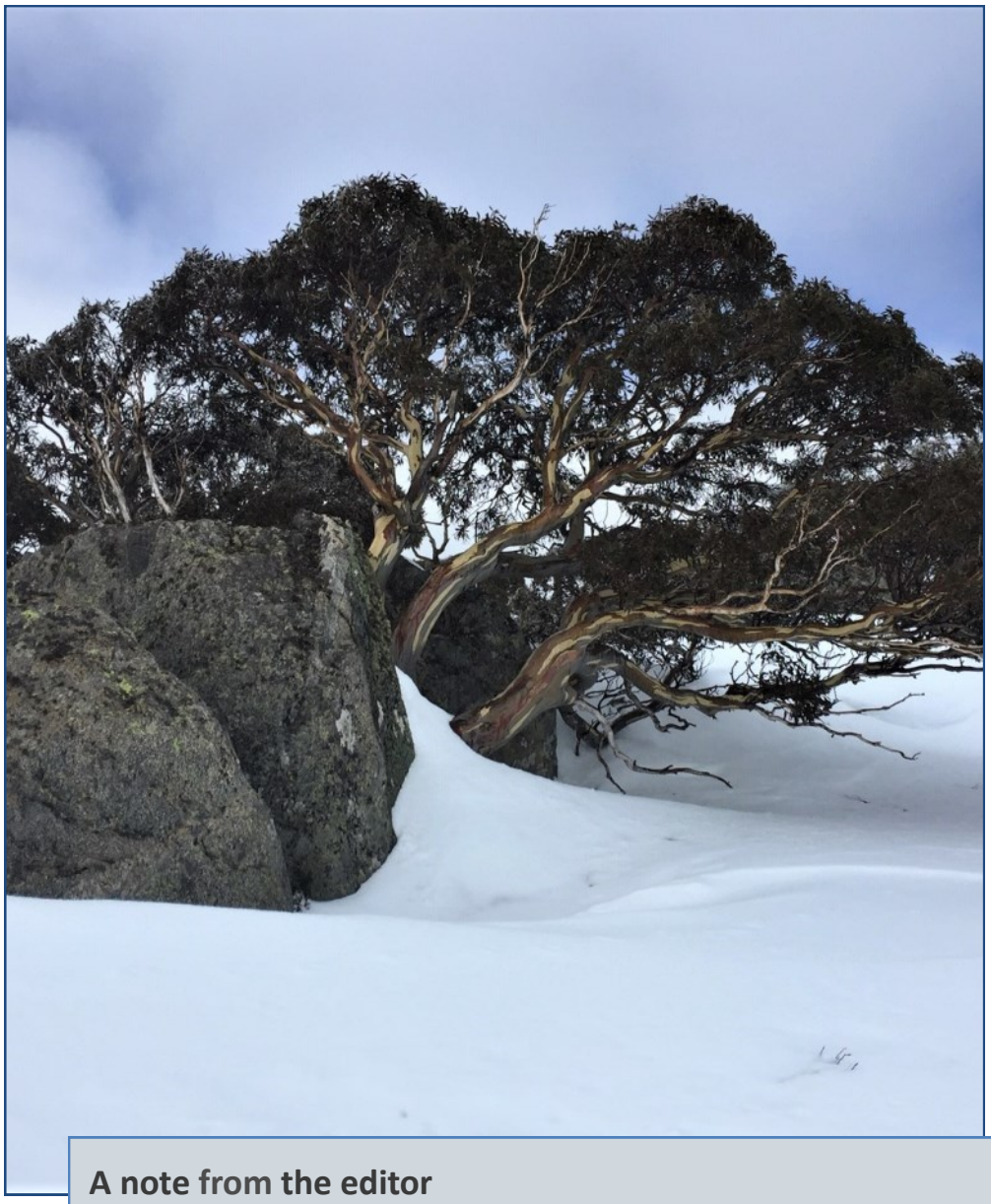
Mountain Protected Areas UPDATE

September 2022 # 115



In this issue

Snow gum *Eucalyptus pauciflora*
Kosciuszko NP Australian Alps
photo*: peopleinnature*

A note from the editor

Welcome to the 115th issue of the Mountain UPDATE.

Occasionally something occurs that makes you smile inside and that's just what is happening at the moment—Australians are 'voting' on their favourite native tree. What a light hearted awareness raising activity. Of course I voted for the Snow gum *Eucalyptus pauciflora.* But the beautiful high altitude Snow gum is in trouble! (we have featured this iconic tree before but you can read about it again in this Update)

And for those that are interested in mountains in other parts of the world there is plenty to catch up on in this edition, such as the Cross Chapter Paper on Mountains from MRI under publications. Please read on…

September 2022

Mountain Update is a quarterly newsletter distributed to members of the Mountain Protected Areas Network.

The Mountain Specialist Group acknowledges the First Peoples and Nations of the lands and waters where we live and work and we pay our respects to their Elders past, present and emerging. We acknowledge and respect the deep spiritual connection and the relationship they have to Country.

IUCN WCPA Mountain UPDATE # 115 Editor: Gillian Anderson peopleinnature@bigpond.com

From *People* and *Mountains* around the world:

America—south

Mapuche fight against hydro -electric plants for scared rivers: Chile

Victor Curin is a park ranger and leader in the Indigenous community. Photo: Rodrigo Abd

"Mapuche culture is very spiritual, very much of the heart. It's not random that we're still here."

From ABC News (blog) July 2022

Mist suddenly arose from the Truful Truful River as it flowed below the snow-covered Llaima volcano, and Victor Curin smiled at the sun-dappled water spray.

