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## **PREFACE**

This issue of the ESSC-Newsletter is dedicated to national reports of the Council members on events and activities in soil conservation. The reports were received by the editor between October 1994 and January 1995, they therefore refer mainly to the year 1994.

Since newsletter 1+2/1995 with its 48 pages was already a substantial issue and the editors did not want to split the contributions on conservation in Norway, the publication of these reports is delayed. To ensure the publication of national reports for the future in rapid succession, the Council decided to edit the membership list only every second year. In this way newsletter 4/1995 will contain the research reports being received in 1995 and one of the first two newsletters of 1996 can be reserved for more actual reports from 1995.

The Editors

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## COUNTRY REPORTS

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### **EVENTS AND ACTIVITIES IN DENMARK**

#### **Erosion events**

In the winter 1993/94, several erosion events were registered throughout the country. Due to the research activities going on in one of the projects mentioned below, a rather detailed description of the processes can be given. In short, out of 29 fields examined during November and December 1993, 22 were rill eroded. Out of 58 fields, examined during March and April 1994, 34 had rills to an extent that made estimates of soil loss possible. Erosion was insignificant on 5 fields and absent on 19.

#### **Research activity**

In Denmark two research projects concerning soil erosion were initiated in 1993. The scope of these projects was listed also in the report of 1993 but will be repeated here.

In one of the projects, water erosion events are registered in plots with different soil management and related to climatic as well as soil physical parameters. The aim of the project is to increase knowledge about the erosion processes under Danish conditions emphasizing the effects of cultivation.

The other project is investigating the extent and rate of water erosion on representative fields of arable land. The aim is to identify the most significant factors for water erosion with a few to creating an expert system for predicting the erosion risk.

Both projects are still running and producing interesting results. The field registrations emphasize the importance of linear features in the landscape such as dead furrows and wheel tracks that can gather flowing water and eventually cause erosion.

For further information about the project contact Erik Sibesen (project leader), Bjarne Hansen or Per Schjønning, Department of Soil Science, Research Centre Foulum, P.O. Box 23, DK-8830 Tjele, Denmark.

#### **Conferences**

The 13<sup>th</sup> Conference of the International Soil Tillage Research Organization (ISTRO) was held in Aalborg, Denmark, July 24-29 1994. The main theme of the conference was "Soil Tillage for Crop

Production and Protection of the Environment". This theme emphasized the importance of soil tillage as a soil management tool in the long-term protection of the environment and the natural resources, whether these are soil quality and productivity or quality of the aquatic environment. The Conference was attended by 286 participants, including 31 guests, from 45 countries throughout the world, making it the largest ISTRO Conference ever held. As part of the Excursion Programme, the Conference delegates visited the Research Centre Foulum and had the possibility to inspect - among other topics - the erosion plot studies being carried out at this location.

### **Publications**

The results of 3 years of erosion plot studies carried out in the period from 1989 to 1992 have been presented at an inter-nordic seminar in Finland in June 1993 as mentioned in the report for 1993. The same data were also summarized in a paper presented at the 13<sup>th</sup> ISTRO Conference:

Sibbesen, E., Schjonning, P., Hansen, A.C., Nielsen, J.D. & Heidmann, T. 1994. Surface runoff, erosion and loss of phosphorus relative to soil physical factors as influenced by tillage and cropping systems. In H.E. Jensen, P. Schjonning, S.A. Mikkelsen & K.B. Madsen (eds.) Soil Tillage for Crop Production and Protection of the Environment. Proceedings of the 13<sup>th</sup> International Conference, International Soil Tillage Research Organization, July 24-29 1994, Aalborg, Denmark, Vol.1, 245-250

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## **ALGUNAS DE LAS ACTIVIDADES RELACIONADAS CON CONSERVACIÓN DE SUELOS REALIZADAS EN ESPAÑA DURANTE 1994**

- 1. Aspectos relacionados con conservación de suelos dentro de los Macroprogramas recientemente aprobados por el Ministerio de Obras Públicas, Transportes y Medio Ambiente (Secretaría de Estado de Medio Ambiente y Vivienda).**

### **1.1. Programa Nacional del Clima**

Se trata de un programa sin fecha de finalización, que comenzó durante el último trimestre de 1994, si bien la elaboración del Documento se inició en 1992 y se espera finalizar en el mes de febrero de 1995. En este documento aparecen diversas líneas y sublíneas relacionadas directa o indirectamente con la conservación del recurso suelo. Entre ellas cabe destacar:

- Impacto de los cambios climáticos sobre el recurso suelo.
- El papel de los suelos como sumideros y fuentes de CO<sub>2</sub>.
- Estudio de los efectos del relieve y las características del suelo en la circulación general de la atmósfera y sus repercusiones en España.
- Estudio de los balances hidroenergéticos de los principales tipos de uso del suelo con especial énfasis en la evapotranspiración, flujo de calor del suelo y estado hídrico del binomio plante suelo.
- Cuantificar, evaluar y cartografiar los regímenes de humedad, temperatura y balance radiativo de los suelos.
- Disminuir la contaminación de atmósfera, aguas y suelos, mediante la reducción del uso de pesticidas, fertilizantes, etc.
- Estudios para determinar la sensibilidad y vulnerabilidad al cambio climático de los suelos, etc.
- Desplazamiento de zonas agroclimáticas y cambios del uso de la tierra.
- Repercusiones del cambio climático sobre la desertificación y recursos hídricos.
- Determinar los posibles efectos del cambio climático sobre tasas de erosión hídrica y eólica, salinización, y desertificación del suelo.
- Aumento del riesgo de incendios forestales y sus repercusiones sobre erosión y desertificación.
- Repercusiones del abandono de tierras en el papel de suelo como sumidero de carbono.
- Cartografía de zonas agrícolas con graves problemas de contaminación difusa.
- Repercusiones de las alteraciones hidrológicas sobre el medio natural.
- Instauración, mejora y conservación de la cubierta vegetal permanente.
- Control de procesos erosivos en zonas especialmente amenazadas. Prevención de desastres naturales relacionados con el clima (movimientos de tierra y aludes, etc.).

### **1.2. Programa hidrológico Nacional**

Programa cuyo Documento (borrador) aún se está sometiendo a debate pero que en su configuración actual recoge las siguientes líneas relacionadas con los suelos y su conservación:

- Metodologías para la estimación real del retorno del agua a los suelos irrigados: identificación de áreas y superficies de riego. Estimación cuantitativa, cualitativa, espacial y temporal.
- Teledetección aplicada a la determinación de las necesidades de riego: identificación de superficies de riego, estado de humedad del suelo.
- Ahorro en el uso y consumo de agua: procedimientos para la estimación y medida de pérdida de agua en parcelas y acciones correctoras.
- Calidad de los recursos hídricos y tecnologías para su tratamiento: la importancia del suelo.
- Evolución erosivo-sedimentaria de cuencas y cauces: modelización metemática, ajuste y contraste del coeficiente de entrega de sedimentos a los embalses; aplicación al cálculo de la erosión de cuencas fluviales. Transporte de sedimentos en cauces.
- Actuaciones forestales y conservación de suelos. Influencia sobre el transporte sólido, la atenuación de crecidas y los recursos hídricos. Viabilidad y eficacia en los diferentes ambientes de la geografía española.
- Modelización de la evolución geomorfológica de los ríos. Caso particular de corrientes efímeras (ramblas, torrentes, etc.).
- Restauración del medio ambiente

### **1.3. Programas Integrales de Cuencas y Restauración Medioambiental.**

Programa promovido por el Ministerio de Obras Públicas, Transporte y Medio Ambiente que basándose en las cuencas como unidad territorial natural, intenta una aproximación integrada en la que la conservación del suelo juega un importante papel.

