

# ANNUAL REPORT

2018



**SAGARMATHA POLLUTION  
CONTROL COMMITTEE (SPCC)**





# ACRONYMS

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

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## Message From The **CHAIRMAN**

I am happy to present to you the Annual Report 2018 of Sagarmatha Pollution Control Committee (SPCC). 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.

Under the new federal structure, the Khumbu Pasang Lhamu Rural Municipality (KPLRM) is the main responsible body for overseeing waste management in Khumbu Region. Currently, KPLRM is in the process of formulating new regulations for waste management. SPCC aims to work closely with the local government, and our collaboration started this year with the 2018 Cleanup Campaign conducted for the first time on Mt. Ama Dablam.

As in previous years, we continue to strengthen waste management programs in our working areas by building additional waste management

infrastructures, strengthening our collaborating with local partners and in line government agencies, continuing our awareness raising programs and cleanup campaigns. We continue to build and manage infrastructures, such as garbage bins, collection centers and waste management facilities required for waste management. In the last few years, our focus has been on managing wastes by segregating into burnable and non-burnable categories and treating it accordingly. In 2017 & 2018, we have transported around 35,000 kgs of non-burnable garbages from Khumbu to Kathmandu for recycling. Currently, we are working with various stakeholders to introduce an effective mechanism for segregating and semi-processing waste of value in order to reuse, recycle or upcycle them.

I would like to take this opportunity to extend my sincere gratitude to the 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), our national and international donors and local partners for their continued cooperation and support. We look forward to work together for adopting sustainable waste management practices in coming days to make Khumbu a clean and well-managed Region.



# WASTE MANAGEMENT INFRASTRUCTURES

## GARBAGE BINS

106

Garbage bins built and managed by SPCC at major resting points covering major trekking trails and schools in the Everest Region



## COLLECTION CENTER

09

Non-burnable garbage collection centers established and managed by SPCC in major settlements located within Everest Region



## WASTE FACILITIES

02

Waste management facilities located at Namche and Lukla



## BURNING CHAMBERS

05

Enclosed burning chambers established and managed in several settlements



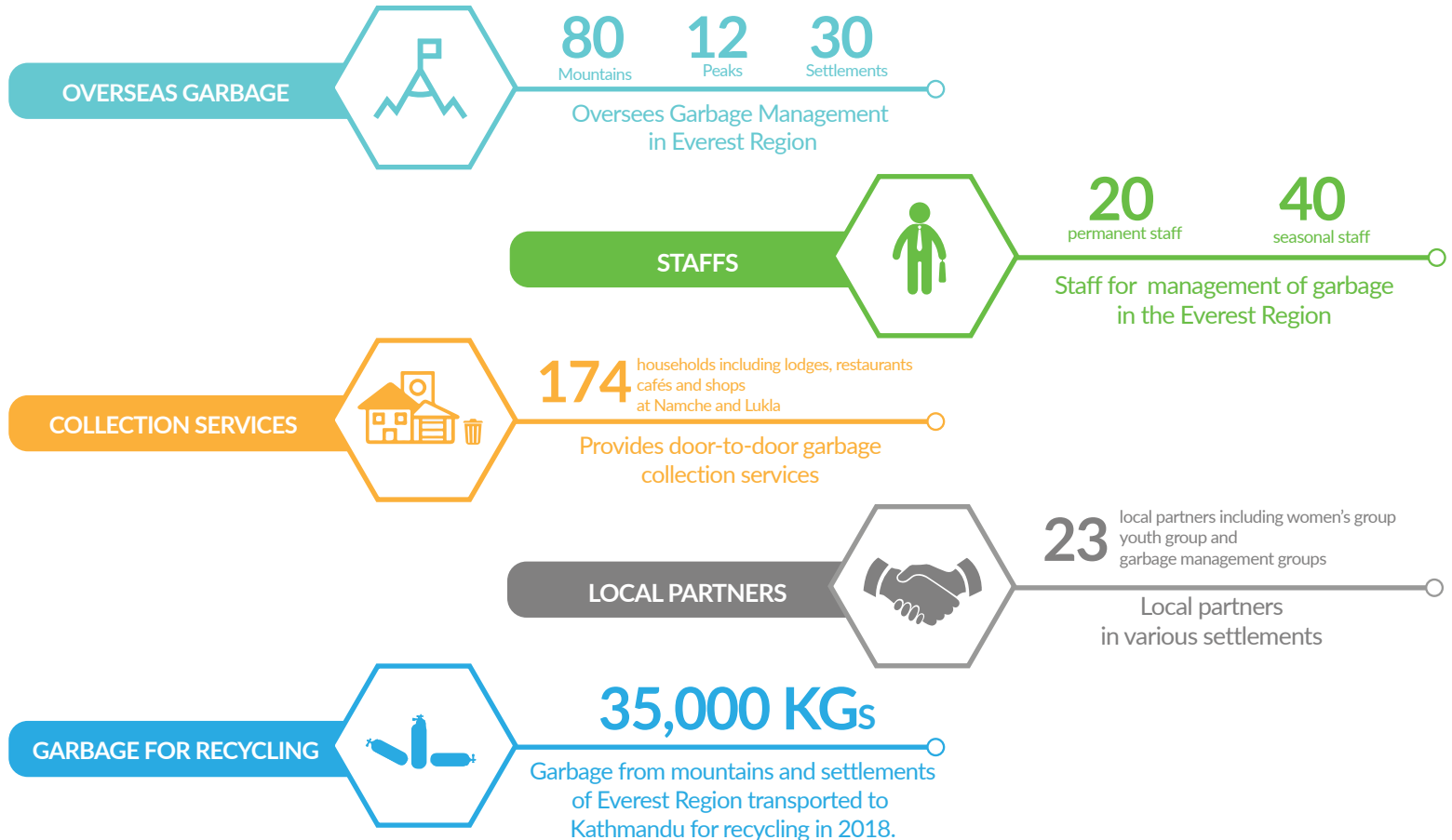
## TOILETS

14

Toilets established and managed by SPCC along trekking trails and at the base camps of Mt. Ama Dablam, Island Peak and Lobuche Peak



