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Plastic waste in remote and mountainous areas

As a national park or protected area manager, what can you do to tackle plastic waste?

The plastic waste problem in remote and mountainous areas

Plastic waste has been shown to be the most important contributor to waste pollution in remote and mountainous areas. As an administrator or manager of a national park or protected area, your initiative is critical to tackle plastic pollution and help preserve these areas. You have both: first-hand knowledge of the challenges and the tools to tackle them on the ground.

What are the drivers for plastic pollution in remote and mountainous areas?

- The significant and often large plastic waste footprint of tourism.
- Atmospheric transport of microplastics to remote and mountainous areas from far distances.
- Economic growth, leading to increased use of plastic products, especially single-use plastics.



Plastic and other waste found on the approach to Peak Lenin, Kyrgyz Republic.
© Jason Sheldrake

Which capacities are lacking in remote and mountainous areas to stop plastic pollution?

- Remoteness, difficult natural and climate conditions, and absence of economies of scale as well as limited financial/human resources, and lack of infrastructure …
- … result in an increase of waste management costs coupled with a decrease in financial, legal and institutional capacity, and insufficient systems for data gathering and monitoring …
- … resulting in low capacity to ensure the environmentally sound management of plastic waste as well as lack of awareness and incentives for behavior change.

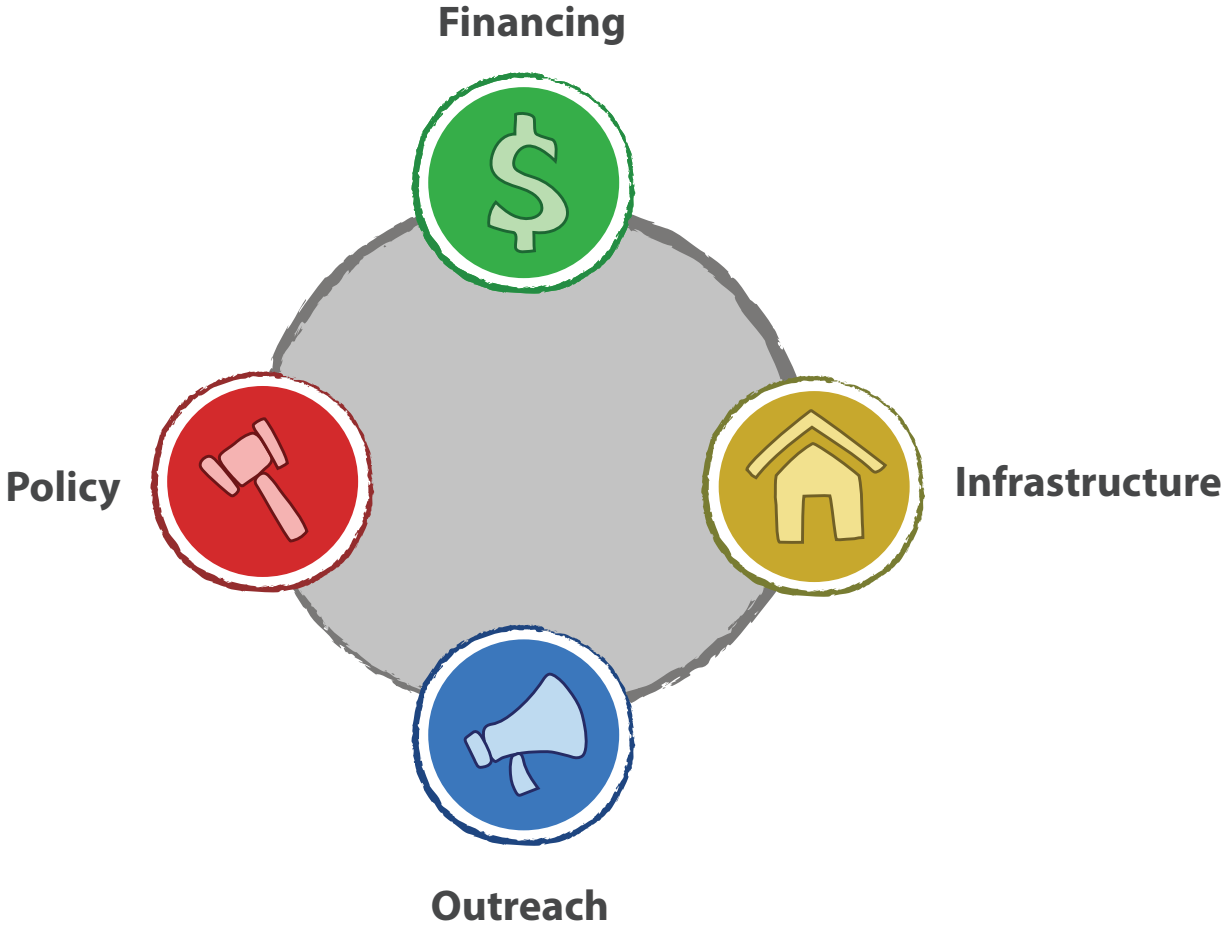
Why is your initiative critical and what can you do?

