



## WASTE MANAGEMENT PRACTICES IN K2, BALTORO AND OTHER AREAS OF CENTRAL KARAKORAM NATIONAL PARK GILGIT-BALTISTAN

(PERIOD: JULY-NOVEMBER 2021)



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PHOTO CREDIT: CKNP FIELD STAFF AND WASTE CREW



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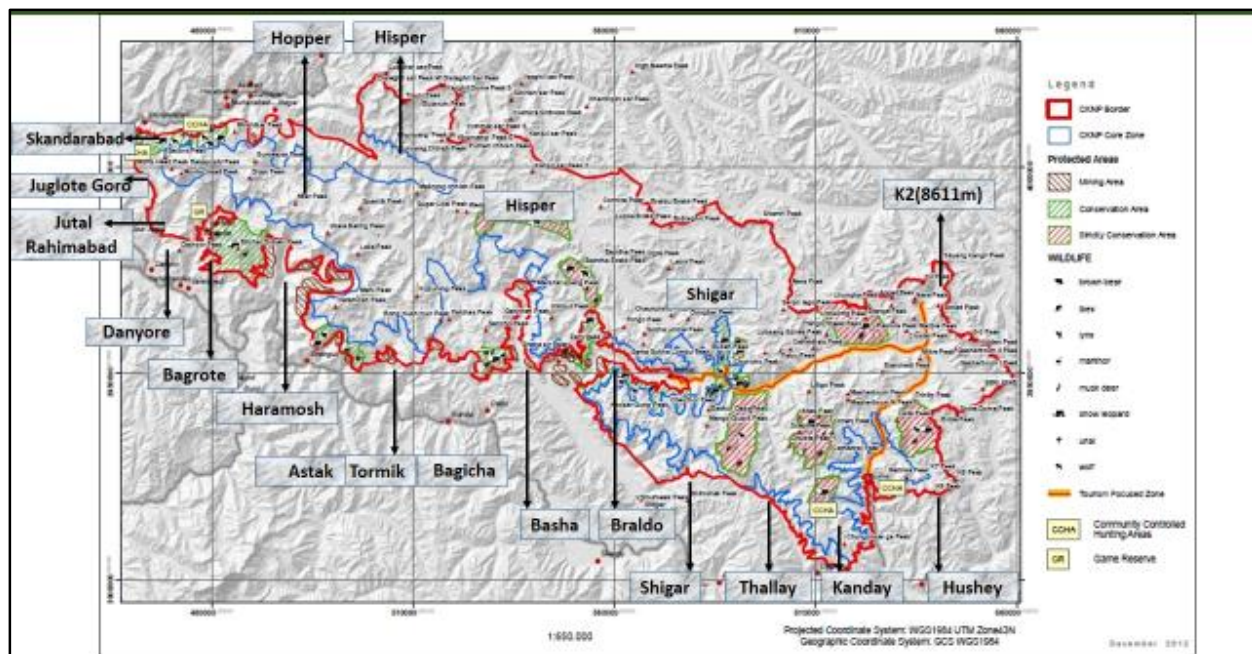
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# WASTE MANAGEMENT PRACTICES IN K2, BALTORO AND OTHER AREAS OF CENTRAL KARAKORAM NATIONAL PARK GILGIT-BALTISTAN

(JULY-NOVEMBER 2021)

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## CENTRAL KARAKORAM NATIONAL PARK



