

A Clean Environment: An Offering to Mount Kailash



Proper solid waste management around the holy Mount Kailash, Lake Manasarovar and in the surrounding settlements needs collective action and shared responsibility by county, township, and village representatives to reduce negative impacts on the people and the environment of the sacred Kailash landscape.



Solid waste pollution in Pulan County and along the *kora* route of Mount Kailash in the Tibet Autonomous Region, China, is extensive. It is caused by a lack of awareness among the local population and the increasing numbers of visitors. In addition, traditional and religious practices, lack of waste management infrastructure and institutions, as well as overlapping or missing responsibilities in the administration and among stakeholders contribute to inadequate waste disposal and recycling mechanisms. This not only threatens the highly sensitive environment but also undermines the very sacredness of Mount Kailash and Lake Manasarovar. Furthermore, it jeopardizes the health and livelihood of local communities, visitors to the landscape and people living downstream of rivers originating around Mount Kailash.

In the framework of the Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI), awareness and sensitization events on responsible tourism for local government officials and community representatives have already led to a reduction of solid waste in the landscape. Waste management groups were established in some townships of the county. Also, mechanisms were put in place to hire a waste management company to collect waste, to transport it to a segregation place, and to organise the final disposal or recycling. However, waste collection and disposal infrastructure need expansion to all the settlements of the county. There is also an urgent need for the Pulan County government to engage with local communities, the Tibet Tourism Co. Ltd Ali Branch, and private waste management entrepreneurs more intensively to explore different options of waste treatment, such as high altitude composting and extensive recycling.

Waste Management Cycle



From 2013 to 2016, while the KSLCDI intervention on solid waste management was active in the Kailash Sacred Landscape-China (KSL-China), the total quantity of solid waste disposed around the Kora area decreased from 685.5 kg to 58.4 kg. This reduction is most visible in the waste categories “used cotton, household waste” and “colourful plastics, cardboard boxes”. Please see the table below for details.



Facts and Figures of solid waste at Pulan County

(based on surveys from 2013 to 2016 by Sichuan University)

Year	Waste Types and Volumes (kgs)					Total
	Metal & Glass	Batteries	Transparent Plastics	Colourful plastics, cardboard boxes	Used cotton, Household Waste	
2013	265	2	50.3	199.2	169	685.5
2014	413	2	32.7	262.5	135	845.2
2015	434	0	0.75	36.5	129	600.25
2016	8.9	0	1.5	19	29	58.4

Photo comparison of solid waste management in Huor Township and Darchen

Location	2014	2016
Huor Township – some improvement of the dumping field		
Huor Township – cleaning up of illegal dumping of waste along the road		
Darchen – waste disposal containers are better organised and emptied regularly		

Action matrix for solid waste management in Pulan County, KSL-China

Waste Management Cycle	What has been done?	What next?
Product Consumption	<ul style="list-style-type: none"> • awareness raised on various kinds of waste 	<ul style="list-style-type: none"> • increase awareness and encourage people to use less plastic in daily life and promote awareness on waste segregation
Waste disposal by households, visitors, and businesses	<ul style="list-style-type: none"> • rules has been set in the townships to dispose waste at designated places • Tibet Tourism Co. Ltd Ali Branch installed garbage bins and signs in Tibetan, Chinese and English along the Kora routes • Tibet Tourism Co. Ltd Ali Branch handed free garbage bags to tourists and motivated them to bring back their waste 	<ul style="list-style-type: none"> • set up bins for groups of households in all settlements to facilitate easier disposal • set up rules for the separation of waste and build awareness on its benefits • encourage tour operators of the region and beyond to participate in efforts and educate their clients • disseminate waste management awareness through websites of tour operators
Waste collection	<ul style="list-style-type: none"> • in some townships waste collection groups were formed to bring waste to collection sites • waste treatment company in Darchen town collected waste by employing socially disadvantaged members of the community • along the Kora routes, the Tibet Tourism Co. Ltd Ali Branch employed member of Gangsa village and local yak herders to collect and transport waste 	<ul style="list-style-type: none"> • set up waste collection/management groups in all settlements • segregate bio waste and non-bio waste • ensure proper financial compensation for members of waste collection/management groups in all settlements • introduce waste collection timing ensuring minimum impact to human and wild life activities
Waste transportation	<ul style="list-style-type: none"> • some of the waste was transported through a waste treatment company 	<ul style="list-style-type: none"> • ensure regular transport of waste also from disconnected villages to waste processing spots
Recycling	<ul style="list-style-type: none"> • metal and glass were being collected and released for further processing 	<ul style="list-style-type: none"> • explore opportunities for the recycling of plastic • establish incentive systems to motivate visitors and the local population to recycle.
Processing and final disposal	<ul style="list-style-type: none"> • burning of all kinds of waste at a central spot outside of settlements • some of the waste was buried outside of the townships 	<ul style="list-style-type: none"> • set up high altitude composting of bio-degradable household waste and used cotton • set up proper landfill areas with respective distance to settlements, sacred sites and water sources of any kind based on environmental impact assessments
Production	<ul style="list-style-type: none"> • awareness raised on sources of waste 	<ul style="list-style-type: none"> • encourage as much local production as possible and as little waste production as possible
Financing	<ul style="list-style-type: none"> • Pulan County provided around RMB 670,000 per year for waste treatment company in Darchen town • Tibet Tourism Co. Ltd Ali Branch provided around RMB 200,000 to residents of Gangsa village for waste management purposes since 2017 	<ul style="list-style-type: none"> • each village should set up a waste management fund to build up a sustainable waste management system • income from recycling should flow back to community waste management groups • explore existing government schemes
Cooperation and management	<ul style="list-style-type: none"> • Pulan County government, Tibet Tourism Co. Ltd Ali Branch and local communities collaborated to tackle waste • waste management created employment opportunities for some community members • Gangsa village committee organized waste management around Mount Kailash • more coordination between Gangsa village waste management group and local yak herders 	<ul style="list-style-type: none"> • establish a Pulan waste management committee involving all stakeholders • establish clear responsibilities for every stakeholder • provide proper equipment to community members and employees that handle waste • exchange visits of community members to learn about township-based waste management • continue and broaden employment opportunities for the local population of Pulan county • integrate waste management as a focus area into the Pulan county tourism plan
Awareness and Monitoring	<ul style="list-style-type: none"> • awareness on waste management raised for different stakeholders • yearly surveys conducted from 2013 till 2016 on garbage amount and type 	<ul style="list-style-type: none"> • more awareness should be raised about impacts of inappropriate waste disposal on the environment and on the health of people • implement educational programme for school children • conduct a waste collection journey through the landscape and integrate all stakeholders • conduct surveys to monitor the effectiveness of the established systems every year.

Cleaning systems in Darchen town and along the Kora (August 2016)



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For Further Information

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