efforts are targeted towards managing the human wastes properly so that it is not dumped on the glaciers and water sources. As the Everest Base Camp lies on the Khumbu glacier, expedition groups are required to use portable barrels for collecting human wastes. Our SPCC staff will take the human waste collected in the blue barrel for safe disposal to our designated disposal site located near Gorakshep, which is further away from the glacier and water source. SPCC built and manages several toilets at Amadablam Base Camp, Island Peak Base Camp and Lobuche Peak Base Camp for management of human waste.

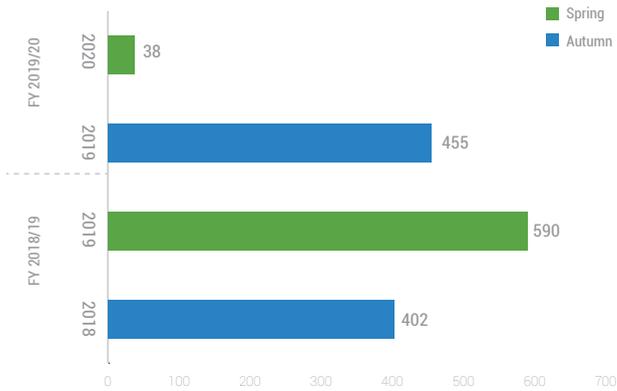


Collecting discarded garbage at high camps on Mt. Everest

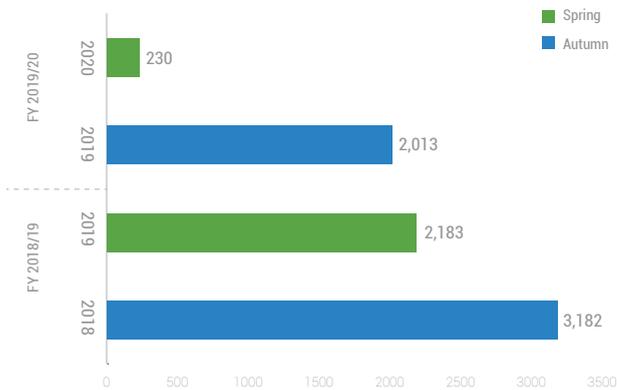


Mt. Everest Cleanup Campaign 2019 team taking out dead body from Khumbu icefall

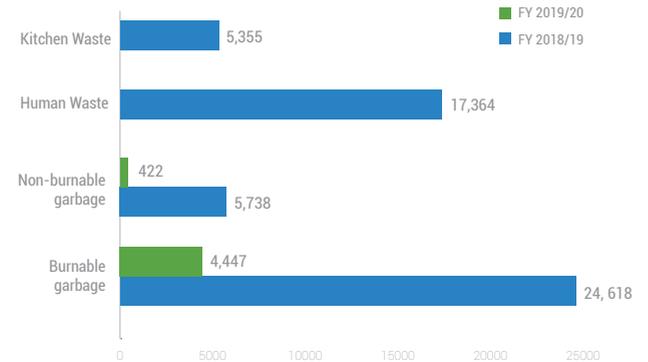




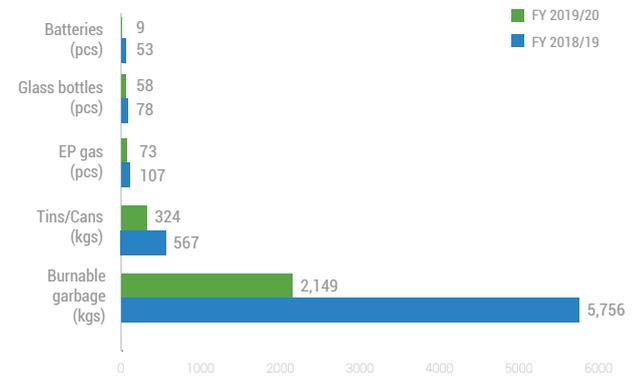
1 Climbers attempting various mountains in the Everest Region



2 Climbers attempting various peaks in the Everest Region



3 Garbage generated by expedition groups in various mountains (in Kg)



4 Garbage generated by climbers in various peaks



Organizers of the campaign

1. Ministry of Culture, Tourism and Civil Aviation (MoCTCA); and Department of Tourism
2. Ministry of Forests and Environment; and Department of National Parks and Wildlife Conservation
3. Nepali Army
4. Ministry of Industry, Tourism, Forests and Environment - Province no. 1
5. Khumbu Pasang Lhamu Rural Municipality
6. Sagarmatha National Park and Buffer Zone Management Committee
7. Nepal Mountaineering Association (NMA)
8. Nepal Tourism Board (NTB)
9. Sagarmatha Pollution Control Committee (SPCC)

Supporters of the campaign

1. Coca Cola
2. Bottlers Nepal
3. WWF Nepal
4. Visit Nepal 2020
5. Prabhu Bank Limited
6. Nabil Bank Limited
7. NMB Bank Limited
8. Sonam Gear
9. Tara Air

The “Mt. Everest Clean-Up Campaign 2019” is the first joint cleanup initiative made to retrieve discarded garbage and dead bodies from Mt. Everest. Themed “Clean Our Pride”, the campaign aimed to preserve the sanctity of the world’s highest mountain and keep it pristine. The campaign was jointly organized in collaboration with various government bodies, private sectors, and various NGOs, along with international corporation.