# WASTE COLLECTION AND DIVERSION





## Executive Board

### Patron

Abbot of Tengboche Monastery

### 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. Nim Dorjee Sherpa (Lukla)
Vice-Chairman II –	Mr. Lama Kaji Sherpa (Namche)
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 (Tekla)
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)



# ABOUT US

## ABOUT Sagarmatha Pollution Control Committee

### Our History

With successful ascent of Mount Everest by Sir Edmund Hillary and Tenzing 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 a concrete rules and regulations as for the disposal of garbage generated by tourists, there had been a serious concern over solid waste management issues in 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 Culture, Tourism 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 Work

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, 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 and treatment/disposal. Currently, we focus on developing sustainable waste management strategies with a long-term goal of keeping Khumbu clean.

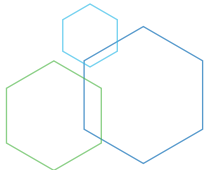
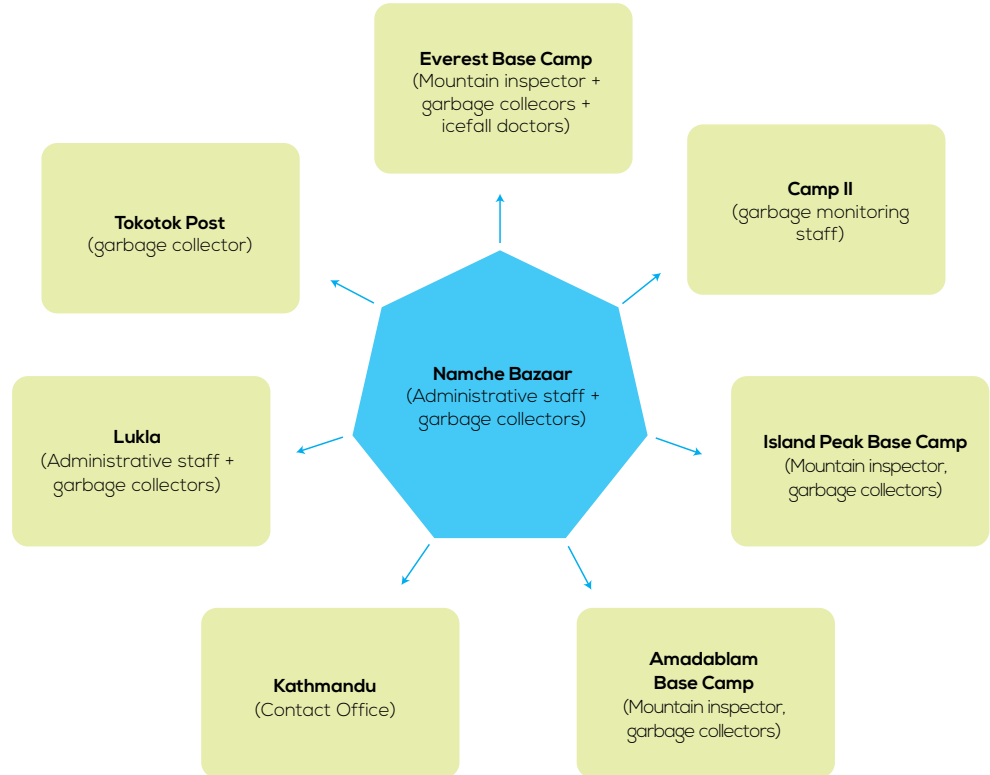


## Our Working Areas

Our working area covers the 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 40 seasonal staff to conduct our programs.



# Our Programs


## Solid Waste Management

SPCC is the lead organization working in waste management sector in the Khumbu Region. We conduct all waste management activities including waste collection, segregation and treatment/disposal. With support from various organizations, we have built various infrastructures required for waste management including rubbish bins, waste collection centers, recycling centers, and waste management facilities. We conduct waste management activities in the mountains/peaks, along the trekking trails and in settlements located within our working areas.

## Waste Management in the Mountains

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, every expedition groups/climbers are required to register at SPCC office and declare their equipment and food list. Upon completion of their climbing period, each group/climber has to submit all burnable and non-burnable garbage to SPCC to get a garbage clearance certificate, which is required to get their garbage deposit refunds from MoCTCA and 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.





## Garbage management at 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 monitors the 8 kgs garbage rule formulated by the Nepal government for Mt. Everest, according to which every climbers ascending above Everest base camp must bring back at least 8 kg of garbage. Climbers and support staff need to submit their 8 kgs garbage to SPCC representative at our designated site at Everest Base Camp. SPCC also has a seasonal office stationed at Island Peak Base Camp in every spring and autumn climbing season. Our staff at Island Peak Base Camp Office closely monitors garbage management activities at Island Peak, Mt. Amadablam and Lobuche Peak.





*SPCC staff bringing down garbages from Everest Base Camp to our waste management facility at Namche*



## Waste Management Rules for climbers and expedition groups in Khumbu

All mountaineering expeditions entering into the Khumbu region are required to visit the Sagarmatha Pollution Control Committee (SPCC) office at Namche Bazaar, and acquire necessary information regarding waste management system in this region. Each expedition team must leave a copy of food and equipment list at SPCC office prior to their departure to base camp.