A leader in one of the Indigenous communities by the river's shores in the Chilean Andes, Mr Curin took it as a sign that the waterfall's ngen — its owner and protector spirit — approved of his visit and prayer that mid-July morning.

"Nature always tells you something, always answers," said Mr Curin, a park ranger in Conguillio National Park, at the river's headwaters.

"Human beings feel superior to the space where they go, but for us Mapuche, I belong to the earth, the earth doesn't belong to me."

Key points:

- Plans for hydro-electric plants have been temporarily blocked near some sacred sites in Chile
- In September Chileans will vote on a controversial constitution spotlighting Indigenous rights and land restitution
- The battle between foreign energy companies and the local Indigenous community started a decade ago

Chile's largest Indigenous group fears losing sacred sites and traditions to hydroelectric plants and other projects they say desecrate the land. Photo: Rodrigo Abd

Flowing off the southern side of Volcan Llaima (3125 m) the crystal clear Truful Truful waters cascade through lava fields at a breakneck pace while the surrounding snow peaks are fringed with Araucaria trees.

Sandwiched between two National Parks Conguillio and China Muerte the river name is derived from a Mapuche word.

Road of death comes back to life: Bolivia

Adapted from WSC Bolivia, and Ecología en Bolivia Ecología en Bolivia vol.57 no.1 La Paz abr. August 2022

A new WCS study finds that the old "road of death" in the Yungas has become an amazing refuge for wildlife now that vehicular traffic has decreased by 90%, thanks to a new much safer route.

The old road was opened in 1930 and over the years it became one of the busiest routes in the country since it was the only land access between the La Paz and the north of Bolivia. The extreme nature of the road and the environment converged with the high vehicular traffic in a deadly recipe for drivers and passengers. It is estimated that between 1999 and 2003, an average of 200 annual accidents occurred, resulting in 300 deaths per year.

Everything changed in 2007 with the construction of the Cotapata-Santa Bárbara highway. This has made things much safer for humans. As traffic on the road plummeted by 90%, deaths and accidents fell as well. The “Death Road” took on a second life as a haven for wildlife, including vulnerable and endangered species.

Now people mainly use the path for activities related to ecotourism like mountain biking and bird watching; another transformation.

"This study highlights the resilience of wildlife and biodiversity and its capacity to recover if allowed," said Robert Wallace, of WSC and study co-author. The transformation of the "Death Road" shows what can happen when drivers largely ditch a route, but WCS is also trying to make Bolivia’s still-trafficked roads safer for animals. In Bolivia, WCS is working with the Bolivian Roads Authority to assist them in the development of policies and techniques with which to try and minimize the impact of new roads.

To document wildlife changes, the researchers set up 35 camera traps along 12 kilometers on and around the road and in a settlement in the park called Azucarani. During 2016, the researchers managed 515.43 traps per night for a total of 14,185 photographs.

a. Leopardus tigrinus
b. Neogale frenata
c. Cuniculus taczanowskii y
d. Mazama chunyi

Ed Note About 25 years ago I bused (i.e. slipped down) this road with my husband and young daughter. I will never forget the narrow muddy road winding through waterfalls and around torturous bends above massive drops…at the time we did not know it was known as the most dangerous road in the world! Now the road of death is a road of life.

America—north

Death Valley National Park: USA

- cougars and donkeys

Adapted from Science News August 2022 First photos of cougars killing donkeys in Death Valley

Large and full of attitude, feral donkeys are vegetation-destroying equids stealing resources from native sheep and tortoises, poop in precious spring water, and cost many a park manager a good night's sleep.

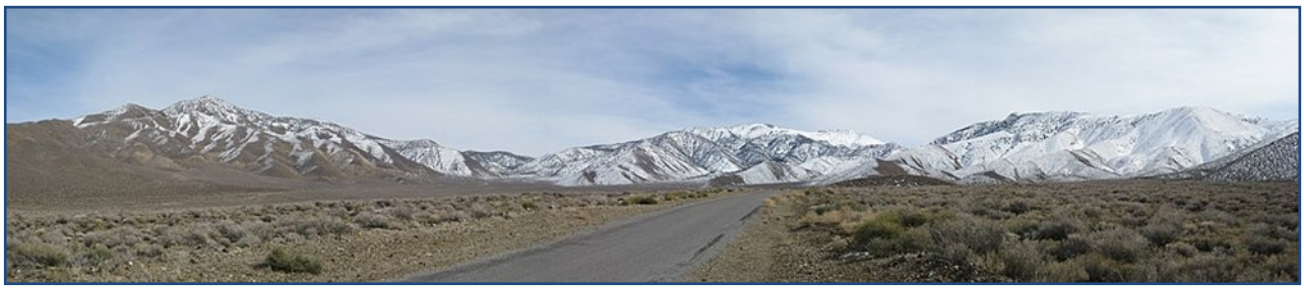
They aren't unstoppable, however. In **Death Valley National Park**, researchers have captured the first photographic evidence of donkeys falling prey to the claws of a native predator: the cougar. The relationship is shaping the area's wetlands, the team argues, and has raised questions about the management of wild equids going forward.

"This is cool stuff," says wildlife biologist Kate Schoenecker of the U.S. Geological Survey who studies cougar predation on wild horses but was not involved with the research. "It's helping us understand the effect these interactions with [wild equids] have on the North American landscape."