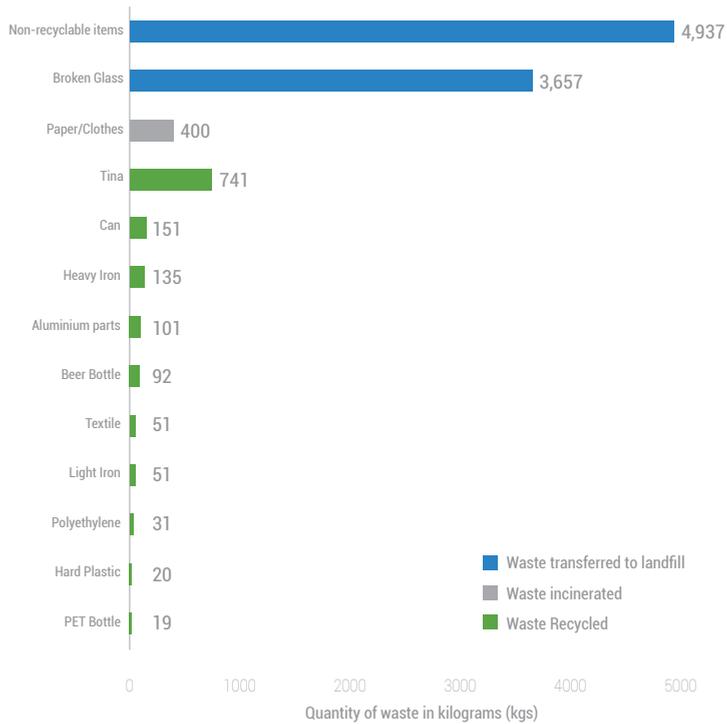
The 45 days long campaign targeted to remove 10 tons of waste (5 tons wastes from Mt. Everest and 5 tons of wastes from its foothills). The weekly campaigns in settlements started on 14th of April from Lukla and the campaign on Mt. Everest began at the end of April. The campaign continued till the end of May. A sharing and monitoring event was conducted at Namche on 27th May followed by a garbage handover ceremony at Kathmandu on 5th June on the occasion of World Environment Day concluding the campaign.

The campaign collected a total of 10,368 kgs garbage (580 kgs were collected from South Cole (Camp IV), 300 kgs from Camp III, 1,376 kgs from Camp II, 512 kgs from Camp I, 1,924 kgs garbage from old Khumbu Icefall route, 1,450 kgs garbage from Everest Base Camp and 4,244 kgs garbage from various settlements. The garbage collected from the campaign was segregated into various categories and treated accordingly. The clean-up campaign retrieved four dead bodies of climbers from Mt. Everest: two from Khumbu Icefall section and another two from Camp II.

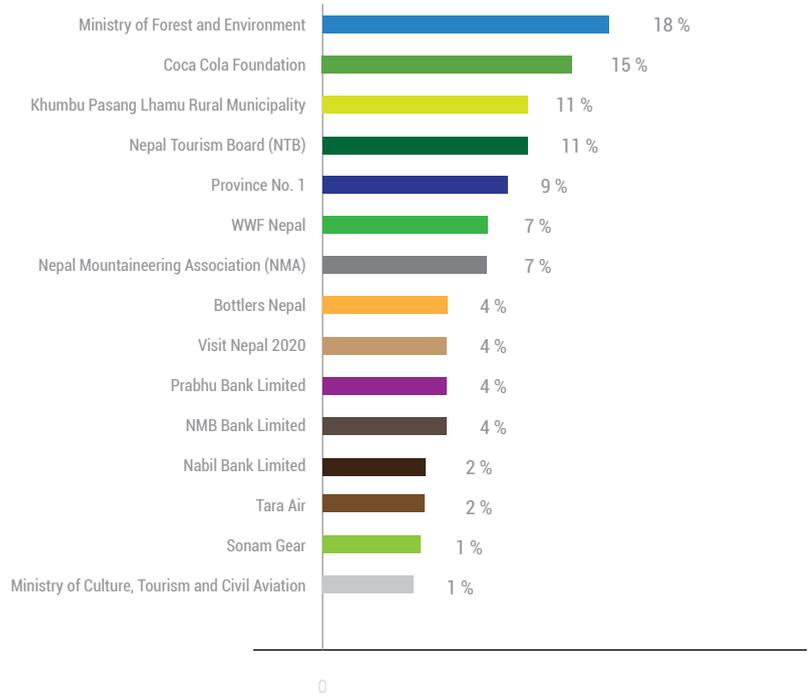


Mt. Everest Cleanup Campaign 2019 concluding event at Namche

The campaign created a platform for all three tiers government (central, provincial and local), the Nepali Army, non-profits organizations such as SPCC, NMA and WWF Nepal, and corporate companies, such as Coca Cola, commercial banks and airlines having common interest in saving the mountains to come together and work collectively to preserve the environment of world’s highest mountain. The campaign has been a grand success through this collective partnership. These partnerships also pave the way for discussion and implementation of best practices and policies for protecting the fragile mountain environment.