## **2. Macroprogramas del Ministerio de Agricultura, Pesca y Alimentación.**

### **2.1. Plan Nacional de Lucha contra la Erosión y la Desertificación.**

Presentado por el ICONA en 1991, presenta un diagnóstico de la intensidad y distribución geográfica del problema de la erosión y establece la localización, programación, evaluación económica y diseño de las acciones para su control.

Las unidades de análisis y ejecución de las actuaciones son las cuencas y subcuencas hidrográficas y se asigna la prioridad de actuación a aquellas en las que el fenómeno erosivo sea más intenso y simultáneamente sus daños sobre el suelo y el ciclo hidrológico sean mayores.

De acuerdo al Plan, el 18,1% de la superficie nacional está seriamente afectada por la erosión y su control es un objetivo prioritario. Es en la vertiente mediterránea donde el problema reviste mayor gravedad.

Las acciones previstas contemplan la repoblación forestal de más de 2 millones de hectáreas y la realización de prácticas de conservación de suelos agrícolas en 1,3 millones de hectáreas. Las

inversiones necesarias para ello ascienden a 500.000 millones de pesetas. La ejecución del Plan se está financiando con fondos del Estado Español, las Comunidades Autónomas y la Unión Europea.

## **2.2. Plan Nacional de Reforestación de Tierras Agrarias.**

Dentro de las medidas de acompañamiento de la reforma de la Política Agraria Común de la Unión Europea se inscribe la forestación de tierras agrícolas.

Su ejecución en España se ha iniciado en 1993 mediante la concesión de ayudas a los agricultores de acuerdo a lo establecido en el Reglamento CEE 2080/92, desarrollado en España por el R.D. 378/93. En dicha norma se prima la implantación de especies nobles frente a las frugales, asignando mayores ayudas para la implantación de aquellas.

Las actuaciones previstas para el quinquenio 1993-1997 se elevan a 411.000 hectáreas de repoblación con un presupuesto estimado de 143.000 millones de pesetas. La financiación proviene de la Unión Europea, el Estado Español y las Comunidades Autónomas.

## **3. Aspectos relacionados con conservación de suelos dentro del Plan de Actuación del Consejo Superior de Investigaciones Científicas (CSIC) del bienio 1995-1999 (Ministerio de Educación y Ciencia).**

El CSIC ha elaborado un Plan de Actuación para el quinquenio 1995-1999 en el que se reflejan las líneas prioritarias de investigación del Organismo durante dicho periodo. Desde el punto de vista de nuestro interés cabe diferenciar entre programas intra-áreas, los cuales reflejan las prioridades científicas de las ocho áreas de conocimiento en que se subdivide la investigación en el CSIC y los Programas Movilizadores Interáreas. Estos últimos, que afectan a más de un área de conocimiento tendrán una financiación que se autogestionará por el propio CSIC.

### **3.1. Planes Intra-áreas interesados en la conservación de suelos.**

#### **Área de Conocimiento de Ciencias Agrarias (temas relevantes).**

- Optimización de la eficiencia de la fertilización mineral y orgánica, y del uso del agua.
- Evaluación agronómica y aprovechamiento de residuos y subproductos agrícolas, industriales y urbanos. Mejora de técnicas agronómicas en agricultura de secano, de regadio y de litoral.
- Necesidades hídricas de los cultivos y gestión y utilización de recursos hídricos.
- Implementación de G.I.S. en estudios agroclimáticos, edáficos, etc.
- Caracterización y evaluación agronómica de los suelos.
- Control de la degradación física, química y biológica de los suelos agrícolas y forestales.
- Control de los contaminantes de origen agrario, industrial y urbano.

### **3.2. Programas Movilizadores Inter-Area (Programas relevantes en conservación de suelos)**

#### **Programas sobre Recursos Hídricos (temas de interés)**

- Eficacia en la distribución y aplicación del agua en agricultura.
- Recursos hídricos, contaminación, erosión y desertificación.

#### **Programa sobre Contaminación por Especies Químicas.**

- Localización y origen de las actividades contaminantes (suelo) en su relación espacio/hombre.
- Detección y control de contaminantes utilizando métodos físicos, químicos y biológicos.
- Prevención de la contaminación (suelos).
- Entendimiento a nivel molecular de los procesos microbianos de destoxicificación y biotransformación de especies moleculares contaminantes, con objeto de explotarlos racionalmente en tratamientos ambientales in situ (suelos).

#### **Programa sobre Desertificación en ambientes mediterráneos:aspectos físicos, culturales y socioeconómicos.**

En este programa aparecen una gran cantidad de apartados que, directa o indirectamente se encuentran relacionados con la conservación de suelos. Entre ellos caben destacar:

- Estudios de los procesos de desertificación a nivel de macro, meso y microescala; el problema de las transferencias de escala. Relaciones con los procesos de erosión y degradación de los suelos. Identificación de bio y geoindicadores.
- Interacción desertificación-sequía. Repercusiones y recurrencia de los episodios catastróficos, a corto y largo plazo, (sequías y lluvias especialmente torrenciales) sobre las pérdidas de suelo.
- Incidencia de los usos del suelo y sus cambios espacio-temporales sobre los procesos de desertificación y degradación ambiental en el mediterráneo durante los últimos mil años.
- Implicaciones de los cambios climáticos inducidos por el efecto de invernadero (cambio global) sobre los procesos de desertificación en los ambientes mediterráneos.
- Transformaciones recientes de los paisajes mediterráneos y sus consecuencias sobre la desertificación. Impacto de los incendios forestales.
- Inventario y análisis (Libro Rojo) de los sistemas agro-silvo-pastorales mediterráneos; su importancia en la lucha contra la desertificación.
- Desarrollo de ecotecnologías y restauración ecológica de áreas degradadas en ambientes mediterráneos. Valoración económica de los beneficios de las acciones contra la desertificación y de los daños que se produciría de agravarse las tendencias actuales.
- Estudio de las consecuencias socioeconómicas de la desertificación. Gestión sostenible de los agroecosistemas mediterráneos; economía ecológica.
- Consecuencia de la PAC sobre la desertificación de la Cuenca Mediterránea; Repercusiones del abandono de cultivos y de los programas de reforestación.

- Aplicación de los Sistemas de Información Geográfica y la Teledetección para la determinación espacial de las áreas de monitorización y vigilancia.
- Modelización matemática espacio-temporal de los procesos de desertificación.

