

Vegetated soil lift with BioD-Block system

Vegetated soil lift construction is a widely use soil bioengineering technique for streambank and shoreline restoration. At the beginning synthetic and organic fabrics were used to make these soil lifts.



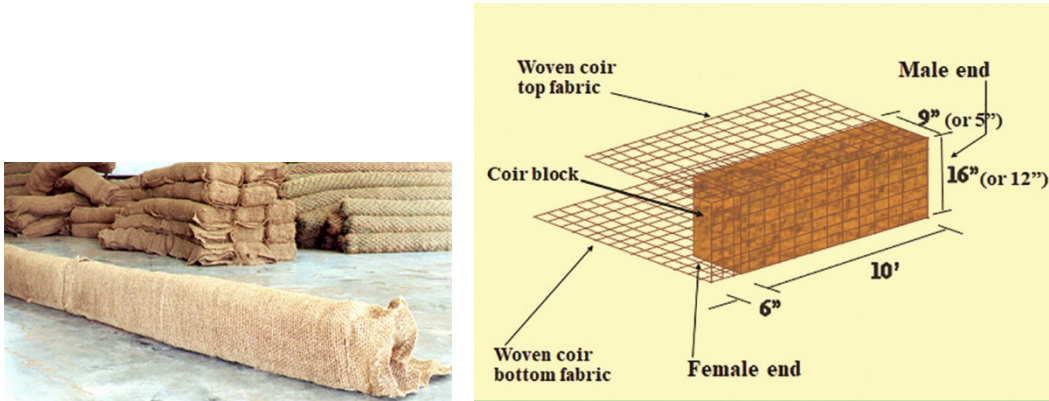
Streambank restored with vegetated soil-lifts

However very soon, everyone experienced that soil-lifts made with fabrics only failed at the face of the soil lifts. The fabrics were not strong enough hold the water flow specially during the melting of snow and ice. Also noticed that failure occurred due to soil coming off the fabrics at the face of the soil lift. The Alaska DOT FHWA-AK-RD-03-03 report described that the failures occur both with coir fabrics as well as synthetic turf reinforcement mats.



Failed vegetated soil-lifts (Alaska DOT FHWA-AK-RD-03-03 report)

To overcome these problems and to make the construction easy, RoLanka introduced the patented fabric attached coir block system. The thick coir fiber block protects the leaking of soil behind it and also give additional erosion resistance at the face of the soil lift.

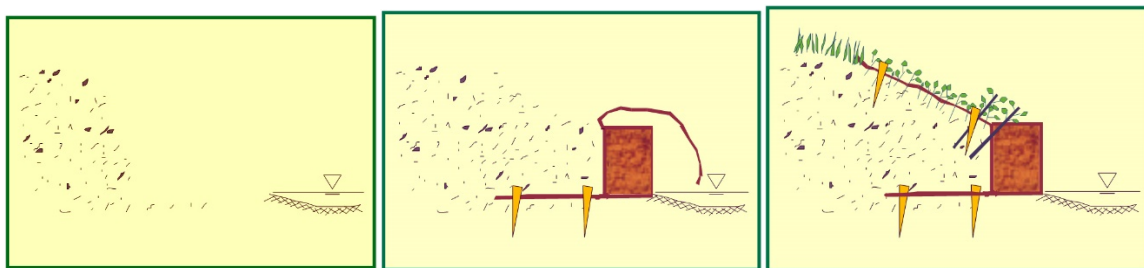


Picture of BioD-Block System

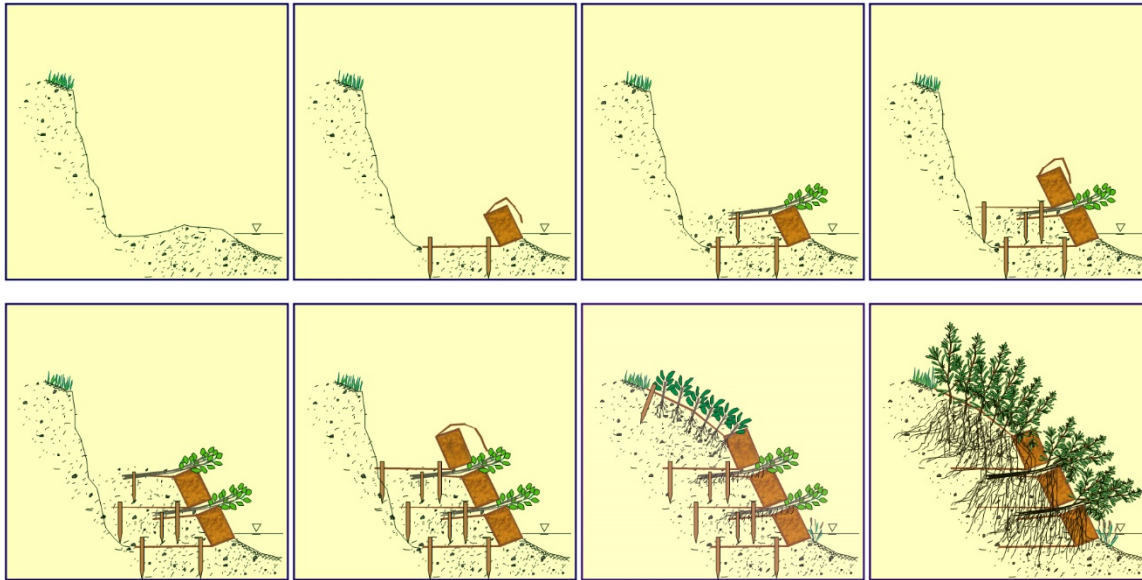
Diagram of coir block system

The BioD-Block system is available in 12-in. tall and 16-in. tall blocks with different fabric lengths. Building soil lifts with these are extremely easy. They can be used to make single lift or multiple lifts as given in the diagrams below.

Making single layer of soil lift with BioD-Block system.



Making multi-layer of soil lifts with BioD-Block system.



Advantages of fabric attached BioD-Block system

- Provides constant layer heights
- Makes easy construction of fabric wrapped soil layers
- 9 in thick coir block provides longer and stronger protection to soil wraps
- Unique connection provides strong, continuous sections
- Reduces installation costs
- Aesthetically pleasing and create balanced ecosystem

BioD-Block has been further improved with invisible holes to plant through the coir block.

