Himalayan Geosystem: Features, Challenges and Initiatives an Overview

The mountain systems are complex and highly fragile ecosystems with vast resources that provide ecological and economic support to its own population as well as the population of the lowland areas At the same time these are highly sensitive to hydrological and climatic changes. Tourism is an important part of the economy of all mountain areas and it is also the main driver of urbanization and the consequent land use and land cover changes. Himalaya is one of the most delicate and fragile mountain ecosystems of the world and is under threat due to rapid increase in population, urbanization and uncontrolled tourism expansion. This has resulted in irrational land transformation and overutilization of natural resources like land, forest and water. This unprecedented increase in the number of human population as tourists in Himalaya shows immediate impact on its fragile environment. Increased population exerted huge pressure on existing natural resources. It has been found that the recent constructions and other developmental works are not suitable for such a tectonically active mountain like Himalaya which being a young fold mountain belt with humid climate, is highly vulnerable to landslides and other kinds of mass wasting hazards. Facing windward conditions to Indian Summer Monsoon, it is highly affected by High Flow Hazards (HFH) such as cloud burst and flash floods. Urban consumerism behaviour has altered the land use and land cover in Himalaya at a large scale, resulting in negative impact on the local indigenous community and their livelihood. New initiatives of ecological restoration and livelihood options have become dire need of the time for Himalayan conservation and sustainable livelihood of the local indigenous community.