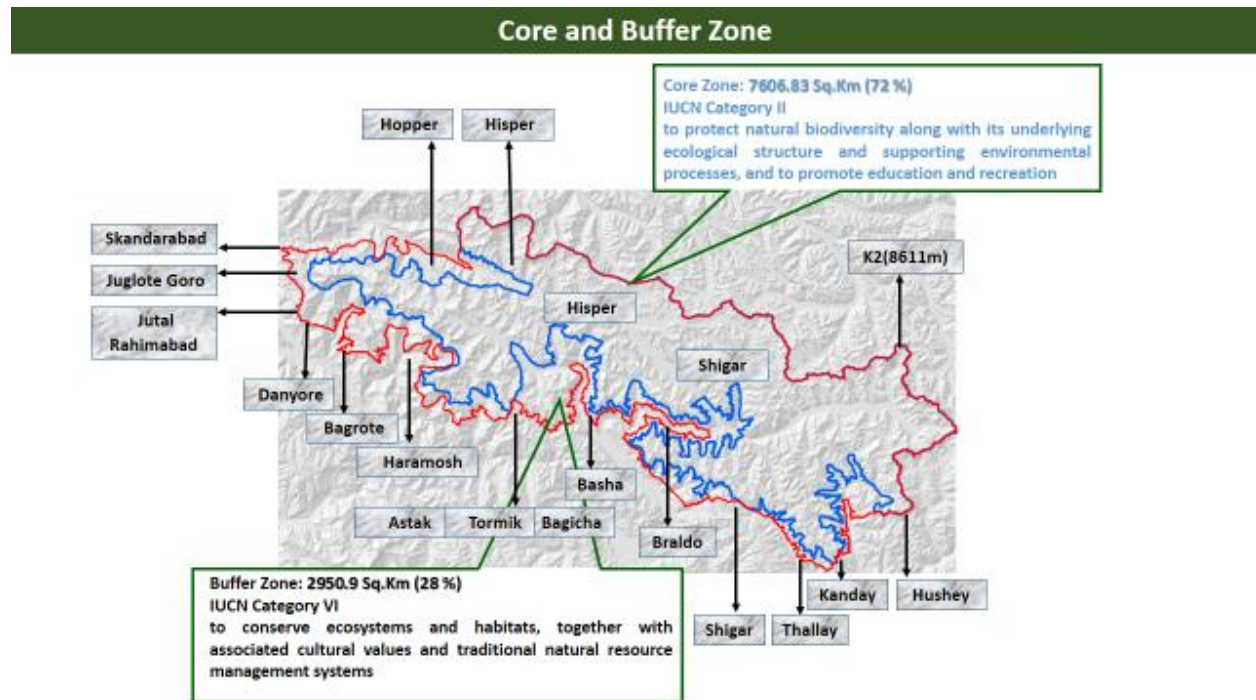
The Central Karakoram in the Gilgit-Baltistan of Pakistan is a mountain area endowed with rich biodiversity, natural beauty and important resources. The Park encompasses the world's largest glaciers outside the Polar Regions. The area was declared as the National Park in 1993, today it is the largest protected area of Pakistan, covering over 10,557.73 Km<sup>2</sup> in the Central Karakoram mountain range and one of the highest National Parks around the globe, it is characterized by extremes of altitudes that range from 2,000 m to over 8,000 m asl, including K2 second highest peak in the world. CKNP spread in Five administrative districts of Gilgit-Baltistan (Ghanche, Skardu, Gilgit, Shigar and Nagar). In order to facilitate the maintenance of Central Karakoram National Park ecological integrity while, at the same time, providing sustainable management opportunities for local communities and visitors, a zoning system has been introduced.

It consists of two main zones, the Buffer Zone and the Core Zone, for a total of 10,557.73 Km<sup>2</sup>. The Buffer Zone, which is part of the Park and the Core Zone which includes areas with a higher degree of protection and corridors for tourists with basic facilities.

**Buffer Zone (BZ)** is supporting a harmonic interaction between nature conservation and the use of the natural renewable resources through a sustainable way. This promotes the conservation of landscapes, traditional forms of land use, together with social and cultural features. It is considered a part of CKNP and is spreading for about 2,950.9 square kilometers. It is not continuous around the whole Park, but it is present mainly near the human settlements and near to the areas where there are unsustainable activities and therefore a transition zone is needed.

**Core Zone (CZ),** with a surface of about 7,606.83 square kilometers aims at preserving a unique ecosystem, representative of the CKNP area. It is populated by important species, where long-term conservation and preservation have to be ensured. On the one hand, this area is impressive both for flora and fauna, on the other hand, the presence of a relevant number of high peaks, many of them over 7.000 m, and glaciers covering about the 38% of the whole Park surface, is attracting a relevant number of visitors. To preserve the nature integrity, the Park has designated specific corridors where tourists are allowed to enter, with basic facilities to reduce as much as possible their impact on this fragile, yet highly valuable, zone.

One of the major objectives of the park is to protect and manage the flora and fauna of the area in its natural state with more than adequate emphasis on protection of rare and endangered wildlife species and socio-economic wellbeing of the resident population by promoting eco-tourism in the area.



## **BALTORO GLACIER**

Baltoro glacier is one of the longest glaciers (63 KMs) outside the Polar Regions, situated in District Shigar of Gilgit-Baltistan. It runs throughout Karakoram mountain ranges. The Baltoro Muztaqh lies to the north and east of glacier while the Mashabrum Mountains lie to the south. K2 is the highest mountain (8611 m) in the region, and three other Eight thousanders (Broad peak, Gasherbrum I&II) within 20 km. The Baltoro stream merges with Shigar river and finally with Indus. Several large tributaries glaciers feed the main Baltoro glacier, including Godwin Austen glacier flowing south from K2, the Abruzzi and the various Gasherbrum glaciers flowing from Gasherbrum group of peaks, the Vigne glacier flowing from Chogolisa and the Yermadendu glacier flowing from Masherbrum. The confluence of the main Baltoro Glacier with the Godwin Austen Glacier is known as Concordia; this location and K2 base camp are popular trekking destinations. The trough of this glacier is very wide. Small valley glaciers form icefalls where they meet the trunk glacier. The sidewalls vary from very steep to precipitous. The glacier has carved striations on the surrounding country rocks. Moving ice has formed depressions, which serve as basins for numerous glacial lakes.