#### **Otras Acciones Llevadas a cabo por el C.S.I.C.**

A finales de 1994 se aprobó el proyecto científico de creación de un Instituto de Desertificación como Centro Mixto de Investigación entre el CSIC, la Generalitat Valenciana y la Universitat de Valencia. El Instituto de Desertificación estará ubicado en Valencia y se espera que pueda ser operativo en la primavera de 1995.

El CSIC también aprobó durante 1994 la creación de una Red Intercentros de Conservación de Tierras y Aguas (RICTA) que integra a grupos de trabajo relacionados con el tema, situados en los siguientes centros: Instituto Pirenaico de Ecología (Zaragoza), Centro de Ciencias Medioambientales (Madrid), Instituto de Ciencias de la Tierra (Barcelona), Departamento de Desertificación (IATA, Valencia), Centro de Edafología y Biología Aplicada del Segura (Murcia), Estación Experimental de Zonas Aridas (Almería) e Instituto Andaluz de Geología Mediterránea (Granada). El objetivo fundamental de esta Red es impulsar la colaboración e interacción científica entre los grupos participantes.

El mes de septiembre de 1994, el CSIC propuso a la Agencia Europea de Medio Ambiente (European Environmental Agency) la creación de un Centro Temático Europeo (European Topic Center) que llevaría la denominación de *Mediterranean Center of Soils, land Degradation and Desertification Research*. Este Centro tendría dimensión internacional y se coordinaría con otros centros e instituciones de los países mediterráneos de la Unión Europea.

#### **Otros Proyectos y Programas Institucionales.**

Independientemente de las iniciativas propuestas existen convocatorias abiertas para la solicitud de proyectos de investigación a nivel Estatal (Comisión Interministerial de Ciencia y Tecnología: Programas de Agricultura y de Medio Ambiente), Programa LUCDEME, etc., así como a nivel Regional (Programas de investigación de las Comunidades Autónomas).

#### **Internacional**

A nivel internacional es destacar la aprobación en Octubre de 1994 en París, de la Convención de la ONU sobre Desertificación que incluye un Anexo de Aplicación Regional para el Mediterráneo Norte y que específicamente se dedica a la problemática de desertificación que afecta a países europeos tales como Grecia, Portugal, Italia y España.

#### **Otros**

- Simposio Internacional sobre Desertificación y Migraciones (INCD, CSIC, Ministerio de Asuntos Exteriores), Almería 9-11 Febrero de 1994.

- Jornadas sobre Política Forestal (Consellería de Medio Ambiente de la Generalitat Valenciana) 16-17 Febrero de 1994.
- Seminario Teórico-Práctico de Erosión y Degrado de Suelos Agrícolas y Forestales. (Sociedad Española de Geomorfología & Centro de Ciencias Medioambientales del CSIC). Madrid, 13-16 Junio de 1994.
- Jornadas Multidisciplinares sobre Incendios Forestales (Universidad Politécnica de Valencia). Valencia 20-21 Octubre de 1994.

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## **EVENTS AND ACTIVITIES IN SWITZERLAND**

The Swiss *Federal Law on the protection of the Environment*, which became effective in 1983, included 3 paragraphs related to *Soil Pollution*. Based on these paragraphs the Bundesrat (Federal Council) was authorized to set *guide values* for assessing pollution of soils by harmful and nondegradable or poorly-degradable substances, e.g. heavy metals. Currently a revision of the law is discussed in parliament. In addition to established guide values the introduction of *remediation values* (Sanierungswerte) is intended, beyond which agricultural use of soils is no longer considered safe for use man or animals. The proposition for the revised text also includes a new paragraph concerning the physical degradation of soils. On the basis of this new paragraph, regulations against compaction and erosion are feasible.

The Swiss National Science Foundation's *Priority Programme Environment* (Environmental Research and Environmental Technology), which was launched in 1992, has just passed the midpoint of its first funding period (1992-1995). The programme has been divided into seven modules. Within module 6 (Environmental Technology) several projects relating to soil remediation technologies are included, e.g. *Remediation technologies for soils polluted with heavy metals and Bio-restoration of mineral oil contaminated soils and aquifers*. Detailed information can be requested from the Programme Management of PP Environment, Dr. R. Häberli, Länggass-Strasse 23, CH-3012 Berne/Switzerland.

The *Soil Science Society of Switzerland* (BGS) will celebrate its 20<sup>th</sup>. anniversary in March 1995. On this occasion a two day conference will be held on March 16 and 17 at the University of Berne. Besides the ceremonial address by Swiss governmental representatives the conference will include a poster session and an international symposium with speakers from the countries surrounding Switzerland, i.e. Austria, France, Germany and Italy. Information can be requested from the President of BGS, Prof.Dr. P. Germann, Geographisches Institut, Hallerstrasse 12, CH-3000 Berne/Switzerland.

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## **ACTIVITIES ON SOIL CONSERVATION IN GERMANY**

Since the edition of the "preliminary conception on soil conservation" of the German government (Bodenschutzkonzeption der Bundesregierung) in 1985 the elaboration of a law on soil conservation has been announced for one of the next years.

In 1994 an interesting thesis on the rain erosivity in Germany (with map of R-values of the USLE) was published. The bibliographic data:

**SAUERBORN, PETRA: "Die Erosivität der Niederschläge in Deutschland." Bonner Bodenkundliche Abhandlungen Bd. 13, Universität Bonn 1994, ISSN 0939-7809 (D98).**

In the sloping wine growing areas of south western Germany an increasing tendency to apply soil conservation measures has been registered over the past 2-3 years. The use of straw mulch or bark mulch is increasing on steep slopes, the two materials often being used in alternation in every second plant row. Continuous sodding, or weed growing as a consequence of reduced input of herbicides has also occurred. This development can be considered as a response to the growing awareness of the wine growers in environmental matters, as well as, as a consequence of low wine must prices and the need to reduce the input of expensive manpower, fertilizers and chemical treatments.

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## **SOIL CONSERVATION IN BELGIUM: SOME RECENT DEVELOPMENTS**

In Belgium, soil and water legislation is now mainly the responsibility of the regions (Flanders, Wallonia, Brussels). The present legislation on soil management is mainly limited to chemical soil pollution. Although awareness about other issues of soil degradation is growing, most of them are not subject to any regulation yet.

Researches from the Laboratory for Experimental Geomorphology have organised several excursions on topics related to soil degradation and soil conservation for about 160 geography teachers in secondary schools in order to increase awareness about soil erosion and about the need for soil conservation.

In Flanders, a political battle has been fought over the last year with respect to the MAP (Mest Actie Plan or Manure Action Plan). With this plan, the Flemish government is seeking to impose regulations on the disposal of animal and chemical manure, mainly with the aim of reducing ground water pollution. Although the resistance of farmer's organisations has been large, it is very likely that the plan will be approved within the months to come. This means that (bio-)industrial activities like pig breeding and egg production may have to revise their development strategies for the future.