- You can distribute information and raise awareness, thanks to direct interaction with visitors.
- You can monitor the situation, collect data and make it available to decision-makers.
- You can organize educative and interactive activities targeting children and youth.
- You can organize clean-ups with involvement of tourists, locals, municipalities, civil society etc.
- You can provide financial incentives, for example through fines on dumping of waste.
- You can monitor the waste that comes in and out of your park, to make sure nothing is left behind.

Turn the page to find inspiration!

What actions could you take to address plastic pollution in remote and mountainous areas?

Stories collected from around the world through a global survey and research illustrate how individuals, policy makers, national park administrations, the private sector and civil society are addressing plastic pollution in remote and mountainous areas. These initiatives can be classified in four broad categories and the potential solutions illustrated here could be replicated and scaled up by national parks and protected areas elsewhere.



Policy

The Kilimanjaro National Park has introduced a "Trash-in-trash-out" (TITO) system for municipal solid waste collection to tackle the increasing generation of solid waste on Mount Kilimanjaro due to flourishing mountain tourism. Rangers regularly weigh the rubbish of trekking groups. Evidence of dumping can results in the license of guides being revoked and/or a fine. The TITO system has raised the collection rate from 64 % in 2003 to 94% in 2006.

→ **National parks and protected areas administrations can implement policies to tackle the plastic waste problem by, for example, promoting the collection and management of it.**



A do not litter sign on Mount Kilimanjaro, Tanzania. © iStock/Robas.



Mawenzi Tarn hut, situated along the Rongai route up Mount Kilimanjaro, Tanzania. © iStock/Marek Stefunko.

Financing

Following a campaign by the Nepali government to clear 10 tonnes of waste from Mount Everest, it also established a garbage declaration and clearance system in the Sagarmatha National Park. Every expedition group is required to declare their equipment and food list and submit a deposit. The USD 4,000 deposit aims to incentivise climbing expeditions to bring back their waste. Upon return, each group has to submit all burnable and non-burnable garbage to get a clearance certificate. The deposit may be forfeited if the expeditions fail to return without at least 8 kg of trash and human waste.

Financial incentives are a powerful tool to trigger positive behavior change, while fees can also help cover waste management costs.



Garbage bin in the Khumbu region. © Sagarmatha Pollution Control Committee (SPCC).

Infrastructure

The Ile-Alatau National Park administration in Kazakhstan became the first Kazakh national park to organize full-cycle infrastructure for waste management. It introduced new two-section garbage trucks designed and equipped with a pressing system. 225 containers were installed at 30 different sites. Secondary raw materials and food waste are collected and further transported to a waste sorting complex. The National Park has also set a goal to sort 85% of its waste by 2030.

Administrations can introduce infrastructure which is critical for the environmentally sound management of plastic waste, including collection bins and transport infrastructure. Many options are available that can be adapted to specific local contexts, financial resources and technical capacities.

Outreach

In the Gorkhi Terelji National Park in Mongolia, an anti-littering education campaign was implemented to increase awareness among tourists and the local population. Working with a 'Behavioral Insights Team', a simple four step process was developed: (i) target, (ii) explore, (iii) solution, (iv) trial and test. In practice: (i) The main polluters, or target group, were identified, namely local tourists. (ii) Key moments for intervention were explored, namely key moments in the journey: shopping at supermarkets on the way to the park, stopping to buy tickets to the national park, and limited ranger interaction. (iii) Currently, the initiative is identifying nudges that are easy to implement, attractive to the target group, social in nature, and timely. Finally, (iv) the nudges will be tested.

→ **National parks/protected areas have a major role to play in awareness raising, as they receive visitors who want to experience the beauty of these natural habitats. Parks and protected areas often have single or a few entry points, providing an easy and strategic venue to disseminate knowledge and best practices.**



PET bottles and wood waste at Poiana Largului, Romania. © F-C. Mihai.



Mongolian gers within Gorkhi-Tereji National Park, Mongolia. © Shutterstock/pedrosala.



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