The evidence that cougars hunt donkeys and influence their behaviour is strong, says Mark Boyce, an ecologist at the University of Alberta, Edmonton, who has worked with cougars and trophic cascades. But he doesn't think this knowledge should affect burro management. "This is an invasive exotic species," he says. "It would be a serious mistake to conclude that because cougars kill donkeys, we do not need to remove donkeys."

Donkeys, like horses, are a domesticated species, so they've been artificially selected over thousands of years to reproduce more often than untamed herbivores such as bighorn sheep. Cougar predation isn't enough to manage them.

A management analyst at Death Valley National Park, says the new study won't change the park's goal of removing donkeys. Any ecological boons the burros provide, such as clearing unwanted vegetation, can also be done by the park staff. But the new study is an exciting starting point for future research and continues the often-difficult conversation on controlling feral domesticated animals.



Telescope and Wildrose Peaks, Death Valley NP

Death Valley National Park is the largest, lowest, hottest and driest national park in the contiguous United States protecting the northwest corner of the Mojave Desert and its diverse environment of salt-flats, sand dunes, valleys, canyons and mountains. The highest range within the park is the Panamint Range, with Telescope Peak being its highest point at 3,368 m.

The Death Valley region is a transitional zone and consists of five mountain ranges removed from the Pacific Ocean. Three of these are significant barriers: the Sierra Nevada, the Argus Range, and the Panamint Range. Air masses tend to lose moisture as they are forced up over mountain ranges, in a rain shadow effect.

Africa

Farmer Managed Natural Regeneration: Niger, Tanzania...

ED Note: Recently I attended a local book launch for *The Forest Underground*, by Tony Rinaudo. A fascinating story from Africa about hope and farmer/community led ecosystem regeneration.

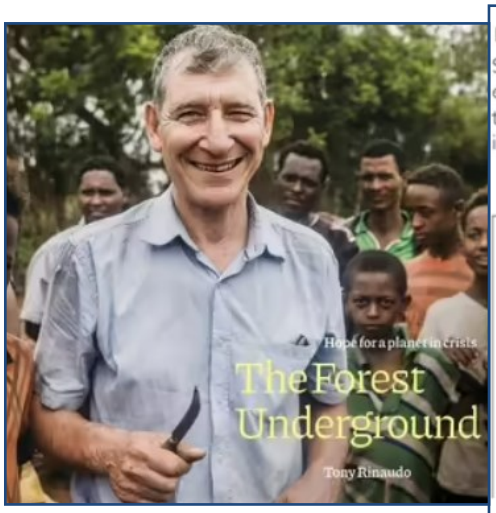
Tony Rinaudo is an Australian agronomist who was given the Right Livelihood Award in 2018 for demonstrating how drylands can be re-greened on a large scale at minimal cost, making livelihood improvements like agroforestry and honey production possible for millions of people.

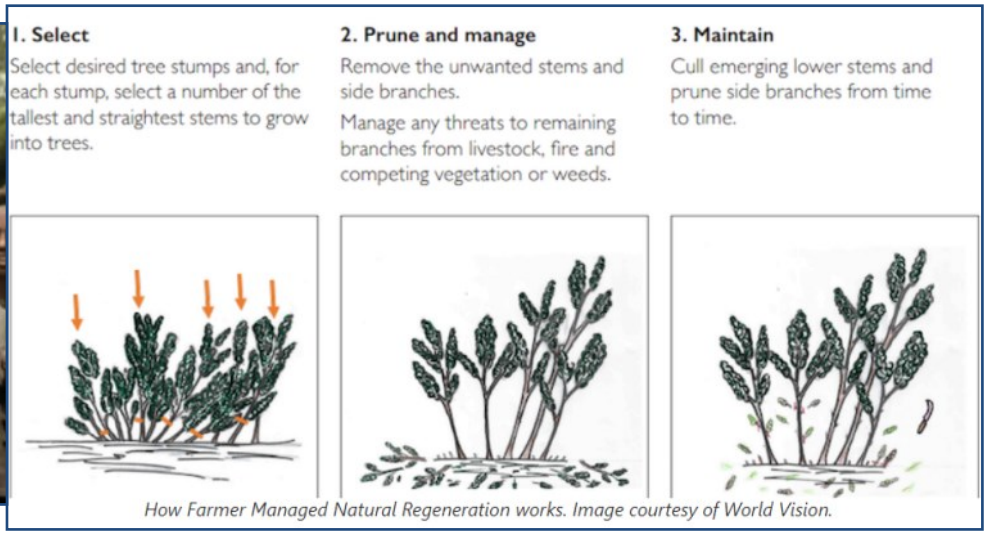
After spinning his wheels for years while managing a failing reforestation project in Niger, a perhaps divine inspiration spurred him to look more closely at the land he was trying to plant tree seedlings in: what he saw was a former forest just waiting to regrow itself.

From this seed was born Farmer Managed Natural Regeneration (FMNR), an elegantly simple approach to re-greening degraded lands from tree stumps and seed stocks still alive in degraded soils, which only need a farmer's encouragement to sprout forth again.

- Farmer Managed Natural Regeneration (FMNR) is a community-led approach to naturally restoring degraded landscapes and ecosystems, and it's credited with reforesting many millions of hectares of degraded land, globally.
- Though FMNR has literally sprouted in many places over time, Tony Rinaudo is the best known and most vocal proponent of this technique that's reforested an estimated six million hectares of Niger alone.
- Encouraging cleared forests to resprout makes resilient, climate-positive agroecology practices like agroforestry possible, as crops grown in the cooling shade of trees also benefit from improved soil health and water levels.

