

The plastic waste problem in mountains

While most people know about the enormous amounts of plastic waste swimming in the world's oceans, the increasing pollution of remote and mountainous areas rarely makes the headlines. As a policymaker, you can make a difference in limiting plastic use and thus the generation of plastic waste and in ensuring the environmentally sound management of plastic waste in remote and mountainous areas.

What are the drivers for plastic pollution?

Key drivers for plastic pollution in remote and mountainous areas include:

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

These factors lead to an increase in the generation of plastic waste. When combined with absent or inadequate waste management systems, the result is often open burning and dumping, causing increases in releases of plastic waste and microplastics. This poses a threat to human health, wildlife and the environment, including remote and mountain ecosystems.

Which capacities are lacking to stop increasing plastic pollution?

Developing countries and countries with economies in transition face significant challenges in preventing the generation of plastic waste and in ensuring its environmentally sound management. Meanwhile, the use of plastics is rapidly increasing.

These challenges are often compounded in remote and mountainous areas:

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...
- ...result in low capacity to ensure the environmentally sound management of plastic waste as well as a lack of awareness and incentives for behavior change.

What can I do about this?

- Identify the specific challenges faced by the municipality/area/region.
- Determine tailor-made solutions considering the specific circumstances.
- Integrate environmentally sound waste management in these areas into development and planning strategies.
- Ensure that all relevant stakeholders are engaged.
- Help to place the protection of remote and mountainous areas high on the policy agenda.



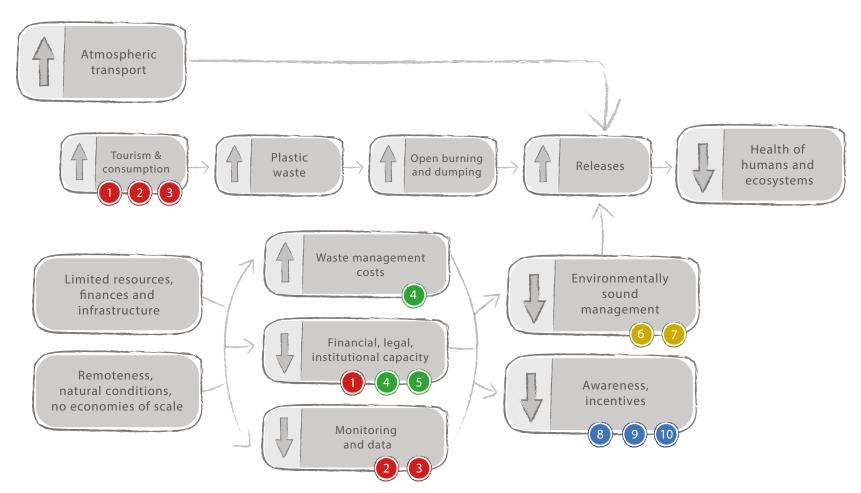
Garbage pit in the Sagarmatha National Park. © A. Byers

What proven interventions work to address plastic pollution?

Stories collected from around the world through a global survey 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:

Policy Financing Outreach

Drivers for Plastic Pollution in Remote and Mountainous Areas



Let us explore some examples (please refer to diagram on page 4):



The Government of Himachal Pradesh in India banned the use of some single-use items such as plastic carry bags and cutlery.

The Kilimanjaro National Park in Tanzania introduced a "Trash-in-trash-out" system, whereby rangers regularly weigh the rubbish of trekking groups. Evidence of dumping can result in the license of guides being revoked and/or a fine.

In the Khumbu region of Nepal – home to the Mount Everest – a garbage and clearance system declaration has been established. Every expedition group/climber is required to declare their equipment and food list, and submit a deposit. Upon return, each group/climber has to hand over all garbage to get a clearance certificate.

\$ Financing

A number of tools are available to cover or reduce waste management costs. These include extended producer responsibility, deposit-return schemes, fees, taxes, fiscal incentives, and fines.

In the Piemonte region of the Italian Alps, households are incentivized to separate their waste by receiving tax benefits.

In the Langtang region of Nepal, individuals are financially encouraged to bring back plastic bottles (each plastic bottle is compensated with 1 Nepalese rupee).

nfrastructure

Infrastructure is critical for the environmentally sound management of plastic waste. Smarter systems of collection and transport – including small intermediate stations - can help address limited economies of scale.

