

Sustainability Fights Poverty

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The August 2010 floods in Pakistan resulted in approximately 20 million homeless persons and the collapse of the tourism industry. Swat Valley and Kaghan Valley faced total disaster due to the heavy rainfalls and flooding caused by deforestation in catchments. Experts are of the view that these floods were ultimately the result of global warming and climate change. According to the UNDP, poverty has increased in flood-affected areas because of the loss of livelihoods.

Pakistan constitutes one of the world's most extended high-altitude rainforest regions. Various forms of degradation and encroachment, mostly due to human intervention, seriously threaten this region. With its dramatic geological history, Pakistan spans a remarkable number of broad ecological regions.

Misguided economic policies have widened inequalities and forced mountainous people to exploit biodiversity at rates that are no longer sustainable. As a result, processes such as deforestation, overgrazing and soil erosion have become major threats to the remaining biodiversity of high lands in Pakistan. Poverty, lack of planning and appropriate policies have contributed to disproportionate pressures on resources resulting in degradation in uplands that ultimately cause more and more degradation at lowlands.

Some 80 percent of the 2010 floods impacted tourism destination areas:

- Upper and lower Swat and Kalam
- Kaghan Valley
- Gilgit and Baltistan

Kalam and the upper and lower Swat in northern Pakistan were popular tourist destinations, famous for their terrain, view and natural beauty. Kalam had some 400 hotels and restaurants before the floods; 101 hotels were swept away in the raging waters. Most of the major hotels were either on the riverbed or overlooking it from the edges of River Swat.

“The More Degradation – The More Poverty”

The number of people affected by floods from 1990 to 2010 in Pakistan is reported to be approximately 44 million (according to Disaster Management Pakistan). Disasters caused by floods have been increasing, mainly because of the expansion of settlements and the growth of investment in flood plains.

People Affected

Disaster	Date	Affected
Flood	2010	20,102,327
Flood	2005	7,000,450
Flood	1992	6,655,450
Flood	1992	6,184,418
Earthquake*	2005	5,128,309
Drought	1999	2,200,000
Storm	2007	1,650,000
Flood	1996	1,300,000
Flood	2003	1,266,223
Flood	1995	1,255,000

Economic Damages

Disaster	Date	Cost US\$ Billion
Flood	2010	9.5
Earthquake*	2005	5.2
Storm	2007	1.62
Flood	1992	1.0
Flood	2007	.33
Drought	1999	.25
Flood	2001	.25
Flood	2008	.11
Flood	1994	.09
Flood	2005	.03

Degradation in high mountain areas starts in high altitude watersheds where many factors, particularly deforestation, results in soil erosion. Degradation and soil erosion cause further degradation. Effects become causes and causes become effects in this “degradation cycle.”

Vital economic resources, such as water, are usually managed with policies, institutions and practices that are disconnected from, or even in direct conflict with, those designed to protect forests, wetlands and other habitats from which the water comes. Moreover, watersheds face growing stress from rapid economic development, increasing human populations, and often, wasteful use of natural resources.

The Cause-Effect Chain of Watershed Degradation

Removal of forests or other vegetation sharply reduces water retention and increases erosion, resulting in reduced water availability in dry seasons and more siltration downstream – resulting changes in river flows and sediment and pollutant loadings in dams.

An absence of trees results in loss of shelter for shrubs, which often die off under the burning sun of May and June, just before monsoons hit the area and soils become more prone to water and wind erosion.

The Sustainable Development Policy Institute (SDPI), Islamabad, confirms in its June 2010 report that according to the World Wildlife Fund for Nature, “while forests currently cover only 2.5 percent of the country’s land, Pakistan has the highest annual deforestation rate in Asia. The WWF report warns that if the current deforestation rate of 2.1 percent, and the trend of land conversion from forest to other uses is not checked, the country will not be able to meet its international commitments under the Millennium Development Goals to increase its forest cover from 2.5 percent to 6 percent by 2015.”

The June report says that more than 61,000 hectares (approximately 151,500 acres) of forest have been converted to non-forest use in the country since its inception.

