Bulletin

of the International Society of Soil Science

Bulletin

de l'Association Internationale de la Science du Sol

Mitteilungsblatt

der Internationalen Bodenkundlichen Gesellschaft

Boletín

de la Sociedad Internacional de la Ciencia del Suelo

No. 91 1997/1

ISSN:0374-0447. Edited and published by/rédigé et publié par/redigiert und publiziert von:

INTERNATIONAL SOCIETY OF SOIL SCIENCE
ASSOCIATION INTERNATIONALE DE LA SCIENCE DU SOL
INTERNATIONALE BODENKUNDLICHE GESELLSCHAFT

Founded/Fondée/Gegründet: 19-05-1924. Individual membership/Membres indivi duels/Individuelle Mitgliedschaft: 7000. Affiliated national and regional Societies/Associations nationales et régionales affiliées/Angeschlossene nationale und regionale Gesellschaften: 65. A scientific union member of ICSU since/Membre scientifique du CIUS depuis/Wissenschaftliches Mitglied von ICSU seit: 1993.

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Bulletin

of the International Society of Soil Science

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Boletín

de la Sociedad Internacional de la Ciencia del Suelo

Edited and published by/rédigé et publié par/redigiert und publiziert von/
redactado y publicado por:
International Society of Soil Science (ISSS)
Association Internationale de la Science du Sol (AISS)
Internationale Bodenkundliche Gesellschaft (IBG)
Sociedad Internacional de la Ciencia del Suelo (SICS)

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reviews should be sent to this address)

ISSN: 0374-0447

Printed by: WUV-Universitätsverlag
A-1009 Wien, Berggasse 5
Tel: +43-1-3105356-0
Fax: +43-1-3187050

Orders to: Dr. P.U. Luescher, ISSS Treasurer
WSL, Zürcherstr. 111
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Price of a single copy: 25.00 US$

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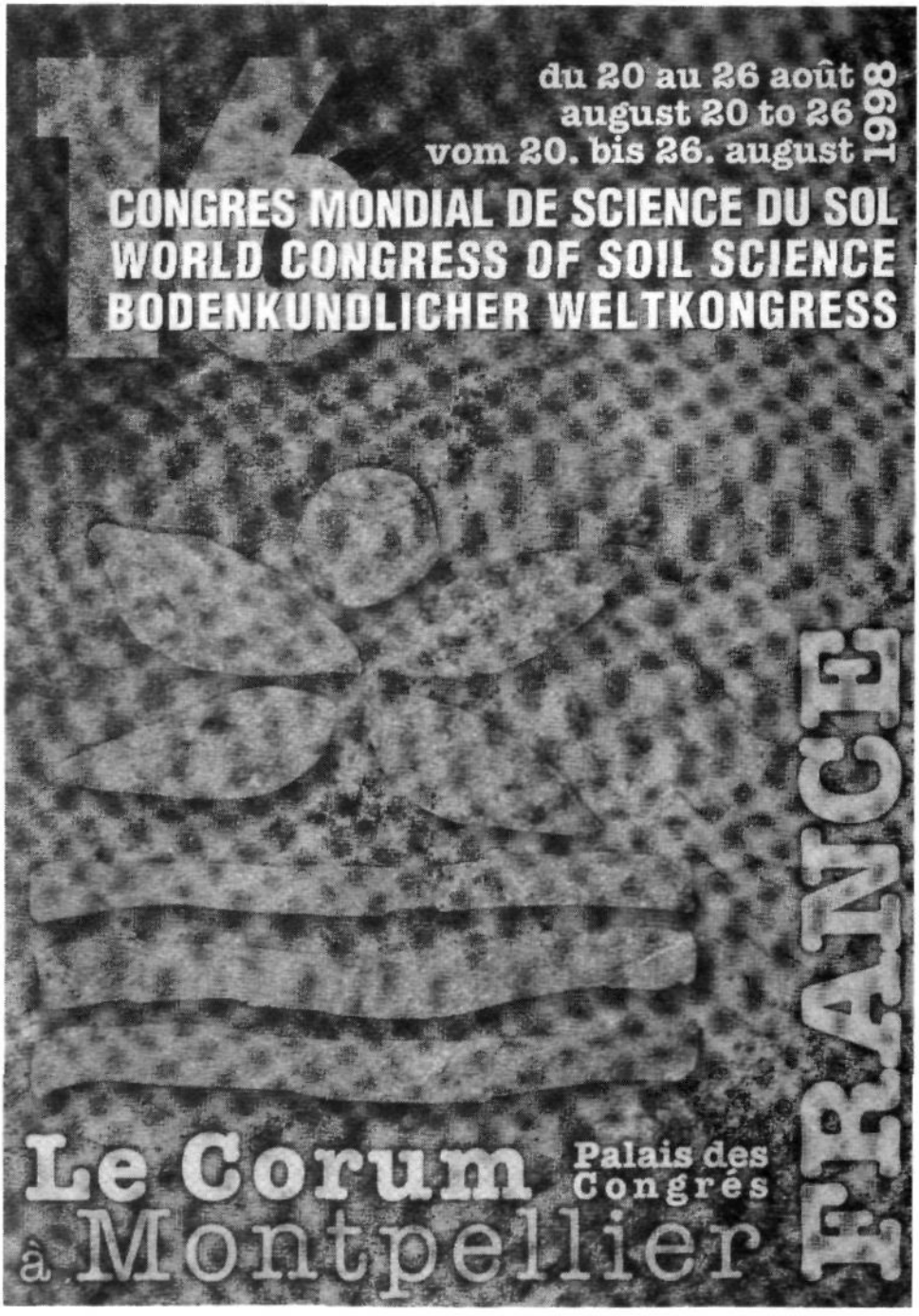
14
du 20 au 26 août 1998
august 20 to 26
vom 20. bis 26. august
CONGRES MONDIAL DE SCIENCE DU SOL
WORLD CONGRESS OF SOIL SCIENCE
BODENKUNDLICHER WELTKONGRESS
FRANCE
Le Corum
Palais des Congrès
à Montpellier

16ème CONGRES MONDIAL DE SCIENCE DU SOL
16th WORLD CONGRESS OF SOIL SCIENCE
16. BODENKUNDLICHER WELTKONGRESS
16° CONGRESO MUNDIAL DE LA CIENCIA DEL SUELO

16th World Congress of Soil Science
Montpellier - France
August 20th to 26th 1998

FIFTH ANNOUNCEMENT

Address of the Congress Secretariat :

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10 000 copies of the Congress Programme and Registration Forms have been distributed

Up to May 15th 1997, the Congress Secretariat has received nearly 1 700 proposals of scientific papers (summaries) : thanks to the authors

Be careful : don't forget the next closing dates (see next page)

REMINDER OF THE MAIN CLOSING DATES

(all information given below is detailed in the Congress Programme)

- The **Scientific Registration Form**, together with a **Summary of the proposed paper**, were to be sent to the Congress Secretariat before 30 April 1997. To take into account postal delays, we have decided to accept registrations and summaries until 15 May 1997. We remind that all proposals for papers received after this date are automatically classified as poster ; **no papers will be accepted after 31 August 1997**.
- Authors whose papers have been accepted by the Congress Scientific Committee, will be informed at the beginning of November 1997. The **final summary** (1 page, 2 000 characters maximum for the summary text : this maximum length must imperatively be respected) and **full text** (7 pages, 14 000 characters) of the accepted paper must be sent to the Congress Secretariat before **31 December 1997**.
- Authors whose papers have been accepted must imperatively send their **General Registration Form** and pay their registration fees before **31 December 1997**. No scientific paper will be accepted without payment of registration fees.
- **All prices** (other than accommodation) **will be subject to a surcharge of 20% for payment received later than 31 December 1997.1**
- All congress participants are strongly advised to send their **General Registration Form** and to pay their **Registration Fees** before **31 December 1997.**
- All congress participants are strongly advised to send their **Accommodation Form,** with the **Advance Payment,** as soon as possible ; they will thus be more sure of obtaining their chosen accommodation ; requests for reservations received after **1st June 1998** will be limited by availability.
- **For pre and post-congress scientific tours :**
  - you are advised to send the **Tours registration form** and to pay an **Advance Payment** *(for each tour selected) before* **31 August 1997** ; *only those tours with sufficient numbers enrolled, and advance payment paid , will be retained ;*
  - the full registration fee for each tour, free of the 20% surcharge, must be paid before **31 December 1997** ; only those tours with sufficient numbers enrolled and full payments, will be retained ; the full payment for each tour may be made as of now ;
  - for the tours which do take place, a 20% surcharge will be added to the full price for registrations and payments received after **31 December 1997**.

Alain RUELLAN
President of ISSS
and of 16th World Congress of Soil Science

16ème CONGRES MONDIAL DE SCIENCE DU SOL
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would like to receive (free of charge) the Congress Programme and the Registration Forms

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English version : .....

Date : _____ **Signature :** _____

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16ème Congrès Mondial de Science du Sol
Montpellier - France
20 au 26 août 1998

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Le Programme du Congrès et les Fiches d'Inscription au Congrès ont été diffusés à plus de 10 000 exemplaires

A la date du 15 mai 1997, le secrétariat du Congrès avait reçu près de 1 700 propositions de communications scientifiques (résumés) : merci à tous les auteurs

Attention : n'oubliez pas les prochaines dates limites (voir page suivante)

RAPPEL DES PRINCIPALES DATES LIMITES

(toutes les informations données ci-dessous sont détaillées dans le Programme du Congrès)

- Le **Bulletin d'Inscription Scientifique**, accompagné du **Résumé de la communication** proposée, devaient être envoyés au Secrétariat du Congrès avant le 30 avril 1997. Pour tenir compte des délais postaux, nous avons décidé d'accepter de recevoir des inscriptions et des résumés jusqu'au 15 mai 1997. Nous rappelons que toute proposition de communication reçue après cette date est automatiquement mise en poster; **aucune communication ne sera acceptée après le 31 août 1997**.
- Les auteurs, dont la communication est acceptée par le Comité Scientifique du Congrès, en seront avertis **début novembre 1997**. Le **résumé définitif** (1 page, 2 000 signes maximum pour le texte du résumé : cette longueur maximum est à respecter absolument) et le **texte complet** (7 pages, 14 000 signes) de la communication acceptée doivent être envoyés au Secrétariat du Congrès avant le **31 décembre 1997**.
- Les auteurs des communications acceptées doivent impérativement envoyer leur **Bulletin Général d'Inscription** et payer leurs droits d'inscription avant le **31 décembre 1997**. Aucune communication scientifique ne sera prise en compte sans paiement des droits d'inscription.
- **Tous les coûts** (sauf les frais d'hébergement) **sont majorés de 20% pour les paiements postérieurs au 31 décembre 1997**.
- Nous recommandons vivement, à tous les congressistes, d'envoyer leur **Bulletin Général d'Inscription** et de payer leurs **Droits d'Inscription** avant le **31 décembre 1997**.
- Nous recommandons, à tous les congressistes, d'envoyer leur **Bulletin d'Hébergement,** accompagné des **Arrhes**, le plus tôt possible ; ils seront ainsi mieux assurés d'obtenir l'hébergement de leur choix ; les demandes de réservation reçues après le **1er juin 1998** ne pourront être satisfaites que dans la mesure des disponibilités.
- Pour les **excursions pré et post-congrès** :

