

Voices from the Himalaya





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**"VOICES FROM THE HIMALAYA"
HIMALAYAN ENVIRONMENT TRUST
NEWSLETTER
OCTOBER 2013 -VOLUME 14**

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The Indian Himalaya, Needs a Clean Up !!

During our 55 days long trek through Kumaon and Garhwal Himalaya in 2013, I have encountered earthbound problem – trashes left by the people everywhere on our 500 km long path. No matter whether it was Munsiyari, Khuilya, Namik, Pindhari valley, Sunderdhunga and Gaumukh, we had mixed feelings – beauty of Himalaya covered by garbage. Usually the problem disappeared above 4000 meters above sea level shrouded by the snow. The litter is produced by everybody – villagers, trekking tourists, mule porters, and pilgrims. I was surprised that none of those groups followed simple rule – take your garbage with you, to the lowlands. Unfortunately it's much simpler just to throw it away. No matter whether it was villager's house or the tourist hut, the owners of the places leave the trash next door. Surprisingly the trash path left by

the porters helped us several times when we get lost amid the bogyals. I hope next time I visit Indian Himalaya, the amount of the garbage will be reduced.

There is a similar problem existing in my home country, Poland. Polish Tatra Mountains, the highest (2499 meters above sea level) and definitely one of the most remarkable mountain ranges in Poland, are overcrowded. Over 3 million tourists have visited the mountains in 2012. That is around 8% of country's population. In most busy summer day, 14 August 2011, over 40 thousand tourists have crossed Polish Tatra's National Park borders. The human density causes a lot of problems as Polish part of the mountains accounts only for 175 square kilometers.



A family photograph on our 55 day trek across Kumaon and Garhwal, in the Indian Himalaya, during the summer of 2013.



The pollution level on the trails and meadows based on our observation was quite staggering and this issue needs immediate attention.

One of the problems is the amount of garbage left by the tourists – obviously the litter follows the tourist on their way to the top. It's estimated that 1000 tourists leave approximately 1 cubic meter of garbage annually. Due to restricted policy of park authorities there are no waste bins located on tourist paths (the smell of waste shall not attract wild animals). This makes the less-aware tourist to leave the trash everywhere on their way, especially nearby tourist huts. Hence Polish Tatra's National Park introduced several public actions in order to clean up the mountains. In 2013 the volunteers are collecting trashes from tourist paths on weekly basis. The park is

also introducing more pro-active solution – “Pick-up the garbage” action encourages people to bring down their own wastes. Tourists can pick up eco-friendly polythene bag at park's counter, fill it with garbage and return in on the way back, the bags are sponsored by one of the biggest polythene producers in Poland, the wastes are recycled later on the lowlands. The idea is so simple and hopefully Polish mountain lovers will acknowledge it.

Przemek Bucharowski
Mountaineer and Photographer
Poland

HET Comment : Uttrakhand seems to be getting a tag as India's most polluted Himalayan state with several reports indicating trash littering the trails. The HET will continue to highlight this issue at appropriate levels to draw higher level of attention to the problem and look for solutions.

Why Did it Happen ? The Uttarakhand Disaster

THE NATURAL EVENT

Clash of two weather systems: Western disturbance & SW monsoon

Excessive Rain: Flash Floods June 15, 16, 17

Force amplification caused by unique himalayan geological vulnerabilities

‘V’ shaped valleys with steep slopes

Laminated structure of sedimentary rock

Mud-slides & Landslides

Force multiplier effects due to ecologically-insensitive model of development

Roads
Trenching
Effect

Unregulated
pilgrim
traffic

Tunnel
Blasting-
micro fractures
in rocks

Slope
denudation
from
deforestation

Rise in
river beds due
to siltation

Eco - insensitive
land use &
construction
activities

It was on the morning of 10th of June, while doing load carries towards camp-I, that I first noticed the first signs of an approaching weather front: strong westerly's and thickening drift of cirrus clouds that soon formed a halo of rainbow around the sun. This must have been the western disturbance. On June 14th, the Northern Limit of Monsoon (NLM) was still a month away from the Himalaya as it lay somnolent over the Eastern India.

Then something happened, with a rare speed and suddenness it advanced up northwesterly to cover the whole of north India by June 15th. All in a days time what normally takes a month. This by itself would still not have caused much problem, had it not been for another strange coincidence. At the same time as this southwest monsoon trough rapidly spread up North, another low-pressure weather system, the one we noticed during our climbing, was moving in from the north-west. The two collided and formed a tumultuous front that overlay the Mandakani (Kedar)-Bhagirathi (Gangotri) Valleys. And it rained disaster.