The concentration of high mountain peaks and towers makes this region the most visited tourist destination in Pakistan where major tourist influx is observed from May-September each year. This seasonal increase in human activity in a fragile eco-zone requires sensible management by all the actors and stakeholders in their diverse capacities, to preserve and protect the natural resources of the region.

The decision to declare the Central Karakoram region as Protected Area i.e. National Park was to safeguard the ecological assets and the environmental values of the fragile eco zone, which contains the largest glacial complex outside the polar region and has immense watershed value and diverse range of biodiversity. In Baltoro K2 route major camp sites are Jula, Paju, Mondrong, Khubursay, Urdukas, Goro-II, Concordia, Broad Peak Base Camp, K2 Base Camp and Gasherbrum Base Camp.

CKNP has the world famous glaciers including Baltoro, Biafo-Hisper, Chogolingsa, Panma, Barpu and Hinarchi etc. The Baltoro glacier has been the most frequently trekked route by climbing expeditions and trekkers heading towards the K2, Broad Peak, Gasherbrum-I, Gasherbrum-II and innumerable peaks and tower. Each year this seasonal influx generates huge volume of waste and leave behind it. The reasons for this waste management matters are only offshoots of broader issues related to inadequate legal and regulatory structures and lack of integration of economic development as well as social benefits to the local communities for the management and protection of the natural resources. This requires long term and large-scale management.

## **K2-The Savage Mountain**



K2, at 8611 metres (28251 ft) above sea level, is the second-highest mountain on Earth, it lies in the Karakoram range, in the Gilgit-Baltistan Pakistan and in Xinjiang of China. K2 also became popularly known as the Savage Mountain after George Bell, a climber on the 1953 American expedition told reporters, "It's a savage mountain that tries to kill you." Of the five highest mountains in the world, K2 is the deadliest; approximately one person dies on the mountain for every four who reach the summit. Also occasionally known as Chhogori, or Mount Godwin-Austen, other nicknames for K2 are The King of Mountains and The Mountaineers Mountain, as well as The Mountain of Mountains after prominent Italian climber Reinhold Messner titled his book about K2 the same.

The summit was reached for the first time by the Italian climbers Lino Lacedelli and Achille Compagnoni, on the 1954 Italian expedition led by Ardito Desio. In January 2021, K2 became the final eight-thousander to be summited in the winter; the mountaineering feat was accomplished by a team of Nepalese climbers, led by Nirmal Purja and Mingma Gyalje Sherpa.

K2 is the only 8,000+ metre peak that has never been climbed from its eastern face. Ascents have almost always been made in July and August, which are typically the warmest times of the year; K2's more northern location makes it more susceptible to inclement and colder weather. The peak has now been climbed by almost all of its ridges. Although the summit of Everest is at a higher altitude, K2 is a more difficult and dangerous climb, due in part to its more inclement weather. As of February 2021, only 377 people have completed the ascent to its summit. There have been 91 deaths during attempted climbs, according to the list maintained on the list of deaths on eight.

K2 lies in the northwestern Karakoram Range. It is located in the boundaries of Central Karakoram National Park, the Tarim sedimentary basin borders the range on the north and the Lesser Himalayas on the south. Melt waters from glaciers, such as those south and east of K2, feed agriculture in the valleys and contribute significantly to the regional fresh-water supply.

K2 is ranked 22nd by topographic prominence, a measure of a mountain's independent stature, because it is part of the same extended area of uplift (including the Karakoram, the Tibetan Plateau, and the Himalaya) as Mount Everest, in that it is possible to follow a path from K2 to Everest that goes no lower than 4,594 metres (15,072ft), at the Kora La on the Nepal/China border in the Mustang Lo. Many other peaks far lower than K2 are more independent in this sense. It is, however, the most prominent peak within the Karakoram range.

K2 is notable for its local relief as well as its total height. It stands over 3,000 metres (9,840 ft) above much of the glacial valley bottoms at its base. It is a consistently steep pyramid, dropping quickly in almost all directions. The north side is the steepest: there it rises over 3,200 metres (10,500 ft) above the K2 (Qogir) Glacier in only 3,000 metres (9,800 ft) of horizontal distance. In most directions, it achieves over 2,800 metres (9,200 ft) of vertical relief in less than 4,000 metres (13,000 ft).

### **Upper Braldu (*The valley of peaks and glaciers*)**

The valley of Braldu is situated in Shigar district of Baltistan, at a distance of 135 km from the district head quarter Skardu, and is accessible by a link road. Braldu touches Hisper via Hisper la to the valleys of Shigar and Basha, respectively. In this remote valley dwell around 4404 people in 410 houses, scattered in ten small villages. Around 12 schools are present in the valley but literacy rate is still very low.



Main sources of income are livestock herding, small scale agriculture and involvement in tourism. At pastures of the valley offer a good herding opportunity to the livestock herders owning over 21000 livestock heads. Wheat, barley, buck wheat and potatoes are the main crops of this single cropping zone, and variety of fruits like apple, apricot, mulberry, cherry and plums are grown here. Potato is the cash crop whereas; fresh and dried fruit are also sold by the locals to earn additional money.