- il est recommandé d'envoyer le **Bulletin d'Inscription aux Excursions** et de payer un **Acompte** (pour chaque excursion choisie) avant le **31 août 1997** ; chaque excursion n'aura lieu que si est reçu un nombre suffisant d'inscriptions et d'acomptes ;
- le prix total d'inscription à chaque excursion, sans majoration de 20%, devra être payé avant le **31 décembre 1997** ; chaque excursion n'aura lieu que si est reçu un nombre suffisant d'inscriptions et de paiements complets ; le prix total de chaque excursion peut être payé dès maintenant ;
- pour les excursions qui auront lieu, le prix total sera majoré de 20% pour ceux qui s'inscriront et paieront après le **31 décembre 1997.**

Alain RUELLAN
Président de l'AISS
et du 16ème Congrès Mondial de Science du Sol

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16th WORLD CONGRESS OF SOIL SCIENCE
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16. Bodenkundlicher Weltkongreß
Montpellier - Frankreich
20. - 26. August 1998

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10.000 Exemplare des Kongreßprogramms
und des Anmeldeformulars
wurden bereits verschickt

bis 15. Mai 1997 erhielt das Kongreßsekretariat fast 1.700 Vorschläge für wissenschaftliche Beiträge (Zusammenfassungen):
ein Dankeschön an die Autoren

Achtung:
bitte beachten Sie die nächsten wichtigen Daten
(siehe nächste Seite)

WICHTIGE DATEN ZUR ERINNERUNG

(die nachstehende Information finden Sie detailliert im Kongreßprogramm)

- Das **wissenschaftliche Anmeldeformular** mußte zusammen mit der **Zusammenfassung des vorgeschlagenen Kongreßbeitrags** bis spätestens 30 April 1997 an das Kongreß-Sekretariat gesandt werden. Um Verzögerungen auf dem Postweg Rechnung zu tragen, wurde beschlossen, Anmeldungen und Zusammenfassungen bis 15. Mai 1997 anzunehmen. Wir weisen nochmals darauf hin, daß alle Vorschläge für Beiträge die nach diesem Datum eintreffen, automatisch als Poster eingestuft werden; nach dem **31. August 1997** werden keine Beiträge mehr angenommen.
- Die Verfasser jener Beiträge, die vom wissenschaftlichen Komitee des Kongresses angenommen wurden, werden Anfang November 1997 informiert. Die **endgültige Zusammenfassung** (max. 1 Seite, 2.000 Zeichen für den Text der Zusammenfassung: diese Maximallänge muß unbedingt eingehalten werden) und **der vollständige Text des angenommenen Beitrags** (7 Seiten, 14.000 Zeichen) müssen vor dem **31. Dezember 1997** an des Kongreß-Sekretariat gesandt werden.
- Autoren, deren Beiträge angenommen wurden, müssen unbedingt vor dem **31. Dezember 1997** ihr **allgemeines Anmeldeformular** einsenden und ihre **Anmeldegebühr** entrichten. Kein wissenschaftlicher Beitrag wird angenommen wenn die Anmeldegebühr nicht bezahlt ist.
- Auf **alle Preise** (außer dem für die Unterkunft) wird **bei Bezahlung nach dem 31. Dezember 1997 *ein Zuschlag von 20 % verrechnet.***
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- **Wissenschaftliche Exkursionen vor und nach dem Kongreß:**
  - Bitte senden Sie das **Exkursions-Anmeldeformular** und die **Anzahlung** (für jede der gewählten Exkursionen) vor dem **31. August 1997** ein; nur Exkursionen für die eine genügend große Anzahl von Interessenten angemeldet ist und angezahlt hat, werden im Programm beibehalten;
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  - für alle Exkursionen die durchgeführt werden, wird ein Aufschlag von 20 % auf alle Anmeldungen und Zahlungen verrechnet, die nach dem **31. Dezember 1997** eintreffen.

Alain RUELLAN
Präsident der IBG
und des 16. Bodenkundlichen Weltkongresses

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The proceedings of the last three International Congresses of Soil Science can be ordered at a reduced rate for ISSS members.

Proceedings 13th International Congress of Soil Science, Hamburg, 1986 (set of 6 volumes)	NLG 25.—
Proceedings 14th International Congress of Soil Science, Kyoto, 1990 (set of 7 volumes)	NLG 75.—
Proceedings 15th World Congress of Soil Science, Acapulco, 1994 (set of 17 volumes)	NLG 100.—

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Please send me the set(s) of the proceedings of the International Congress(es) of Soil Science mentioned below:

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INTERNATIONAL SYMPOSIUM
SOIL SYSTEM BEHAVIOUR IN TIME AND SPACE

November **19 - 21**, 1997, Vienna, Austria

The Conference will be supported by the Austrian Society of Soil Science, the ISSS (Commission V, WG RB), the City of Vienna and the Universitaet fuer Bodenkultur. The Conference activities will take place at the Universitaet fuer Bodenkultur (University of Agricultural Sciences), in Vienna, Austria.

Scientific programme:

1st day: Soil as a complex system, describing the soil as an open, multiface and multifacet systems of bio-geospheric interactions, focusing on specific aspects of its components, the time scale of its processes and the spatial distribution of components and processes, as well as discussing synergetic phenomena in soil systems and concepts of steady-state versus non steady-state.

2nd day: Models of soil system processes, focussing on general aspects of modeling in soil science as well as models for specific processes and case studies, based on experimental data, rates and depths of processes and focussing on „short-term models" (e.g. gas exchange, filter- and buffer actions, „chemical time bomb", organic matter turnover etc.) and „medium to long-term models" (e.g. soil formation and evolution related to soil chronosequences etc.)

3rd day: World Reference Base for Soil Resources and soil system behaviour in time and space, focussing on how soil diagnostic characteristics (horizons, properties, materials) and soil groupings are adapted to reflect the temporal behaviour of soil systems.

Language: English

Registration: The registration fee will be approx. US$ 250. A notice of intent should be sent to the Organizing Committee before March 1, 1997. The second circular, including the scientific programme, details of payment of registration fees etc. will be sent after receiving the notice of intent.

Posters can be presented on all three main topics of the symposium. On the 1st and 3rd day, invited papers will be presented. Voluntary oral presentations are welcome for the 2nd day and will be selected by the Organizing Committee on the basis of a two-page summary, which should be submitted not later than June 1, 1997. All presentations (posters, voluntary and invited papers) will be published as 2 page-extended summaries, if the camera-ready text together with a floppy disc (Word for Windows, ASCII, WordPerfect) reaches the Organizing Committee before June 1, 1997.

For more detailed information please contact:

Dr. W.W. Wenzel, Universitaet fuer Bodenkultur, Institute of Soil Research
Gregor Mendel-Strasse 33 1180 Vienna, Austria
Tel. and Fax: +43-1-47654-3119; E-mail: wazi@edv1.boku.ac.at

NOTICE OF INTENT
INTERNATIONAL SYMPOSIUM: SOIL SYSTEM BEHAVIOUR IN TIME AND SPACE

November 18 - 20, 1997, Vienna, Austria

Surname ..... First name .....

Affiliation .....

Mailing address.....

.....

Fax ..... E-mail .....

Proposed title of paper for presentation (❑ oral / ❑ poster): .....

.....

Accompanying person(s) .....

.....

.....

Date Signature

NEW ISSS STATUTES

May 17th, 1997

Dear Madam, Dear Sir,

In September 1995 we started informing you about a possible change of the statutes of ISSS for comments. This information was prepared by the Committee on Statutes and Structure (CSS) of our Society, who had been working on this issue for several years.

Since then, further sessions of this Committee together with the Executive Council of ISSS have taken place, about which reports were published in previous ISSS Bulletins. Now we are able to submit to you a draft for new ISSS statutes (see enclosure); in the preparation of this, all comments and proposals received so far have been taken into consideration.

We would appreciate it very much if you could let us have your comments and suggestions regarding this draft before the end of September 1997, as the CSS and the Executive Committee will hold another meeting on October 8-11, 1997 in Louvain-la-Neuve/Belgium, in order to agree on the next steps to be taken. After that, the new statutes will be submitted to a postal vote, according to the present Rules of ISSS, before the end of this year. If the vote is positive, the new Statutes are planned to come into force at the end of the 16th World Soils Congress in Montpellier.

Please send your comments, suggestions and wishes directly to the Secretary-General, Prof. Winfried E.H. Blum, Vienna.

We send our best regards to you and to all members of your National Society,

Yours sincerely,

Winfried E.H. Blum	Alain Ruellan	Bernard Tinker
Secretary-General, ISSS	President, ISSS	Chairman, CSS

Draft
NEW STATUTES
of the
INTERNATIONAL UNION OF SOIL SCIENCES (IUSS)
(formerly the International Society of Soil Science)

THE PURPOSE OF THE UNION

A. Name, objectives and seat of the IUSS.

A1. The name of the Union shall be the International Union of Soil Sciences (IUSS).

A2. The objectives of the IUSS shall be to foster all branches of the soil sciences and their applications, and to give support to soil scientists in the pursuit of their discipline.

A3. The activities of the IUSS shall include:

a. arranging meetings, conferences and congresses;
b. forming divisions and other structures to manage the affairs of particular branches of the sciences;
c. arranging for the publication of material relevant to the interests of the society, and its members;
d. establishing cooperation with other related organizations;
e. arranging for studies in particular fields of general interest, such as scientific units, classifications and databases;
f. establishing prizes or awards to encourage and recognise excellence in the discipline;
g. taking any other action that will advance the discipline of soil science.

A4 The seat of the IUSS shall be the professional address of the current Secretary-General.

A5. All interpretations of the Statutes by the Council are final. The Council promulgates and amends Bye-laws where this is needed to clarify the Statutes, or to improve the operations of the IUSS.

B. Membership

The classes of membership shall be as follows:

B1. National Societies of Soil Science, or other adhering national organizations representing the soil scientists of that country, may join as **Full Members**. Only one organization can join from each country. Where the adhering organization is different from the National Soil Science Society, the National Society shall be a part of, or have a formal agreement with, the adhering organization. Regional associations may be formed by a group of countries who are not members, so that the associations may become **Full Members**.

B2 The members of a National Soil Science Society that is a Full Member of the IUSS, directly or through an adhering organization, will be **Society Members** of the IUSS. They will pay no direct subscription, as the subscription of the National Society or other adhering organization will be considered to cover them. They will have rights to attend all IUSS Congresses and meetings, to receive IUSS publications, and to vote for Divisional, Commission and Working Group officers.