The recent 'Report on the state of the Environment and Nature' ('Milieu- en natuurreport Vlaanderen') produced by the Flemish Environmental Society (Vlaamse Milieumaatschappij; a subsidiary of the Flemish government providing policy makers with the necessary information about the environment) deals also with other aspects of soil degradation which are considered to be important in Flanders. Besides chemical soil pollution, soil erosion, soil compaction, soil salinization and soil consumption are discussed and possible measures are proposed. With respect to soil erosion, the role of farmer information and education is stressed; on the other hand the report mentions also the lack of a comprehensive survey of the problem areas. However, no legal regulations to address the problem are proposed.

Recent research at the Laboratory of Experimental Geomorphology in collaboration with the University of Exeter (UK.) suggests that a major erosion process has been largely overlooked. Experimental work, as well as  $^{137}\text{Cs}$  tracer studies, suggest that most of the soil movement within agricultural fields is at present not due to water erosion but to tillage erosion. Soil tillage can move considerable quantities of soil and can locally lead to soil erosion rates exceeding  $20 \text{ ton ha}^{-1} \text{ year}^{-1}$ . Our research suggests that soil movement by tillage may be described by a diffusion-type equation which can be integrated in a long-term erosion model.

In the winter period (1993-1994) widespread ephemeral gullying took place on agricultural land in the loam belt of Belgium. Recent observations indicate that soil losses due to this process are more or less equal to the soil losses caused by interrill and rill erosion.

Opbouwwerk Interleuven (an organisation grouping the communities of the region of Leuven) organised several demonstration projects in the "Hageland" (a region between Leuven and Diest) in order to teach farmers how to reduce soil losses due to soil erosion by applying direct drilling in sugar beet (using yellow mustard as a green manure) and by growing grass under maize. Both techniques aim at a maximum soil protection by mulch or grass and were shown to be successful, with respect to both soil erosion control and crop yield.

Research in Wallonia focuses on the development of conservation techniques. Over the last years the agronomic station of Gembloux has developed techniques for growing sugar beet with cover crops. The results indicate that such techniques can be successfully applied under Belgian circumstances. Although there has not been a direct test, a major reduction of erosion risk may be expected from the application of these techniques.

It is also worthwhile to mention that the Flemish government aims at a substantial increase of the forested area in Flanders: at present only 8% of Flanders is forested, while the government considers a percentage of 30% as desirable. Several arguments favour such a policy, including the present overproduction in EC-agriculture. The implementation of such policies may well provide new opportunities for soil conservation, as the selection of land for reforestation may be based on criteria which include soil degradation risk.

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## EVENTS AND ACTIVITIES IN ITALY

First, it should be remembered that Italy is particularly subject to mass movement and soil erosion because of its topography and geology. If the Po vallex is not included, then the national territory is made of mountains and hills; a large proportion of the country is characterized by soil developed on soft sedimentary deposits (e.g. pliocenec marine sediments) often destabilized by tectonic activity (earthquakes are common), and on volcanic material. Climate is generally aggressive with rain maxima in the winter season in Sicily, in summer in the Alps and in autumn and spring in the rest of the country. Autumn rains generally result in either large flood events (see this year Piedmont, Liguria and versilia (north-west Tuscany, or numerous localized floodings of small torrents and streams (e.g. last Octobre in Tuscany. At the same time soil erosion and mass movements are extremely frequent, including some large ones such as the mass movement that is presently flowing at a rate larger than 70 m/d along a slope close to the town of Gaggio Montano (Appennini Mountains, Bologna province).

The summer dry spell helps wild fires (often started by humans) to be extremely effective. Climatic annual oscillations help the disasters to grow more effective. Since 1985 we have experienced the longest dry spell in more than a century, the coldest year, the rainiest Octobre and the rainiest summer, probably the most extreme event-rich decennium!

After a 5-year research programme on soil conservation ended in 1982, the matter has been neglected and poorly financed. An exception is represented by a research project of the Ministry of Agriculture (PANDA) that has 3 main aims: a) to guarantee safety conditions to farmers and healthy conditions to people; b) to assure a satisfactory budget to farmers and c) to ensive soil and water conservation.

In order to give some scientific support to the actions of the 'Civil Protection Service' (presently a sub-secretariat of the Ministry of Interior, a Ministry on its own till April 1994) a study gropu (with a research programme) called 'Gruppo Nazionale per la Difesa dalle/delle? Catastrofi Idrogeologiche' has been operating for almost 10 years. Naturally, soil scientists and conservationists are extremely scare in this group which is dominated by hydraulic engineers, with some geologists and 2-3 pedologists, playing the 'Cinderellas'.

The uneasiness of the present situation is particularly felt at the local authority level. This is exemplified by conferences supported by local groups, and even a soil erosion research project supported by the Borough of Certaldo (Tuscany).

Human activities linked to intensive farming with integral mechanization and the use of large quantities of chemicals, fertilizers, pesticides and herbicides cause a consistent risk of degradation. In flat alluvial areas the most serious problems are connected to soil saturation and leaching of nutrients, herbicides and pesticides released into drainage waters. As a result, atrazine concentrations in drinking water have often exceeded the limits (established by law) for the water to

maintain its 'potable' label, especially in the Po valley. In the late 1980s Donat Cattin at that time Minister of Health, was forced to change (upwards) the previous limits, just for keeping water drinkable.

Cuts in next year research budget will not better the situation.

**Carmelo Dazzi & Dino Torri**

**Centro di Studio per la Genesi Classificazione e Cartografia del Suolo**

**P.le Cascine 15**

**I-50144 Firenze**

## **ACTIVITIES IN HUNGARY**

In addition to the ESSC Conference on "Problems and Management of Soil Salinization-Alkalization in Europe" in Budapest (26-30 April 1994), recent activities in Hungary have included the following. The U.S.-Hungarian Workshop on Conservation tillage for sustaining soil and water quality was held on 31 October-4 November. It was sponsored by the U.S. Hungarian Science and Technology joint fund in cooperation with the Ministry of Environment and Regional Policy, Hungary, the Ohio State University, Columbus, OH, USDA-OICD, Washington, D.C. and US-EPA, Washington, D.C.

A study has been elaborated by K. Rajkai on the "Natural protection of soil types playing a crucial role from the point of view of the conservation of ecological and biological diversity". This study was ordered by the IUCN.

The group of Á. Kertész is now active within the frame of MEDALUS working on the development of soils under the circumstances of growing aridity.

**Á. Kertész  
Geographical Research Institut  
Hungarian Academy of Science  
P.O. Box 64  
H-1388 Budapest, Hungary**

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## AIM - ANNOUNCEMENTS, INFORMATION, MEETINGS

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### ***ANNOUNCEMENTS***

#### **REPORT OF THE ESSC-COUNCIL MEETING AT THE UNIVERSITY OF LA LAGUNA/TENERIFFE, 12. JULY 1995**

The President welcomed 12 Council members and the guests: Dr. A. Bergman Åkerman (Sweden), G. Zalidis (Greece) and S. Podsiadlowski (Poland).

##### **New Council members:**

Two members of the Council, Dr. Francisco Diaz-Fierros (Spain) and Prof. Anders Rapp (Sweden) had indicated their wish to retire from the Council. The Council elected Dr. Juan José Ibañez-Martí (Centro de Ciencias Medioambientales, Madrid) and Dr. Ann Bergman Åkerman (Dep. of Physical Geography, Lund) as representatives of their countries to serve on Council.