Main tourist attractions are the famous Biafo glacier, Baltoro glacier, K2 peak, and the highest cliffs in the world the great Trango towers, with many treks including the three famous ones namely, Sosbun, Skoro la and the 42 km long Panmah glacier trek Dumurdo area. Unique wildlife species of the valley such as snow leopard and Ladakh

urial are the center of focus for researchers, conservationists and photographers, 16 Ladakh urials have been sighted by CKNP watchers at Dumurdo area recently. Himalayan ibex has also good numbers in the catchment division of this valley. Brown bear is also reported to be found in some of the particular catchment divisions like Biafo and Dumurdo. Scenic pastures with patches of birch and juniper forest abound in aromatic and medicinal herbs like Artemisia and sea buckthorn at to the ecological and aesthetic value of the valley.

Available tourist facilities are CKNP visitor information and registration center at Askoli maidan, Askoli museum, historical religious buildings, camping sites, porters, guides and some climbing equipment for rent. Also meat lovers can buy a sheep or a goat to enjoy a hot barbeque in the cold nights of Braldu. Fresh vegetables are available from the formers in summer, and one's interpersonal communication skills can do better than coins to get some of them for lunch.

### **Hushey Valley (*The gateway to Ghandogoro la*)**

Hushey valley is situated in the extreme east of Central Karakoram National Park at an altitude of 3050 m. It is some 51 km north of Khaplu, the north beyond K-2, Siachen to the east, and Khaplu town to south and Thallay valley to the west. The valley is home to 960 individuals living in 150 households. The present Hushey valley is believed to be populated by nomads from Yarkand territory of Central Asia. But the



names of their historical buildings constructed by the people are in Balti language indicating the dominance of Tibetan influence in the area. Hushey is a tourist hotspot being located in the lapse of peaks viz., K-2, K-7, Masherbrum, Laila Peak and Ghundogoro La. Thus the valley provides tremendous tourist attraction in the form of treks to different peaks, pastures and glaciers. Facilities in Hushey or not many but the presence of a tourist class hotel, a small Guesthouses and couple of small shops, public transport, a basic health unit and electricity in such a remote part of the globe is quite satisfactory. Saicho camp site is an excellent facility with no match in the world. To have a distant view of K2, Broad Peak, Masherbrum, Cigarette Peak, and few other peaks of above 7000 m one has to just trek 3-4 hours to Humberq from the Hushey village. Majority of the local population is associated with tourism, livestock herding stand at the top of economic activities. Wheat, potato, barley and peas are the crops while fruits include mulberry, apricot and apple. Hushey community has been protecting the wildlife and its habitats for a long time through imposing ban on poaching and cutting of green trees. One can avail a Trophy hunt of and above 36 inches Ibex and contribute to the development of the valley. CKNP