B3. Individuals may have **Individual Membership** and retain their link directly with the IUSS, if they reside in a country or region that is not a Full Member of IUSS. They will have the same rights as society members, but will receive publications directly from the IUSS, and will pay an appropriate subscription that covers the costs of this status.

B4. Small National Soil Science Societies, or societies for related disciplines, may be admitted as **Associate Members**. These will have no vote or seat in Council, but their members will normally have the same rights as society members.

B5. Corporate bodies who may wish to support the soil sciences in various ways may become **Sustaining Members**. This carries no voting rights.

B6. **Honorary Members** will be elected by Council, and shall be soil scientists of great distinction and international reputation, who have given service to the ISSS and/or the IUSS. No Honorary Member shall be elected if this brings the total number of Honorary members up to more than one per thousand members of the Union, including society members. Up to 5 Honorary Members may be elected at any one IUSS World Congress. Proposals for Honorary Membership shall be made to the Secretary-General by a Council member at least 6 months before the next IUSS World Congress. Elections can only take place, and results be announced, at the IUSS World Congress.

B7. Membership of the Society shall be suspended if subscriptions are more than 1 year in arrears, payment becoming due on 1st January each year.

B8. A Member of any status can be expelled on a 2/3 vote of the Council if the member has broken the Statutes of the IUSS, or has brought it into disrepute, or has been persistently in arrears with subscriptions.

THE STRUCTURE OF THE IUSS

C. The Council

C1. The Council consists of the Executive Committee, one accredited representative from each Full Member, and three Honorary Members. The last mentioned shall be elected on a postal vote by the whole body of Honorary Members.

C2. The Council is the supreme body of the IUSS, and carries general responsibility for the efficient functioning and the success of the IUSS. The Council is chaired by the President, unless he has specifically delegated his authority to another member of the Bureau for that occasion. Fifty percent of the Council members constitute a quorum. The Council must meet during the IUSS World Congress, and may meet more often. The President shall report on the activities and decisions of Council to the IUSS World Congress.

C3. Council members representing Full Members must be accredited by the relevant body to the Secretary-General before a Congress. They shall normally serve from the beginning of one Congress to the beginning of the next, and can be re-accredited for further terms. Their method of selection is for the relevant Full Member to decide, but they must be members of the National Soil Science Society of that country, or of a country within that Regional Association.

C4. Each Full Member shall have one representative on Council. The number of votes the representative may cast will be based on the 'scale point' for the subscription that the Full Member has agreed with the IUSS. (see L3)

C5. The Council has the following specific functions, together with its general responsibility for the wellbeing of the IUSS:

a. To determine the next IUSS World Congress country and venue, and appoint the next President and Vice-president from that country. This responsibility can be delegated to the Executive Committee. The selection should take place at least 6 years before the Congress date.

b. To appoint the Secretary-General, Treasurer and Deputy-Secretary-General, and if necessary terminate their appointments.

c To determine subscriptions and charges for Members.

d. To discuss and determine changes to the Division/Commission structure of the IUSS, on the recommendation of the Executive Committee.

e. To oversee and approve arrangements for IUSS World Congresses and other major meetings.

f. To set policy guidelines for the Bureau and Executive Committee, for action when Council is not in session.

g. To establish Review Groups and Task Forces to examine scientific, political or administrative issues affecting the Society, and to decide action on the basis of their reports.

h. To receive the reports of the Secretary General and the audited accounts of the Treasurer, and to take appropriate action.

i. To elect Honorary Members.

j. To establish and provide terms of reference for the necessary Standing Committees of Council. Their Chairpersons shall report to Council.

k. To establish, and appoint the Chairperson of, the Electoral Committee that oversees the elections at the IUSS World Congress (see K1).

D. The Bureau.

D1. The Bureau is the collective name for the IUSS Officers, i.e. the President, the President-elect, the past-President, the Vice-President, the Vice-President-elect, the past-Vice-President, the Secretary-General, the Treasurer and the Deputy Secretary-General.

D2. The President and Vice-President are elected by Council at the time at which the country and venue for the next IUSS World Congress is chosen, and must be from that country. They are elected 6 years before the Congress, i.e. two years before they enter office. They shall be members of the Bureau for 10 years: two years as President- and Vice-President-elect, 4 years in office, and 4 years as past-President and past-Vice-President.

D3. The Bureau shall meet at IUSS World Congresses, and at least once between Congresses, and otherwise the members shall remain in regular contact with each other. Its meetings shall be chaired by the IUSS President.

D4. The Vice-President shall succeed the President if the latter shall be incapacitated or shall resign, or be judged unfit to serve by the Council. If the Vice-President is not available, the past-President, or the President-elect, shall become President. If these cannot be appointed for any reason, Council can designate any member of Council to be Acting President.

D5. The functions of the Bureau are as follows:

a. The continuing management of the IUSS, following policy guidelines established by Council.

b. Oversight of IUSS finances, as managed by the Treasurer, including the recommendation of levels of subscriptions, and all other charges, to Council.

c. Preparation of Council and Executive Committee business, as managed by the Secretary-General.

d. The production and dissemination of information and publications to members, as managed by the Secretary General.

e. Continuing contact with ICSU, other Unions and organizations.
f. International representation of the IUSS.

E. The Executive Committee.

E 1. The Executive Committee shall consist of the Bureau, and the Chairpersons of the Divisions and Standing Committees of the IUSS. The Chairperson of a Division may delegate his or her membership to the Chairperson of an associated Commission, with the agreement of the IUSS President.

E2. The Executive Committee shall be responsible for all scientific activities of the IUSS, including oversight of the Divisional structures, the work of scientific Review Groups or Task Forces (see C5g), scientific liaison and collaboration, and any other actions required on scientific grounds.

E3. The Executive Committee shall meet during each IUSS World Congress, and at least once between these. The President of the Society shall chair the Executive Committee, unless he or she has delegated his or her authority to a member of the Bureau for a specific occasion.

E4. The Executive Committee shall consider all formal proposals (see G3, G7) for changes in the IUSS structures, and shall pass them to Council for decision, with their recommendation for action or rejection.

E5. The Executive Committee shall make recommendations to Council concerning candidates for Honorary Membership, on the basis of proposals made by Full Members (see C5i).

E6. In case Council cannot meet to deal with urgent business, the Executive Committee shall act in its place, submitting such action to Council at its next meeting for ratification.

F. The Standing Committees.

F1. Standing Committees may be established by Council to oversee areas of its business and to advise it. The Chairpersons of the Standing Committees are **ex officio** members of Council and of the Executive Committee.

G. The Divisions

G1. The scientific work of the IUSS shall be carried out through Divisions, that are defined by subject, and are arranged to cover the whole area of disciplinary interest of the Society. The Divisions shall be composed of Commissions and Working Groups.

G2. Council shall name and define the area of responsibility of each Division, on the basis of proposals made to it by the Executive Committee. All proposals must be publicised to members at least 6 months before the meeting of Council at which the proposal(s) will be discussed.

G3. Any 20 Society or Individual Members of the Society may submit to the Secretary-General a proposal for change in the scientific structure of the IUSS. Each proposal will be considered by the Executive Committee before being sent to Council with the views of the Executive Committee.

G4. Each Division shall be managed by a Divisional Committee, consisting of a Chairperson, a Vice-Chairperson and a Secretary, the past-Chairperson and the Chairpersons of the Commissions within that Division.

G5. To ensure proper coordination with the arrangements for the subsequent IUSS World Congress, the Secretary and one other member of the Divisional Committee shall be from the country where the next Congress will take place.

G6 The Divisional Committee shall manage and direct its scientific programme, and shall ensure that there is a suitable level of activity in all main topics within the Division. It shall give careful attention to the development of the science, and ensure that the Division responds to new developments.

G7. The Divisional Committee may make proposals for changes in the structure within the Division, or make comments upon proposals arising from elsewhere, and send them to the Secretary-General for consideration by the Executive Committee, before being sent on to Council with the views of the Executive Committee.

H. The Commissions

H1. Each Division shall consist of several Commissions, each of which has responsibility for an appropriate part of the subject. The Divisional Chairperson represents the Commissions in the Executive Committee and the Council.

H2. Each Commission shall be managed by a committee comprising a Chairperson, a Vice-Chairperson and a Secretary. The Chairperson is a member ex officio of the Divisional Committee. The Committee members are elected at the IUSS World Congress by the same procedure as that for the Divisional Committees (see K1).

I. The Working Groups

I1. Working Groups are informal groups that are part of one or more Divisions. Their establishment is proposed to one or more Divisional Committees by members with interests in specific topics. If endorsed by the Division(s), the proposal shall be sent to the Executive Committee, which will accept or reject the proposal.

I2. Working Groups will have a Chairperson and Secretary, elected at a Congress. The IUSS and the Division(s) to which they belong will give all reasonable support, and the Working Group will continue so long as it maintains an active programme of scientific work. The activity of all Working Groups will be reviewed by the Executive Committee at each IUSS World Congress.

J. The IUSS World Congress.

J1. The IUSS World Congress is the main scientific meeting of the IUSS. It shall cover all parts of the discipline and of IUSS. It is open to all members of the IUSS.

J2. The host country National Society shall make all necessary arrangements to ensure the success of the Congress. The plans shall be submitted to Council at its meeting at the previous Congress.

J3. The proceedings of the Congress shall be published by the host country National Society, using methods agreed with the Council.

K. Elections

K1. The elections for Division, Commission and Working Group officers shall take place at the IUSS World Congress. The elections shall be supervised by an Electoral Committee, consisting of a Chairperson appointed by Council, the Secretary General acting as Secretary, and two members from each Division. This Committee shall oversee the elections and ensure that there is a reasonable balance between countries amongst all the elected officers.

K2. The Council shall determine the precise electoral procedure.

K3. Voting in any of these elections shall be by a show of hands, except that in contested elections, or when voting members request it, there shall be a secret written ballot, with two appointed scrutineers.

K4. Elections will normally be decided by a simple majority of votes cast. However, with multiple candidates or proposals, when no candidate or proposal wins a simple majority, the candidate or proposal with the fewest votes is eliminated, and the election continues in this way until an overall majority emerges.

K5. All elected officers of the IUSS, including those in the Divisions and Commissions, shall serve 4 - year terms from the end of one IUSS World Congress to the end of the next such Congress. All officers except the President and Vice-President can be re-elected for one further term. The Secretary-General, Deputy Secretary-General and Treasurer can be re-elected indefinitely.

OTHER REGULATIONS

L. Finance and Subscriptions

L1. The Societies funds are in the care of the Treasurer. Expenditure is authorised by the Secretary General, acting in consultation with the President for sums above a limit set by Council.

L2. An auditor shall be elected by Council. The Treasurer shall prepare accounts for each calendar year and send them for audit. The audited accounts shall be submitted to all members of Council, and published to the membership. A Report on Finance shall be given to Council at the IUSS World Congress, and a summary of this shall be published.