Many remote communities locate their waste facilities close to essential services, such as supermarkets or fuel stations, as was done in the remote Finnish Arctic district of Ylitornio.

In response to increasing amounts of plastic waste, lle-Alatau became the first Kazakh national nature park to organize a full-cycle infrastructure for waste management: 225 containers were installed across 30 different sites, and 2 trucks serve to transport the waste to Almaty.

Outreach

Education and awareness raising are equally critical for remote and mountainous communities seeking to reduce and manage plastic waste. Campaigns can be a successful means of raising awareness among tourists, mountaineers and the local population. Besides the physical benefit of cleaning up, such events can be a powerful force for showing solidarity and bringing people together. Sporting events can also be a great means for outreach and education.

The organisers of the Ultratrail Mont Blanc event decided to forego the use of disposable cutlery, cups and bowls at refreshment points, leading to at least 4,000 plastic bottles not being used.



A do not litter sign on Mount Kilimanjaro, Tanzania.

© iStock/ Robas

The Swiss Alpine Club initiated a campaign that included placement of posters in huts to encourage mountaineers to bring less things into the mountain and return waste to the valley. Waste bags are available in the mountain huts.

Since 2014, the "Keep Snow Clear" campaign has been supported by volunteers, guides, local tourism authorities and operators to remove litter from the Lenin Peak in the Pamir Mountains.

Action can be taken at all levels

You, as a policymaker, can make a difference by taking the next steps to protect remote and mountainous areas from plastic pollution.

Action can be taken:

- At the local level: by municipalities, the private sector, nature park administrations, guide and tourism associations, individuals etc.
- At the national level: through legal and institutional frameworks, financial mechanisms etc.
- At the **regional level**: through cross-border cooperation and regional instruments etc.
- At the global level: through international initiatives, partnerships, agreements, conventions etc.

Multilateral environmental agreements and partnerships that have a global scope can also have a local impact and help to protect remote and mountainous areas.

Global action has recently been taken with the adoption of the Basel Convention Plastic Waste Amendments (click here for a storymap on plastic waste and the Basel Convention), which specify categories of plastic waste and mixtures of plastic waste that are subject to the control procedures for transboundary movements under the Convention, as well as the provisions pertaining to waste minimization and environmentally sound management.

Moreover, the Stockholm Convention on Persistent Organic Pollutants (POPs) controls various POPs which have been used in plastics as additives, flame retardants, plasticizers or in the manufacture of fluoropolymers.



A waste collection bin within the Krka National Park, Croatia © iStock/ Moonstone Images.

Volunteers from the Diablerets section of the Swiss Alpine Club during a #cleanmountain clean up event at the Trienthütte, a mountain hut in Switzerland.





This brochure was produced by the Secretariat of the Basel, Rotterdam and Stockholm Conventions and GRID-Arendal, as part of the "Plastic Waste in Remote and Mountainous Areas" project, funded by the Government of Norway, the Government of France and the Norwegian Agency for Development Cooperation.

Proposed citation: Basel Convention Secretariat & GRID-Arendal (2022). *Plastic waste in remote and mountainous areas: a guide for policy makers*. GRID-Arendal. Published in May 2022.

Copyright © Secretariats of the Basel, Rotterdam, Stockholm (BRS) Conventions, May 2022.

Disclaimer

The views expressed in this publication are those of the authors and do not necessarily reflect the views of Secretariats of the Basel, Rotterdam and Stockholm (BRS) Conventions, the United Nations Environment Programme (UNEP), the United Nations (UN) or contributory organizations. The BRS Secretariat, UNEP or the UN do not accept responsibility for the accuracy or completeness of the contents and shall not be liable for any loss or damage that may be occasioned, directly or indirectly, through the use of, or reliance on, the contents of this publication. The designations employed and the presentation of the materials in this publication do not imply the expression of any opinion whatsoever on the part of the BRS Secretariat, UNEP or the UN, concerning the geo-political situations or the legal status of any country, territory, or city or area or their authorities, or concerning the delimitation of their frontiers or boundaries. Mention or representation of the names or logos or commercial products of companies does not imply their endorsement by the UN, UNEP and the BRS Secretariat.







A UNEP Partner



Norwegian Ministry of Foreign Affairs

Soutenu par



Liberté Égalité Fraternité