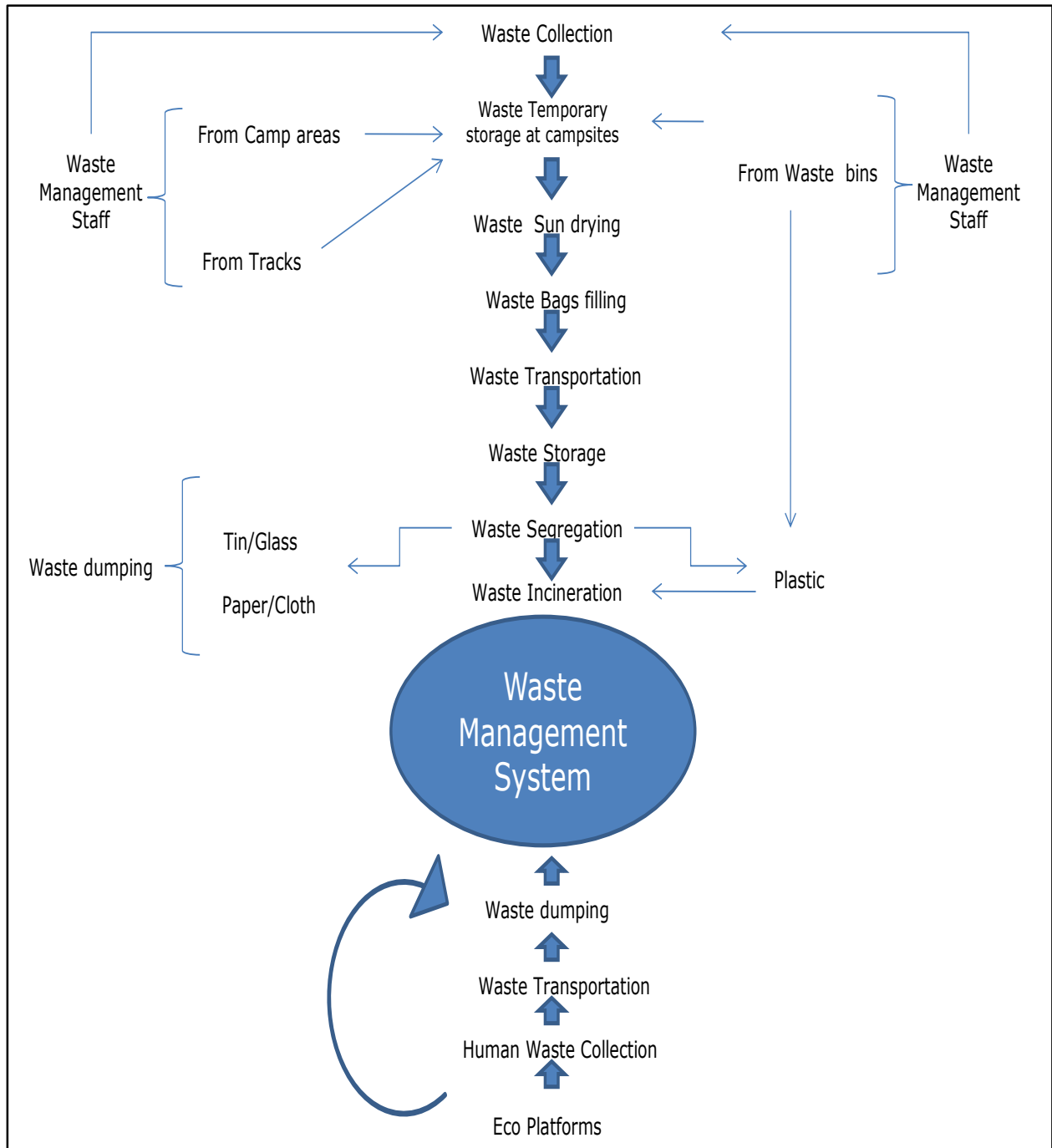


Directorate has been implementing its field interventions in the valley in close collaboration with the Valley Conservation Committee (VCC) like, community mobilization, watch and ward, wildlife surveys and research, afforestation, fixing signage, construction of foot bridges along streams, trails repair and maintenance and establish visitor's information and registration center.

The valley is linked with Baltoro range through Gandogorola. Towards Hushey there are several peaks (Mashabrum, K-6 &7) where access only treks. Several camp sites with basic facilities are exists towards Hushey valley the major camp sites are Siacho, Dalsanpa, Khushpang, Gandogoro and high camp where tourists trek mostly in summer months.

The Directorate of the Central Karakoram National Park under the umbrella of Forest, Wildlife and Environment Department GB is functional, the managerial and field staff are supervising the interventions in / around the Park area having one of the major objective is to stage CKNP as an ideal tourist destination. One of the important activity is camp sites and waste management practices in CKNP, for the purpose seasonal waste crew and park staff are being engaged at camp sites and important places who collect the solid waste in/ around the campsites and base camps, maintain the structures/ services (toilets, washing places, camping sites) and facilitate the visitors.

**MECHANISM OF WASTE COLLECTION AND TRANSPORTATION**



**STAFF / CREW ENGAGED FOR CAMP SITES AND WASTE MANAGEMENT**

For maintenance of camp sites and collection of solid waste, waste crew engaged at important camp sites on seasonal basis (May-September). These staff keep the camping sites, toilets, washing places and collect the solid waste on daily basis.

Waste crew based at glaciated areas (K2 BC, Broad Peak BC, Concordia, G-II & GII) collect the waste generated by expeditions and trekking parties which was transported upon closing of expeditions and trekking parties.

CREW/ STAFF ENGAGED IN CAMP SITES DURING THE PERIOD JULY-SEPTEMBER 2021				
S No	Site	Seasonal Waste crew	CKNP staff	Community persons
1	Jula camp site	4	1	-
2	Mondrong camp site	1		-
3	Paju camp site	2		7
4	Khubursay camp site	-	1	2
5	Urdukas camp site	4		-
6	Goro-II camp site			-
4	Concordia camp site	7	1	-
5	GI & GII Base camp			-
6	Broad peak Base camp			-
7	K2 Base camp			-
8	Hushey	1	1	-
9	Minapin	1	1	-
10	Hisper	1	1	-
	<b>Total</b>	<b>21</b>	<b>6</b>	<b>9</b>



## STAFF AT CKNP VISITORS INFORMATION AND REGISTRATION CENTERS

S No.	Site Name	No of staff	Incinerator staff
1	Askoli Village	3	2
2	Hushey Village	3	-
3	Hisper Village	3	-
4	Minapin Village	3	-
	Total	12	2