Results of Farmer Natural Regeneration in Luhundwa, Tanzania, from 2019 – 2022. Photo: World Vision





How Farmer Managed Natural Regeneration works. Image courtesy of World Vision.

Oceania—Australia

Drought, fires and beetles: a climate-related trifecta threatening the iconic Australian Snow gums

ABC Science August 2022 Read the whole article Here

Snow gums (*Eucalyptus pauciflora*) thrive in cooler, wetter conditions. But as temperatures warm, these iconic trees are being threatened by drought, fire and disease.

Fire

Even though fire takes out the crowns of snow gums, established trees can resprout from an underground lignotuber that stores carbohydrates. But, as the frequency and intensity of fires roaring up from the foothills increases, older more iconic trees are less likely to survive. While the trees can bounce back in time after one fire, studies show they are less likely to resprout, and new seedlings are less likely to grow, after a second, and particularly a third fire.

This has happened in a number of places across the Australian Alps.

The Longihorn Beetle—a native wood borer out of balance with nature

While research is ongoing, Professor Brookhouse says the overwhelming evidence suggests these wood borers thrive when water in the atmosphere drops causing the bark to dry out.

"Much like a moat around a castle, it's that live wet tissue that surrounds the tree bowl that keeps it alive," he explains. The tissue also keeps fungi and insects out and once that protection weakens, the tree's in real trouble.

Action?

One of those responses is to trial planting lower sub-species of snow gums that are not currently affected by the insect into the ranges of the higher elevation sub-species.

Trees that live at higher elevations leave the stomata on their leaves open to capture as much CO2 as they can during the freezing winters. This also means they may lose more water during summer, making them more vulnerable to attack.

100 participants gathered last April at the National Eucalypt Dieback Symposium in Canberra so that researchers, land holders and managers, volunteers and Traditional Custodians could share what they know in workshops and discussion sessions: on control and management options; policy considerations; restoration; field studies and community action.

Snow gum dieback (due to beetle attack) Kosciuszko NP. In parts the landscape looks like a fire has swept through the area, rather than Longihorn beetle attack. Photo: M. Brookhouse

Snow gum damage due to fire Mt Buffalo NP Photo: *peopleinnature*

Europe

Alps under threat of global warming: the Marmolada tragedy: Italy

From ***Patrizia Rossi***, Mountain SG Committee August 2022

The Marmolada, known as the Queen of the Dolomites, is a mountain group in the eastern Alps, in northern Italy. It is the highest of the Dolomites, reaching the maximum altitude with Punta Penia (3,343 m).

It is mainly composed of very compact limestone derived from coral reefs (Marmolada limestone), with inserts of volcanic material, and the presence of the largest glacier of the Dolomites, the Marmolada glacier.

On 3 July 2022, a huge serac 200 metres wide and 70 high broke away from this glacier, overwhelming 19 hikers (11 died) who at that time were traveling the normal route to the Punta Penia summit. The large-scale collapse of the serac led to one of the most serious accidents in the Alps in recent decades.

Most of the victims were experienced climbers or in any case with adequate preparation for that type of excursion. It is undeniable that the greater fragility of the mountains due to global warming, combined with mass tourism often unaware of the risks, raises the danger rate of the activities at high altitudes and requires continuous monitoring to prevent similar misfortunes from happening again.

Many representatives of scientific institutions recalled how exceptional events such as the one that occurred on the Marmolada are becoming more and more frequent in the Alps, and that today more than ever immediate and effective measures must be taken to combat climate change.

"In an exceptional season like this, - said the president of the Province of Trento - it is appropriate to think of danger warning systems such as red flags on glaciers under stress, which can help hikers to make more informed choices".

Glaciologists and climatologists agree that global warming, and in particular the very high temperatures recorded in Northern Italy in June, are responsible for the detachment on the Marmolada: "The hypothesis is that the water created by the melting of the ice - explained Mauro Gaddo, climatologist and director of Meteo Trentino - has infiltrated the crevasses of the glacier, has penetrated inside and, having no escape routes, has lubricated the rock where it was "glued" to the ice, to the point of causing the serac

Police were called to block the path to Marmolada, an extremely popular and easily accessible mountain.

Taken from ICIMOD News August / May 2022

Glacial Lake Outburst Floods (GLOFs) are one of the most serious natural hazards in mountain regions and with GLOFs becoming frequent due to climate warming and with increasing development of roads, hydropower stations, and settlements, there is also a larger impact of these outburst floods downstream. Recently this has become all too obvious.

As the risks of GLOFs has increased in the Upper Koshi Basin region, it is imperative that GLOF hazards lakes are identified, assessed, and monitored. The WeACT project explored the potential of using the latest remote sensing and dam-break flood modelling technologies to develop an innovative web-based GLOF hazard assessment that could improve community flood preparedness and resilience in Nepal.

One of the key learnings from the project was the importance of placing community participation at the centre of the activities. The project aimed to integrate local knowledge, and foster joint engagement of different institutions for mapping, assessment, and mitigation/adaptation plan development. The workshop also had participants from various sectors to help identify and discuss how technologies such as the web-based platforms can be integrated with communities to enhance their resilience against hazards like GLOFs.

Another related ICIMOD project: Studying Lower Barun lake, the abode of Nhepu

It is one thing to look at satellite images that provide a sweeping view of a glacial lake expanding over time, but it is an entirely different experience to visit the lake and get a ground level perspective. In September 2021, a joint research team from ICIMOD and Kathmandu University carried out a physical investigation of the expanding Lower Barun lake, its dam, and surroundings.