5 Mt. Everest Cleanup Campaign 2019: Types of garbage collected



6 Contributions from partners/sponsors for Mt. Everest Cleanup Campaign 2019 in percentage

3

- SPCC manages wastes along all major trekking trails of Khumbu Region that passes along various settlements, high passes and base camps. Trails waste mostly comprises wrappers, PET bottles and cans.
- Over **53,000** trekkers visited the Everest Region in 2019, while this number dropped down below **5,000** trekkers in 2020 due to the global pandemic.
- **119** garbage bins built at major resting points covering all major trekking trails of the Khumbu Region. Each garbage bin has a segregation chamber for storing burnable and non-burnable garbage separately.
- SPCC manages **4** public toilets for providing sanitation facilities for trekkers, guides, porters and local people travelling along the busy trail between Jorsalle and Namche Bazaar.

SPCC manages waste along various trekking trails of Khumbu Region by building garbage bins and public toilets

Waste Management along Trekking Trails

Khumbu Region, popularly known as Everest Region is one of the most popular trekking destinations of the world and is visited by thousands of trekkers each year from all around the globe. Since the first scaling of Mt Everest in 1953, the number of visitors in Khumbu Region has increased greatly: from about 1,400 in 1972-3 to more than 53,000 trekkers in 2019. The enormous increase of visitors to the Everest region during the last quarter century has tremendously supported the local economy. Nevertheless, the pressure exerted from tourism has also resulted in increased environmental degradation from waste. With an increase in the number of visitors, littering of trash along trekking trails has become prominent.

Management of trashes along trekking trails

With the aim of building a more effective waste collection system along the Region's trekking trails, SPCC has started to build permanent garbage bins along the trails since 2013. Each bin has segregation chambers to collect trash by categories so that these wastes will be properly treated and managed accordingly. As of 2020, SPCC built a total of 119 garbage bins and has been overseeing the maintenance and management



Source: SNP entrance gate, Jorsalle

7 Tourist arrivals in Sagarmatha National Park 1998 - 2020

of all garbage bins. A total of 109 garbage bins were built at various resting points along the trekking trails and 10 garbage bins were built at nine schools located within Khumbu Region. SPCC's field staff and local partners continuously monitor littering of trash along the trekking trails and manage all garbage bins located along various trekking trails.

Our garbage bin Sponsors:

1. Adventure Travel Conservation Fund (ATCF)
2. AlpenGlow Expedition
3. Alpine Ascents International
4. Club Alpino Italiano
5. Eco Himal - Saving Mt. Everest Waste Management Project
6. Epic Private Journeys
7. Ministry of Tourism, Culture and Civil Aviation (MoCTCA)
8. Nepal Mountaineering Association (NMA)
9. Nepal Tourism Board (NTB)
10. Sagarmatha National Park and Buffer Zone Management Committee (SNP BZMC)
11. Shangri-La Nepal Trek
12. Tenzing Natural Energy
13. Vertical. Chile
14. World Nomads



Garbage bins built and managed by SPCC along the trekking trails of Khumbu Region

Completion of “Trekking Waste Infrastructure Project”

In 2018, SPCC's “Trekking Waste Infrastructure Project” was selected for Adventure Travel Conservation Fund (ATCF)'s Adopt a Project Program. Under this program, ATCF & World Nomads awarded SPCC US\$ 29,000/- for building 20 garbage bins along the resting points of major trekking trails with the purpose of keeping the trails clean. SPCC built seven garbage bins under this project in 2018; and 13 garbage bins in the

year 2019. The project has been successfully completed. Each bin has a capacity of storing 30 kilograms of wastes, and over several hundred kilos of waste generated by trekkers are collected in these bins each year for proper disposal.

Management of public toilets along trekking trails

SPCC oversees management of public toilets at Topdada and Police Check Post near Namche for providing sanitation facilities for trekkers, guides, porters and local people traveling along the busy trail between Jorsalle and Namche Bazaar. Each restroom has two toilets, one for tourists and one for the public. We have made provision to collect a small fee for tourists to pay for its upkeep and maintenance. The other toilet is open for free use for the public, particularly to encourage porters to use the toilet facility.



Garbage bin along the trekking trail

4

- Lodges, restaurants, bakeries, tea shops and shops are established in almost every settlement in Khumbu. These enterprises produce tons of waste including tins, cans, packages, PET bottles, papers and kitchen wastes.
- SPCC provides door-to-door waste collection services to **182** lodges, restaurants, cafés, shops and households at Lukla and Namche.
- **251** tons of garbage were collected in FY 2018/19 and **165** tons of garbage collected in FY 2019/20 from Namche, Lukla and surrounding trails.
- We have extended partnership to **26** local partners in various settlements for proper waste management