<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h3 style="margin: 0;">ANNUAL VISITORS INFLOW OF CENTRAL KARAKORAM NATIONAL PARK GILGIT-BALTISTAN 2011- 11 October 2021</h3> <p style="font-size: small; margin: 0;">(Porters, Guides, Cooks and Sardars not included, average 5 porters/visitor approximately) Developed By: Yasir Abbas, Ecologist CKNP</p> </div> </div>													
YEAR	ASKOLI	HUSHEY	HISPER	MINAPIN	HOPER	ARINDU	THALAY	HARAMOSH	BAGROT	DANYOR	SUMAIR	SKY SHGAR	SUB TOTAL
2011	599	69											668
2012	870	123											993
2013	585	77	22	166									850
2014	586	95	1	292									974
2015	586	30	3	260									879
2016	718	73	0	385	231								1407
2017	861	76	4	369	335	18	36						1699
2018	1211	73	30	326	308	32	103						2083
2019	1340	72	47	648	236	44	19	600	10	3			3019
2020	99	0	0	166	-	-	4	-	-	-			301
2021	709	117	05	795	125	37	551	1000	250	40	225	35	3889
Total	8164	805	112	3407	1235	131	713	1600	260	43	225	67	16762



### AREA WISE DETAIL

## WASTE COLLECTION AND TRANSPORTATION IN K2, BALTORO AND OTHER AREAS BY DIRECTORATE OF CENTRAL KARAKORAM NATIONAL PARK

(JULY TO NOVEMBER 2021)

S No	Site Name	Waste (Bags)	Waste (KGs)	Waste (Tons)
<b>A</b>	<b>Baltoro Site</b>			
1.	K2 Base Camp	135	3375	3.375
2.	Broad Peak Base Camp	60	1500	1.500
3.	Gasher Brum I&II Camp	75	1875	1.875
4.	Ali Camp	20	500	0.500
5.	Concordia Camp	40	1000	1.000
6.	Goro-II Camp Site	13	315	0.315
7.	Urdukas Camp Site	115	2875	2.875
8.	Paju Camp Site	10	250	0.250
9.	Jula Camp site	18	450	0.450
	<i>Sub total-A</i>	<i>486</i>	<i>12140</i>	<i>12.140</i>
<b>B</b>	<b>Human waste (Eco-plates)</b>	(Drums)		
1.	K2 Base Camp (2 No)	6	150	0.150
2.	Board Peak Base Camp (2 No)	6	150	0.150
3.	Concordia Camp Site (3 No)	15	375	0.375
4.	Goro-II Camp Site (1 No)	5	125	0.125
	<i>Sub total-B</i>	<i>32</i>	<i>800</i>	<i>0.800</i>
<b>C</b>	<b>Hushey Site</b>			
1.	High Camp (Apo-tok)	3	75	0.075
2.	Khuyuspang Camp Site	9	225	0.225
3.	Dalsangpa Camp Site	6	150	0.150
4.	Golong Camp	2	50	0.050

5.	Saicho Camp Site	6	150	0.150
6.	K-6&7 Base Camp	10	250	0.250
	<i>Sub total-C</i>	36	900	0.900
<b>D</b>	<b>Other site</b>			
1.	Tagafari & Hapakon (Minapin)	8	200	0.200
2.	Bitanmal (Hisper)	5	125	0.125
3.	Gargo (Bagrote)	4	100	0.100
	<i>Sub total-D</i>	17	425	0.425
	<b>Grand Total</b>	<b>571</b>	<b>14265</b>	<b>14.265</b>



<b>MONTH WISE DETAIL</b>					
<b>WASTE COLLECTION AND TRANSPORTATION IN K2, BALTORO AND OTHER AREAS BY DIRECTORATE OF CENTRAL KARAKORAM NATIONAL PARK</b>					
<b>(JULY TO NOVEMBER 2021)</b>					
<b>S No</b>	<b>Site Name</b>	<b>Valley</b>	<b>Waste (Bags)</b>	<b>Waste (KGs)</b>	<b>Waste (Tons)</b>
<b>A</b>	<b>August 2021</b>				
1	K2 BC	Baltoro	135	3375	3.375
2	Broad peak	Baltoro	60	1500	1.500
3	Concordia	Baltoro	28	700	0.700
4	Gasher Brum-I&II BC	Baltoro	75	1875	1.875
5	Jula camp	Baltoro	18	450	0.450
	<i>Sub total-A</i>		<i>316</i>	<i>7900</i>	<i>7.900</i>
<b>B</b>	<b>September 2021</b>				
1	Ali camp	Baltoro	20	500	0.500
2	Concordia	Baltoro	10	250	0.250
3	Goro-II	Baltoro	11	275	0.275
4	Urdukas	Baltoro	115	2875	2.875
5	Tagafari & Hapakon	Minapin	8	200	0.200
6	Bitanmal	Hisper	5	125	0.125
	<i>Sub total-B</i>		<i>169</i>	<i>4225</i>	<i>4.225</i>
<b>C</b>	<b>October 2021</b>				
1	K7 Base camp	Hushey	10	250	0.250
2	High camp (Apo tok)	Hushey	3	75	0.075
3	Khushpang camp	Hushey	9	225	0.225
4	Dalsangpa camp	Hushey	6	150	0.150
5	Golong camp	Hushey	2	50	0.050
6	Siacho camp	Hushey	6	150	0.150
7	Paju camp site	Baltoro	10	250	0.250
	<i>Sub total-C</i>		<i>46</i>	<i>1150</i>	<i>1.150</i>
<b>D</b>	<b>November 2021</b>				
1	Concordia camp site	Baltoro	2	50	0.050
2	Goro-II camp site	Baltoro	2	40	0.040
3	Gargo camp site	Bagrote	4	100	0.100
	<i>Sub total-D</i>		<i>8</i>	<i>190</i>	<i>0.190</i>
<b>E</b>	<b>Human Waste (July-October 2021)</b>		<b>Drums</b>		
1	Baltoro Eco-plates	Baltoro	32	800	0.800
	<i>Sub total-E</i>		<i>32</i>	<i>800</i>	<i>0.800</i>
	<b>Grand Total</b>		<b>571</b>	<b>14265</b>	<b>14.265</b>