Barun lake and Lower Barun lake are of great significance in the Makalu region. Mt Makalu is the world's fifth highest mountain

Undertaking research while respecting local traditions

The task at hand for the research team was to survey the lake's surface and surroundings using a drone, conduct a bathymetry survey to measure the depth, perform a geophysical survey to understand the internal moraine complex, and survey the morphological features in the surroundings to understand potential impact areas to the lake and its dam. These activities required walking around the lake and taking a boat to its centre. Perceiving some discomfort with planned activity, the team assured the local people that they would not disturb the lake's sanctity and adhere to all local customs, including seeking the necessary permission from the lake's guardian deity.

Mountain communities across the HKH revere mountains and lakes as the abodes of gods and goddesses. For the communities living downstream from the Lower Barun lake, the lake is revered as the abode of their guardian deity, Nhepu. The local people believe that Nhepu protects them from disease, famine and disaster, and communities perform rituals to seek blessings, particularly when starting important activities. Many lakes at high altitudes have remained pristine due to such beliefs and traditions.

Central Asia & Himalayas

*Protected and **conserved** areas in practice: Northern Pakistan*

Agricultural village and highway along the Chitral River in Upper Chitral district, Khyber Pakhtunkhwa (KPK) province, Pakistan (Hindu Kush)

Photos: Marc Foggin

From Marc Foggin Mountain SG Committee August 2022

The Karakoram, Hindukush and Pamir mountains all converge in northern Pakistan, leading to extraordinary geological landscapes as well as interdependent socio-cultural and natural environments. Geopolitics has artificially divided some of these rich landscapes and climate change is affecting all aspects of life – with an increased melting of glaciers and snowpack leading to mudslides, which affect especially road infrastructures and regional services.

The current heavy monsoons rains are now greatly compounding the destruction of roads and homes; mountain hazards are translating to widespread devastation with huge impacts.

In this context, the role of protected areas – and indeed, the broader notion of *protected and conserved areas*, which importantly includes customary/informal *de facto* conserved areas governed and (co-)managed by local mountain communities – is paramount. A rich network of official protected areas (e.g. national parks) is already present in the north of Pakistan.

Less known but exceedingly important are the community conserved areas, or CCAs, large in number and, furthermore, after several decades of existence and operation also demonstrably successful in protecting wildlife and wider socioecological landscapes. These CCAs are for the most part "community hunting conservancies" wherein the local communities are both guardians and stewards of particular endangered wildlife species such as ibex, and the key beneficiaries of financial returns from controlled hunting, with 80% of hunting permit fees coming to the community for use on locally decided projects.

A more detailed review of the varied conservation successes and challenges within this globally significant high mountain region is planned over the coming months.

Community engagement and partnerships with national parks, on the one hand, and *locally-driven conservation and development initiatives* (such as those organized by the community-led Shimshal Nature Trust (SNT) and in many other villages across Gilgit-Baltistan (GB) and in the Chitral district of Khyber Pakhtunkhwa (KPK)), on the other hand, are showing evidence of many local successes – good models of conservation that could be extended elsewhere, e.g. in the mountains of Central Asia.

However, a range of challenges still exist…

Hiking along a mountain path high above the 57 km long Batura Glacier in Hunza Gojal district, Gilgit Baltistan (GB) province, Pakistan (Karakoram)

Herders and flock of sheep from multiple families in the Shimshal community going to Lupghar summer pastures (c. 4000 m), Hunza Gojal, GB, Pakistan

Central Asia & Himalayas

Extreme climate events more threatening than terrorism, Pakistan:India

Calls for international assistance as millions displaced in Pakistan floods

Adapted from Washington Post July 2022 Read the whole article Here Opinion by Hamid Mir

Extreme climate events have become a regular phenomenon in South Asia. We are facing weather-related problems in almost all parts of Pakistan. Flooding has become almost routine in some areas; others are plagued by drought. Glaciers are melting fast, resulting in reduced water flow in rivers. Farming is suffering as a result, and the decline in agricultural productivity is creating food insecurity. All this is accelerating migration from rural areas to cities.

Deforestation contributes to rising heat. We need to reduce the high temperatures melting our glaciers.

Pakistan has more glaciers than almost any country on Earth. Urgent action is required to protect these glaciers to mitigate the threat of flooding from the mountains to the plains.

It is unfortunate that Pakistan and India are locked in a conflict on the Siachen glacier, the highest battleground on Earth.

By deploying their armies on the roof of the world, they are contributing to the meltdown of the glacier.
They immediately need to demilitarize Siachen in order to save its enormous expanse of ice.

The Siachen glacier is known as the highest battlefield in the world BBC 2019

Pakistan and India have fought each other several times over the decades, but this summer they are facing a common foe that has killed many people and displaced millions of others: climate change. Now the two countries' armies are struggling to carry out rescue operations in flood-affected areas.

From ABC News 27 August 2022

Flash floods triggered by heavy monsoon rains across much of Pakistan have killed over 1,000 people and injured and displaced thousands more since mid-June.

The monsoon season, which began earlier than normal this year, has lashed Pakistan and rescuers have struggled to evacuate thousands of marooned people from flood-hit areas. Record flooding has inundated spots all along the Indus River, which runs the length of the country. The crisis forced the government to declare a state of emergency.

In northwestern Khyber Pakhtunkhwa province, flooding destroyed the gates of a major water control system at the Swat River. The picturesque Kalam Valley is one of the areas affected by the rains and flooding. Waters from overflowing rivers swept away entire buildings.

