THE TIMES OF INDIA

Forest cover loss blamed for landslips

Swati Shinde Gole, TNN | Jul 22, 2015,

PUNE: Deforestation and destruction of important flora that binds the soil on slopes have damaged the hill slopes along the Pune-Mumbai expressway, says environmentalists and scientists. A shrub called 'Karvi', which attains a height of almost 20 ft and has deep and strong roots, keeps the soil intact even if it rains heavy. The 'Karvi' shrub has rapidly declined due to deforestation which has directly resulted in soil erosion on the hills, thus exposing the rocks to heavy rains. The gaps and fractures in the rocks are a result of direct rains falling on them leading to landslides during monsoon, say environmentalists.

Sachin Punekar, an environmentalist, said, "A dense forest eliminates soil erosion while green cover, forest litter and soil reduces the intensity and speed of erosion. Karvi has extremely deep roots. Deeper the root system, better binding it offers to the soil. However, the the eway hills have developed a secondary forest which contain scrub species that do not quite have the capacity to hold the soil as well as Karvi."Environmentalists said that before the construction of eway there was dense forest which had to be destroyed on a large scale. Punekar said, "The vegetation of the region in the entire ghat section has already been destroyed and it is evident that the quality of forest land has also degraded in terms of flora and fauna. However, authorities must now work on what should be done on retaining what's left before more damage is caused."

Punekar suggested that a study should be carried out in order to find out the shift in vegetation along the hills besides a quarterly assessment of where the landslides have taken place and trace what type of flora was grown in the landslide-hit area to take preventive steps.

Landslide expert Satish Thigale said, "The roots have the capacity to hold soil and deforestation has destroyed all the flora of the region that could play a pivotal role in preventing landslides. The pictures of the Sunday's tragedy show some fractures and dents in the rocks. When these rocks are directly exposed to heavy rainfall after all the top soil has eroded, the water enters the cracks and fractures of the rocks making them heavy. These rocks collapse over a period of time. If vegetation was maintained in this region, the tragedy would not have occurred." Thigale said that before the expressway was constructed, the region had dense forest which was cleaned up for the road.

Preventive measures

- Geographic Information System (GIS) mapping of the region along the expressway to track changes in vegetation
- Identify areas where landslides have occurred and compare them with areas where landslides never happened
- A consortium of subject experts should be formed along with provision of policy recommendations on precautionary measures to avoid landslides
- Study the pattern of vegetation and its shift over the years
- Quarterly assessment of the hills and removal of loose rocks
- Remove the plant/shrub species that are not native to the region and are causing soil erosion

Source: http://timesofindia.indiatimes.com/city/pune/Forest-cover-loss-blamed-for-landslips/articleshow/48107303.cms