##### **Present state of the Society:**

Quoting the President in newsletter 1+2/1995: "The Society continues to go through a period of consolidation rather than growth."

One indication of this consolidation was the members' reaction to the President's letter to all non-paying members (except those in the Eastern European Countries): Many of them have paid and only 30 persons have left the Society. There are still many members who have not yet responded. They will receive a second letter together with this issue of the newsletter and - in the case of no reaction - will be deleted from the membership list at the end of 1995.

From December 1994 to June 1995, the membership grew from 627 to 656 (about 60 entered and 30 left the Society). The order of precedence of the national groupings is now: Spain (99 members), Germany (77), Russia (66), France (46), Belgium (39), United Kingdom (39), Portugal (36), Italy (28), Greece (27), the Netherlands (27) and Poland (21). Represented in the membership list are some 36 nations with less than 20 members each.

**Financial situation:**

The financial situation is less encouraging. As the balance shows clearly, the growing printing and mailing expenses are hardly covered by the incoming contributions so that no money is left for other activities:

**Balance January to June 1995:**

| <b>Expences:</b>          | <b>Income:</b>    |
|---------------------------|-------------------|
| Printing newsletter ..... | 3605.41 DM        |
| Mailing .....             | 1642.30 DM        |
| Conferences .....         | 800.00 DM         |
| Other expences .....      | 309.54 DM         |
|                           | 6357.25 DM        |
| <b>Balance</b>            | <b>5874.98 DM</b> |
|                           | <b>-482.27 DM</b> |

For this reason the Council decided to raise the membership contribution from January 1996 to

50.00 DM per year  
or 140.00 DM per three years (1996-1998)

Members who have already paid for 1996 and 1997 in advance are not affected by this regulation.

**Executive Committee:**

Beginning from September 1996 (elections) the functions of the Secretary and the Treasurer, which have been combined since the foundation of the Society in 1988, will be split. This decision of the Executive Committee was now ratified by the Council.

The Executive Committee will convene again on 6.-7. January 1996 in Trier/Germany.

Main topic of the agenda will be the preparation of the elections to the Council 1996-2000, which will take place during the ESSC-Congress at Weihenstephan/Germany in September 1996.

**ESSC General Meeting 1996, Elections to the Council 1996-2000**

A General Meeting of ESSC members will be held during the Second International Congress of the ESSC, September 1<sup>st</sup>-7<sup>th</sup> 1996 at Weihenstephan/Munich, Germany. Our statutes require that the General Meeting receives the business report of the Council and elects the members of the Council for the next four years. Every country should be represented by not more than four members. At present the following countries are represented on Council: Austria, Belgium (2), France, FRG (2),

Greece, Hungary, Italy, The Netherlands, Norway, Portugal (2), Russia (2), Spain, Sweden (2), United Kingdom (2).

The rules of the preparation of the first elections in 1992 have been published in newsletter 2/1991. Here they are repeated in brevity:

1. Every ESSC member may nominate either him/herself or other members as a candidate. The deadline will be published in the newsletter.
2. The list of nominated candidates will be published in the newsletter in advance.
3. The Council members for each country will be elected by the ESSC members of that country, which are present at the General Meeting.
4. In addition the former Council may nominate up to six members to serve on the new Council.
5. After the Country elections the complete list of elected candidates will be presented to the General Meeting for ratification.

The Executive Committee will convene on 6.-7. January 1996 at Trier and decide the frame of organization for the elections. The results and the call for candidates will be published in newsletter 1/1996 in February 1996.

**ESSC Awards:**

The Council discussed the proposals for two ESSC awards, which are published on the following page. Proposals may be made by the end of 1995 to the President Roy Morgan by writing.

Trier, September 1995

**G. Richter**

**Secretary and Treasurer**

## **ESSC AWARDS 1996**

The Council of the ESSC has agreed that every four years, starting with the 1996 Congress, the Society should make awards to those who have made significant contributions to the promotion of soil conservation in Europe. The awards will be as follows.

### **1. Outstanding contributions to soil conservation and protection within Europe.**

This will be awarded to a person (exceptionally a corporate body) who has, over the period of their career, made significant and internationally recognized contribution to the investigation and/or promotion of soil conservation in Europe. The contributions may be in research, practise, policy-making or any other activity deemed appropriate. The recipient need not be a member of the ESSC.

### **2. Contribution by a Young Person to be understanding and promotion of soil conservation in Europe.**

This will be awarded to a member of the Society, aged 35 years or under, who over the previous four years has made an important contribution to soil conservation in Europe through research, practice, polisy-making or any other activity deemed appropriate.

#### **Nominations**

Any member of the Society may propose a person (exceptionally corporate body for Award 1) for an award. Individuals may propose themselves.

The Executive Committee of the Society will act as an Award Committee to consider nominations and decide of the Awards.

Nominations for the 1996 Awards should be sent to the President of the ESSC (adress in front of the Newsletter) by 20 December 1995. Each nomination must contain the name abd address of the person being proposed, followed by a 500-1000 word statement describing the contribution on which the nomination is based.

**R.P.C. Morgan**

**President of the Society**

# **FIRST EUROPEAN CONFERENCE & TRADE EXPOSITION ON EROSION CONTROL**

**Sitges - Barcelona, May 29, 30 & 31, 1996**

**International Erosion Control Association IECA**

**Call for papers & First Announcement**

EROSION is a serious problem that affects our planet. It pollutes watercourses, causes silting of dams, leads to loss of fertile soil and turns land into a desert.

EROSION CONTROL is a very important task that involves professionals, companies, scientists and administrators of various fields such as forestry, agronomy, mining, geology, biology, civic engineering, ...

Since its creation, 27 years ago in the United States, the INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA), has managed to create a forum in which all those involved sectors have a possibility to exchange knowledge and experiences. Having organised 26 international annual Conferences in America and having collaborated in many other events worldwide, IECA, with the help of Spanish and European Associations and Institutions related to its core subject, will be holding its first European Congress in Spain.

From the very beginning, IECA has been characterised by its practical approach to erosion control and its eagerness to spread knowledge about the matter. This is the reason why we would like to encourage you to submit your papers to this unique setting.

## **SCIENTIFIC PROGRAMME:**

### **Type of presentation:**

- |                      |   |
|----------------------|---|
| Lectures             | These sessions will address unique topics of special interest related to erosion control that may deserve a broader treatment   |
| Training Workshops   | Training Workshops are 1½ to 3 hour sessions that focus on technical topics with an <b>educational and practical approach</b> .   |
| Technical Papers     | All accepted Technical Papers will be included in the Conference Proceedings and eligible for the Distinguished Technical Paper Award. Each accepted paper will be presented orally using a 20 minute format with a 5 minute question period.         |
| Poster Presentations | Each accepted Poster Presentation will be displayed on a 1 m (wide) * 2 m (high) poster board. During the Conference days, specific time periods will be scheduled to allow contact and discussion between paper authors and Conference participants. |

### **Category of Presentation:**

Each paper and presentation must be grouped into one of the following categories:

- |                      |                        |
|----------------------|------------------------|
| Methods & Techniques | Research & Development |
| Policy & Management  | Case Histories         |
| Product Introduction | Special Topics         |

**Topic of Presentation:**

The sessions are open for contributions on subjects related to the focus of erosion and/or sediment control. A listing of specially welcome subjects is provided below.