Thousands whose homes were swept away now live in tents, miles away from their inundated villages and towns, after being rescued by soldiers, local disaster workers and volunteers.

Rahim Hasan, 52, said he lost his home and two children "I have nothing left in life. My home was destroyed and my children swept away by gushing water and now we are lying helpless on this road under open sky where soldiers are feeding us"

Scree and Talus

Threatened Vulture Species

From Mongabay August 2022

With Nepal's newest international airport set to open at the start of 2023, there's still no concrete plan to relocate a nearby waste landfill site. The site attracts a host of birds, including several threatened vulture species, and conservationists warn there's a high risk of bird strikes once flights begin.

The Pokhara Regional International Airport in Nepal is scheduled to start operations from January 2023. Photo: Civil Aviation Authority of Nepal

They also say it's too late to relocate the landfill now, with the vultures expected to continue returning to the site for months or even years to come. The civil aviation authority says it will take measures to keep the birds away from the airport and out of danger, including with the use of lasers, reflectors and loud noises.

A volcano is erupting again in Iceland. Is climate change causing more eruptions?

The Conversation August 2022

The Fagradalsfjall volcano in Iceland began erupting again recently after eight months of slumber – so far without any adverse impacts on people or air traffic.

The eruption was expected. It's in a seismically active (uninhabited) area, and came after several days of earthquake activity close to Earth's surface. It's hard to say how long it will continue, although an eruption in the same area last year lasted about six months.

Climate change is causing the widespread warming of our land, oceans and atmosphere. Apart from this, it also has the potential to increase volcanic activity, affect the size of eruptions, and alter the "cooling effect" that follows volcanic eruptions.

The intense ash-producing eruption of Iceland's Eyjafjallajökull volcano in 2010 was the result of an explosive interaction between hot magma and cold glacial melt water (photo L). Based on what we know from the past, an increase in Iceland's melting ice could lead to larger and more frequent volcanic eruptions.

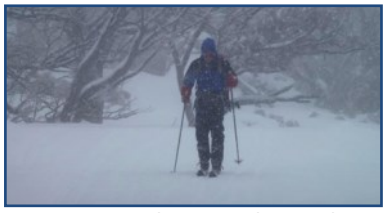
K2 The Guardian July 2022

An Australian and a Canadian climber have been found dead on K2, with the world's second-highest mountain in Pakistan claiming at least three lives in recent weeks. The ABC is reporting: "Eakin was an experienced climber who had previously trekked K2, in Pakistan, where five of the world's 14 peaks over 8,000 metres are located."

Fox Baiting on Skis Australian Alps E-Blast #83 - September 2022

One person on skis… with a shovel, bait, and 11 years experience. This is how foxes are controlled during winter in Kosciuszko National Park (Australian Alps) to reduce the impact of introduced predators on threatened native species.

It's all about helping vulnerable native species which they definitely need given they're also being stressed by factors like climate change and fire.



Keeping the fox baits fresh often means working in challenging weather

Postcards of Support From Feral Herald July 2022

An ABC special in February on the ecological damage of feral horses in Kosciuszko National Park (KNP) highlighted the shocking abuse directed towards the park's rangers and staff.

Australians from all over the country were moved by what they saw, and facilitated by the Reclaim Kosci campaign , 700 letters of support were delivered to the KNP rangers.

Photo: Reclaim Kosci

Alpine snow loss and vegetation gain Science News June 2022

Mountains are experiencing more dramatic warming than lower elevations, with increasing snowmelt and changing patterns of snowfall. Rumpf et al. examined how the past four decades of climate change have influenced snow cover and vegetation productivity in the European Alps.
Using remote sensing data, they found that snow cover declined significantly, but so far this has been over less than 10% of the study region. Vegetation productivity has increased across more than two-thirds of the area above the tree line, with potential ecological and climate impacts. Feedbacks between snow and vegetation will likely lead to even more pronounced changes in the future. *Science*, abn6697, p. 1119

Alpine regions above the tree line, such as this site in Tyrol, Austria, are experiencing a mixture of higher productivity and reduced snow cover due to climate change. Photo: Alamy Stock

Yellow Crazy Ants...what? From Invasive Species Council July 2022

Australian political parties have pledged millions in funding to eradicate introduced yellow crazy ants from around Townsville and Cairns .

But the situation is worse than initially thought. Yellow crazy ants have spread to within 3 km of Bowling Green National Park.

Inside that park lies Mount Elliot, one of the most important sites for biodiversity in northern Queensland, hosting a menagerie of species like the Mount Elliot nursery frog and Mount Elliot sun skink that are found nowhere else on Earth.

If the yellow crazy ants got into these habitats, we'd likely witness the extinction of a number of ground dwelling native animals.

Mount Elliot consists of two rugged mountain groups, one dominated by Mount Elliot and the other by Saddle Mountain (once known as Little Elliot). These granite masses rise abruptly from the coastal plain to a ridge with the peak of Mount Elliot rising to 1210m and that of Sharp Elliot reaching 1183m. Qld NPS

Bowling Green Bay NP Queensland, Australia
photo: weareexplorers.com

Age of intense fire and vulnerable forests Science News July 14, 2022 University of California

The State of California is banking on its forests to help reduce planet-warming carbon dioxide in the atmosphere. But that element of the state's climate-change solution arsenal may be in jeopardy, as new research from the University of California reports that trees in California's mountain ranges and open spaces are dying from wildfires and other pressures -- and fewer new trees are filling the void.