L3. At entry the adhering body from each country shall agree with the IUSS an appropriate position on the standard scale of subscriptions, in the light of the number of members in that country's National Society for Soil Science, and the per capita income in that country, and the arrangements for the adhering organization. The subscription shall be due at the beginning of each calendar year. The scale of subscriptions shall be reviewed by the Bureau before each IUSS World Congress, when proposals may be made to Council for its amendment.

L4. The IUSS shall set the Individual Member subscription so that it as far as possible covers the costs of dealing directly with members in that country.

M. Changes to the Statutes

M1. Changes in these Statutes can only be effected by Council, on a 2/3 majority of voting members of Council in a postal vote. The proposed changes must have been publicised to the whole membership at least 6 months before the vote. Proposals for such changes may come from members of Council, or from any group of not less than 20 Individual and Society Members.

M2. A new Statute shall come into force on a date decided by Council, which shall be as soon as possible after the publication of the results of a positive vote.

Vienne, le 17 mai 1997

Chère Madame, Cher Monsieur,

En septembre 1995, nous avons commencé d'informer sur un projet de modification des statuts de l'AISS. Ce projet avait été préparé, pendant plusieurs années, par le Comité permanent Statuts et Structures (CSS) de l'AISS.

Depuis, le CSS a continué à travailler (voir dans les Bulletins de l'AISS les comptes-rendus des réunions du CSS et du Comité Exécutif de l'AISS): nous pouvons, de ce fait, vous adresser maintenant un projet de nouveaux statuts pour l'AISS (ci-joint). Ce projet tient compte des avis et propositions reçus.

Nous aimerions recevoir, avant fin septembre 1997, vos commentaires et suggestions concernant ce projet. Du 8 au 11 octobre 1997, le Comité Exécutif et le CSS se réuniront à Louvain-la-Neuve (Belgique) dans le but de mettre au point les prochaines étapes. Notre objectif est, selon les statuts actuels, de soumettre le projet au vote postal des membres de l'AISS avant fin 1997. Si les résultats du vote *sont positifs, nous aimerions que les nouveaux statuts soient appliqués à partir de la fin du Congrès de* Montpellier.

Veuillez adresser vos commentaires, suggestions et souhaits, directement au Secrétaire Général, le Professeur Winfried E.H. Blum, à Vienne (Autriche).

Veuillez recevoir, pour vous et pour tous les membres de votre Société Nationale, nos sentiments amicaux.

Winfried E.H. Blum, Secrétaire Général de l'AISS	Alain Ruellan, Président de l'AISS	Bernard Tinker, Président du CSS

Propositions :
NOUVEAUX STATUTS
pour
L'UNION INTERNATIONALE DES SCIENCES DU SOL (UISS)
(anciennement Association Internationale de la Science du Sol)

LES BUTS DE L'UNION

A - Nom, objectifs et siège de l'UISS

A1. Le nom de l'Union est l'Union Internationale des Sciences du Sol (UISS).

A2. L'objectif de l'UISS est d'encourager le développement de tous les secteurs des sciences du sol et de leurs applications et d'aider les spécialistes en sciences du sol à développer leurs activités.

A3. Parmi les activités de l'UISS, il y a :

a. l'organisation de rencontres, de conférences et de congrès ;
b. la création de divisions et autres structures permettant de traiter des activités de secteurs spécifiques des sciences du sol ;
c. la publication de documents concernant les intérêts de l'UISS et de ses membres ;
d. l'établissement de coopérations avec d'autres organisations voisines ;
e. le promotion d'études dans des domaines d'intérêt général tels les unités de mesure, les classifications et les bases de données ;
f. la création de prix pour encourager et reconnaître l'excellence dans la discipline ;
g. la réalisation de toute autre action qui puisse promouvoir ce qui concerne les affaires de la science du sol.

A4. Le siège de l'UISS est à l'adresse du Secrétaire Général en cours de mandat.

A5. Toutes interprétations des Statuts par le Conseil est définitive. Le Conseil promeut et amende des règlements là où il est nécessaire de clarifier les Statuts ou pour améliorer le fonctionnement de l'UISS.

B - Membres

Les catégories de membres sont les suivantes :

B1. Les **Membres à part entière** : peuvent être Membres à part entière les Associations Nationales de Science du Sol ou toute autre organisation nationale représentant les spécialistes en sciences du sol d'un pays. Ne peut adhérer à l'UISS qu'une seule organisation par pays. Quand, pour un pays, l'organisation adhérente n'est pas l'Association Nationale de Science du Sol, cette Association Nationale doit faire partie de l'organisation adhérente ou avoir avec elle un accord formel. Un groupe de pays n'ayant pas d'organisations nationales pouvant être membres de l'UISS, peuvent créer une association régionale qui peut adhérer comme Membre à part entière de l'UISS.

B2. Les membres des Associations Nationales de Science du Sol, qui sont Membres à part entière de l'UISS, directement ou par le canal d'une organisation adhérente, sont **Membres Associatifs** de l'UISS. Les Membres Associatifs ne payent pas de cotisation à l'UISS étant donné que la cotisation payée par l'Association Nationale, ou l'organisation adhérente, les couvrent. Les Membres Associatifs ont le droit de participer à tous Congrès et rencontres organisés par

l'UISS, de recevoir les publications de l'UISS, de voter pour l'élection des responsables des Divisions, Commissions et Groupes de Travail.

B3. Une personne peut demander à être **Membre à titre Individuel** et être ainsi directement liée à l'UISS. Cependant, ceci n'est possible que pour des personnes résidant dans un pays ou dans une région où il n'y a pas un Membre à part entière. Les Membres à titre Individuel ont les mêmes droits que les Membres Associatifs ; ils reçoivent directement les publications de l'UISS ; ils payent à l'UISS une cotisation appropriée.

B4. Les Associations Nationales de Science du Sol de petite dimension, ainsi que les Associations Nationales de petites dimensions pouvant représenter les Sciences du Sol, peuvent être admises comme **Membres Associés.** Elles n'ont pas de siège, ni de droit de vote au Conseil ; leurs membres ont les mêmes droits que les Membres Associatifs.

B5. Les institutions qui souhaitent, de diverses manières, soutenir les Sciences du Sol, peuvent demander à être **Membres Bienfaiteurs**. Ceci ne donne aucun droit de vote.

B6. Les **Membres d'Honneur** sont élus par le Conseil. Ce sont des spécialistes en Science du Sol de haut niveau et de renommée internationale ; ils doivent avoir rendu des services à l'AISS et/ou l'UISS. Aucun Membre d'Honneur ne peut être élu si cela porte le nombre total de Membres d'Honneur à plus de 1 pour 1000 membres de l'UISS (y compris les Membres Associatifs). Lors de chaque Congrès Mondial de l'UISS on ne peut élire plus de cinq Membres d'Honneur. Les propositions de noms pour être Membres d'Honneur doivent être adressées au Secrétaire Général par un membre du Conseil, au moins 6 mois avant le prochain Congrès Mondial de l'UISS. L'élection des Membres d'Honneur et l'annonce des résultats ne peuvent avoir lieu que pendant le Congrès Mondial de l'UISS.

B7. L'adhésion d'un Membre est suspendue si le versement de sa cotisation a plus d'une année de retard. Les cotisations sont dues au 1er janvier de chaque année.

B8. Tout Membre peut être expulsé de l'UISS par vote des 2/3 des membres du Conseil. Les causes de l'expulsion sont le non-respect des Statuts de l'UISS, la mise de l'UISS dans une situation inacceptable, le non-paiement répété des cotisations.

LES STRUCTURES DE L'UISS

C - Le Conseil

C1. Le Conseil comprend le Comité Exécutif, un représentant accrédité de chaque Membre à part entière et trois Membres d'Honneur. Les trois Membres d'Honneur sont élus par le corps des Membres d'Honneur, par vote postal.

C2. Le Conseil est la plus haute instance de l'UISS ; il a la responsabilité générale du bon fonctionnement et de la réussite de l'UISS. Les réunions du Conseil sont présidées par le Président, sauf s'il délègue son autorité à un membre du Bureau. Le quorum est fixé à 50 % des membres du Conseil. Le Conseil doit se réunir pendant le Congrès Mondial de l'UISS ; il peut se réunir plus souvent. Le Président rend compte au Congrès Mondial de l'UISS des activités et décisions du Conseil.

C3. Un membre du Conseil représentant un Membre à part entière doit être accrédité par l'institution concernée, auprès du Secrétaire Général, avant le Congrès Mondial de l'UISS. Il est désigné pour la période allant du début d'un Congrès au début du Congrès suivant ; il peut être

renouvelé. Son choix est de la responsabilité de l'Institution Membre à part entière ; cependant il doit être membre de l'Association Nationale de Science du Sol du pays concerné ou être d'un pays concerné par l'Association Régionale.

C4. Chaque Membre à part entière désigne un représentant au Conseil. Le nombre de votes dont chaque représentant dispose est fondé sur le niveau de cotisation auquel le Membre à part entière aura adhéré en accord avec l'UISS (voir L3).

C5. Le Conseil a, en plus de ses responsabilités générales concernant le bon fonctionnement de l'UISS, les fonctions spécifiques suivantes :

a. Décider du pays et de la date du prochain Congrès Mondial de l'UISS. Désigner le prochain Président et le prochain Vice-Président qui sont du pays choisi pour le Congrès. Ces décisions et désignations peuvent être déléguées au Comité Exécutif. Ces choix sont faits au moins 6 ans avant la date du Congrès concerné.

b. Désigner le Secrétaire Général, le Trésorier et le Secrétaire Général Adjoint. Si nécessaire, mettre fin à leur mandats.

c. Déterminer les cotisations des membres et autres recettes.

d. Sur propositions du Comité Exécutif, discuter et décider des changements concernant la structuration de l'UISS en Divisions et Commissions.

e. Superviser et approuver les principaux choix concernant les Congrès Mondiaux de l'UISS et autres réunions importantes.

f. Définir, pour le Bureau et le Comité Exécutif, les grandes lignes de la politique à suivre entre deux réunions du Conseil.

g. Mettre en place des Groupes de travail Ad-hoc, destinés à examiner tel ou tel sujet scientifique, politique ou administratif, concernant l'UISS ; prendre les décisions qui s'imposent sur la base des rapports de ces Groupes.

h. Recevoir les rapports du Secrétaire Général et les comptes audités du Trésorier ; prendre les décisions qui s'imposent suite à ces rapports.

i. Elire les Membres d'Honneur.

j. Elaborer les termes de références des Comités Permanents du Conseil. Les Présidents des Comités Permanents rapportent au Conseil.

k. Mettre en place le Comité électoral, et son Président, qui supervise le déroulement des élections pendant le Congrès Mondial de l'UISS (voir K1).