1. Garbage Management:
  - I. All generated garbage should be segregated into two categories at the base camp.
    - a) Disposable (burnable & biodegradable): papers, packets, cloths, foodscraps etc.
    - b) Non-disposable: cans, bottles, EPI gas cylinder, O2 gas cylinder, batteries etc.
  - II. All disposable and non-disposable garbage must be handed over to SPCC offices at Namche, Lukla or designated base camps to get garbage clearance certificate.
  - III. You can get your garbage deposit refund from MoCTCA or NMA office in Kathmandu upon submission of garbage clearance certificate issued by SPCC.
2. Additional rules for Mt. Everest and Mt. Amadablam: The Nepal government has formulated a new rule for Mt. Everest and Mt. Amadablam in 2015 to control littering of garbage in these mountains. As per the rule, every climbers ascending beyond Everest's base camp must bring back at least 8 kg of garbage, and climbers ascending above Amadablam base camp must bring back 3 kg of garbage. Climbers and support staff are requested to submit their garbage to SPCC representative at our designated site at Everest Base Camp and Amadablam Base Camp.
3. Human Waste Management: Human waste (Toilet) produced at the base camps must be collected in portable plastics drums or barrels and should be dispose at disposal site designated by SPCC.
4. Burning or burying garbage at the base camps is strictly prohibited.
5. Painting on rocks is not allowed.
6. Monitoring: SPCC can check your permit and monitor base camps any time during the expedition period.

## Human waste management at 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 portable toilets 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 site located near Gorakshep, which is further away from 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 at these base camps.

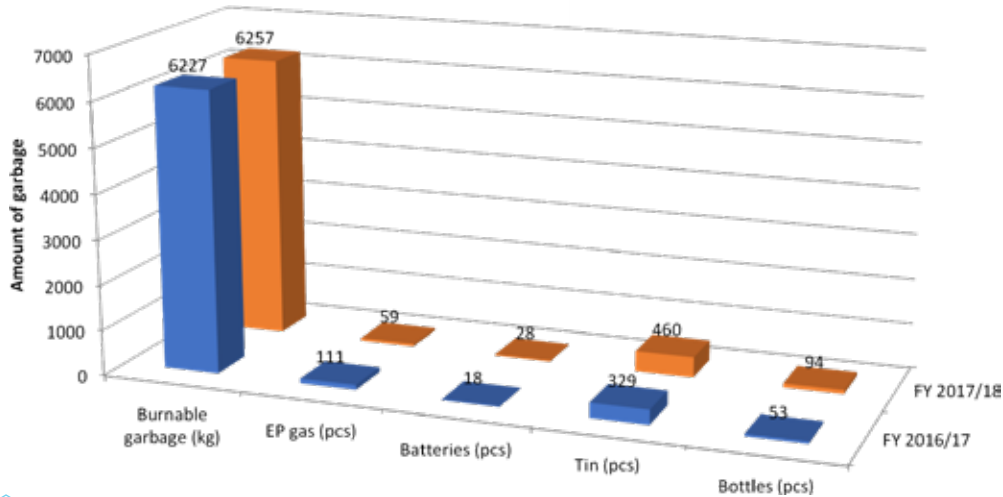
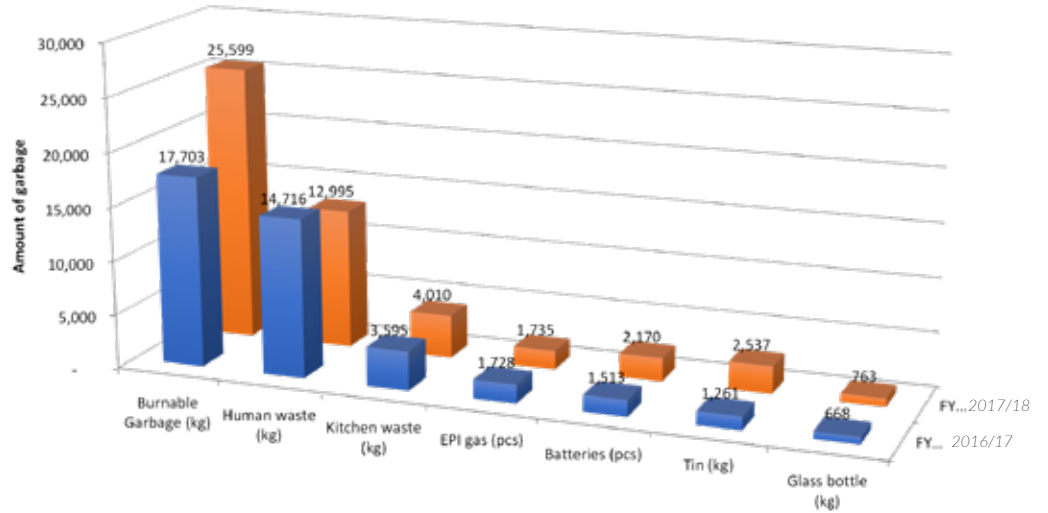
For the past few years, SPCC has also been collaborating with the Everest Biogas Project Team – a group of experts who were researching into the possibility of setting up a biogas plant at our human waste disposal site near Gorakshep. The project has designed and tested an innovative solution to convert human waste into biogas through an anaerobic biogas digester. When installed, this project will help in management of human waste generated by climbers of Mt. Everest in a sustainable manner at an altitude of 5,000 meters. The project is currently design tested and ready to commence once necessary funds for the project have been secured.



Portable toilets setup for human waste management at base camps of mountains and peaks

## Overview of Garbage generated from various mountains and peaks

**Chart 1:** Garbage generated by expedition groups – Everest, Lhotse, Nuptse, Amadablam and other mountains (FY 2016/17 & FY 2017/18)



**Chart 2:** Garbage generated by climbers of NMA peaks (FY 2016/17 & FY 2017/18)



## Mt. Ama Dablam Cleanup Campaign 2018:

The Sagarmatha Pollution Control Committee (SPCC) and Khumbu Pasang Lhamu Rural Municipality (KPLRM) jointly conducted the first cleanup campaign on Mt. Ama Dablam in November 2018. Ama Dablam is one of the most spectacular mountains in the world. Situated in the heart of Khumbu Region, the 6,812 m tall Mt. Ama Dablam is the second most popular mountain for climbing in the Region after Mt. Everest. With its popularity among the climbing communities, the problem of littering on Mt. Ama Dablam is also increasing, especially along the climbing route from Ama Dablam base camp to the summit.