So now it becomes clear as to why the monsoon trough suddenly pushed up north. The western disturbance system, being a low pressure system, acted as a magnet to the larger mass of monsoon system pulling it up into a head on crash of two fronts; one cold and moist, the other warm and moist; releasing all their enormous mass of moisture as rain densely concentrated in time and space resulting in a flash flood.

Once such heavy volumes of water came pouring down the skies, the very specific geological features of the Himalaya amplified the forces of destruction, whereas the human mediated activities of environmental denudation and eco-insensitive construction transformed a purely natural hazard into a monumental disaster. Once as this mass of water came raining down it was drawn into the "V" shaped valleys that acted as a funnel speeding up the force of flows and triggering a cascade of mudslides and mud flows amplified by the denuded steep slopes and the laminated structure of the sedimentary rocks that, once saturated by water, began to shear downwards into a vicious spiral of growing instabilities.



We were camped high up on the Din Gad Valley with 80 students from the Nehru Institute of Mountaineering when the Uttarakhand cloudburst hit the region.



In a swift move the entire course was moved quickly down to Tela camp and the next following day down to the road head, avoiding any casualties.

Blasting, tunneling and road cutting had already added to the structural weakness of this already fragile and young Himalayan geology.

But why did Kedar Valleys bear the brunt? Again a combination of: the natural phenomenon amplified by the special geology and human constructions. The Kedar temple is located just a few kilometers below the two snouts of Chorabari glacier within a funnel shaped valley with mountainsides sloping steeply into the valleys floor. According to NRSC (National Remote Sensing Centre), the excessive rainfall and the rapid snowmelt caused huge volumes of mud saturated with water which turned fluid and began to flow coming down like a wall of lava, dissolving and burying everything that came in its way. According

to Prof. David Petley of Durham University the twin glacial snouts generated two mudflows: one came from the North-West and the other from the North-East of the Kedar town.

Thus in this disaster we can glimpse how a purely natural hazard interacts with the unique geo-physical landscapes of the Himalaya renders fragile by eco-insensitive development models to crescendo into a humanitarian catastrophe of unimaginable proportions. While the origins are natural, the consequences were human-made.

Dr. Anil Gurtoo

Professor of Medicine

Lady Harding Medical College Hospital

HET Comment : No reports of casualties came from trekking and climbing groups when the flooding took place as these teams were well resourced, casualties were concentrated around pilgrims.

Volunteering in the Himalaya

On the last weekend of July 2013, a group of American university students attempted to summit Churdhar peak in the Shimla region of Himachal Pradesh. Trekking in the raining season is slightly discouraged because of the temperamental weather and the potential for being stranded. Nevertheless, we hoped on a train and set off in search for greener pastures. We found them. I have never experienced such vibrant colors. The view was incredible when you could see it through the mist. When hiking, you often find yourself ignoring the incredible view for the ground below your feet so you don't tread in manure or fall off the side of the mountain. One would expect to find wild flowers and smoothed stones, but what I found was litter.

While our goal was to do a short trek in the Himalaya, the motivation of hundreds of fellow trekkers, is to pray at the temple on the peak. Most of these pilgrims were on their annual

hike up to the temple from the foothill towns of Solan and Rajgarh. Much to my dismay, virtually all these pilgrims were throwing plastic food packets along the trail. These packets were either purchased before embarking on the trail or at small huts where entrepreneurs were selling chai and snacks to passersby. We camped in a meadow half way to the peak next to one of said stalls. There was so much trash littered around the stall by the pilgrims that we had to clean it up before we could set up a camp. It took the group of 10 students an hour to clean up the mess, which filled around three trash bags. Finally we were able to enjoy the beauty of where we decided to settle for the night. After setting up camp, we decided to venture off around the campsite and although there was not as much trash as next to the chai stall, we were constantly trotting on litter. It is truly unfortunate that such an easy avoidance could hinder the sheer beauty of the mountainside.



The head priest at Churdhar temple walking his family down to the road as we trekked up to Churdhar.



Our entire team of 14, spend considerable time cleaning up a huge amount of plastic waste dumped by the pilgrims at the meadow where we were camping.

My impression while looking at the pilgrims was that they all lacked a general understanding of garbage management. It seemed that littering is an acceptable practice. Society needs to change this. It is entirely possible, as one sees with the evolution of women's rights in India and across the world. One solution to building awareness is for trekking groups and school children to volunteer to personally clear garbage and understand how it affects their environment and livelihood.

Another simpler method would be to install a trashcan next to the snack shacks and have a sign next to it in Hindi and English insisting people throw their litter in the bin. Knowledgeable trekkers could also teach the locals who run the stalls about waste management.

