VETIVER SYSTEM APPLICATIONS IN SPAIN AND PORTUGAL

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SPAIN – INFRASTRUCTURE PROTECTION

An EU funded project costing over USD1.1M, using *Atriplex alimus* to stabilise section of highway between Murcia and Cartagena
The plant failed to establish one year after planting despite intensive irrigation.
Vetiver Grass Demonstration Trial In Lorca

Due to the failure of *Atriplex alimus* on the highway between Murcia and Cartagena, in 1993 the EU funded a demonstration trial using Vetiver grass to stabilise the batter of an access road leading to an industrial complex near LORCA.
LORCA site in 1997, 3 YEARS AFTER PLANTING
Diego Frutos, Murcia Agriculture and Water Conservation Officer
Three years after planting at LORCA in 1997, Vetiver established well with drip irrigation during establishment phase (the first summer) and no further irrigation.
Excellent growth with no irrigation after 3 years
CONTROL PLOT Very little natural colonisation of native plants despite initial irrigation
Very few natural colonisation of native plants in control plot
Excellent growth with no irrigation after 3 years on the drain at foot of the slope
General view of Lorca site in 1998, 4 years after planting.
Lorca site in 1998 Note no natural colonisation of native plants. Paul Truong, Tiscar Espigares: Madrid University, Mike Pease: TVNI European Coordinator, Portugal and Diego Frutos: Murcia Agriculture and Water Conservation Officer
Contrast between vetiver and control plots at Lorca site, 4 years after planting.
Contrast between vetiver and control plots at Lorca site with serious rill erosion in control plot.
Excellent vetiver growth with no irrigation at Lorca site, 4 years after planting.
Four years after planting on drain at foot of the slope
CONTROL PLOT  Very little natural colonisation of native plants despite initial irrigation
Soil And Water Conservation In Almond Orchard

Vetiver row was accidentally sprayed with RoundUp
PORTUGAL – VETIVER SYSTEM APPLICATIONS

Antonio de Mello introduced Vetiver from Zimbabwe in 1996 to establish a nursery at Santarein, NE Lisbon for use in soil and water conservation and land stabilisation on his farm. Subsequently in 1998 a number of trial plots were established by government agencies and private properties throughout the Algarve, Alentejo and Azore.

In 1998 Mike Pease, European Coordinator of The Vetiver Network International (TVNI, a NGO), invited Dr Paul Truong, TVNI Technical Director to present a series of Seminars in Odiaxere and Tavira. The seminar were well received by both government agencies and private properties, resulted in some major projects.

Vetiver System has since been used for erosion control, ornamental and pollution control in Portugal.
PORTUGAL – EROSION CONTROL

Antonio de Mello Vetiver nursery at Santarein, NE Lisbon
Antonio de Mello used vetiver to stabilise Creek bank, dam wall and other erosion control in his farm.
Terrace Rehabilitation In Monchique

Ancient terraces at Monchique being used for horticultural production
After centuries of neglect the terraces were collapsing. Vetiver grass was used to reclaim the terraces.
Onsite community nursery was established to provide planting materials for terrace restoration project.
PORTUGAL – ORNAMENTAL

Vetiver planting as green screen to hide concrete wall and ugly scene in Algarve
Vetiver planting as green screen to hide concrete wall and median strip with Lavender in Algarve
PORTUGAL
POLLUTION CONTROL

Vetiver planting on back yard to absorb domestic sewage effluent from septic tank in Algarve

Regrowth after trimming
Vetiver planting on back yard to absorb domestic sewage effluent from septic tank in Algarve
PORTUGAL: AZORE ISLAND

The potential use of Vetiver was also recognised for stabilising highly erodible steep slopes derived from volcanic pumice on Azore island. Frequent life threatening landslides occurred during the rain season.
Frequent landslides and mudslides during the rain season
Vetiver nursery established by the Azore Forestry Department

Two year old plant ready for planting out next Spring