The Sagarmatha Pollution Control Committee mobilized a team of 10 members comprising of climbing experienced Sherpas from Phortse and Pangboche villages for the cleanup campaign. Mr. Palden Namgay Sherpa, executive board member of SPCC together with Mr. Pasang Norbu Sherpa, member of KPLRM jointly led the cleanup team. The two weeks long cleanup campaign collected a total of 775 kgs discarded garbage including tents, ropes, oxygen cylinders and human body remains from Mt. Ama Dablam. The Shree Shamsheer Gulma (Nepal Army), Namche also participated in the cleanup campaign by providing volunteer service in bringing down the garbage from Ama Dablam Base Camp to our waste management facility at Namche Bazaar. The cleanup campaign was organized by SPCC and funded by Khumbu Pasang Lhamu Rural Municipality.





Trekking and support staffs heading towards Everest Base Camp

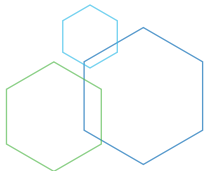
## Waste Management along Trekking Trails

The 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 57,000 trekkers in 2018. 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 increased number of visitors, littering of trashes along trekking trails has become prominent.

Chart 3: Tourist arrivals in Sagarmatha National Park 1998 – 2018



(Source: SNP Jorsalle entrance gate)



## 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 a permanent garbage bins along the trekking trails since 2013. The garbage bins have segregation chambers to collect trashes by categories so that these wastes will be properly treated and managed accordingly. At the end of 2018, we have built a total of 96 garbage bins at various resting points along the trekking trails and a total of 10 garbage bins at nine schools located within Khumbu Region. SPCC's field staff and local partners continuously monitor littering of trashes along the trekking trails and manage all garbage bins located along various trekking trails.



*Garbage bin built by SPCC along Everest Base Camp trekking trails*



### **Our garbage bin Sponsors:**

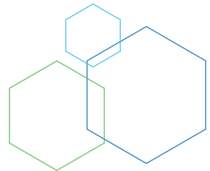
- 1. Adventure Travel Conservation Fund (ATCF)**
- 2. Alpen Glow Expedition**
- 3. Alpine Ascents International**
- 4. Club Alpino Italiano**
- 5. Eco Himal - Saving Mt. Everest Waste Management Project**
- 6. Epic Private Journeys**
- 7. Ministry of Tourism, Culture and Civil Aviation (MoCTCA)**
- 8. 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 Drinks & Friends of Zamling Tenzing**
- 13. Vertical. Chile**
- 14. World Nomads**





## Waste Management Infrastructure Project 2018 & 2019:

Our proposal for Waste Management Infrastructure Project 2018 and 2019 submitted to Adventure Travel Conservation Fund (ATCF) has been approved for funding. Under this project ATCF & World Nomads will fund for construction of 20 garbage bins along the resting points of major trekking trails in 2018 and 2019 with the purpose of keeping the trails clean. SPCC completed construction of seven garbage bins under this project in 2018 and plans to complete the construction of remaining 13 garbage bins in the next phase in 2019.



## Construction and Management of Toilets along trekking trails:

In 2013, SPCC in partnership with Eco-Himal - Saving Mount Everest Project constructed two modern toilets at Topdada and two at Police Check Post near Namche for providing sanitation facility for trekkers, guides, porters and local people. In addition, we have also setup tap water supply system at both the sites. We have recruited two staff to manage the toilets. We have made provision to collect fee (Rs.50 per person) for one toilet, which will be used for maintenance. The other toilet is open for free use for public, particularly to encourage porters to use the toilet facility.



## 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, teashops 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 tourists 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 with a minimum service charge. Our field staffs 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 109 lodges, restaurants, cafés and shops at Namche and a total of 65 households and various business enterprises at Lukla.





## 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 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 group and women's group. With their partnership and engagement, waste management in various settlements and trekking trails has improved significantly. Currently, SPCC works with a total of 23 local partners in various settlements located within our working areas. SPCC provides financial and technical supports 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.

## Our local Partners:

### Ward 2 and 3 of KPLRM:

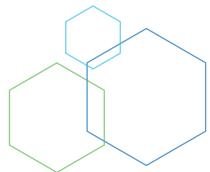
- Himalayan Youth Club, Lukla
- Thamserku Women's Group, Monju/Chumua
- Danfe Women's Group, Phakding

### Ward 4 of KPLRM:

- Phungitanga Garbage Management Group, Lausasa /Phugitanga
- Tengboche Gonpa Management Committee, Tengboche
- Amadablam Youth Group, Pangboche
- Khumbu Alpine Conservation Committee (KACC), Dingboche
- 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 Women's Group, Thamo
- Sumdurpeak Saving & Credit Cooperative, Thame
- Snow Leopard Conservation Saving & Credit Cooperative, Thameteng
- Lungden Garbage Management Group, Lungden







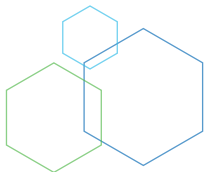


## Waste Segregation, Treatment and Disposal

SPCC continues to focus on strengthening proper system 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. Wastes are segregated into two categories: burnable and non-burnable at source and treated accordingly. Burnable garbage includes papers, packets, plastic, cloths, foodscraps etc. Non-burnable garbage category includes cans, tins, glass bottles, EPI gas cylinder, O2 gas cylinder, batteries etc. We manage burnable garbage at our waste management facilities; whereas non-burnable garbage are either reused or recycled at source or taken to Kathmandu for further treatment.

### Setting up a system for waste segregation:

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 representatives 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 are transported to our non-burnable collection centers.



## 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 garbages are managed at our waste management facilities. We have two waste management facilities located at Namche and Lukla. Burnable garbage generated by expedition groups and generated by tourism enterprises located in these major settlements will be managed at our waste management facilities. In other settlements, we have built several enclosed burning chambers for management of burnable garbages.