D - Le Bureau

D1. Le Bureau regroupe le Président, le Président Elu, l'Ancien Président, le Vice-Président, le Vice-Président élu, l'Ancien Vice-Président, le Secrétaire Général, le Trésorier, le Secrétaire Général Adjoint.

D2. Le Président et le Vice-Président sont élus par le Conseil au moment où sont choisis le pays et la date du prochain Congrès Mondial de l'UISS ; ils sont du pays choisi. Ils sont élus 6 ans avant le Congrès, c'est-à-dire 2 ans avant d'entrer en fonction. Ils sont donc membres du Bureau pendant 10 ans : 2 ans comme Président et Vice-Président Elus, 4 ans en fonction, 4 ans comme Anciens Président et Vice-Président.

D3. Le Bureau se réunit pendant chaque Congrès Mondial de l'UISS ; il doit aussi se réunir au moins une fois entre deux Congrès. Ses membres sont en contact régulier. Les réunions du Bureau sont présidées par le Président.

D4. Le Vice-Président remplace le Président si ce dernier est empêché ou s'il démissionne ou s'il est destitué par le Conseil pour insuffisance. Si le Vice-Président n'est pas disponible, l'An-

cien Président ou le Président Elu devient Président. Si cela n'est pas possible, le Conseil désigne un membre du Conseil pour agir en tant que Président.

D5. Les fonctions du Bureau sont les suivantes :

a. Réaliser les activités de l'UISS selon les lignes politiques établies par le Conseil.

b. Superviser les finances de l'UISS qui sont de la responsabilité du Trésorier. Faire au Conseil les recommandations concernant les niveaux de cotisations et de toutes autres contributions.

c. Préparer, sur propositions du Secrétaire Général, les réunions du Conseil et du Comité Exécutif.

d. Organiser, sur propositions du Secrétaire Général, la production et la diffusion, à tous les membres de l'UISS, d'informations et de publications.

e. Assurer un contact continu avec l'ICSU et avec d'autres Unions et Organisations.

f. Assurer la présence internationale de l'UISS.

E - Le Comité Exécutif

E1. Le Comité Exécutif regroupe le Bureau et les Présidents des Divisions et des Comités Permanents de l'UISS. Le Président d'une Division peut déléguer sa participation au Comité Exécutif au Président d'une Commission associée à sa Division : ceci doit recevoir l'accord du Président de l'UISS.

E2. Le Comité Exécutif est responsable de toutes les activités scientifiques de l'UISS. En particulier, il supervise : le fonctionnement des Divisions, le travail des Groupes Ad-hoc (voir C5g), les collaborations et liaisons scientifiques et toutes autres actions d'ordre scientifique.

E3. Le Comité Exécutif se réunit pendant chaque Congrès Mondial de l'UISS ; il doit aussi se réunir au moins une fois entre deux Congrès. Le Président de l'UISS préside les réunions du Comité Exécutif ; il peut, occasionnellement, déléguer sa présidence à un membre du Bureau.

E4. Le Comité Exécutif doit prendre en considération toutes propositions formelles (voir G3, G7) concernant des changements des statuts de l'UISS. Il doit transmettre ces propositions au Conseil, pour décision, avec ses propres recommandations d'action ou de refus.

E5. Le Comité Exécutif transmet au Conseil ses recommandations concernant les candidatures de Membres d'Honneur ; il fait ces recommandations sur la base des propositions reçues des Membres à part entière (voir C5i).

E6. Dans le cas où le Conseil ne peut se réunir pour traiter d'une affaire urgente, le Comité Exécutif agit à sa place ; il soumet, à la prochaine réunion du Conseil, pour ratification, les actions *qu'il aura décidées et réalisées.*

F - Les Comités Permanents

F1. Des Comités Permanents peuvent être créés par le Conseil, pour suivre des affaires le concernant et le conseiller. Les Présidents des Comités Permanents sont, d'office, membres du Conseil et du Comité Exécutif.

G.- Les Divisions

G1. Le travail scientifique de l'UISS est mené dans le cadre de Divisions. Chaque Division concerne un domaine scientifique. L'ensemble des Divisions couvre tous les domaines intéressant l'UISS. Les Divisions comprennent des Commissions et des Groupes de Travail.

G2. Le Conseil nomme et définit le domaine de responsabilité de chaque Division, sur la base de propositions faites par le Comité Exécutif. Toute proposition doit être publiée à destination des membres de l'UISS, 6 mois au moins avant la réunion du Conseil au cours de laquelle la proposition sera discutée.

G3. Vingt Membres à part entière et/ou Membres à titre Individuel de l'UISS peuvent proposer au Secrétaire Général des changements concernant les structures scientifiques de l'UISS. Chaque proposition est examinée par le Comité Exécutif avant envoi au Conseil accompagné de l'avis du Comité Exécutif.

G4. Chaque Division est animée par un Comité de Division qui comprend : le Président, le Vice-Président, le Secrétaire, l'Ancien Président, les Présidents des Commissions faisant partie de la Division.

G5. Pour assurer une bonne coordination de la Division avec le Congrès Mondial de l'UISS à venir, le Secrétaire et un autre membre du Comité de la Division doivent être du pays où aura lieu le Congrès.

G6. Le Comité de Division anime le travail scientifique. Il s'assure qu'il y a un bon niveau d'activités dans les principaux domaines qui sont du ressort de la Division. Il est attentif au développement de la science et s'assure que la Division s'intéresse aux voies nouvelles.

G7. Le Comité de Division peut faire des propositions de changements concernant les structures de la Division ; il peut faire des commentaires concernant des propositions venant d'ailleurs. Il envoie ses propositions et commentaires au Secrétaire Général pour étude par le Comité Exécutif, puis transmission au Conseil avec l'avis du Comité Exécutif.

H - Les Commissions

H1. Chaque Division comprend plusieurs Commissions, chacune ayant la responsabilité de couvrir une partie du domaine de la Division. Le Président de la Division représente les Commissions au niveau du Comité Exécutif et du Conseil.

H2. Chaque Commission est animée par un Comité comprenant un Président, un Vice-Président et un Secrétaire. Le Président est membre d'office du Comité de Division. Les membres du Comité de Commission sont élus lors du Congrès Mondial de l'UISS selon la même procédure que celle suivie pour les membres du Comité de Division (voir K1).

I - Les Groupes de Travail

I1. Les Groupes de Travail sont des groupes informels qui sont rattachés à une ou plusieurs Divisions. Leur création est proposée, à un ou plusieurs Comités de Division, par des membres intéressés par un sujet particulier. Si la création est acceptée par la ou les Divisions, la proposition est adressée au Comité Exécutif qui acceptera ou rejettera la proposition.

I2. Chaque Groupe de Travail a un Président et un Secrétaire qui sont élus lors du Congrès. L'UISS et la/les Division(s) auxquelles le Groupe est rattaché apportent un appui au Groupe. Le Groupe est maintenu aussi longtemps qu'il a une activité scientifique dynamique. Les activités de tous les Groupes de Travail sont examinées par le Comité Exécutif lors de chaque Congrès Mondial de l'UISS.

J - Le Congrès Mondial de l'UISS

J1. Le Congrès Mondial de l'UISS est l'activité scientifique principale de l'UISS. Il concerne tous les domaines des Sciences du Sol et toutes les activités de l'UISS. Il est ouvert à tous les membres de l'UISS.

J2. L'Association Nationale du pays hôte fait le nécessaire pour assurer la réussite du Congrès. Les projets concernant le Congrès sont soumis au Conseil lors de sa réunion pendant le Congrès précédent.

J3. Les Comptes-Rendus du Congrès sont publiés par l'Association Nationale du pays hôte, selon des démarches ayant reçu l'accord du Conseil.

K - Elections

K1. Les élections des responsables de Divisions, Commissions et Groupes de Travail ont lieu pendant le Congrès Mondial de l'UISS. Les élections sont organisées par un Comité Electoral comprenant un Président, désigné par le Conseil, le Secrétaire Général agissant en tant que Secrétaire du Comité Electoral, deux membres par Division. Le Comité Electoral supervise les élections et s'assure qu'il y a un bon équilibre des représentations des divers pays parmi tous les responsables élus.

K2. Le Conseil détermine la procédure électorale.

K3. Les votes se font à main levée, sauf dans le cas d'élections contestées ou à la demande de membres électeurs ; le vote se fait alors à bulletins secrets, avec deux scrutateurs pour le dépouillement.

K4. L'élection est acquise à la majorité simple des votes exprimés. Dans le cas de plusieurs candidatures ou propositions, quand aucun candidat ou proposition n'obtient la majorité simple, le candidat ou proposition qui obtient le moins de votes est éliminé et l'élection continue ainsi jusqu'à l'obtention d'une majorité simple.

K5. Tous les responsables élus de l'UISS, y compris ceux des Divisions et Commissions, le sont pour 4 ans : de la fin d'un Congrès Mondial de l'UISS à la fin du Congrès Mondial de l'UISS suivant. Mis à part le Président et le Vice-Président de l'UISS, qui ne peuvent être réélus, tous les responsables peuvent être réélus pour un seul nouveau mandat. Le Secrétaire Général, le Secrétaire Général Adjoint et le Trésorier peuvent être réélus pour plusieurs mandats successifs.

AUTRES REGLEMENTS

L - Les finances et les cotisations

L1. Les fonds de l'UISS sont placés sous la responsabilité du Trésorier. Les dépenses sont autorisées par le Secrétaire Général, lequel travaille en relation avec le Président quand il s'agit de sommes au-dessus d'une limite fixée par le Conseil.

L2. Un Commissaire aux Comptes est élu par le Conseil. Le Trésorier établit les comptes annuellement et les envoie, pour vérification, au Commissaire aux Comptes. Les Comptes vérifiés sont soumis à tous les membres du Conseil et sont publiés à l'intention de tous les membres de

l'UISS. Un rapport financier est présenté au Conseil lors du Congrès Mondial de l'UISS ; un résumé en est publié.

L3. En adhérant à l'UISS, l'Association de chaque pays choisit, en accord avec l'UISS, sa place dans l'échelle des cotisations. Ce choix est fonction du nombre de membres de l'Association Nationale de Science du Sol, du Produit Intérieur Brut par personne du pays, mais aussi d'arrangements spécifiques à chaque institution adhérente. Les cotisations sont dues au début de chaque année. L'échelle des cotisations est revue par le Bureau avant chaque Congrès Mondial de l'UISS, dans le cas où des propositions doivent être faites au Conseil pour accord.

L4. L'UISS doit établir, pour chaque pays concerné, les cotisations des Membres à Titre Individuel ; ces cotisations doivent couvrir, le mieux possible, les frais occasionnés.

M - Changement de Statuts

M1. Les changements concernant les présents statuts ne peuvent être effectués que par le Conseil, par vote postal ; la majorité des 2/3 de votes exprimés est nécessaire. Les changements proposés doivent avoir été publiés à l'intention de tous les membres de l'UISS, au moins 6 mois avant le vote. Les propositions de changement peuvent provenir de membres du Conseil ou d'un groupe d'au moins 20 membres à titre Individuel

M2. Les nouveaux statuts seront instaurés à une date décidée par le Conseil. Ce sera fait dès que possible après l'annonce des résultats d'un vote postal, si celui-ci est positif.