COASTAL AND SHORELINE EROSION CONTROL - WATERSHED MANAGEMENT - STREAMBANK EROSION, STABILISATION AND CHANNEL PROTECTION - EROSION AND SEDIMENT CONTROL OF BURNT AREAS, AGRICULTURAL SYSTEMS, URBAN CONSTRUCTION, HIGHWAY AND HYDRAULIC CONSTRUCTIONS, MINING OPERATIONS - PREDICTIVE MODELLING - METHODS FOR CONTROLLING WIND EROSION AND DUST - LOW TECH EROSION CONTROL - PLANT SELECTION AND APPLICATIONS - SOIL BIOENGINEERING METHODS - STORMWATER MANAGEMENT - GULLY STABILISATION - EVALUATION OF SEDIMENT CONTROL PRACTICES - ENVIRONMENTAL IMPACTS - PRODUCT INTRODUCTIONS AND EVALUATIONS - POLICIES, REGULATIONS AND MANAGEMENT PRACTICES - EDUCATIONAL PROGRAMS ...

**Deadlines:**

Abstract submittal: November 15, 1995

Abstract accepted: December 31, 1995

Final paper submittal: February 15, 1996

Paper accepted: March 11, 1996

**Abstract & Paper Submittal Procedure:**

Abstract: Maximum 400 words in length.  
Submit original and 3 hard copies.  
Abstracts must be written in English.

Paper: The paper format will be duly notified to each abstract according to the paper presentation type.  
Text must be submitted in English  
Oral presentations may be made in any of the Conference languages.

Complete the enclosed Answer Form and submit it with original and three (3) copies of your abstract to the Conference Technical Secretariat:

**GENERAL INFORMATION:****Conference Technical Secretariat:**

INTER-CONGRÉS. S.A.  
Valencia, 333, 3º  
08009 BARCELONA, Spain

Tel.: +34-3-459 3565  
Fax.: +34-3-459 4468

**Venue:**

Radisson Gran Sitges Hotel - Barcelona  
Port d'Aiguadolç, s/n  
08870 SITGES (Barcelona)

**Official Languages:**

The Conference Official languages will be English, Spanish and Catalan. Simultaneous translation into main european languages will be provided during the scientific sessions.

**Trade Exposition:**

During the Conference dates a trade exposition displaying a selection of products and services related to erosion control will be held alongside the scientific sessions. Those companies interested in exhibiting at the trade exposition may request the Exhibitor Information Dossier to the Conference Technical Secretariat.

**Registrations:**

If you are interested in receiving further information or in attending the Conference, please fill in and return the enclosed answer form.

**Organising Committee**

Jordi Camps (President)  
Luis Maria Sant (Vice-President)  
Javier Martinez de Castilla (Secretary)  
Ramiro Aurin  
Pere Casals  
Oriol Comas  
Alejandro Faus  
Francesc Gallart  
Joan Guim  
Verónica Kuchinow  
Juan Bautista Menéndez  
Paola Sangalli  
Pere Sanz

**Scientific Committee**

Francesc Gallart (Institut Jaume Almera - CSIC)  
Red Intercentros de Conservación de Tierras y Aguas)  
Jordi Camps (DSP, S.L.)  
Pere Casals (Universitat de Barcelona)  
Juan P. Martín Vide (Escola Enginyers Camins, Canals i Ponts. UPC. Barcelona)  
Rosa María Poch (Dept. de Medi Ambient i Ciències del Sòl. Univ. de Lleida)  
R. Jane Rickson (Silsoe College - UK)

**International Advisory Board**

Jordi Peix (Director General de Medi Natural, DARP, Generalitat de Catalunya)  
Cai Piugdefàbregas (Departament de Medi Ambient, Generalitat de Catalunya)  
Jaume Porta (Soc. Esp. Ciencias del Suelo. Presidente Sección Tecnología y  
Conservación del Suelo. Univ. de Lleida)  
Joan Ignasi Castelló (I.C.E.A., Spain)  
Prof. Martin J. Haigh (World Association of Soil & Water Conservation. UK)  
Prof. Stanimir C. Kostadinov, D.S.C. (Belgrade University. Yugoslavia)  
R.P.C. Morgan (E.S.S.C. President. Silsoe College. UK)  
Joan Puigdefàbregas (Estación Experimental de Zonas Áridas. CSIC. Almería.  
Red Intercentros de Conservación de Tierras y Aguas.)  
Leopoldo Rojo (Dirección General de Conservación de la Naturaleza, Spain)  
J.L. Rubio Delgado (Centro de Estudios sobre Desertificación. CSIC.. Valencia.  
Red Intercentros de Conservación de Tierras y Aguas.)  
Dr. Giuliano Sauli (AIPIN. Italia)  
Francisco Valle Tendero (Universidad de Granada, Spain)  
V.R. Vallejo (Universitat de Barcelona)  
Ingrid Weiland (Bonterra Wiland GmbH. Alemania)

## ANSWER FORM

### First European Conference & Trade Exposition on Erosion Control

Sitges - Barcelona, May 29, 30 & 31, 1996 - International Erosion Control Association IECA

- I wish to receive further information about the Conference
- I wish to receive the Exhibitor Information Dossier
- I wish to submit an abstract

Name and mailing address of the person who must receive the correspondence or will make the paper presentation:

LAST NAME .....

FIRST NAME .....

COMPANY/INSTITUTION .....

ADDRESS .....

CITY .....

STATE ..... ZIP CODE .....

COUNTRY .....

PHONE ..... FAX .....

### ABSTRACT SUBMITTAL FORM

PAPER TITLE .....

#### TYPE OF PRESENTATION

- Lecture
- Training Workshop
- Technical Paper
- Poster Presentation

#### CATEGORY OF PRESENTATION

- Methods & Techniques
- Policy & Management
- Product Introduction
- Research & Development
- Case Histories
- Special Topics

#### LANGUAGE

Preferred language for oral presentation:

- English
- Spanish
- French
- Germany
- Other .....

Spoken languages:

- English
- Spanish
- French
- Germany
- Other .....

AUTHOR(s) .....

DATE ..... SIGNATURE .....

MAIL THIS FORM ALONG WITH ORIGINAL AND THREE (3) ABSTRACT COPIES TO:

INTER-CONGRÉS, S.A.

Valencia, 333, 3<sup>o</sup> - 08009 BARCELONA, Spain

Tel.: +34-3-459 3565 - Fax.: +34-3-459 4468

**Deadline for abstract submittal: November 15, 1995**

**INSTITUTE FOR SOIL SCIENCE AND AGROCHEMISTRY RESEARCH**  
**International Conference**  
**CHERNOZEM FERTILITY CONSERVATION AND RATIONAL USE**

**Kharkov (Ukraine), 5-7 June 1996**

*First announcement*

***Topics***

***I. Geography, Genesis, Zoning, Classification***

Characteristic, morphogenesis, regimes, forecast, classification and zoning.