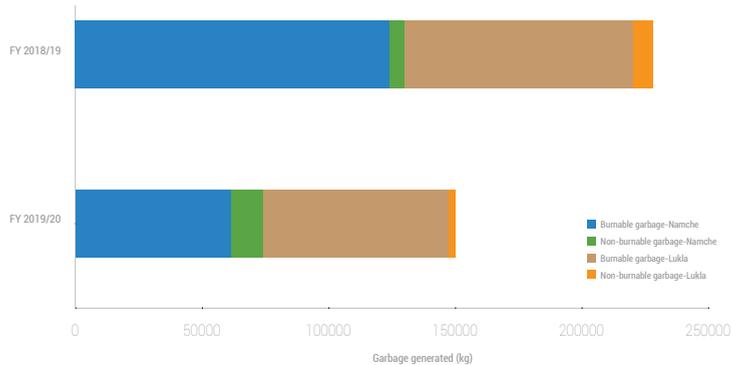
(SPCC manages wastes in various settlements of Khumbu by building waste management infrastructures, providing door-to-door collection services and extending partnership with community-based organizations)

Waste Management in Settlements

As tourism becomes the main livelihood strategy of the people of Khumbu region, tourism related business enterprises such as lodges, restaurants, bakeries, tea shops and shops are established almost in every settlement. These enterprises produce tons of garbage including tins, cans, packages, PET bottles, papers and kitchen wastes in tourist season. For years, SPCC has been taking various initiatives to address waste management issues in the settlements by developing appropriate strategies to manage garbage produced by business enterprises and local households. Our efforts range from providing support for building waste management infrastructures to providing door-to-door services in major settlements and mobilizing garbage management groups (GMGs) in subsidiary settlements.

Door to door collection system

SPCC provides door-to-door waste collection services in Namche and Lukla – the two major settlements of Khumbu region. Our field staff collect garbage from all households and enterprises, and transport it to our waste management facilities for further treatment. Currently, we provide door-to-door waste collection services to a total of 110 lodges, restaurants, cafés and shops at Namche and a total of 72 households and various business enterprises at Lukla.



8 Chart 8: Garbage collected at Namche and Lukla in FY 2018/19 and FY 2019/20

Partnership with local partners in various settlements

The settlements within the Khumbu region are dispersedly located because of which it is difficult to provide waste management services directly. SPCC strongly believes that involvement of the local community is a must for managing wastes in an effective way and sustainable manner. With the aim of strengthening community participation in waste management, SPCC created Garbage Management Groups (GMGs) in various settlements, and assigned responsibilities for them. Further, SPCC also extended its partnership with interested existing local organizations, such as youth groups and women's groups. With their partnership and engagement, waste management

in various settlements and trekking trails has improved significantly. Currently, SPCC works with 26 local partners in various settlements located within our working areas. SPCC provides financial and technical support to local partners for garbage management in their settlements. Our local partners conduct regular cleanup programs in their villages, and work directly with SPCC in addressing garbage management issues in their respective settlements.



SPCC garbage management staff sorting waste at collection centers



SPCC Program Officer briefing the local communities of Dingboche on the collection centers and importance of waste segregation

Our local Partners

Ward 2 and 3 of KPLRM

- Himalayan Youth Club, Lukla
- Khumbiyulha Women's Group, Monju/Chumua/Benkar
- Danfe Women's Group, Phakding
- Sagarmatha Women's Group, Toktok, Gumela

Ward 4 of KPLRM

- Tengboche Gonpa Management Committee, Tengboche
- Amadablam Youth Group, Pangboche
- Somare Garbage Management Group, Somare
- Khumbu Alpine Conservation Committee (KACC), Dingboche
- Pheriche Garbage Management Group, Pheriche
- Lobuche Garbage Management Group, Lobuche
- Gorakshep Area Development Committee, Gorakshep
- Gokyo Lake Management Group, Gokyo
- Machermo Porter Shelter Organizer, Machermo
- Dole Pragati Samuha, Dole
- Lurepeak Women's Group, Phortse
- Khumjung Youth Group, Khumjung
- Khunde Community Club, Khunde

Ward 5 of KPLRM:

- Chaurcamp Garbage Management Group, Chaurcamp
- Namche Youth Group, Namche
- Namche Women's Group, Namche
- Phurte Women's Group, Phurte
- Thamo Saving & Credit Cooperative, Thamo
- Sumdurpeak Saving & Credit Cooperative, Thame
- Snow Leopard Conservation Saving & Credit Cooperative, Thameteng
- Aama Yungjum Garbage Management Group, Chanyakpa-Yilajung
- Renjola Milijuli Garbage Management Group, Lungden



Members of newly formed Aama Yungjum Garbage Management Group at Yilajung/Chyanyakpa

5

- Wastes are segregated into two categories: burnable (papers, packets, plastic, clothes, food scraps etc.) and non-burnable garbages (cans, tins, glass bottles, iron, EPI gas cylinder, O₂ gas cylinder etc.)
- SPCC manages burnable garbage at our waste management facilities; whereas non-burnable garbage is either reused, recycled at source or taken to Kathmandu for further treatment.
- SPCC built and manages **12** non-burnable garbage collection centers, **9** enclosed burning chambers, **3** waste storage houses, **2** waste management facilities for waste management in various settlements.
- **65** tons of non-burnable garbage has been transported from Lukla to Kathmandu for further treatment since 2016.
- About **2,500** people participated in the 'Carry Me Back' program in Autumn 2019 and transported around **4,000** kgs semi-processed wastes for recycling.
- **1,500** paper briquettes produced by recycling paper wastes at Lukla and Namche.
- **13,500** reusable cloth bags produced for distribution to local residents of Khumbu to replace the use of single use plastic bags.