**HUMAN WASTE TRANSPORTATION FROM DIFFERENT SITES OF BALTORO  
DURING THE PERIOD JULY-SEPTEMBER 2021**

S. No	Site	Eco-Plates	Waste Transported (Drums)	Total (KGs)	Total (Tons)
1	K2 Base camp	2	6	150	0.150
2	Broad peak Base Camp	2	6	150	0.150
3	Concordia Camp Site	3	15	375	0.375
4	Goro-II Camp	1	5	125	0.125
	<b>Total</b>	<b>8</b>	<b>32</b>	<b>800</b>	<b>0.800</b>

**WASTE TRANSPORTATION BY PARTNER ORGANIZATIONS  
(JULY-NOVEMBER 2021)**

S No	Site	Organization			
		EVK2CNR		MR. SALAR	
		(Bags 25 kg each)	KGs	(Bags 25 kg each)	KGs
1	Goro-II camp site	6	150	2	50
2	Khurburtsay camp	7	175	-	-
3	Liligo camp site	4	100	-	-
4	Paju campsite	33	825	-	-
5	Mondrong camp site	8	200	-	-
6	Concordia camp site	-	-	13	328
	<b>Total</b>	<b>58</b>	<b>1450</b>	<b>15</b>	<b>378</b>

**ABSTRACT OF WASTE COLLECTION AND TRANSPORTATION  
(JULY-NOVEMBER 2021)**

S No	Organization	Total Waste (KGs)	Total Waste (Tons)
1	Directorate of CKNP	14265	14.265
2	Ev-K2-CNR	1450	1.450
3	Mr. Salar Malik	378	0.378
	<b>Grand Total</b>	<b>16093</b>	<b>16.093</b>





## SOLID WASTE SEGREGATION

Solid waste coming from the base camps, glaciers, camping sites and tracks mainly comprised of burnable and non-burnable. Further it is segregated by the incinerator staff. Among burnable plastic is incinerated in the incinerator machine installed at VIRC Askoli while paper, cloth, wooden material as well as non-burnable like glass and carcass are disposed of in respective land fill areas while tin is separated.

AVERAGE WASTE TYPES						
Non Burnable			Burn able			Total Volume
Tin (15 %)	Glass (15 %)	Carcass (15 %)	Plastic (15%)	Paper /Cloth (20%)	Wooden Material (20 %)	
<b>(45 %)</b>			<b>(55 %)</b>			<b>100 %</b>