It's the first time that researchers have been able to measure tree population declines in California, and attribute the changes to such pressures as wildfires, drought stress and logging.

The rate and scale of decline varies across the state. The 8.8 percent die-off in the Sierra Nevada coincided with a severe drought, followed by some of the worst wildfires in the state's history, including the Creek Fire in 2020. Even in the north high fire years in 2018, 2020 and 2021 have taken a visible toll.

The Lynx Dave Werntz, Conservation Northwest

Colville Confederated Tribes and the Okanagan Nation Alliance are Conservation Northwest partners in an effort to restore a healthy lynx population to the Colville Indian Reservation at the southern end of the Kettle River Range (Washington State, USA). It has been more than 40 years since lynx were nearly extirpated by trapping in the Kettles. Aims are to reverse that mistake by giving the lynx a lift, one at a time, 10 per year for five years. This winter was the first, and we have already caught and released nine healthy, beautiful lynx.

A male lynx, captured in British Columbia, is released on the Confederated Tribes of the Colville Reservation 2022

Tools, Publications and other Media

Cross Paper Chapter on Mountains

From Mountain Research Institute (MRI) August 2022

MRI is pleased to share that the IPCC has just published the final report, including their **Cross-Chapter Paper on Mountains** , which synthesizes mountain-specific evidence and assessments from across all topics and regions covered in AR6 – and for which they have been honoured and proud to serve as Co-Leads and Lead Authors.

This is the first time in almost 30 years that 'mountains', broadly speaking, have a dedicated space in the IPCC reports.

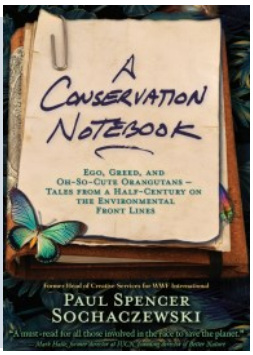
Vanishing glaciers, changes in water availability, increasing wildfires, decreasing quality and quantity of ecosystem products and services – the chapter's evidence is clear – climate change impacts have serious consequences in mountain regions, with people and ecosystems least able to cope being the most vulnerable. To avoid mounting losses, urgent, accelerated, global action is needed to adapt to climate change, at the same time as making rapid, deep cuts in greenhouse gas emissions. Without this effort, we will miss the rapidly closing window to secure a liveable future.

Toala Olivares visited and photographed 13 volcanoes, looking at the relationships between them and local inhabitants. In his new book "Living with Volcanoes" (Lannoo Publishers), he focuses his lens on these powerful forces of nature and the impact they have on their neighbours.

Bali volcano, Cris Toala Olivares

From Paul Spencer Sochaczewski www.sochaczewski.com

A Conservation Notebook, my memoir of 50+ years working in nature conservation. The true stories cover ecological battlegrounds I've visited where nature is the prize, where brave people with good intentions confront avaricious people riddled with ego and greed. The scope is global: From crowded UN conference rooms occupied by pontificating bureaucrats to isolated farms in Bhutan where people lives isolated, but rich lives. Warning. This book contains no finger-wagging lectures, not too many depressing statistics, and no easy solutions. It does, however, contain 112 photos and illustrations and mountain related chapters.



"American Scar": The Environmental Tragedy of the Border Wall: The New Yorker Documentary https://youtu.be/Cx71C4iguuk

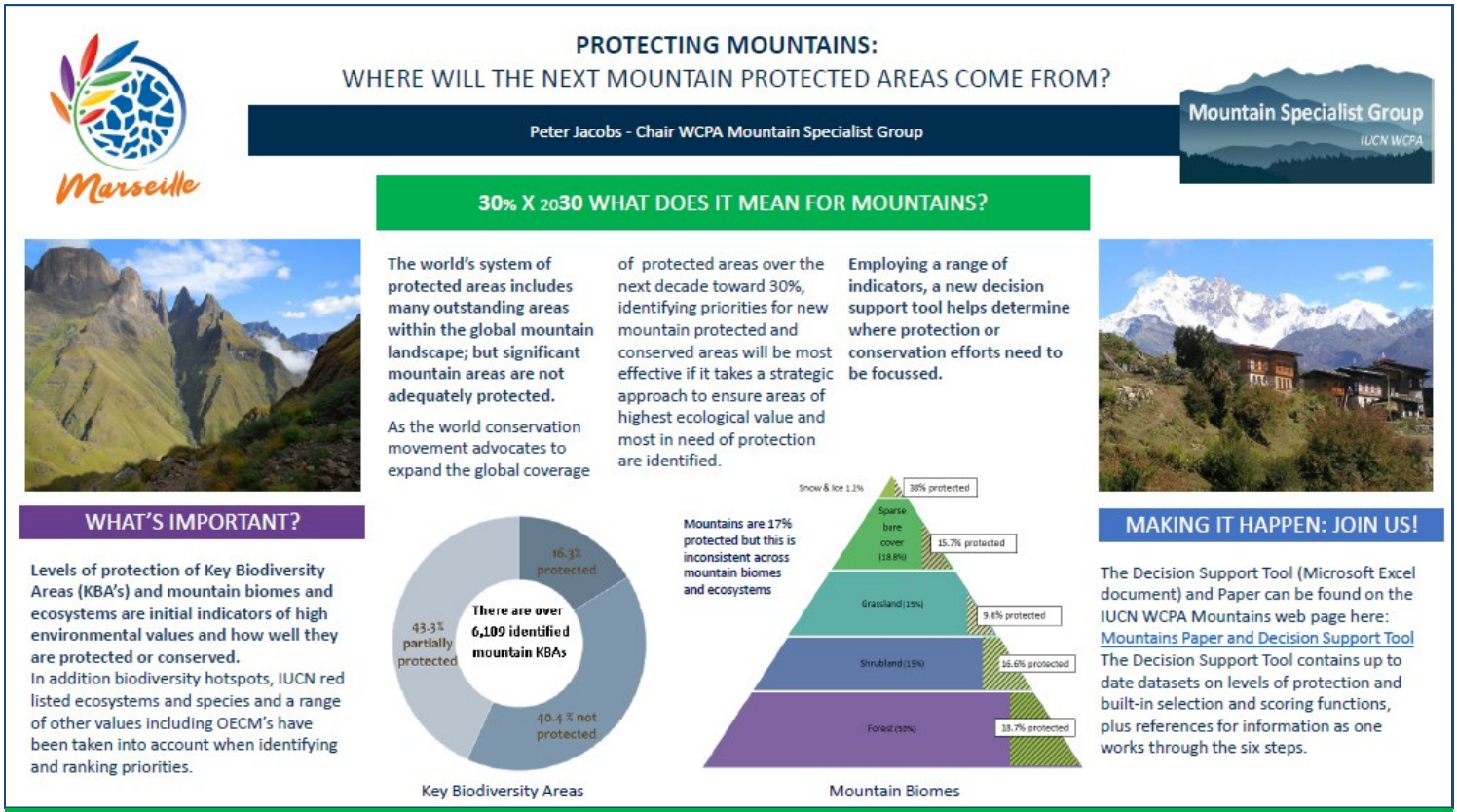
This is a follow up on the Border Wall article in the last Mountain Update #114—if you have not seen this please watch it!