Waste Collection, Segregation, Transportation

Setting up a system for waste segregation

SPCC continues to focus on strengthening proper systems for waste segregation at the base camps, along trekking trails and in various settlements so that all types of wastes don't end up in a dumping pit. All our garbage bins constructed along the trekking trails have two compartments for storing burnable and non-burnable garbage separately. As per our garbage declaration and clearance system, all waste generated by expedition groups/climbers needs to be segregated and submitted to SPCC to get a garbage clearance certificate. In settlements, our staff and local partners segregate the waste into burnable and non-burnable categories. The non-burnable garbage is transported to our collection centers.

Promoting sustainable waste management in Khumbu Region by strengthening proper system for waste segregation, collection, transportation and diversion



Enclosed burning chamber for management of burnable garbage;



Collection center for storing non-burnable garbage for further processing and treatment

Disposal of Burnable Garbages

Kitchen waste makes up a significant portion of overall wastes in Khumbu. Kitchen waste is valuable as animal feed, and thus separated from other wastes at household level and fed directly to animals. Apart from kitchen wastes, other burnable garbage is managed at our waste management facilities. Burnable garbage is either incinerated in enclosed burning chambers or dumped in pits. We have built nine enclosed burning chambers at various settlements till this date.

Management of non-burnable waste

SPCC built non-burnable garbage collection centers at major settlements of Khumbu. The non-burnable garbage, such as tins, cans, glass and irons that can be recycled is collected in our non-burnable collection centers. We have built two non-burnable collection centers in Dingboche in FY 2018/2019 and one near Namche in FY 2019/20 with financial support from SNP BZMC. At this date, we have established twelve non-burnable garbage collection centers at Lukla, Phakding, Chumoa/Monju, Namche, Tesho, Lausasa, Pangboche, Pheriche, Mongla, and Dingboche. We have plans to build additional non-burnable garbage collection centers in other settlements in coming years. Non-burnable garbage in collection centers is either reused, recycled at source or taken to Kathmandu for further treatment. We have three waste storage houses located at Syanboche, Namche and Phakding for storing non-burnable garbage.

Transportation of non-burnable garbage to Kathmandu for recycling

As it is environmentally not appropriate to dispose of non-burnable garbage in the mountains, SPCC transports a major portion of non-burnable garbage to Kathmandu for further treatment at recycling centers. SPCC collects and transports non-burnable garbage from base camps, trekking trails and settlements to the nearest airport Lukla by porters or zopkyoks. As a part of Corporate Social Responsibility (CSR), Tara Air has been supporting SPCC to transport non-burnable garbage from Lukla to Kathmandu at free of cost since 2015. The non-burnable garbage is then handed over to our Kathmandu-based partner Blue Waste to Value in Kathmandu for further segregation, processing and recycling. In 2019 and 2020, a total of 23,395 kgs non-burnable garbage were transported from the Everest Region to Kathmandu for recycling.

“Carry Me Back” Project

SPCC in partnership with Sagarmatha Next – an informative center being established at Syangboche by Himalayan Museum and Sustainable Park (HMSP) - initiated the “Carry Me Back” project. The main aim of the project is to transport semi-processed wastes, such as aluminum cans and PET bottles from Namche to Kathmandu for recycling with voluntary support from trekkers.



non-burnable garbage being transported from Lukla Airport by Tara Air for recycling in Kathmandu





Shredded cans/PET bottles packed in Carry Me Back bag.



Trekkers participating in Carry Me Back program to support transporting waste from Namche to Lukla

With financial support from SNP BZMC, SPCC installed a shredding machine at our waste management facility at Namche in 2019. Recyclable garbage, such as PET bottles and aluminum cans were separated, processed and packed in pouch bags weighing approximately 0.5 to 1 kg. Trekkers can pick up the carry me back bag from our pick-up station Namche and drop the bag at our drop-off station at Lukla. The garbage will then be transported to Kathmandu by Tara Air and handed over to Blue Waste to Value for recycling.

The “Carry Me Back” program was successfully tested during the trekking season in Autumn 2019. The program was well-received with about 2,500 participants during the pilot period in the Autumn 2019. With their support, a total of around 4,000 kgs waste was transported from Namche to Kathmandu for recycling. Due to the pandemic, we could not continue the program in 2020. We will continue the carry me back program once the trekking season resumes in the Everest Region.

Waste Reduce, Reuse and Recycling Initiatives

We have taken several initiatives at the local level to reuse and recycle wastes. Our previous efforts include reusing PET bottles as building materials for building garbage bins, recycling aluminum cans to make souvenirs, and recycling torned tents to make reusable bags.