***II. Physic and Technology***

Physical properties, their dependence from genesis, lithology and evolution under the influence of anthropogenesis.

***III. Chemistry and Biology***

The processes of formation, stability and intensity of changes, degradation: decalcification, acidification, dehumification, etc., management of these processes.

***IV. Nutritive Regime and Fertility***

Conception, terminology, diagnostic, biological cycle, transformation, mobilization-immobilization, modeling monitoring.

***V. Problems of Irrigation***

Evolution, estimation of irrigated soils, forecast and management.

***General Information***

All participants are invited to arrive at Borispol airport in Kiev, Ukraine. You will travel from Kiev to Kharkov by comfortable bus. During this traveling you will have pre-conference tour for first-hand acquaintance with typical forest-steppe chernozems (Poltava region).

Two days scientific program includes plenary sessions and work of symposia.

***Post-conference tour***

Post-conference tour will include visits to national reserve Askania Nova, dendrology park in Uman and capital of Ukraine - Kiev.

The tour will continue 3 days.

***Site***

Conference will take place at the holiday hotel not far from Kharkov. Boarding and lodging participants will be provided in the same place.

*Language*

English will be the official language at the Conference.

*Further information*

If you wish to receive further information, please fill out the return slip and send it before 1 August to address of conference:

**INTERNATIONAL CONFERENCE 1996**

Institute for Soil Science and Agrochemistry Research  
Chajkovsky St. 4  
Kharkov, 310024  
Ukraine

Phone: 380 572 47 05 31 Fax: 380 572 47 85 63 Email: [mbox@issar.kharkov.ua](mailto:mbox@issar.kharkov.ua).

XX-----

**International Conference  
"Chernozem fertility conservation and rational use"**

- I wish to receive further information about International Conference in Kharkov
- I expect to attend the Conference
- I expect to attend the Post-Conference tour
- I expect to be accompanied by ..... guests.

Name: .....

Title: .....

Organization: .....

Mailing address: .....

Telephone: ..... Fax: .....

Email: .....

Remarks: .....

Date: ..... Signature: .....

### ***Language***

English will be the official language at the Conference.

### ***Further information***

If you wish to receive further information, please fill out the return slip and send it before 1 August to address of conference:

#### **INTERNATIONAL CONFERENCE 1996**

Institute for Soil Science and Agrochemistry Research  
Chajkovsky St. 4  
Kharkov, 310024  
Ukraine

Phone: 380 572 47 05 31 Fax: 380 572 47 85 63 Email: [mbox@issar.kharkov.ua](mailto:mbox@issar.kharkov.ua).

XX-----

#### **International Conference "Chernozem fertility conservation and rational use"**

- I wish to receive further information about International Conference in Kharkov
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- I expect to attend the Post-Conference tour
- I expect to be accompanied by ..... guests.

Name: .....

Title: .....

Organization: .....

Mailing address: .....

.....

Telephone: ..... Fax: .....

Email: .....

Remarks: .....

.....

Date: ..... Signature: .....

9th Conference of the International Soil Conservation Organisation (ISCO)

August 26 - 30, 1996, Bonn, Germany

**"TOWARDS SUSTAINABLE LAND USE  
- FURTHERING COOPERATION BETWEEN PEOPLE AND INSTITUTIONS"**

**Conference Topics**

*Topic 1 Soil conservation and sustainable land use - various responses to erosion and desertification*

*Topic 2 Other forms of soil degradation - assessment, prevention and rehabilitation*

*Topic 3 Influence of demographic, socio-economic and cultural factors on sustainable land use*

*Topic 4 Soil conservation and sustainable land use - innovations in approaches, technologies and practices*

*Topic 5 Furthering cooperation between people and institutions*

**"Dare-to Share" Fair**

To provide individuals as well as groups the opportunity to exchange experiences, a "dare-to-share" fair will supplement the structure of the conference. With a view to the practical orientation of the conference, the fair will encourage and facilitate people to "share" their experiences and ideas and to eventually build up future contacts to intensify the exchange between projects and their personnel, scientists and representatives of administrative agencies.

The fair will be organized in such a way that groups and individuals who are involved in projects dealing with soil degradation and conservation will arrange exhibition booths (using communication media such as posters, videos and slide shows, panels etc and, of course direct conversation) to highlight their activities at the conference. The fair will be held during the whole conference and can be visited at any time. This will be the first ISCO Conference at which such a format has been used.

**Deadlines**

|                       |  |
|-----------------------|--|
| January 1, 1996       | Recommended deadline for receiving early registration forms  |
| February 1, 1996      | Deadline for receiving extended abstracts and application forms for the "dare to share fair" and Deadline for receiving applications for sponsorship |
| March 15, 1996        | Notification to authors on presentation and Notification regarding delegate sponsorships   |
| May 1, 1996           | Final deadline for receiving early registration forms  |
| May 2 - Aug. 16, 1996 | Late Registration  |
| August 26, 1996       | Full papers due  |
| December 1996         | Target date for concluding paper reviews   |

**Contact Address**

The second announcement has been published. Please write to the following contact address:

Mr. A. Klein

Federal Environmental Agency  
FG II 3.2 / Soil Quality  
P.O. 33 00 22  
14191 Berlin (Germany)

Tel.: (++49-30) 23145746  
Fax.: (++49-30) 229 30 96 or:  
Fax.: (++49-30) 231 56 38  
E-Mail: 1004341121@compuserve.com

*ATTENTION: CHANGE OF DATE!*

## **INTERNATIONAL SYMPOSIUM ON SOILS WITH GYPSUM**

**15-21 September 1996, Lleida, Catalonia, Spain**

***2nd Circular and Call For Papers, July 1995***

### **Objective**

The particularities of soils having gypsum as a component have been the topic of a considerable amount of research under different climates and conditions. On the one side there are the special formation processes acting on these soils, their relationship with climate and landscape and their dynamics under different management practices. Gypsum in soil is also the cause of specific properties related to its amount and morphology. On the other side, the particular analytical aspects and their behaviour under different landuses have also been the focus of research around the world.

This Symposium tries to gather, for the first time, researchers interested in any of these subjects in order to give the opportunity to exchange and broaden the knowledge about these soils.

### **Location**

This Symposium will be held in Lleida (Catalonia), the center of a prosperous agricultural region under irrigation, with a mediterranean semi-arid climate in the Ebro Valley. Being Spain the european country where gypsiciferous soils are most extensive, the Symposium offers an excellent opportunity to see a wide variety of soils with gypsum regarding their origin, behaviour, landuse and management.

Lleida is located 160 km west of Barcelona and 450 km north-east of Madrid. It is well connected with both places by highway, train and bus. During september mean temperature in Lleida is around 20° C, although the thermal range between day and night can be very large. Mean monthly rainfall rainfall is 37 mm. Occasional rains may be heavy at times.