## Treatment of Non-burnable Garbages:

SPCC built non-burnable garbage collection centers at major settlements of Khumbu. The non-burnable garbages are collected in our non-burnable collection centers. Currently, we have established nine non-burnable garbage collection centers at Lukla, Phakding, Chumoa, Namche, Samde, Khumjung, Lausasa, Pangboche and Pheriche. We have plans to build additional non-burnable garbage collection centers in other settlements as well. Garbages in non-burnable category are either reused or recycled at source or taken to Kathmandu for further treatment.



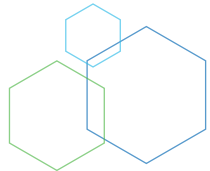


### **Transportation of non-burnable garbage to Kathmandu for recycling:**

As it is environmentally not appropriate to dispose non-burnable garbage in the mountains, SPCC transports 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 is supporting SPCC to transport non-burnable garbage from Lukla to Kathmandu at free of costs since 2015. The non-burnable garbages are then handed over to Blue Waste to Value in Kathmandu for recycling. Around 11,000 kgs of non-burnable garbage from the Everest Region had been transported to Kathmandu and properly recycled in the year 2017. In 2018, approximately around 25,000 kgs of non-burnable garbages were transported from Lukla to Kathmandu as a part of the Everest Clean Up Campaign 2018 initiated by Tara Air in partnership with SPCC and other partners as a part of its commitment to the UN Sustainable Development Goals (SDGs) against Climate Change.

### **Collaboration with Sagarmatha Next to develop an integrated sustainable waste management system:**

SPCC has extended its partnership with Sagarmatha Next – an informative center being established at Namche by Himalayan Museum and Sustainable Park (HMSP). The main objective of this collaboration is to introduce an effective mechanism whereby valuable solid waste is separated and semi-processed in order to reuse, recycle and upcycle them. One of the important concepts being introduced under this system is the “Carry Me Back” bag project, which will give trekkers an opportunity to voluntarily participate in waste removal from the Region. SPCC plans to install a shredding machine at our waste management facility at Namche in early 2019. Non-burnable garbages, such as PET bottles and aluminum cans will be shredded and packed in pouch bags. Trekkers can voluntarily participate to carry the bag with shredded garbages from Namche to Kathmandu and deposit at the collection center at Kathmandu airport from where it will be transfer to recycling centers for recycling by Blue Waste to Value.



### Waste Reuse and Recycling Initiatives:

We have taken several initiatives at local level to reuse and recycling wastes. We have built two garbage bins reusing PET bottles as building materials – one at Namche and another one at Chaurikharka School. In 2014, SPCC also initiated a recycling program whereby aluminum cans were processed to produce souvenirs. This recycling program could not gain much success; however it an example of our efforts and determination for trying out different possibilities for waste management in the Region.

In 2015, the devastating earthquake of April triggered an avalanche at Everest Base Camp during the spring climbing season. The avalanche swept away camps of many commercial expedition groups creating tons of debris on the Khumbu glacier. SPCC mobilized a cleanup team at Everest Base Camp to clear all the debris from the glacier soon after the avalanche. The tents damaged by earthquake-triggered avalanche at Everest Base Camp were separated and reused to make reusable bags, which were distributed to local communities of Khumbu as a part of our “Say No to Plastics – Save Himalaya” campaign.





## Awareness Programs and Cleanup Campaigns

SPCC has been conducting various awareness programs to aware the local communities, trekkers, guides, porters and students by organizing annual cleanup campaign, workshops, celebrating World Environment Day with school Eco clubs, and through radio programs. The main objective of these programs is to raise awareness and make people more responsible for garbage management

### Cleanup Campaigns:

The SPCC regularly organizes cleanup campaigns as a part of awareness raising campaign and strengthening public participation in waste management. For several years, we conducted a weeklong “Khumbu Public Awareness Raising Cleanup Campaign” covering various trekking trails. This cleanup campaign involves a weeklong trekking combined cleanup campaign passing major settlements, base camps and high passes. Over hundreds of participants including representatives from government and non-government organizations, our local partners from various settlements, teachers, students and representatives from youth and women groups participated in these annual cleanup campaign. Throughout the campaign we collected trashes and organized interaction programs in different villages regarding waste management. In addition, we also conduct monthly cleanup campaigns in various settlements in coordination with our local partners. This year we moved beyond the base camp, and conducted Mt. Amadablam Cleanup Campaign for the first time in coordination with Khumbu Pasanglhamu Rural Municipality.





## World Environment Day Celebration:

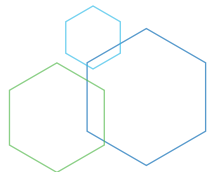
On the occasion of World Environment Day on 5th June each year, SPCC supports the Eco club Network (a network of 14 school eco clubs of Khumbu) to organize awareness-raising programs at various schools. Awareness raising programs including cleanup campaign, painting competition, plantation and musical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



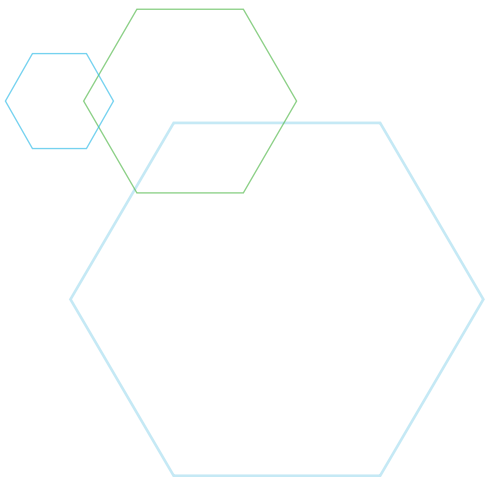
## Monitoring of Illegal Climbers

Since 2000 Sagarmatha Pollution Control Committee (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 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. SPCC employs an inspection officer and sub-inspection staff at our Island peak base camp office to monitor illegal climbers. Since then the number of illegal climbers have dropped down.