Paper briquettes made from recycling paper waste from schools and cardboard boxes at Lukla



Upcycled glass sippers

Briquette Production Using Waste Paper

In 2019, we have explored opportunities for recycling paper wastes to make briquettes. Our staff took briquettes production training at the Foundation of Sustainable Technologies in Kathmandu and procured two hand operated briquette machines. A total of around 1,500 pieces of paper briquettes were produced reusing paper wastes from schools and cardboard boxes from the market at Namche and Lukla. SPCC staff Ms. Maya Sherpa also provided briquette production training to six households at Lukla. Conversion of paper waste into fuel briquettes is an economically feasible way to manage waste paper in the remote mountain areas. This project is of great importance in waste management as it will convert waste paper into useful products. Further, it also provides an alternative energy source to the local communities. Thus, we are looking forward to extending the program in other settlements in partnership with our local partners.

Upcycling of Glass Bottle Waste

In 2019, SPCC collaborated with Mountain Waste Repurpose (MOWARE) in Kathmandu to upcycle glass bottles collected from “Mt. Everest Cleanup Campaign - 2019” into sippers and planters.



Distribution of reusable cloth bags to replace the use of single use plastic bags

With adoption of a new federalism structure in Nepal, responsibilities of waste management have been decentralized to the local government. The Khumbu Pasang Lhamu Rural Municipality has announced a complete ban on use of single-use plastic bags. The use of plastic bags below 30 microns has been restricted in Khumbu Region effective from January 2020 considering its significant consequences on the human health and mountain environment.



To make the ban on single use plastic bags in the Khumbu Region effective, it is important to create awareness among the residents and trekkers on the adverse effects of plastic bags on health and environment. In addition, it is also equally important to provide the local residents with alternative options, such as reusable bags to minimize or replace the enormous use of plastic bags. In 2020, SPCC with financial support from Khumbu Pasang Lhamu Rural Municipality produced over 13,500 reusable cloth bags of various sizes for distribution in the rural municipality to replace the use of single use plastic bags.

6

- Over **500** people participated in the “Khumbu Public Awareness Raising Cleanup Campaign” - a weeklong trekking cum cleanup campaign conducted by SPCC since 2011.
- In partnership with school Eco clubs, World Environment Day is celebrated at different schools located in Khumbu.
- SPCC in partnership with local partners conduct monthly cleanup campaigns in various settlements of Khumbu.

Cleanup Campaigns

The “Khumbu Public Awareness Raising Cleanup Campaign” is a weeklong cleanup drive initiated by SPCC to raise awareness among the public about waste problems and get people thinking about changing their behavior in managing wastes. SPCC has been conducting this annual trekking cum cleanup campaign covering various trekking trails, high passes, base camps and settlements for several years. Such cleanup actions are found to be an effective way to bring individuals, communities and organizations together in a unified platform to cleanup trekking trails, settlements and base camps through positive actions and increased awareness. Representatives of various government/

Awareness Programs and Cleanup Campaigns

non-government organizations, women groups, youth groups, waste management groups, school eco clubs, monasteries etc. are invited to participate in the trekking cum cleanup drive. In our previous cleanup campaigns, we have seen that women have particularly shown keen interest and participated in such cleanup drives. We also conduct monthly cleanup campaigns in various settlements in coordination with our local partners.

World Environment Day Celebration

On the occasion of World Environment Day on 5th June each year, SPCC supports the Eco club Network (a network of 14 school eco clubs of Khumbu) to organize awareness-raising programs at various schools. Awareness raising programs including cleanup campaigns, painting competition, plantation and musical events are organized each year in various schools to mark the World Environment Day.

SPCC conducts awareness programs and cleanup campaigns to motivate individuals and groups to keep their environment clean through behavioral change and improved waste management practices



Khumbu Icefall Route Construction Project

- Since 1997, the SPCC has been contracted by the Ministry of Culture, Tourism and Civil Aviation (MoCTCA) to set the climbing route through the Khumbu Icefall. This route between Base Camp and Camp 2 passes over deep and dangerous crevasses and is used to climb Mt. Everest, Mt. Nuptse and Mt. Lhotse.
- In every climbing season, **8** icefall doctors – highly skilled, courageous and experienced Sherpas - make this route by fixing ropes and aluminum ladders.
- Icefall route usually opens in early April and closes on 29th May in the spring climbing season.
- Each climber has to pay US \$600 for using the icefall route in the spring climbing season.

New Route through the Icefall in 2015

Following an avalanche at the Western Cwn in Khumbu Icefall on 16th April 2014 killing 13 expedition Sherpas in the deadly icefall, our Icefall Doctors set a new route through the Khumbu Icefall in 2015. The previous route used until 2014 ran along the Lola pass to the left side of the Icefall. Aided by aerial photographs taken by David Breashears following the 2014 avalanche, they mapped out a new route from Base Camp to Camp I through the center of the icefall followed by a pre-existing route to Camp II. The central route significantly reduces the risk of encountering serac collapses and avalanches such as the one experienced during the tragedy of the Spring 2014 season.