The Symposium will be held at the Escola Tècnica Superior d'Enginyeria Agrària (Universitat de Lleida), at the university campus located on the outskirts of Lleida.

### **Organizing Committee**

Chairman: Prof. Dr. J. Porta.  
Department of Environment and Soil Science, Universitat de Lleida.

Vice-Chairman: Dr. J. Herrero.  
Servicio de Investigación Agraria, Diputación General de Aragón, Zaragoza.

Secretary: Dr. R.M. Poch.  
Department of Environment and Soil Science, Universitat de Lleida.

### **Honour Committee**

Prof. Dr. J. Aguilar President of the Spanish Society of Soil Science

Prof. Dr. C. Roquero Past President of the Spanish Society of Soil Science

## **Program**

*Sunday 15 September Reception in Lleida*

*16-17 September Symposium papers*

### **Sessions:**

#### **I. Landforms, processes and characteristics.**

*Characteristics, morphology, distribution and mapping of soils with gypsum, geomorphic processes, advances on classification of soils with gypsum, ecological aspects.*

#### **II. Methodology and techniques of study.**

*Micromorphological approach, submicroscopic techniques, analytical aspects.*

#### **III. Behaviour and management**

*Soil water behaviour of soils with gypsum, dryland farming management, irrigation and drainage systems, erosion control, management in civil engineering and landuse planning, soils with gypsum as a media for acceptance of waste.*

*18-21 September Field trips.*

18 sept 1. Soils on tertiary gypsum outcrops: The Barbastro-Balaguer anticline.

19 sept 2. Gypsic and Hypergypsic horizons under irrigation: The irrigated area of the Urgell channel, Petrogypsic horizons and the recent irrigation projects in the rainfed area of Algerri-Balaguer.

20 sept Departure from Barcelona or:

3. Gypsiferous soils and salinity in Quinto, Zaragoza.

Back to Lleida or:

21 sept 4. Soils with gypsum of Ciudad Real.

*Sunday 22 September Departure from Madrid*

## **Registration fees**

|                            | before 1st july 96           |              | after 1st july 96 |
|----------------------------|------------------------------|--------------|-------------------|
|                            | ordinary                     | student**    |                   |
| Registration fee           | 50.000.- pta                 | 20.000.- pta | 55.000.- pta      |
| <b>FIELD TRIPS</b>         |                              |              |                   |
| 1. Barbastro-Balaguer      | included in registration fee |              |                   |
| 2. Algerri-Balaguer-Urgell | included in registration fee |              |                   |
| 3. Zaragoza***             | 20.000.- pta                 | 20.000.- pta | 20.000.- pta      |
| 4. Ciudad Real***          | 30.000.- pta                 | 30.000.- pta | 30.000.- pta      |

(1 US\$ = 125 pta (July 1995))

\* lunch included

\*\* copy of inscription as student for the current year required

\*\*\* minimum 20 participants, lunch and lodgement included

## **Abstract**

Invited plenary papers corresponding to the main topics will be presented. Prospective authors are invited to submit abstracts by 1-jan-96. Poster sessions will be available for the participants choosing

this type of presentation and for the communications that cannot be accommodated within the oral sessions, according to the criteria of the organisation.

Abstracts will have to be prepared camera-ready manuscripts using the attached standard format. They should be written in english, should be limited to approximately 300 words and should include a short title as well as the names of all authors and their affiliations. Only those abstracts fitting the scope of the Symposium will be accepted; besides, the quality of the research and the importance of the results will be also considered. The number of abstracts is limited to a maximum of two per participant. In addition, each participant can only be the first author of one communication. Authors of all the accepted abstracts, including those for poster papers, will be informed by 1st march 1996.

Proceedings of the abstracts will be prepared and made available to all participants attending the Symposium. After the Symposium, oral and poster communications can be submitted to referees and, in case of being accepted, published as a book on Soils with Gypsum by international publishers.

#### **Language**

The official language of the Symposium will be english. Communications will exceptionally be allowed in the other three official languages of the International Society of Soil Science: spanish, french and german. The Book on Soils with Gypsum will be published in english.

#### **Deadlines**

|                               |            |
|-------------------------------|------------|
| Submission of abstracts       | 1-Jan-96   |
| Acceptance of abstracts       | 1-March-96 |
| Registration without recharge | 1-July-96  |
| Beginning of ISSWG            | 15-Sept-96 |

#### **Further information and registration form**

R.M. Poch  
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**NOTICE RECEIVED**

**CREACION DE UN NUEVO CENTRO DE INVESTIGACION**

El pasado 21 de abril se firmó un Convenio de cooperación científica por el que se creaba en Valencia (España) el Centro de Investigaciones sobre Desertificación (CIDE). El Convenio fué firmado por el Consejo Superior de Investigaciones Científicas, la Universitat de Valencia y la Generalitat.

La problemática actual sobre Desertificación fué puesta de manifiesto en la Cumbre de la Tierra en Rio de Janeiro (1992) y posteriormente fué ratificada en París, en octubre de 1994, con la firma de un convenio de la ONU sobre lucha contra la desertificación y la sequía. Los problemas de desertificación también inciden en los países europeos como queda reflejado en una de las partes de esta convención que se dedica a la problemática específica de los países europeos mediterráneos.

En la Comunidad Valenciana la desaparición de la cobertura vegetal (fundamentalmente por incendios forestales), la degradación del suelo y las perturbaciones del ciclo hidrológico, constituyen los procesos básicos que incrementan los riesgos de desertificación del territorio.

Con la creación del CIDE se trata de unificar los esfuerzos de distintos equipos investigadores, que ya venían actuando dentro de la Comunidad por separado, con el objetivo de formar un gran equipo investigador, en el que se pretende potenciar los efectos de sinergismo y multidisciplinariedad.

El CIDE se estructura en tres departamentos científicos (Degradación y Conservación de Suelos, Teledetección y Planificación) y una serie de unidades de apoyo e instalaciones como invernaderos y estaciones de campo. En ellas se abordan entre otros, los estudios sobre procesos de erosión y degradación del suelo a diferentes escalas y la relación con su incidencia sobre la desertificación, así como la creación de un banco de datos de parámetros de erosión, con los que se podrán tomar las medidas adecuadas para la conservación de los suelos y restauración de zonas degradadas. Otra de las líneas prioritarias son los estudios de planificación de usos agrarios, tendentes a la conservación y a un mejor aprovechamiento del recurso suelo.

Para ello se contará con tecnologías modernas como teledetección y SIG que permiten la evaluación y seguimiento con mayor precisión y rapidez.

El centro está coordinado con otros centros y departamentos nacionales con temáticas relacionadas con los problemas de desertificación. Además está capacitado para transferir sus resultados y desarrollos tecnológicos a terceros países.

Como director del CIDE se ha nombrado a José Luis Rubio, Investigador Científico del CSIC, y como vicedirector a Juan Sánchez, Catedrático de Edafología en la Facultad de Farmacia de Valencia, que junto a una veintena de investigadores tienen el reto de alcanzar los objetivos científicos propuestos.

**J. Forteza  
CIDE, Valencia, España**