

ABOUT US

Prati Armati srl is a Company that developed an innovative green technology called PRATI ARMATI® that uses *deep rooting, perennial, non invasive, non GMO, locally native*, seeds of herbaceous plants, able to contrast both water and wind soil erosion and desertification, on:

- roadside, motorway and railway embankments
- riversides
- quarries, mines
- landfill sites and sites affected by heavy-metal pollution

From more than 20 years we work for public administrations and private companies and so on, all over the world.

WE CAN STOP EROSION

- on any lithotypes (both SOIL and ROCKS) difficult or impossible to cover using traditional techniques (*geocells, geonets, biomats, mulch, wood fiber bond matrix, plastic materials, topsoil, hydroseeding*) even if strongly contaminated by heavy metals or added with lime up to 5%
- at temperatures between - 40°C and +60°C
- with pH range between 4 and 11

WITH THESE ADDITIONAL GEOTECHNICAL ADVANTAGES

- Increase of shear resistance and safety factor of soil
- Reduction of water infiltration into the ground
- Improvement of water removal from upper soil layers thanks to evapotranspiration

not only we can stop erosion ... **BUT**

studies made by Universities and Research Organizations in geotechnical, geological, botanical, agronomic, energy fields, have demonstrated that this technology - *if compared to traditional anti-erosion technologies* - has an extraordinary potential in terms of technical, economic and environmental advantages, being:

1. A perennial anti-erosion solution
2. A zero-maintenance technique
3. Able to facilitate re-naturalization and ecological succession by incorporating any desired seed of flowers, shrubs or trees
4. Able to capture CO₂ up to 400% more than common grassy plants
5. Capable to reduce, with respect to traditional techniques:
 - *up to 100 times the weight of required materials*
 - *up to 10 times the energy requirements*
 - *up to 10 times polluting emissions (CO₂ CO NO_x SO_x particulate)*
 - *on-site working times and site-related risks*
 - *up to 50% of economical costs*

RESULTS



Altered tuff pyroclastites and fractured basalts (center Italy, Orvieto)



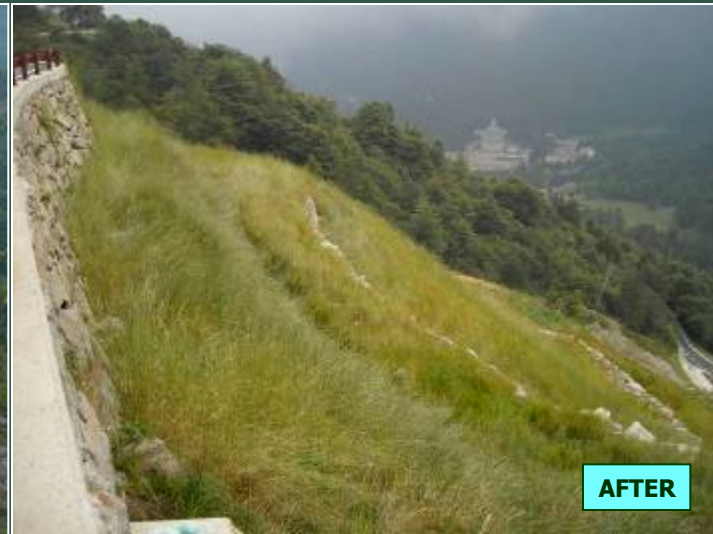
Silty sand (Motorway A3, Calabria, south Italy)



**Pliocene over compacted clay of marine origin
(center Italy, Motorway A1)**



**Perfectly clean ditches at the base of a PRATI ARMATI® installation
(center Italy, Motorway A1)**



**Heterometric slope debris
(north Italy, Alps, 1.400-1.700 meters above sea level)**



**Slightly cemented sandy limestone – calcarenite –
(south Italy, Sicily Motorway)**



**Limestone quarry
(center Italy, Spoleto)**



**Granite and porphyry
(Sardinia)**

PRATI ARMATI® AND KYOTO PROTOCOL

PRATI ARMATI® may store *up to* 400% more carbon dioxide (CO₂) than most common grassy plants used in traditional applications, thus contributing to the implementation of Kyoto Protocol

KIND OF GROUNDCOVER	TONS OF CO ₂ ABSORBED PER HECTARE EACH YEAR (t/ha/year)
Temperate deciduous forest (plants C3)	20
Temperate grassland (plants C3)	8
<i>Annual</i> corn plantation (plants C4):	41,5
<i>Perennial</i> PRATI ARMATI® anti-erosion groundcover (plants C4)	up to 40

CO₂ absorbing capability of different groundcovers measured in tons per hectare per year