Our icefall doctors fix and maintain a safe route through the Khumbu Icefall for climbing Mt. Everest, Mt. Lhotse and Mt. Nuptse



ICEFALL
DOCTOR

SAFETY INSTRUCTIONS

The SPCC recommends operators, workers, and climbers strictly exercise the following safety precautions while crossing the Khumbu Icefall Route

1. Have only one climber on any ladder at any given time;
2. Lighten and limit loads carried by individual high altitude mountain workers so as not to overload the ladders;
3. Strictly adhere to safety measures such as clipping harnesses to safety ropes while on ladders.
4. Report immediately to the SPCC office at EBC if you encounter any problem with the route.

Icefall Fee

Khumbu Icefall Route fee assessment committee (MoCTCA, NMA, ESA, TAAN, NMGA and SPCC) sets the fee for Khumbu Icefall Route. As per the revised fee applicable from spring 2014, each member of the expedition team has to pay US\$600

for using the route in spring climbing season and a combined sum of US\$25,000/- for all climbers for setting the route in the autumn and winter season.

Icefall Doctors' Training

Regular training for icefall doctors was conducted at Khumbu Climbing Center (KCC) in Phortse for several years. In 2016 and 2017, a special training course designed for icefall doctors was organized at Everest Base Camp with support from KCC, the Petzl Foundation and Sherpa Foundation. Senior instructors from KCC trained icefall doctors on rescue technique, rope system and anchor placement.

Support to icefall doctors' team during the COVID-19 pandemic

Due to the global COVID-19 pandemic, all Everest expeditions in the spring 2020 were called off by the government as a precautionary measure to control the spread of COVID-19. The cancellation of Everest expeditions directly impacted the livelihoods of many people working in the mountaineering and tourism industry including our icefall doctors. The Sherpa Foundation has generously raised funds to support our icefall doctors during the pandemic. SPCC received a sum of Rs. 120,000/- from Mr. Pemba Tenjing Sherpa, Founder/President of Sherpa Foundation and distributed to the icefall doctors during the pandemic in 2020.

8

- SPCC monitors illegal climbing in **12** peaks registered under Nepal Mountaineering Association (NMA). In 2019, one illegal climber was caught in Island peak.
- SPCC also install ladders over crevasses in Island Peak. The crevasse route for autumn season will open from 15th August till 31st December, and the route for spring climbing season will open from 15th February till 15th June each year.



SPCC installed ladders over crevasses in Island Peak

Illegal Climbing Control Project

Since 2000, the SPCC and Nepal Mountaineering Association (NMA) have been working together on the 'Illegal Climbing Control Project' in the Khumbu Region. SPCC is the authorized local institution responsible for controlling illegal climbers and monitoring garbage in 12 peaks (Island peak, Lobuche peak, Kusum Kangru, Kongde, Cholatse, Kyajo Ri, Nirekha, Ombigacho, ABI, Lobuche West, Khongmatse and Mera) of Khumbu Region registered under NMA. Further, SPCC also fixes the climbing route for climbers in the crevasses for climbing Island Peak.

SPCC regularly checks climbing permits of climbers at the base camps of NMA registered peaks. All climbers are required to keep their permit with them during their climbing period. If any of the climbers are found to be involved in illegal climbing, they have to face prosecution as per the laws governing regulations of Nepal. In Spring 2019, one climber attempting Island Peak without a permit was caught and fined a sum of US \$500/- for his attempt of illegal climb.

Major Executing Partners

- Ministry of Culture, Tourism and Civil Aviation (MoCTCA)
- Khumbu Pasang Lhamu Rural Municipality (KPLRM)
- Sagarmatha National Park (SNP)
- Sagarmatha National Park Buffer Zone Management Committee (SNP BZMC)
- Nepal Mountaineering Association (NMA)

Other Partners

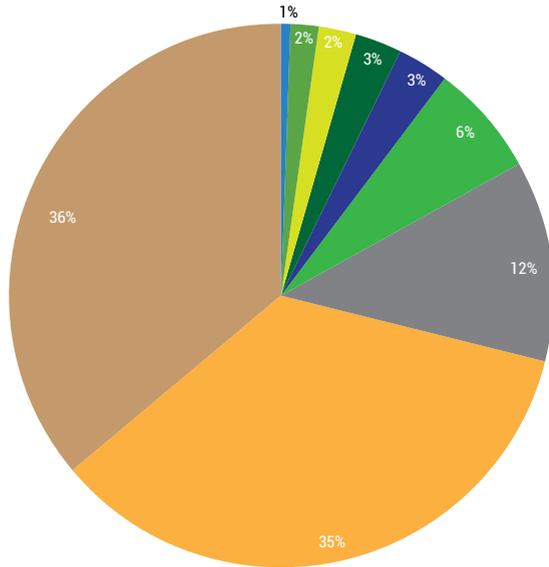
- Adventure Travel Conservation Fund (ATCF)
- Alpen Glow Expedition
- Alpine Ascents International
- Blue Waste to Value
- Bottlers Nepal
- Coca Cola Foundation
- Club Alpino Italiano
- Eco Himal Nepal
- Epic Private Journeys
- Himalayan Adventure Trust of Japan (HAT-J)
- Himalayan Museum and Sustainable Park/Sagarmatha next
- Nepal Tourism Board (NTB)
- Khumbu Eco Club Network