Wien, den 17. Mai 1997

Sehr geehrte Damen und Herren,

im September 1995 haben wir begonnen, über mögliche Änderungen der IBG-Statuten zu informieren. Diese waren vom Komitee für Statuten und Struktur (CSS) unserer Gesellschaft, das sich seit mehreren Jahren mit dieser Frage befaßt, erarbeitet worden.

Inzwischen haben weitere Sitzungen dieses Komitees, zusammen mit dem Verwaltungsausschuß stattgefunden, über die auch in den letzten Mitteilungsblättern der IBG berichtet wurde. Mittlerweile sind wir so weit vorangekommen, daß wir einen Entwurf für eine neue Satzung der IBG als Vorschlag übermitteln können (s. Anlage), in den alle bisher eingegangenen Änderungsvorschläge und Kommentare Berücksichtigung fanden.

Wir würden uns sehr freuen, wenn Sie uns noch vor Ende September dieses Jahres Ihre Kommentare und Vorschläge dazu mitteilen könnten, da sich die Kommission zusammen mit dem Verwaltungsausschuß am 8. Oktober wieder in Louvain-la-Neuve/Belgien treffen wird, um die nächsten Schritte zu beraten. - Anschließend soll über die neuen Statuten, gemäß dem derzeit gültigen Statut der IBG, auf postalischem Wege abgestimmt werden. Wir beabsichtigen diese Abstimmung noch in diesem Jahr durchzuführen. Die neuen Statuten sollten dann, mit Ende des 16. Weltbodenkundekongresses in Montpellier in Kraft treten.

Bitte senden Sie Ihre Kommentare, Anregungen und Wünsche direkt an den Generalsekretär, Prof. Winfried E.H. Blum, Wien.

Für heute verbleiben wir, mit unseren besten Wünschen und Grüßen an Sie und die Mitglieder Ihrer Nationalen Gesellschaft,

Winfried E.H. Blum,	Alain Ruellan,	Bernard Tinker,
Generalsekretär der IBG	Präsident der IBG	Vorsitzender des CSS

Entwurf
NEUE SATZUNG
der
INTERNATIONALEN BODENKUNDLICHEN UNION (IBU)
(früher: Internationale Bodenkundliche Gesellschaft)

ZWECK DER UNION

A. Name, Zweck und Sitz der Union

A1. Name der Union ist „Internationale Bodenkundliche Union" (IBU)

A2. Ziele der IBU sind die Förderung aller Zweige der Bodenkunde und ihrer Anwendungen und die Unterstützung von Bodenkundlern verschiedener Fachrichtungen in der Ausübung ihrer Tätigkeit.

A3. Die Aktivitäten der IBU umfassen:
a. die Organisation von Tagungen, Konferenzen und Kongressen;
b. die Bildung von Abteilungen und anderen Strukturen, um Arbeiten bestimmter Zweige der Wissenschaften zu ermöglichen;
c. die Veröffentlichung von Material, das für die Interessen der Gesellschaft und ihrer Mitglieder von Bedeutung ist;
d. die Förderung der Zusammenarbeit mit anderen, ähnlichen Organisationen;
e. die Ermöglichung von Studien auf bestimmten Gebieten allgemeinen Interesses, wie z.B. spezifischer Einheiten, Klassifikationen und Datenbasen;
f. die Stiftung von Preisen oder Auszeichnungen, um hervorragende Leistungen in der jeweiligen Disziplin zu fördern und anzuerkennen;
g. jede weitere Maßnahme, die der Förderung der Bodenkunde dienlich ist.

A4. Der Sitz der IBU ist die Adresse des/der jeweiligen Generalsekretärs/in an seinem/ihrem Dienstort.

A5. Jede Auslegung der Statuten durch den Beirat ist endgültig. Der Beirat erläßt die Zusatzbestimmungen und ändert sie, wenn dies nötig ist, um Unklarheiten in der Satzung zu beseitigen oder um die Funktionsfähigkeit der IBU zu verbessern.

B. Mitgliedschaft

B1. Es gibt folgende Arten der Mitgliedschaft:

Nationale bodenkundliche Gesellschaften oder andere ihnen angeschlossene nationale Organisationen welche BodenkundlerInnen dieses Landes vertreten, können als **Vollmitglieder** beitreten. Pro Land kann nur eine Organisation beitreten. Ist die angeschlossene Organisation nicht ident mit der nationalen bodenkundlichen Gesellschaft, so muß die nationale Gesellschaft ein Teil der angeschlossenen Organisation sein oder mit dieser ein offizielles Übereinkommen haben. Regionale Gesellschaften können von einer Gruppe von Ländern gebildet werden, die keine Mitglieder sind, sodaß diese Regionalgesellschaften **Vollmitglieder** werden können.

B2. Alle Mitglieder einer nationalen bodenkundlichen Gesellschaft, welche direkt oder über eine

angeschlossene Organisation Vollmitglied der IBU ist, sind **„Mitglieder"** der IBU . Sie zahlen keine direkten Mitgliedsbeiträge, da vorgesehen ist, daß der Mitgliedsbeitrag über die nationale bodenkundliche Gesellschaft oder die jeweilige angeschlossene Organisation abgedeckt wird. Sie haben das Recht, an allen Kongressen und Tagungen der IBU teilzunehmen, Publikationen der IBU zu beziehen und die Funktionäre der Abteilungen, Kommissionen und Arbeitsgruppen zu wählen.

B3. Einzelpersonen können **„Einzelmitglieder"** der IBU sein und ihre direkte Verbindung mit der IBU beibehalten, wenn sie in einem Land oder einer Region leben, das/die kein Mitglied der IBU ist. Sie haben die gleichen Rechte wie **Mitglieder** , erhalten aber die Publikationen direkt von der IBU und zahlen einen angemessenen Mitgliedsbeitrag, der die Kosten dieses Status abdeckt.

B4. Kleine bodenkundliche Gesellschaften oder Gesellschaften die verwandte Disziplinen vertreten, können als **„assoziierte Mitglieder"** aufgenommen werden. Diese haben weder Stimmrecht noch Sitz im Beirat aber ihre Mitglieder haben im allgemeinen die gleichen Rechte wie **Mitglieder** .

B5. Körperschaften, die den Wunsch haben, die Bodenkunde zu unterstützen, können **„fördernde Mitglieder"** werden. Diese haben kein Wahlrecht.

B6. **„Ehrenmitglieder"** werden vom Beirat gewählt und sollen hervorragende BodenkundlerInnen von internationalem Ruf sein, die der IBG und/oder der IBU gedient haben. Kein Ehrenmitglied soll gewählt werden, wenn dadurch die Gesamtzahl der Ehrenmitglieder auf mehr als eines pro tausend Mitglieder der Union ansteigt, **Mitglieder** eingeschlossen. Bis zu 5 Ehrenmitglieder können bei jedem Weltkongreß gewählt werden. Vorschläge für eine Ehrenmitgliedschaft sind dem/der GeneralsekretärIn von einem Mitglied des Beirates mindestens 6 Monate vor dem nächsten Bodenkundlichen Weltkongreß vorzulegen. Die Wahl von Ehrenmitgliedern und die Bekanntgabe des Wahlergebnisses können nur auf einem Weltkongreß erfolgen.

B7. Die Mitgliedschaft in der Gesellschaft wird aufgehoben, wenn der Mitgliedsbeitrag mehr als ein Jahr überfällig ist. Die Zahlung wird am 1. Januar jeden Jahres fällig.

B8. Ein Mitglied gleich welchen Status kann mit 2/3 Mehrheit des Beirates ausgeschlossen werden, wenn es der Satzung der IBU zuwidergehandelt, die IBU in Verruf gebracht hat oder ständig mit den Mitgliedsbeiträgen in Verzug ist.

GLIEDERUNG DER IBU

C. Der Beirat

C1. Der Beirat besteht aus dem Verwaltungsausschuß, einem/r bevollmächtigten VertreterIn jedes Vollmitglieds, und drei Ehrenmitgliedern. Letzere sollen per Briefwahl von der Gesamtheit der Ehrenmitglieder gewählt werden.

C2. Der Beirat ist die oberste Instanz der IBU und hat die allgemeine Verantwortung für das effiziente Funktionieren und den Erfolg der IBU . Den Vorsitz im Beirat führt der/die PräsidentIn, es sei denn er/sie hat seine/ihre Befugnisse dazu einem anderen Mitglied des Beirates übertragen. 50 % der Mitglieder des Beirates stellen eine beschlußfähige Mehrheit dar. Der Beirat muß während des Bodenkundlichen Weltkongresses tagen, kann aber öfter zusammenkommen. Der/die PräsidentIn berichtet dem Kongreß über die Aktivitäten und Entscheidungen des Beirates.

C3. Mitglieder des Beirates, die Vollmitglieder vertreten, müssen vor einem Kongreß von der jeweiligen Körperschaft beim/bei der GeneralsekretärIn akkreditiert werden. Ihre Funktionsperiode dauert normalerweise vom Beginn eines Weltkongresses bis zum Beginn des nächsten, und ihre Akkreditierung kann für weitere Funktionsperioden erneuert werden. Die jeweiligen Vollmitglieder entscheiden über das Auswahlverfahren für ihre VertreterInnen. Diese müssen jedoch Mitglieder der nationalen bodenkundlichen Gesellschaft des jeweiligen Landes oder eines Landes innerhalb der jeweiligen regionalen Gesellschaft sein.

