

Soil bioengineering

Soil bioengineering is an interdisciplinary approach to environmental restoration which involves the incorporation of biological systems with engineering principles to restore soil and thereby protect water resources. It is the only environmentally sound technique for restoration of degrading water edges (streambanks, shorelines, wetlands etc.). These techniques believe in the ability of mature vegetation to resist erosion forces. Natural biodegradable coir GeoNatural™ products are used to provide the needed protection until establishment of sustainable mature vegetation. These methods not only provide strong, sustainable, aesthetically pleasing shorelines, but also provide habitats for aquatic and terrestrial wildlife. Another big advantage is they filter runoff water. Economical, strong, durable yet biodegradable GeoNatural™ coir (coconut fiber) products play a significant role in these techniques. Coir products not only provide strong support, but also provide mulch (upon biodegradation) that improve soil conditions for healthy plant growth.

Advantages of soil bioengineering

- Sustain a balanced ecosystem.
- Nourish naturally strong, healthy environment.
- Reduce heat reflection.
- Increase infiltration.
- Support recreational activities.
- Filter sediment and improve water quality.
- Accommodate quality habitats for wildlife and fish.
- Provide aesthetically pleasing applications.
- Create environment to rest and reduce human stress.
- Convey peace of mind for all of us.



Severely eroded bank is completely restored with sustainable mature vegetation.



RoLanka's GeoNatural™ soil bioengineering products are

BioD-Block – fabric attached coir block system for vegetated soil lifts

BioD-Roll – densely-packed coir logs for stream toe protection

BioD-SuperLog – rectangular-shaped coir log with invisible planting holes

BioD-SuperRoll – circular coir log with invisible planting holes