In the United States, where I grew up, community service is greatly encouraged. From 2nd grade I was a member of the recycling club in school that went around to all of the classrooms and sustainably collected recyclables. We also had a community garden, which students could volunteer to tend. Changing societies perception begins in the classroom. Driving down the highway in the United States in the 1980's there would be

litter everywhere. The US government started a campaign in public schools to teach students to throw away their trash in the bin rather than on the ground and really emphasized how poor a citizen one was if they didn't. The children would then go home to their parents and preach what they had learned in school and litter miraculously disappeared. The same kind of campaign is currently being used for recycling, and is showing the same signs of success. After the end of the trek at Nauradhar I spoke about the issue to various seniors, from the town, about the litter on the trail. They mentioned that they will take measures to build awareness to stop littering. In my opinion, government measures as well as volunteer attempts by trekking groups and students will go a long way in keeping the beautiful mountain regions litter free. Here's to being a good example and properly managing ones waste.

Shona Karp
Student of International Affairs
Northeastern University

HET Comment : The concept of volunteering is very evident in students from the US, this ground level action plays a major role in building awareness about the environment.

Selection of Environment News

Flood Alarms Launched in Bhutan

Thimpu, October 2013

Despite adopting eco-friendly practices and policies, Bhutan is highly vulnerable to climate change. Glaciers are melting and monsoon patterns are changing - which is bad news for people living along the river banks. The Puna Tsang Chu River flows from the snow-capped peaks in the Himalayas through central-west Bhutan, powering several hydroelectric plants, which is the main source of energy in Bhutan.

Despite the green policies, Bhutan's environment has been suffering in recent years. The glaciers feeding the rivers are shrinking and the melt water is forcing up water levels in the Punakha valley's glacial lakes. The lakes could burst their banks and submerge the surrounding towns and villages, raising fears among residents. A major flood in the area in 1994, caused by a bursting of one of the glacier lakes, killed 22 people. Now, people living near the river are trained to evacuate when newly installed flood alarms go off. "It's a very distinct sound," Tauchu, the elected traditional leader of the district, said. "When you hear it, you'll know that it's not a honking car or a mobile phone and you'll know that you have to evacuate now."

Once the alarm goes off, indicating that one of the glacier lakes has burst its banks, village residents have at least three hours until the water reaches the village, according to Tauchu. A large school building has been assigned as an evacuation place in case of emergency.

The flood watch towers are monitored from a control room in the town of Wangdi, which is an hour's drive away from the Samdinkha village. Ganesh Pradhan and Zangmo live in Wangdi and use a computer to constantly monitor the water levels of four glacier lakes in the region. They receive an hourly update from two men measuring the water levels up in the mountains.

"When the current water level, which is at 6.99 increases to 7.8, then it will give an alert sound," Zangmo said. The early warning system was built after the 1994 floods. There are now 14 flood watch towers that include sirens. They are located along the river, near villages, hydro-electric plants and other key areas

Full Article and Credits : <http://www.dw.de/bhutan-grapples-with-climate-challenges/a-17151430>



Villagers have been trained to reach to flood alarms indicating rise in water levels.

Green Soldiers – Warriors for the Environment

Katmandu, August 2013

Green Soldiers have been working every Saturday since September last year, cleaning areas in and around Kathmandu and setting examples to the citizens. The organization's boldly stated objective is 'Impact through Action' and with the help of over 400 members and many volunteers, they are cruising ahead. Green Soldiers recently finished their 48th cleaning campaign.

A team of friends started the cleaning mission on September 29, 2012, and after three months, in December, formally registered their organization. Nabin Gurung, General Secretary of Green Soldiers, speaks of how it came to be formed.

"All of us were from the tourism sector and we knew the importance of keeping our environment and surroundings clean. Our goal is to clean up Nepal from Swayambhu to Sagarmatha," he says. Green Soldiers wants to address the problem of plastics and waste management, and they are starting with the areas around Swayambhu. Mobilizing around 40 volunteers for their Saturday cleaning campaigns, they start off by picking up trash and plastics and other non-organic waste.

[Credits and Complete Article is available on : http://www.myrepublica.com/portal/index.php?action=news_details&news_id=60328](http://www.myrepublica.com/portal/index.php?action=news_details&news_id=60328)



Green Soldiers has in a short time made an impact on waste management issues in Katmandu.

East Himalayan Trees Turning Brown

Times of India , New Delhi, October 2013

In what appears to be another grim outcome of [climate change](#), a study has found that forests in eastern Himalayas are gradually 'browning', with trees withering and foliage declining even during productive seasons. Similar changes were noted in tropical mountain forests across the world.

Among the 47 protected areas across five biodiversity hotspots selected for the study, were Kangchendzonga national park in Sikkim and Namdapha national park in Arunachal Pradesh. It used satellite images from 1982 to 2006, which revealed a common trend: there was mild greening till the mid 1990s and then came a sudden and steady reversal which is making these forests appear drier and brown.

This may mean that the trees in these forests are not able to transpire at the optimum level and their photosynthesis activity has reduced due to temperature rise.