Unexplored From Martin Hawes https://martinhawes.info/unexplored.html

I'm delighted to announce the publication of my new book UNEXPLORED, an art-quality hardcover book that showcases 75 dramatic photographs of Tasmania's wilderness and other wild places. I took many of these photos on expeditions to some of the least-known and least-visited (in recorded history) parts of the island.

In brief passages of text, I describe experiences and impressions from my more than fifty years of bushwalking in Tasmania, and offer thoughts on the nature of the 'wilderness experience'.

Looking for Mountain Research? Try Global Mountain Biodiversity Assessment (GMBA), Mountain Research Initiative, ICIMOD and Mountain Partnership—to mention a just few great sources of mountain information!



Please go to https://youtu.be/_NuY89TWscI a short video of Protecting Mountains IUCN WCC presentation by *Peter Jacobs* (Chair Mountain Specialist Group).

Some events of interest

Events - MRI - Mountain Research Initiative

Mountain Partnerships Events **Here**

The International Mountain Conference 11-15 September - https://www.imc2022.info/ Innsbruck, Austria

Moving Mountains Summit 23— 25 September Basalt Colorado USA

Mountains Matter: Ideas to Action: Building Alliances for Resilient Mountains Sixth Global Meeting of the Mountain Partnership, Aspen, **26-29 September**. Opportunity to celebrate the 20th anniversary of the Mountain Partnership and the "International Year of Sustainable Mountain Development 2022 https://www.mountainsmatteraspen.com/home-page

World Trails Conference 2022

More details: **https://worldtrailsconference.org/**

WORLD TRAILS NETWORK | WORLD TRAILS CONFERENCE SKIATHOS Greece 2022 September 26-30

Global Mountain Sustainability Forum online, **3-4 October** Organised by Eurac. https://gms-forum.eurac.edu

Connecting People, Connecting Nature 18-19 October Brisbane, Australia The Great Eastern Ranges is hosting a high-level connectivity conservation conference—it will take the focus from global context to local action, bringing together industry leaders with on-ground practitioners, researchers, traditional owners, community groups, NGOs and government agencies. Connecting People Connecting Nature

Cryosphere and Related Hazards in High Mountain Asia in a Changing Climate 01—04 November Almaty, Kazakhstan

The Cryosphere Initiative, ICIMOD is collaborating with UNESCO, Aga Khan Agency for Habitat (AKAH), the Government of Kazakhstan, and the Central Asian Regional Glaciological Centre in Almaty.

Global Change and Sustainability Issues in Mountain Areas 20th Swiss Geoscience Meeting Symposium **19 November** University of Lausanne, Switzerland

The Mediterranean Mountain National Parks Conservation Issues and Sustainable Development Perspectives

08— 10 December University of Marrakech, Morocco pnmed2022@uca.ac.ma

Important links

IUCN World Commission on Protected Areas for an outline of the role of Mountain Specialist Group WCPA Mountain Specialist Group NB: the IUCN WCPA web site is in the process of being upgraded.

Please go to https://youtu.be/_NuY89TWscI a short video of Protecting Mountains IUCN WCC presentation by *Peter Jacobs* (Chair Mountain Specialist Group).

The Mountain Partnership is a United Nations voluntary alliance of partners dedicated to improving the lives of mountain peoples and protecting mountain environments around the world. Mountain Partnership

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While Mountain Network members can choose not to be WCPA members and still be involved and receive the Mountain UPDATE, the WCPA Chair, and Mountain Specialist Group Executive and would like to encourage all to become WCPA members. This helps to secure good governance and management of the WCPA and the Mountains Group and enlightens all members to the wider activities of the WCPA.

To learn more about WCPA membership go to: WCPA Get Involved
For any relevant mountain protected area news, please email me (Gill) on peopleinnature@bigpond.com

I look forward to hearing from you soon!