

## Soil Erosion: An Agriculture Enemy

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Soil erosion is agriculture's enemy a major environmental threat to sustainability and productivity. Topsoil, which lies closest to the surface of the land, contains essential nutrients for crops. Soil erosion decreases soil fertility which can negatively affect crop yields. Once soil erosion occurs, it is more likely to happen again. This is a global problem. Soil is eroding more quickly than it is being formed, causing land to become unsuitable for agriculture particularly serious concern in a world. Soil erosion in India combined with consequent high rate of sedimentation in reservoirs and decreased soil fertility has led to grave environmental problems. Soil erosion mostly affects all kinds of lands such as the forest lands, agricultural lands, arid and semi-arid lands, surface mines, roads, construction sites, coastal areas etc. India predominantly affected by water erosion. The rate of soil erosion by moving water is directly proportional to the intensity and duration of the downpour. In coastal areas the intensity of the erosion is decided by the velocity of the waves, volume of water, extension of vegetation cover, nature of rocks, etc. The southern coasts of India, like the coasts of Kerala are most prone to such kind of aggressive form of Soil erosion. While in the high altitudes of the country glacial, snow and wind action control the nature and intensity of soil erosion. On the other hand, in the northern parts of India, the states of Rajasthan, Haryana, Punjab and Gujarat face the problem of wind erosion. Smart land management practices is a necessity. Better land management can help keep soils intact so they can grow more carbon-sucking vegetation.

The risk of erosion will become even higher in the future due to emissions-driven temperature changes, with resulting decreases in agricultural production, land value and human health. Use Soil-friendly Agricultural Practices. Terraced farming needs to be implemented to make hillside agriculture manageable. Terraces prevent erosion and allow more water to flow to crops. In addition, hillside farm fields need full crop cover to help keep



the soil in place. Access to manure improves the organic matter of the soil, which inhibits erosion.

Finally, alternating deep-rooted and shallow-rooted crops improves soil structure and reduces erosion at the same time. Offer Incentives for Land Management. Although the science of sustainable land management has been gaining support, the socio-economic context often makes implementation difficult. Sustainable land practices need to be financially viable for farmers. Governments and banks must help farmers get access to credit and support in implementing erosion prevention. This is not only a good deal for the farmer, but for the whole community.

