

CURRICULUM VITAE RESUME

President of the European Society for Soil Conservation (ESSC) 1999-

First Director of the Centro de Investigaciones sobre Desertificación –CIDE, from its creation until 1998.

First Director of the European Topic Centre on Soil (European Environment Agency), from its creation until 1998.

Scientific Adviser of the Spanish Delegation to the UN Convention to Combat Desertification.

Awarded "Premio Jaime I: Environmental Protection, 1996" (Spain).

Member of the Board of Directors of ISCO

President of the Environmental Commission of the Alto Consejo Consultivo (Generalitat Valenciana)

Director of the Observatorio Ambiental of the Ciudad de las Artes y las Ciencias de Valencia (Spain)

Scientific Adviser of different national and international organisations (CSIC; ANEP, MIMAM, CEE European Parliament, FAO, OECD, UNEP, IUNC,...)

Member of the Board of Directors of ISCO

President of the Environmental Commission of the Alto Consejo Consultivo (Generalitat Valenciana)

Author or coauthor of 29 books, 25 chapter of books and 100 scientific papers

Invited speaker in 98 seminars and other scientific national and international meetings

Organizer and Director of numerous scientific national and international meetings and congresses

Director or Co-Director of 10 Doctoral Thesis and 7 Licenciature Dissert

Project Leader of 19 National and UE Research Projects.

Key experience

Experience of 8 years as University Teacher in the topic of Soil Science

Author or coauthor of 14 papers of International Congress and 24 of National Congress.

Author of 10 divulgation papers and numerous technical reports.

Member of the Advisory Board of the journal Soil Tillage Research and of the Revista Valenciana de Estudios Autonómicos.

Nine long stay and numerous stay/visits in research centres of Europe, United States, Mexico, Venezuela, Marruecos, Kenia,...

SCIENTIFIC EXPERTISE

Dr. José L. Rubio has a long scientific experience in the topic of Desertification and also in different aspects related to Soil Science such as integrated soil cartography, soil erosion, desertification indicators, soil and water conservation, soil fertility, land use and land use change, and forest fires effects on soil and in soil processes.

His initial research activities were focused on soil fertility, mainly in the issue of soil nutrients: dynamic of Potassium, Nitrogen tracers ^{15}N , and Slow Release Nitrogen Fertilizers. This initial period included a postdoctoral stay of one year in the National Fertiliser Development Center (TUA, USA). Later on these studies derived to aspects of integrated evaluation of Mediterranean soils, with the objectives of increasing the knowledge of their genesis, distribution, factors of degradation and adequate use of the soil as a natural resource. Under this thematic he worked on the development and application of new and original methodologies for Integrated Soil Cartography, Soil Erosion Evaluation and Soil Use Recommendations. These pioneer methodologies were specifically elaborated for the Spanish Mediterranean facade and later on were applied to other areas of the country as a conceptual tool in the sustainable management of desertification threatened zones.

One of the crucial parameter in desertification processes is soil erodibility: At the beginning of the study of this aspect, the evaluation of this factor was non existent in the Mediterranean zone. For that reason he designed and constructed a laboratory rain simulator that was one of the first made in Spain. The information gathered with the use of the rain simulator and with other research approaches (field stations, mapping, remote sensing, modelling, ...) allow us to establish the relative contribution of the different erosive mechanisms (detachment, transport, splash) and also the influence of soil factors in the complex issue of soil erosion/desertification processes.

Later on, he has been approaching different and significant aspects related to desertification that were at the moment with not enough information. In this context, one important part of his activity was focused on the identification, analysis and discussion of the physical and human factors responsible of triggering desertification processes in Spain, activities that conveyed with his designation from the EU as the organizer of the first international conference held in Spain on Desertification and the second at the EU level (Valencia, 1987).

After that he has been working in various scientific aspects of desertification impacts. Between others it can be mentioned: the participation in the development of a European erosion model (EUROSEM); development of desertification indicators; the role of shrub cover in the control of soil erosion; the influence of forest practices on erosion and fertility of the soil; the design and installation of a permanent field stations fully automated for soil erosion studies; the evaluation, in field conditions, of the effects of different types of forest fires; the participation in EU initiatives on traditional soil conservation systems; the study of the interaction soil/plant in the erosive phenomena; the implications of Global Change in desertification processes, and the performing of experimental

matorral fires to quantify their effects on soil properties, vegetation, runoff, sediments delivery and in degradation/desertification of soil.

The above are the most relevant scientific activities carried out on soil degradation / desertification processes (with publications in national and international books and journals) which as a whole represents almost 25 years of professional dedication to the issue.

Scientific Advice

He has a long experience (@ 20 years) as scientific adviser of different national and international organizations (CSIC –Spain-, ANEP –Spain-, Spanish Ministry of Education and Science, Spanish Ministry of Environment, Commission of EU, European Parliament, FAO, OECD, UNESCO, NATO, UNEP ...). He was the Spanish scientific adviser during the all period of elaboration of the UN Convention to Combat Desertification. Starting in 1992 with the preparatory work for the Conference of Nairobi (1993) and the other elaboration conferences with the final one in Paris (October, 1994), and in the Conference of Nairobi (1995). In the First COP of the UNCCD he attend as a European Environmental Agency (EEA) delegates, as a Project Leader of the European Topic Centre on Soil, of the EEA. He also has participated in COP's 2, 3 and 4, as a representative of ESSC, which is an independent scientific organization officially accredited at UNCCD. In COP2 and 3 he was invited by UICN to make a presentation, in side events, on the Relationship between Desertification and Climate Change (COP2) and on the Interlinkages between Global Environmental Issues (COP3).

Experience in Scientific International Fora and International Scientific Networks

He has been promoter and involved in numerous scientific international coordination initiatives, starting in 1982 as a Member of the Working Group on Desertification of the International Society of Soil Science, or in 1987 as a Spanish representative in the Steering Group on Soil Erosion and Conservation of the CEE program (DGVII) on Land and Water Use and Management. Lately (1991) he was a member of the Coordination Group on Mediterranean Desertification (COMEDDES) of the EU (DG XII).

In 1988 he was one of the founder of the European Society for Soil Conservation, of which he was Vicepresident (1992-1999) and at present its President (from 1999). The ESSC is an interdisciplinary, non-political association present in 46 countries. The ESSC pursues its aims by: supporting investigations of soil degradation, soil erosion, and soil conservation, informing the public about major questions of soil conservation, collaborating with institutions and persons involved in practical conservation work.

Nowadays he is member of the Board of Directors of the International Soil Conservation Organization (ISCO), consultant in the EU Soil Protection Policy, adviser in the Treaty Enforcement Services using Earth Observation-Desertification (TESEO program) of the European Space Agency; member of the Informal Group on Benchmarks and Indicators of the CST/UNCD, member of the IUSS Working Group on International Actions for the Sustainable Use of Soils (IASUS) and adviser of the NATO/CCMS Pilot Study on the Use of Landscape Sciences for Environmental Assessment.

Experience with developing countries and/or countries in transition

Because of the special situation of Spain in relation to Desertification, both as affected country and with close cultural and geographical position in relation to Africa and South America affected countries, Dr. Rubio has had the opportunity to establish relationships with individuals and organizations of Northern Africa and the Mediterranean (Morocco, Egypt, Turkey, Israel, ...) and also from Central and South America (Mexico, Venezuela, Brazil, Argentina and Colombia). Those contacts on scientific/technological aspects and on exchange of information,

students and experiences have been the base to a better understanding of the complex relationship of biophysical and socio-economic aspects of desertification at the global level.