## Setting Up Climbing Route

### Khumbu Icefall Route

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 each year. This route between Base Camp and Camp 2 passes over deep and dangerous crevasses and is used to climb Mt. Everest, Mt. Nupste and Mt. Lhotse. In every climbing season, our icefall doctors – highly skilled, courageous and experienced Sherpas - make this route by fixing ropes and aluminum ladders.



### 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 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 to set the route in autumn and winter season.

### Icefall Doctors' Training:

Training for icefall doctors were conducted at Khumbu Climbing Center (KCC) in Phortse for several years. In 2016 and 2017, 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.



## New Route through the Icefall in 2015:

Following an avalanche occurred at the Western Cwm 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 2014 avalanche, they mapped out a new route from Base Camp to Camp I through the center of the icefall followed by 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.

### Safety Instructions:

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

Have only one climber on any ladder at any given time;

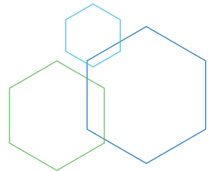
Lighten and limit loads carried by individual high altitude mountain workers so as not to overload the ladders;

Report immediately to SPCC office at EBC if you encounter any problem with the route.

Strictly adhere to safety measures such as clipping harnesses to safety ropes while on ladders.



Photo : David Breashears





### **Island Peak Route**

Imja Tse popularly known as Island Peak remain to be the most popular peak of Khumbu attempted by around 2,500 climbers each year. The SPCC also fix route over crevasses in Island Peak in every climbing season with the help of our experienced climbing Sherpas. The route for autumn climbing season will be open from 15th August till 31st December, and the route for spring climbing season will be open from 15th February till 15th June of each year.



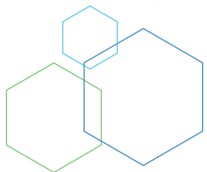
## Earthquake Rebuild

On 25th April 2015 at 11:56 AM local time, a massive earthquake of 7.8 magnitudes struck at Barpak, 76 km northwest of Kathmandu on Saturday. The catastrophic earthquake was followed by hundreds of aftershocks including a major aftershock of 7.3 magnitudes on 12th May 2015 with the epicenter near Mount Everest. It killed around 9,000 people, injured more than 20,000, left more than 2 million homeless and damaged over 900 health facilities and 8,300 schools. The earthquake has caused major damages at our head office in Namche, station office in Toktok and other waste management infrastructures. Our seasonal office at Everest base camp was swept away by the earthquake triggered avalanche.

In response to this earthquake devastation, the Sagarmatha Pollution Control Committee (SPCC) provided a sum of Rs. 1,800,000 (Eighteen lakhs) to the affected communities as immediate support. SPCC also provided financial support equivalent to a month salary to our permanent staffs as many suffered major physical damages to their personal property because of the earthquake. SPCC also mobilized a cleanup



team at Everest Base Camp to clear all the debris from the glacier soon after the avalanche. The team collected approximately 4,000kgs of debris from the glacier and transported to SPCC Namche waste management station for further treatment. Tents damaged by earthquake-triggered avalanche at Everest Base Camp were reused to make reusable bags, which were distributed to local communities of Khumbu as a part of our “Say No to Plastics – Save Himalaya” campaign. Our waste management facility damaged by earthquake at Namche has been rebuilt with financial assistance from Sagarmatha National Park Buffer Zone Management Committee (SNP BZMC). A rescue center was also built at Namche with funding support received from REI Inc.





## Our Partners

### Major Executing Partners:

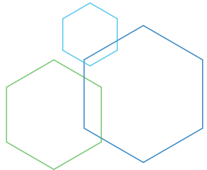
- Ministry of Culture, Tourism and Civil Aviation (MoCTCA)
- Khumbu Pasang Lhamu Rural Municipality (KPLRM)
- Sagarmatha National Park (SNP)
- Sagarmatha National Park Buffer Zone Management Committee (SNP BZMC)
- Nepal Mountaineering Association (NMA)

### Other Partners

- Nepal Tourism Board (NTB)
- HAT-J
- Eco Himal
- Khumbu Eco Club Network
- Khumbu Climbing Center (KCC)
- Adventure Travel Conservation Fund (ATCF)
- World Nomads
- Tara Air
- Tenzing Natural Drinks
- Shangri-La Nepal Trek
- Alpine Ascents International
- Vertical. Chile
- Epic Private Journeys
- Alpen Glow Expedition
- Petzl Foundation
- Sherpa Foundation
- REI Inc.
- Blue Waste to Value
- Sagarmatha next



## Other Activities





## Financial

# Report

## Income Sources

### Khumbu Icefall Route Fee:

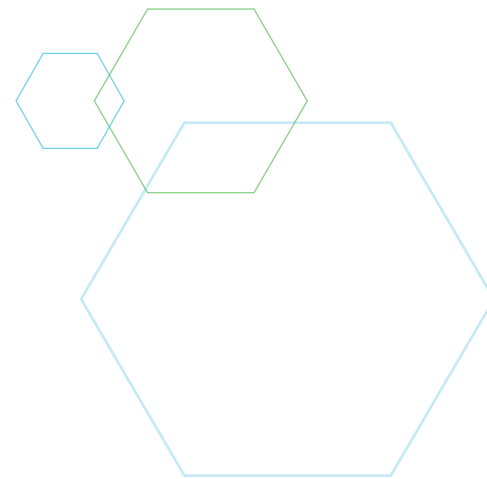
SPCC collect fees from expedition climbers attempting Mt. Everest, Mt. Lhotse and Mt. Nupste for using the Khumbu Icefall Route. A considerable amount of money from this project goes into route construction, while a limited portion of money left from this project is used to finance SPCC's waste management projects in the Khumbu Region.

### Waste Management Fee:

SPCC charges waste management fees for providing door-to-door services at Lukla and Namche. We also collect waste management fees for transportation and management of garbage generated by expedition groups and climbers.