C4. Jedes Vollmitglied hat eine/n VertreterIn im Beirat. Die Zahl der Stimmen, die der/die VertreterIn abgeben darf, hängt von der Beitragseinstufung ab, die zwischen dem Vollmitglied und der IBU vereinbart wurde. (siehe L3)

C5. Der Beirat hat die folgenden besonderen Funktionen, neben seiner allgemeinen Verantwortung für die IBU :

a. Die Festlegung des Landes und Ortes, wo der nächste Bodenkundliche Weltkongreß abgehalten werden soll und die Berufung des/der nächsten Präsidenten/in und Vizepräsidenten/in aus diesem Land. Diese Verantwortung kann dem Verwaltungsausschuß übertragen werden. Die Auswahl sollte zumindest 6 Jahre vor dem Weltkongreß erfolgen.

b. Die Ernennung des Generalsekretärs/der Generalsekretärin, des Schatzmeisters/der Schatzmeisterin und des stellvertretenden Generalsekretärs/der stellvertretenden Generalsekretärin und wenn nötig ihre Abberufung.

c. Die Festlegung der Beiträge und Kosten für die Mitglieder.

d. Die Besprechung und Festlegung von Änderungen in der Abteilungs/Kommissions-Struktur der IBU, auf Empfehlung des Verwaltungsausschusses.

e. Die Überwachung von und Zustimmung zu Maßnahmen bezüglich des Weltkongresses oder anderer wichtiger Veranstaltungen.

f. Die Festlegung von Richtlinien für die Vorgehensweise von Vorstand und Verwaltungsausschuß, für Zeiten in denen der Beirat nicht zusammentritt.

g. Die Einrichtung von Prüfungsgremien und Ad-hoc Komitees, welche die Gesellschaft betreffende, wissenschaftliche, politische oder administrative Angelegenheiten prüfen, und die Einleitung von Maßnahmen auf der Basis deren Prüfungsergebnisses.

h. Die Entgegennahme der Berichte des Generalsekretärs/der Generalsekretärin und der geprüften Bilanz des Schatzmeisters/der Schatzmeisterin, und die Einleitung der erforderlichen Maßnahmen.

i. Die Wahl der Ehrenmitglieder.

j. Die Ausarbeitung und Festlegung von Zielvorgaben für die notwendigen ständigen Komitees des Beirates, deren Vorsitzende dem Beirat berichten.

k. Die Einrichtung eines Wahlkomitees zur Überwachung der Wahlen beim Weltkongreß und die Ernennung des Vorsitzenden dieses Komitees. (siehe K1)

D. Der Vorstand

D1. Vorstand ist die Gesamtbezeichnung für die Funktionäre der IBU , d.h. den Präsidenten/die Präsidentin, den designierten Präsidenten/ die designierte Präsidentin, den Altpräsidenten/die Altpräsidentin, den Vizepräsidenten/die Vizepräsidentin, den designierten Vizepräsidenten/ die designierte Vizepräsidentin, den Alt-Vizepräsidenten/ die Alt-Vizepräsidentin, den Generalsekretär/die Generalsekretärin, den Schatzmeister/die Schatzmeisterin und den stellvertretenden Generalsekretär/ die stellvertretende Generalsekretärin.

D2. Der/die PräsidentIn und der/die VizepräsidentIn werden vom Beirat zu dem Zeitpunkt gewählt, zu dem das Land und der Ort festgelegt werden, wo der nächste Weltkongreß stattfindet. Sie müssen in diesem Land ansässig sein. Sie werden 6 Jahre vor dem Kongreß

gewählt, d.h. zwei Jahre bevor sie ihr Amt übernehmen. Sie sind 10 Jahre lang Mitglieder des Vorstands: zwei Jahre als designierte/r PräsidentIn bzw. VizepräsidentIn, vier Jahre im Amt und vier Jahre als AltpräsidentIn bzw. Alt-VizepräsidentIn.

D3. Der Vorstand tritt beim IBU-Weltkongress zusammen und mindestens einmal zwischen den Weltkongressen. Darüber hinaus stehen seine Mitglieder in ständigem Kontakt miteinander. Bei den Zusammenkünften führt der/die PräsidentIn den Vorsitz.

D4. Der/die VizepräsidentIn ist der/die NachfolgerIn des Präsidenten/der Präsidentin, sollte diese/r amtsunfähig werden oder zurücktreten oder sollte der Beirat zu dem Schluß kommen, daß der/die PräsidentIn für sein/ihr Amt ungeeignet ist. Ist der/die VizepräsidentIn für seine/ihre Aufgaben unabkömmlich, dann übernimmt der/die AltpräsidentIn oder der/die designierte PräsidentIn das Amt des Präsidenten/der Präsidentin. Wenn diese aus irgendeinem Grund nicht ernannt werden können, so kann der Beirat eines seiner Mitglieder zum amtsführenden Präsidenten/zur amtsführenden Präsidentin ernennen.

D5. Die Aufgaben des Vorstandes sind:

a. Die ständige Leitung der IBU , nach den Richtlinien, die vom Beirat festgelegt werden.

b. Die Überwachung der finanziellen Angelegenheiten der IBU , verwaltet vom/von der SchatzmeisterIn, einschließlich der Empfehlungen für die Einstufung von Mitgliedsbeiträgen und anderer Belange an den Beirat.

c. Die Vorbereitung der Angelegenheiten des Beirates und des Verwaltungsausschusses, die in die Zuständigkeit des Generalsekretärs/der Generalsekretärin fallen.

d. Die Erstellung und Verbreitung von Informationen und Publikationen an die Mitglieder, unter der Verantwortung des Generalsekretärs/der Generalsekretärin.

e. Der ständige Kontakt mit ICSU und mit anderen Unionen und Organisationen.

f. Die Vertretung der IBU auf internationaler Ebene.

E. Der Verwaltungsausschuß

E1. Der Verwaltungsausschuß besteht aus dem Vorstand und den Vorsitzenden der Abteilungen und ständigen Komitees der IBU . Mit Zustimmung des Präsidenten/der Präsidentin kann der/die Vorsitzende einer Abteilung seine/ihre Mitgliedschaft dem/der Vorsitzenden einer angegliederten Kommission übertragen.

E2. Der Verwaltungsausschuß ist für alle wissenschaftlichen Belange der IBU zuständig, einschließlich der Überwachung der Abteilungsstrukturen, der Arbeit der wissenschaftlichen Prüfungsgremien oder Ad hoc Komitees, der Förderung von wissenschaftlichen Kontakten und Zusammenarbeit und für jede andere aus wissenschaftlichen Gründen notwendige Maßnahme.

E3. Der Verwaltungsausschuß tritt während jedes Weltkongresses zusammen und mindestens einmal zwischen diesen. Der Präsident/die Präsidentin der Gesellschaft führt den Vorsitz über den Verwaltungsausschuß, falls er/sie nicht für einen bestimmten Anlaß seine/ihre Befugnisse einem Mitglied des Vorstandes übertragen hat.

E4. Der Verwaltungsausschuß berät alle offiziellen Vorschläge (siehe G3, G7) für Änderungen der Struktur der IBU und leitet sie an den Verwaltungsausschuß zur Entscheidung weiter, zusammen mit einer Empfehlung bezüglich Annahme oder Ablehnung einer Maßnahme.

E5. Der Verwaltungsausschuß unterbreitet dem Beirat Empfehlungen bezüglich der Kandidaten für eine Ehrenmitgliedschaft, auf der Basis der Vorschläge, die von den Vollmitgliedern eingebracht werden (siehe C5i).

E6. Falls der Beirat nicht zusammentreten kann, um dringende Angelegenheiten zu erledigen, tritt der Verwaltungsausschuß an seine Stelle und legt diese Angelegenheiten dem Beirat bei dessen nächster Zusammenkunft zur Beschlußfassung vor.

F. Die ständigen Komitees

F1. Ständige Komitees können vom Beirat zur Abdeckung einzelner Bereiche seines Aufgabengebietes und zu seiner Beratung eingesetzt werden. Die Vorstände der ständigen Komitees sind **von Amts wegen** Mitglieder des Beirates und des Verwaltungsausschusses.

G. Die Abteilungen

G1. Die wissenschaftliche Arbeit der IBU wird von Abteilungen durchgeführt, die durch ihre jeweilige Fachrichtung definiert werden und die das gesamte Gebiet, das für die Gesellschaft von wissenschaftlichem Interesse ist, abdecken. Die Abteilungen bestehen aus Kommissionen und Arbeitsgruppen.

G2. Der Beirat legt auf der Grundlage von Vorschlägen, die ihm der Verwaltungsrat unterbreitet, den Bereich fest, für den jede Abteilung verantwortlich ist. Alle Vorschläge müssen den Mitgliedern mindestens 6 Monate vor der jeweiligen Tagung des Beirates bekanntgemacht werden, bei der die Vorschläge erörtert werden.

G3. Jeweils 20 beliebige Mitglieder oder Einzelmitglieder der Union können dem Generalsekretär einen Vorschlag für eine Änderung der wissenschaftlichen Struktur der IBU unterbreiten. Der Verwaltungsausschuß befaßt sich mit jedem Vorschlag, bevor er ihn, zusammen mit seinen Kommentaren, dem Beirat vorlegt,.

G4. An der Spitze jeder Abteilung soll ein Abteilungskomitee stehen, bestehend aus einem/r Vorsitzenden, einem/r stellvertretenden Vorsitzenden und einem/r Sekretär/in, dem/der früheren Vorsitzenden und den Vorsitzenden der Kommissionen innerhalb der jeweiligen Abteilung.

G5. Um eine entsprechende Koordination mit den Vorbereitungen für den folgenden Kongreß zu gewährleisten, sollen der Sekretär/die Sekretärin und ein weiteres Mitglied des Abteilungskomitees aus dem Land sein, in dem der nächste Weltkongreß stattfinden wird.

G6. Das Abteilungskomitee verwaltet und leitet sein wissenschaftliches Programm und stellt ein ausreichendes Maß an Aktivitäten in allen Hauptbelangen innerhalb der Abteilung sicher. Es schenkt der Entwicklung der Wissenschaft besonderes Augenmerk und achtet darauf, daß die Abteilung auf neue Entwicklungen reagiert.

G7. Das Abteilungskomitee kann innerhalb der Abteilung Vorschläge für Änderungen der Struktur machen oder Kommentare zu Vorschlägen abgeben, die von anderer Stelle gemacht werden, und kann diese an den Generalsekretär senden, damit sich der Verwaltungsausschuß damit befaßt, bevor sie, zusammen mit den Kommentaren des Verwaltungsauschusses, an den Beirat weitergeleitet werden.

H. Die Kommissionen

H1. Jede Abteilung besteht aus mehreren Kommissionen, von denen jede die Verantwortung für

einen angemessenen Teil des Fachgebietes trägt. Der/die Abteilungsvorsitzende vertritt die Kommissionen im Verwaltungsausschuß und im Beirat.

H2. Jede Kommission wird von einem Komitee geleitet, das eine/n Vorsitzende/n, eine/n stellvertretende/n Vorsitzende/n und eine/n Sekretär/in umfaßt. Der/die Vorsitzende ist kraft seines/ihres Amtes Mitglied des Abteilungskomitees. Die Mitglieder des Komitees werden auf dem Bodenkundlichen Weltkongreß gewählt. Die Vorgangsweise ist die gleiche wie bei der Wahl der Abteilungskomitees. (siehe K1)

I. Die Arbeitsgruppen

I1. Arbeitsgruppen sind informelle Gruppen, die Teil einer oder mehrerer Abteilungen sind. Ihre Einrichtung wird einem oder mehreren Abteilungskomitees von solchen Mitgliedern vorgeschlagen, die sich für ein spezifisches Fachgebiet interessieren. Bei Zustimmung der Abteilung/en wird der Vorschlag an den Verwaltungsausschuß gesandt, der ihn annimmt oder ablehnt.

I2. Jede Arbeitsgruppe hat eine/n Vorsitzende/n und eine/n Sekretär/in der/die auf dem Kongreß gewählt werden. Die IBU und die Abteilung der sie angehören gewähren jede mögliche Unterstützung, und die Arbeitsgruppe besteht so lange, wie sie ein aktives wissenschaftliches Programm durchführt. Die Aktivitäten aller Arbeitsgruppen werden vom Verwaltungsausschuß bei jedem Weltkongreß geprüft.