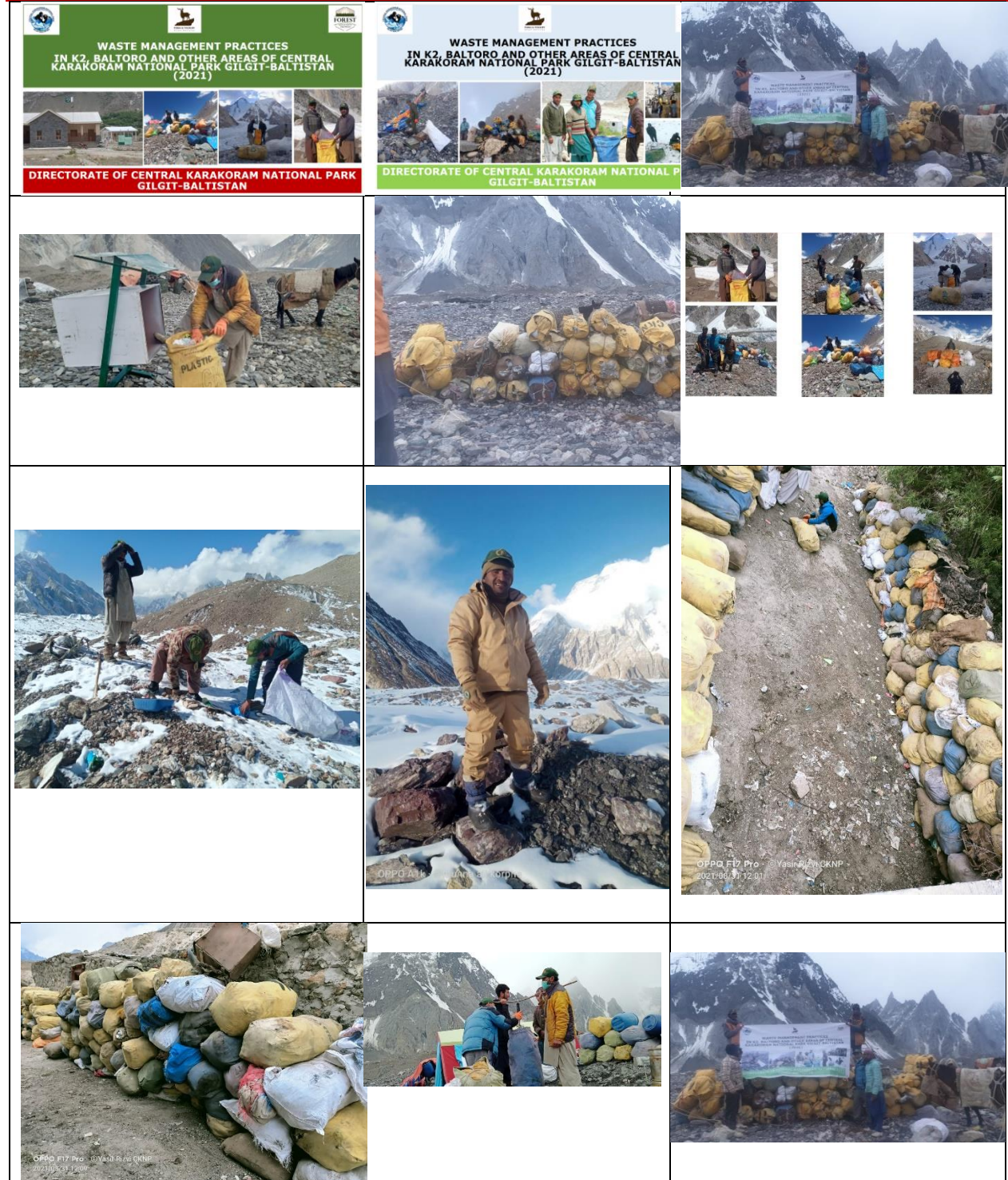
## SUGGESTIONS

1. Sensitization of local communities and visitors about the importance of the park, associated biodiversity and wilderness, is essential to Keep CKNP clean.
2. Need strict enforcement of national parks rules/regulations, to control spreading of waste, disturbance of wildlife and pollution.
3. All types of motorized vehicles must be banned in glaciated areas (core zone).
4. Collection of tent charges at Jula, Paju and Urdukas camps by local people need to stop by providing their respective community share in waste management fee.
5. Need to improve liaison between CKNP stakeholders for better protection of park resources in the long run.

6. Being far flung area with extreme weather conditions more human and financial resources are required for better sustainable management.
7. Need to improve camp sites, washing places, toilets, dustbins etc. on annual basis.
8. Need to provide high altitude field gear to staff perform their duties in camp sites.
9. Motivate the tour operators, guides, sardars and cooks etc. for cooperation with park staff to ensure cleanliness during the trekking and climbing movements.
10. Cleanliness and associated matters must be included in briefing sessions to trekking and climbing parties by the Tourism Department.
11. Need to devise and implement a mechanism to check the luggage's of expedition and trekking parties before departure and back arrival at Visitors Information and Registration Centers and impose penalty if certain volume of waste is left over on glaciated areas.
12. Need improvements in army posts waste management.
13. Need to improve waste management system for winter expedition and trekking parties in CKNP possibly tour operator may bring back the winter waste at CKNP entry points.
14. Need improvements in camping site, toilets, camping terraces, washing places, water supply system.
15. Need to aware porters to avoid pollution through mules in camps as well as along the treks.
16. Install more CKNP waste bins in camps and treks as well as to develop further momentary waste dumping pits at remaining camps
17. Provision of self-safety, health and hygiene kits to crew and staff.
18. Provide first aid medicines and boxes to each camp sites up to K2 BC.
19. Need to fix more cautionary signage's depicting *Do's-Don'ts*.
20. Need to develop mechanism to take care of the existing signages, waste bins and eco-plates during the winter season.

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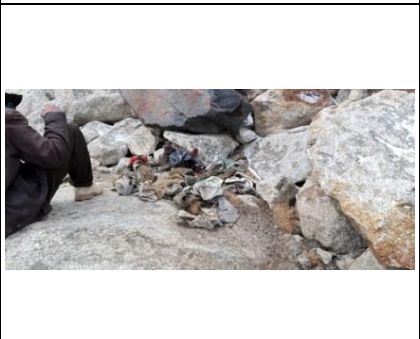
# PICTURES







**Hushey**







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