### Sales of Trek Certificate of Achievement:

SPCC and SNP BZMC jointly prepared a Trek Certificate of Achievement as a souvenir for trekkers visiting the Khumbu Region. Certificates are available for sale at Police Check Post at the entrance of Namche Bazaar and at SPCC office in Namche or Lukla at the rate of NRs. 350/-. All proceeds from the sale of certificate go to Solid Waste Management Fund to support SPCC's waste management activities in Khumbu Region.



### Garbage management fund from Sagarmatha National Park Buffer Zone Management Committee (SNP BZMC):

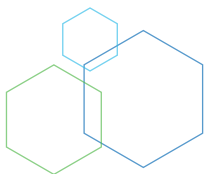
SPCC receives annual garbage management fund from SNP BZMC as a support for management of garbage within the Park and Buffer Zone area.

### NMA/SPCC Joint Project:

SPCC and NMA have been working together on the 'Illegal Climbing Control Project' in the Khumbu Region since 2000. NMA provides annual funds to SPCC for controlling illegal climbers in NMA registered peaks in Khumbu Region, managing garbage in the peaks through garbage clearance system, and fixing ladder in the crevasse of Island peak.

### Funds for waste management program from partner agencies:

SPCC also receives sporadic funding support from various government agencies and I/NGOs for our waste management activities in Khumbu. In FY 2073/74 & FY 2074/75, we received certain financial support from Khumbu Pasang Lhamu Rural Municipality (KPLRM), HAT-J, REI Inc., Adventure Travel Conservation Fund (ATCF) and World Nomads.





## 8.2 Major Expenditure Areas

### **Khumbu Icefall Route Construction:**

One of the major expenses of SPCC is the fixing the route in Khumbu Icefall – the route between Everest Base Camp and Camp II - for expedition climbers in spring climbing season.

### **Waste Management Activities:**

Another major expenses is conducting waste management activities such as collection, segregation, disposal and recycling of wastes generated by trekkers, climbers, support staff and local communities through our staff and local partners.

### **Waste Management Infrastructures:**

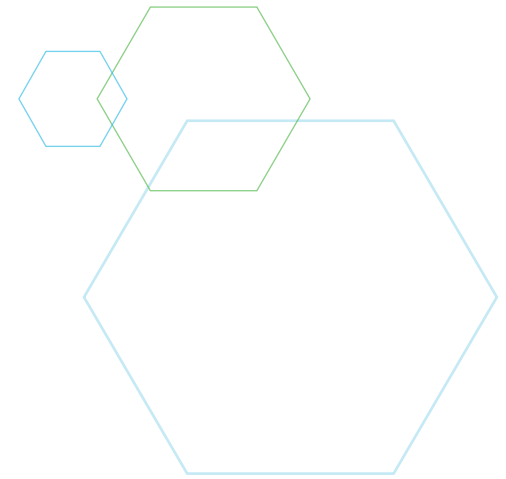
Another major expenditure area is constructing and managing waste management infrastructures and facilities such as garbage bins, garbage collection centers, garbage pits, incinerators and toilets in various places as required. Following the devastating 2015 April earthquake, expenses were made in rebuilding the damaged infrastructures and building a rescue center at Namche.

### **Environment Awareness and Cleanup Campaigns:**

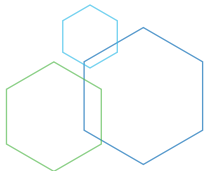
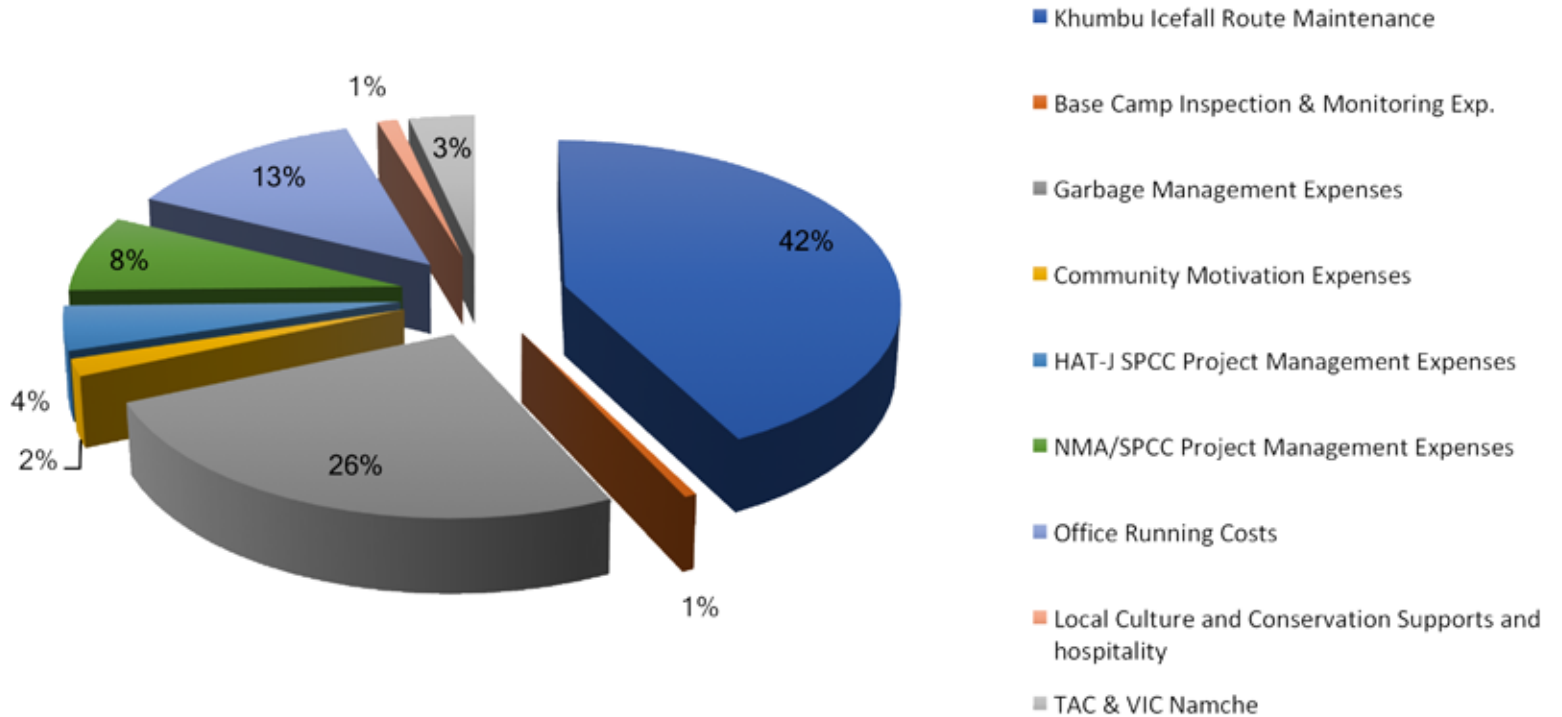
SPCC regularly conducts environment awareness and cleanup campaigns to aware students, local people, trekkers and porters.

