



**STAVROS DIMAS**  
*from corporate insider to  
environment champion*

# Green Week

## SPECIAL ISSUE



IN ASSOCIATION WITH:

GE imagination at work

### INSIDE GREEN WEEK

Expert comment from  
MEPs Monica Frassoni,  
Caroline Lucas, Anders  
Wijkman, Gyula Hegyi  
& Carl Schlyter

Environmental NGOs  
WWF & FoE



### PLUS

Constitution: an end in sight  
All change in Italian politics?

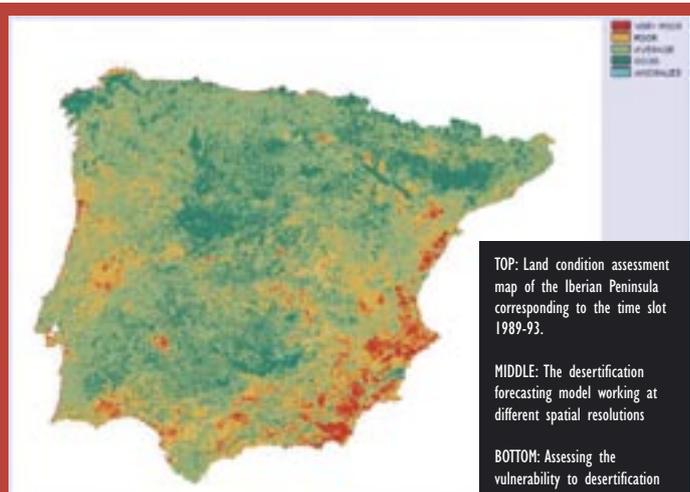
Alexander Alvaro on putting  
the one seat debate to MEPs

EU & US immigration  
policies compared





## A Leading European Research Project on Desertification



- Understanding of desertification processes in a systemic and dynamic way.
- Monitoring of desertification extent and assessment of land degradation status, including diagnosis of driving forces as well as off-site and time lagged effects
- Forecasting of desertification risks and trends embedded within climatic and socio-economic scenarios.
- Discrimination between *current* and *inherited* desertification, and identifying desertification *hotspots*.
- Integrating scientific knowledge with decision-making best practices.

### Technical approaches to the DeSurvey Surveillance System

A feedback loop between the biophysical and socio-economic activities is the keystone for integrating the project research in a dynamic way. Around this research core there are supporting activities that take care of data and information exchange, interfacing with user requirements, dissemination and linking with other research projects, and training of potential users.

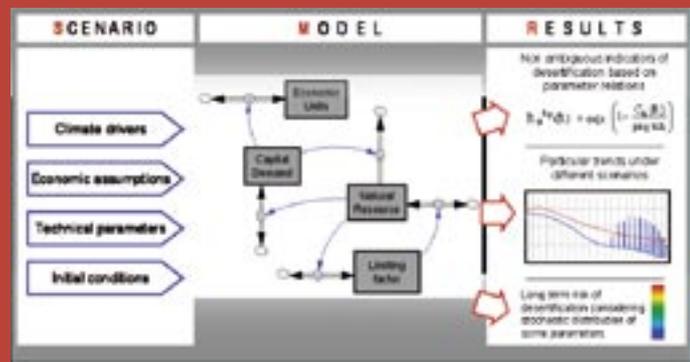
The Surveillance System intends to provide land managers and policy makers with early warning and monitoring capacity to enable decisions before irreversible desertification impacts occur. To this aim, tools are being developed and tailored to the requirements of potential user organizations like the European Union (EU), the authorities for the National Plans of the United Nations Convention to Combat Desertification and Drought (UNCCD) and local consortia of stakeholders in risk-affected districts in Southern Europe, Maghreb countries, Senegal, NE China and Central Chile.

### Expected main products

**A desertification monitoring tool** to provide early warning of disturbance and performance evaluation of mitigation programmes. The procedure is designed for low cost, replicable, multi-scale applications from local to national scales. It is based on landscape functions that are associated with land degradation status, such as efficiency of water or energy use. The tool is based on satellite imagery with additional data like climate and topography.

**A desertification forecasting tool** that enables forecasting of spatially distributed land degradation status under several hypothesis and future scenarios. Analysis of the impacts of economic and climatic drivers on land use changes and associated desertification risks are also included. The tool is based on socio-economic and bio-physical models dynamically linked through a feedback loop. This design enables application to different spatial and temporal scales including months, years, decades, and local, national and supra-national levels.

**A vulnerability assessment tool** that allows the identification of stability conditions for targeted desertification syndromes, and the direction of change from their actual or hypothetic states under different future scenarios. The procedure is based on System Dynamics and Stability Analysis to model resource-consumer systems of household populations. Outputs can be mapped as maps of desertification syndromes become available.



### Project main goals

Desertification is a worldwide phenomenon that affects more than 100 countries and 2.6 billion people. Designing effective mitigation actions for desertification requires reliable assessment and diagnosis. Unfortunately most available procedures are costly and unpractical. They are largely empirical and focused on the symptoms of desertification rather than on the underlying human-environment interaction.

DeSurvey integrates a consortium of 39 scientific and technical organisations of 10 EU Member States and 6 Third Country States. It aims to develop a prototype of a multi-scale, low cost and flexible *Surveillance System* to facilitate:

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