Kaghan Valley Case Regarding Watershed Degradation

Taking the example of Kaghan Valley, we can see that massive forest cutting around Malika Perbat (Queen of Mountains), Lake Saiful Maluk, Saren Valley, Shogran, Sharan and Lalazar Meadow caused massive landslides in Kaghan after 1985. Moreover, illegal mining by local property owners for precious stones in the Jhalghat area also caused havoc as they were using dynamite for mining, resulting in instant erosion and landslides in adjacent areas. These are areas from where water flows in small springs and creates countless small water channels flowing into the Kunhar River that joins with the Jhelum River and form the source of waters for the Mangla Dam – the second largest dam in Pakistan.

It may be mentioned that Kaghan Valley is a prime example of mountain feudal lord ownership, as more than 70 percent of the Valley belongs to only two families who are related. Therefore, the utilization of land is totally at their disposal with minimal government regulation.

Kaghan Valley has faced three massive and devastating floods within two decades, causing the deaths of more than 3,000 people and a number of villages to be flushed away due ultimately to heavy deforestation at watersheds.

Kaghan’s economy depends upon fruit growing and tourism and both sectors have faced major negative impacts due to these floods and countless mudslides.

Wealth and Degradation Linkage in Kaghan Valley

Kaghan was a “paradise” until the early 1980s when big landholders did not have money for infrastructure and were dependent on moderate tourism activities, fruit growing and farming. However, after the Afghan War in 1979, this area became a route for drug and weapon smuggling and local landlords made considerable revenue from these activities.

This provided the landholders with considerable money and power, resulting in massive infrastructure development and uncontrolled forest cutting. There were no regulations in place to prevent excessive logging and small landholders were powerless to voice any objections.

With earnings from timber sales, these landholders developed motels and hotels throughout the Kaghan Valley. Non-governmental organizations (NGOs) failed to play any role to stop this deforestation and unplanned growth of motels, transportation and housing as they believed that they (the NGOs) cannot work without the support of “important locals and local leadership” and in major cases this leadership and important local people are the very ones responsible for the degradation.

This situation suggests that the following are the major socio-economic factors for degradations within the Kaghan Valley:

- Political systems provide shelter to big and influential landholders in mountain areas in return for their political support.
- Lack of appropriate planning by departments responsible for watershed management.
- Lack of coordination among major actors of planning and execution of watershed work.
- NGOs that are not bold enough to counter “important locals” when they are playing havoc with the environment and mountain cultures.
- Failure by “poverty-elimination programs” run by international bodies in mountain areas that did not provide energy resources and economic development opportunities to poor people living in mountain areas.

There is however a positive model in another valley of Pakistan where local communities fought the “timber mafia” and did not allow environmental deterioration to occur. It is now an attractive destination for both domestic and international tourists.

The Example of Raikot Sarai

Fairy Meadows is one of the few remaining places in the northern region with awesome natural beauty and unspoiled forests and credit for this goes to the local communities. There was pressure on Raikot and Fairy Meadows from timber mafia but local communities joined hands and fought against this mafia, saving their areas from massive deforestation. Recent heavy rains did not affect these areas in contrast to those where deforestation had been massive.

We can say sustainability combats poverty.

Recommendations

- Small credit schemes may be introduced for farmers of mountain areas.
- Energy resources like electricity and kerosene oil may be subsidized for people living in remote valleys to minimize use of expensive wood for fuel purposes.
- International Donor Agencies (IDA) should implement project-monitoring systems rather than depending on government departmental reports or NGO submissions.
- Third-party investigations may be done through professional consultants and chartered accountants to ascertain the facts.
- Governments and professionals, including engineers, town planners, professors and consultants, may establish Sustainable Tourism Planning (STP) departments and organizations.
- Laws may be amended to provide for greater community-level participation in activities supporting sustainable tourism development.
- The laws relating to communal ownership and access to sensitive ecosystems like water towers and watersheds should be reviewed and revised so as to protect and encourage natural resource management systems.