### **Monitoring and Control of Illegal Climbers:**

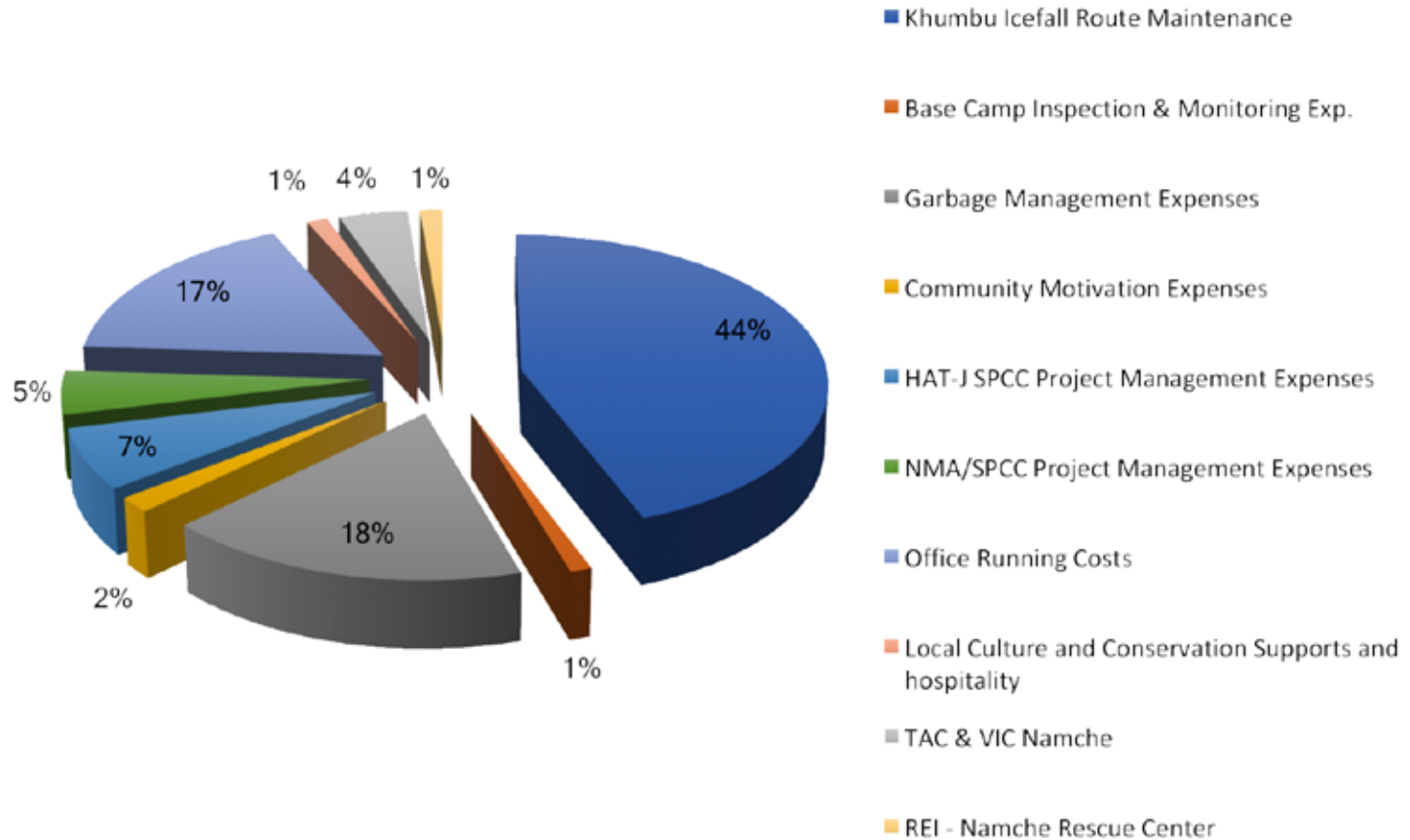
SPCC regularly checks climbing permits of climbers attempting various mountains and peaks at Namche, Lukla, Island Peak Base Camp, Lobuche Base Camp, Amadablam Base Camp and Everest Base Camp to monitor and control illegal climbers.



### Expenses incurred in different activities in FY 2074/75 in percentage



## Expenses incurred in different activities in FY 2073/74 in percentage





## SAGARMATHA POLLUTION CONTROL COMMITTEE (SPCC)

### Head Office:

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Khumbu Pasang Lhamu Gaunpalika,  
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Phone: +977 38 540057; Fax: +977 38 540457

Email: [info@spcc.org.np](mailto:info@spcc.org.np)

Web: [www.spcc.org.np](http://www.spcc.org.np)

Facebook: [www.facebook.com/SPCCNepal](https://www.facebook.com/SPCCNepal)

### Branch Office:

Lukla, ward no. 2,  
Khumbu Pasang Lhamu Gaunpalika,  
Solukhumbu, Nepal.

Phone: +977 38 550235