Credit and complete article is available on : <http://timesofindia.indiatimes.com/home/environment/global-warming/East-Himalayan-forests-turning-brown-Study/articleshow/>



Based on a study conducted global warming is resulting in reduced photosynthesis activity due to global warming resulting in trees becoming brown. (Photo Credit - Piran Elavia)

China and India 'water grab' dams put ecology of Himalayas in danger

The Gurdian, August 2013

The future of the world's most famous mountain range could be endangered by a vast dam-building project, as a risky regional race for water resources takes place in Asia.

New academic research shows that India, Nepal, Bhutan and Pakistan are engaged in a huge "water grab" in the Himalayas, as they seek new sources of electricity to power their economies. Taken together, the countries have plans for more than 400 hydro dams which, if built, could together provide more than 160,000MW of electricity – three times more than the UK uses.

In addition, China has plans for around 100 dams to generate a similar amount of power from major rivers rising in Tibet. A further 60 or more dams are being planned for the Mekong river which also rises in Tibet and flows south through south-east Asia.

Most of the Himalayan rivers have been relatively untouched by dams near their sources. Now the two great Asian powers, India and China, are rushing to harness them as they cut through some of the world's deepest valleys. Many of the proposed dams would be among

the tallest in the world, able to generate more than 4,000MW, as much as the Hoover dam on the Colorado river in the US.

The result, over the next 20 years, "could be that the Himalayas become the most dammed region in the world", said Ed Grumbine, visiting international scientist with the Chinese Academy of Sciences in Kunming. "India aims to construct 292 dams ... doubling current hydropower capacity and contributing 6% to projected national energy needs. If all dams are constructed as proposed, in 28 of 32 major river valleys, the Indian Himalayas would have one of the highest average dam densities in the world, with one dam for every 32km of river channel. Every neighbour of India with undeveloped hydropower sites is building or planning to build multiple dams, totalling at minimum 129 projects," said Grumbine, author of a paper in Science.

Full Article and Credits :

<http://www.theguardian.com/global-development/2013/aug/10/china-india-water-grab-dams-himalayas-danger>



The Ranganadi hydroelectric project in Arunachal Pradesh, India. Photograph: Alamy

HET Appoints Field Director's

To allow the Himalayan Environment Trust to remain connected to environment matters in various regions of the Himalaya 16 Volunteer Field Directors have been appointed. Those selected either live in various places in the Himalaya or are keen trekkers and climbers and do a number of trips into the mountains on an annual basis., around the world. The Field Director's will be expected to share both positive and negative information in regards to Himalayan environment based on their travels and play a leadership role in looking at solutions and bring about change. The following are the Field Directors of the HET :

NAME	REMARKS
Ashutosh Mishra	Management Consultant and Expedition Leader
Akshay Shah	Environmentalism living in Ranikhet, Uttarakhand
Piran Elavia	Trek organizer concentrating on North East States
Vivek Bali	Corporate and keen trekker based in Dubai
Amitabh Kharkwal	Indian Administrative Office and keen trekker
Indu Anand	Corporate and keen trekker based in New Delhi
Kamakshi Sahai	Trip Leader operating in India and Nepal
Neeha Verma	Corporate and keen trekker based in New Delhi
Sumit Raj Vashisht	Trip Leader based in Shimla, Himachal Pradesh.
Ankur Bahl	Corporate and keen trekker based in Gurgaon
Prannoy Goswami	Student with keen interest in the outdoors
Bharat Mehra	Corporate and keen trekker based on Hong Kong
Sreedevi	Corporate and keen trekker based in Singapore
Dr. Hari Mohan	Corporate and Expedition Leader based in New Delhi
Ragini Singh	Corporate and keen trekker based in New Delhi
Mukesh Wage	Corporate and keen trekker based in Mumbai

Maninder Kohli
Managing Trustee
Himalayan Environment Trust

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The Himalayan Environment Trust

The Himalayan Environment Trust (HET) has completed 25 years supporting various issues related to the Himalayan environment. If you would like to support the HET it can be done through the following ways:

1. You may become an Associate Member of the HET.
2. Contribute an article for the next issue of our newsletter.
3. You can place an advertisement in the next newsletter of the HET at a cost of Rs. 5000.00. The distribution of the newsletter covers 5000 adventure lovers across the Himalayan countries.
4. Be an HET volunteer and participate in one of HET's field projects which will take place in 2013 & 14.

Further details are available on the HET website <http://www.himalayanenvironment.org/> or by emailing at "himalayanenvironmenttrust@gmail.com."

Thank you for your ongoing support.

DK Suri
Trustee

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Published for the

Himalayan Environment Trust

The Legend Inn, E4, East of Kailash, New Delhi 110065 India

<http://www.himalayanenvironment.org/>

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