- Khumbu Climbing Center (KCC)
- Petzl Foundation
- Province no. 1 - Ministry of Industry, Tourism, Forests and Environment
- REI Inc.
- Shangri-La Nepal Trek
- Sherpa Foundation
- Sonam Gear
- Tara Air
- Tenzing Natural Energy
- Vertical. Chile
- Visit Nepal 2020
- World Nomads
- WWF Nepal

Other Activities

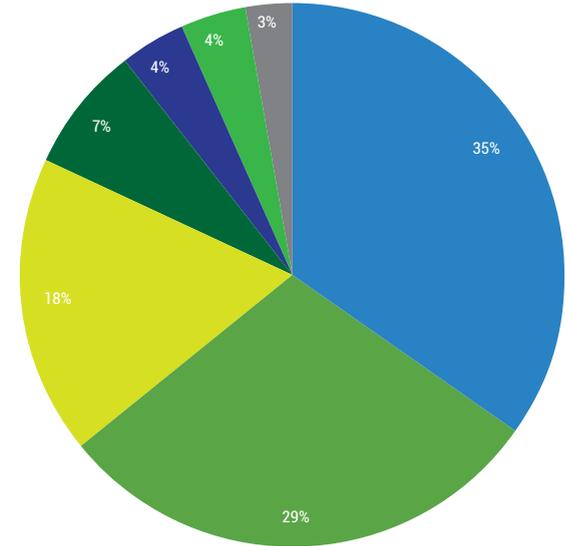


Financial Highlights:



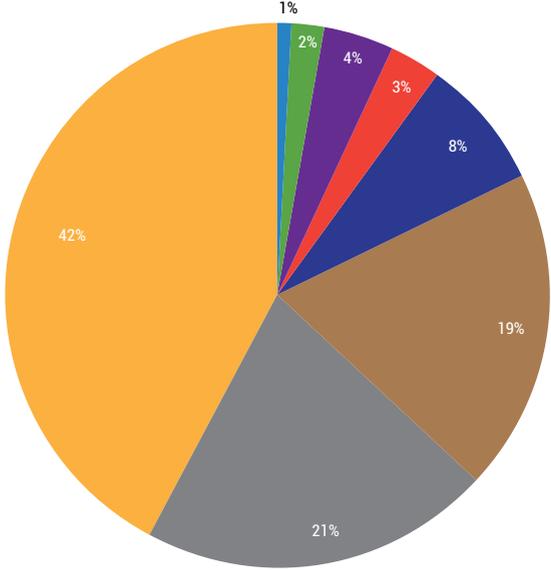
- Khumbu Icefall Route Fee
- Everest Cleanup Campaign Funds
- Waste Management Charge
- Khumbu Pasang Lhamu Rural Municipality
- SNP Buffer Zone (SNP BZMC)
- Adventure Travel Conservation Fund (ATCF)
- Nepal Mountaineering Association (NMA)
- Certificate Sales/Toilet Charge
- Others

9 Income sources for the FY 2075/76 in percentage



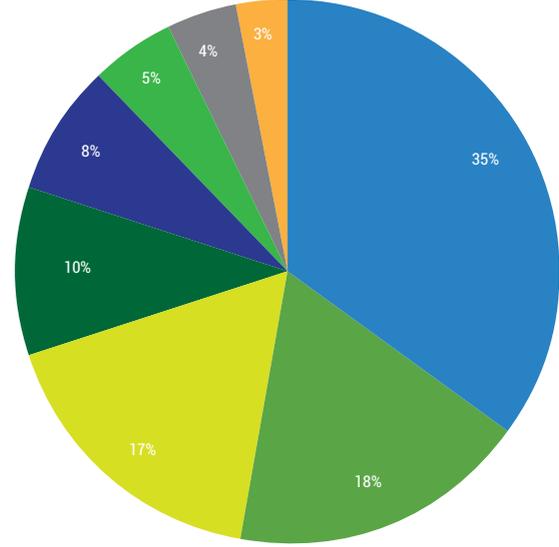
- Everest Cleanup Campaign
- Khumbu Icefall Route Maintenance
- Waste Management Expenses
- Office Running Costs
- NMA/SPCC Project Management Expenses
- SPCC Project Management Expenses
- Community Motivation Exoenses

10 Expenses incurred in different areas in FY 2075/76 in percentage



- SNP Buffer Zone (SNP BZMC)
- NMA/SPCC Project Management
- Everest Cleanup Campaign
- Khumbu Pasang Lhamu Rural Municipality
- IceFall Lader Renting
- Certificate Sales/Toilet Charge
- Grant/Contributions
- Others

11 Income incurred in different areas in FY 2076/77 in percentage



- Office Running Costs
- Everest/Base Camp Cleanup Campaign
- Garbage Management Expenses
- NMA/SPCC Project Management Expenses
- SPCC/LIC Lukla Expenses
- TAC/VIC Namche Expenses
- Local Culture, Conservation Supports & Hospitality
- Community Motivation Expenses

12 Expenses incurred in different areas in FY 2076/77 in percentage

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