GEOTECHNICAL/ REINFORCED SOIL WALLS
Product: Green Terramesh®, Terramesh®, Reno Mattress® and MacMat®-R

Problem
The unstable slope at the foot of the Italian Embassy Boundary Wall could have led to a possible damage of the wall. The potential toe erosion occurred due to seasonal flooding and the steep gradient of the slope.

Solution
The main design focus was on the following:

- preventing scouring at the toe of the wall through a flexible mattress,
- allowing for a permeable soil reinforcement with Terramesh System® at the foot of the slope,
- retaining most of the slope with a green able, flexible soil reinforcement.
- diverting the surface drainage from the slope through a lined channel.

Benefits
The solution chosen has many benefits, primary being environmental friendliness (possibility of growing vegetation through the wall) as well as the cost effectiveness of the system.

Surface drainage was managed also through a vegetated, steel reinforced synthetic geomat, which in time allowed the growth of vegetation.

Considering that the high elevation (2500m above sea level) is not conducive to the growth of many plants, the extensive grass cover and the growth of sizeable trees through the Green Terramesh® is the proof of a successful, long term result.
The base mattress has been covered by the silt depositing during the seasonal flooding.

The soil reinforced embankment – March 2013.

Surface drain lined with MacMat®-R - March 2013

Tree growing through Green Terramesh®.