J. Bodenkundlicher Weltkongreß

J1. Der Bodenkundliche Weltkongreß ist die wichtigste wissenschaftliche Veranstaltung der IBU. Er deckt alle Fachgebiete und alle Teile der IBU ab. Er ist allen Mitgliedern der IBU zugänglich.

J2. Die nationale Gesellschaft des Gastgeberlandes trifft die nötigen Vorbereitungen, um den Erfolg des Weltkongresses sicherzustellen. Die Pläne dafür werden dem Beirat bei dessen Tagung auf dem jeweils vorhergehenden Weltkongreß vorgelegt.

J3. Die Publikationen des Weltkongresses erfolgen durch die nationale Gesellschaft des Gastgeberlandes, die Vorgehensweise hierfür wird mit dem Beirat abgesprochen.

K. Wahlen

K1. Die Wahlen der Funktionäre von Abteilungen, Kommissionen und Arbeitsgruppen werden auf dem IBU-Weltkongreß abgehalten. Die Wahlen werden von einem Wahlkomitee überwacht, das aus einem/r vom Beirat bestimmten Vorsitzenden, dem/der als Sekretär/in fungierenden Generalsekretär/in und zwei Mitgliedern jeder Abteilung besteht. Dieses Komitee soll die Wahlen überwachen und sicherstellen, daß bei den gewählten FunktionärInnen eine angemessene geographische Verteilung gewährleistet ist.

K2. Der Beirat bestimmt die genaue Vorgehensweise bei den Wahlen.

K3. Bei jeder dieser Wahlen erfolgt die Abstimmung durch Handzeichen; nur bei Einspruch, oder wenn AbstimmungsteilnehmerInnen dies wünschen, wird eine geheime, schriftliche Abstimmung mit zwei ernannten WahlprüferInnen durchgeführt.

K4. Die Wahlen werden im allgemeinen durch einfache Mehrheit der abgegebenen Stimmen entschieden. Gibt es jedoch mehrere KandidatInnen oder Vorschläge und erhält keiner der KandidatInnen oder Vorschläge die einfache Mehrheit, so wird der/die Kandidat/in bzw. der Vorschlag mit der geringsten Stimmenzahl ausgeschieden und die Abstimmung wird in dieser Weise fortgesetzt, bis eine entsprechende Mehrheit zustandekommt.

K5. Die Funktionsperioden aller gewählten FunktionärInnen der IBU, einschließlich jener der Abteilungen und Kommissionen, betragen 4 Jahre, vom Ende eines Weltkongresses bis zum Ende des nächsten. Alle FunktionärInnen außer der PräsidentInnen und der VizepräsidentInnen können für eine weitere Amtsperiode wiedergewählt werden. Der/die GeneralsekretärIn, der/die stellvertretende GeneralsekretärIn und der/die SchatzmeisterIn können mehrmals wiedergewählt werden.

SONSTIGE BESTIMMUNGEN

L. Finanzen und Mitgliedsbeiträge

L1. *Die Verantwortung für das Vermögen der Gesellschaft obliegt dem/der Schatzmeister/in.* Ausgaben werden vom/von der GeneralsekretärIn genehmigt; diese/r berät sich mit dem Präsidenten/der Präsidentin, wenn der Betrag über einer Grenze liegt, die vom Beirat festgelegt wird.

L2. Ein Finanzprüfer wird vom Beirat bestimmt. Der/die SchatzmeisterIn bereitet für jedes Kalenderjahr eine Bilanz vor und legt diese zur Überprüfung vor. Die überprüfte Bilanz wird allen Beiratsmitgliedern vorgelegt und den Mitgliedern der IBU bekanntgemacht. Beim Weltkongreß wird dem Beirat ein Finanzbericht unterbreitet, dessen Zusammenfassung veröffentlicht wird.

L3. Beim Beitritt vereinbart die Mitgliedsgesellschaft jedes Landes mit der IBU eine angemessene Beitragseinstufung auf der Basis einer festgelegten Beitragsskala. Dabei wird die Mitgliederzahl der bodenkundlichen Gesellschaft des jeweiligen Landes, das Pro-Kopf-Einkommen im jeweiligen Land und spezielle Vereinbarungen mit der Mitgliedsgesellschaft berücksichtigt. Der Mitgliedsbeitrag wird jeweils zu Beginn des Kalenderjahres fällig. Die Beitragseinstufungen werden vor jedem Weltkongreß vom Vorstand überprüft. Dabei können dem Beirat Vorschläge für eine Änderung unterbreitet werden.

L4. Die IBU setzt den Mitgliedsbeitrag für Einzelmitglieder so fest, daß er so weit wie möglich die Kosten für die direkte Betreuung dieser Mitglieder in einzelnen Ländern abdeckt.

M. Änderung der Satzung

M1. Änderungen dieser Satzung können nur vom Beirat mit einer 2/3-Mehrheit aller Beiratsmitglieder mittels einer Briefwahl durchgeführt werden. Die Änderungsvorschläge müssen allen Mitgliedern mindestens 6 Monate vor der Wahl bekanntgemacht werden. Vorschläge für solche Änderungen können von Beiratsmitgliedern oder von jeder beliebigen Gruppe von nicht weniger als 20 Mitgliedern und/oder Einzelmitgliedern gemacht werden.

M2. Eine neue Satzung tritt zu einem Zeitpunkt in Kraft, der vom Beirat festgelegt wird, und der so bald wie möglich nach der Veröffentlichung der Ergebnisse einer positiven Abstimmung sein soll.

Declaration of the XIIth International Colloquium on Soil Zoology: *Soil Organisms and Soil Resource Management*

Dublin, 21-26 July 1996

To: The Signatory Nations of the Rio Biodiversity Convention

From: The Members of the XIIth International Colloquium on Soil Zoology

Protection and Sustainable Use of the Biodiversity of Soils

The Biodiversity Convention has concentrated upon the visible world, but a considerable part of biodiversity is situated in the soil. Soil contains some of the most intricate and species rich communities of the globe. Its fauna and microflora represent a major part of our natural heritage but are often neglected in conservation management plans. Yet soil biological processes are fundamental for the functioning of natural and managed ecosystems and so are vital for human needs. Consequently consideration of the biodiversity of soil must be included in national plans drawn up to comply with the Biodiversity Convention.

Th. Bolger
Secretary, Local Organising Committee

ADDRESSES

of

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for control of inorganic chemical composition of dried plant materials
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for control of inorganic chemical composition (totals and different extraction procedures) and several soil parameters (EC, pH, CEC, clay, etc.) of dried soil samples
(16 samples per year in 4 periods).

SETOC:
Sediment Exchange for Tests on Organic Contaminants
for control of PAH's, PCB's, organo chlorine pesticides and herbicides of dried sediment and soil samples
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MARSEP:
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(16 samples per year in 4 periods).

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ACTIVITIES OF COMMITTEES, COMMISSIONS, SUB-COMMISSIONS, AND WORKING GROUPS
ACTIVITÉS DES COMITÉS, COMMISSIONS, SOUS-COMMISSIONS ET GROUPES DE TRAVAIL
AUS DER TÄTIGKEIT VON KOMITEES, KOMMISSIONEN, SUBKOMMISSIONEN UND ARBEITSGRUPPEN

CES, Standing Committee on Education in Soil Science
Meeting in Montpellier - France ; 17 and 18 January 1997

The Standing Committee on Education in Soil Science met on the 17 and 18 January 1997. The meeting was organized by Prof. Dr. Mireille Dosso with the help of CNEARC, Centre National d'Etudes Agronomiques des Régions Chaudes.

- It was commonly felt that there was a considerable lack of identity for Soil Science and therefore accompanying problems of communication between soil scientists and other people, whether scientists or not. So the aim for CES is first to increase general awareness of soil and that Soil Science would rediscover its identity accordingly. For the CES, the priority list for the different audiences targeted is : general public, scientists other than soil scientists, those who have to teach soil (specially in primary and secondary school), and finally specialists in soil science.

CES Meeting in Montpellier

Participants of the CES Meeting

- It was then agreed that soil as a natural body would correspond to the minimum knowledge to be shared by everyone, future soil scientist or not.

- Answering the question: how to teach soil? Some of the participants insisted upon modernizing teaching, first in opening the field of soil science to other disciplines, and second by the use of new technologies.

- In the perspective of the 1998 16th World Congress and its Educational Exhibit, a catalogue for existing educational products is being made. For this a questionnaire has been sent to each of the National Soil Science Societies (NSSS) ; and the CES is waiting for answers no later than 31 July 1997.

- CES made the recommendation that each NSSS create its special National Committee for Education in Soil Science.

More details about this meeting will be found in the CES report, on the Congres WWW Server :

http://www.cirad.fr/isss.html

Alain Ruellan, President, ISSS

REPORT FROM THE ISSS STANDING COMMITTEE ON THE HISTORY, PHILOSOPHY AND SOCIOLOGY OF SOIL SCIENCE

A History, Philosophy and Sociology of Soil Science group was organized within the ISSS as a Working Group in 1982, at the suggestion of D.H. Yaalon, Jerusalem, to promote activity in these topics, and to collect biographical and archival material on eminent soil scientists and to establish relevant archives (Bull. ISSS 61, p. 41, 1982 and No. 66, p. 38, 1984) Though ISRIC in Wageningen agreed to receive relevant documents, the response for archival material was rather meagre.

Subsequent to initial reports on various activities (Bull. ISSS No. 67, p. 31, 1985) we have issued a Newsletter usually before the ISSS Congresses. In 1985, our first Newsletter was produced with the assistance of E.J.B. Cutler of Lincoln College, Canterbury, New Zealand. All the subsequent ones were issued at irregular intervals with the assistance of J. Douglas Helms, of the USDA Soil Conservation Service (now Natural Resources Conservation Service), Washington, D.C. They can be obtained from Douglas Helms, senior historian, Resource Economics and Social Science Division, NRCS-USDA, Washington, D.C. 20013. The 6th and most recent one, in December 1996, was issued as a joint Newsletter with the renamed SSSA Council on the History, Philosophy and Sociology of Soil Science. Its chairman Dr. Don Sparks, Univ. Delaware, arranged for its appearance on the Internet and it can now also be viewed on the web site location:

http://www.cirad.fr/isss/newslet6.html

The Soil Science Society of America has added a link from its homepage to the ISSS site. The newsletters inform on various activities in the topics of interest, on recent publications, reports of current and future meetings, and include also occasional articles submitted by members.

The activities of the CHP Standing Committee (previously Working Group) now include arranging symposia during the ISSS Congresses. The first, in 1990, in Kyoto, Japan, was titled **„Historical, philosophical and sociological aspects of development in soil science"** and included five papers. The next one, in 1994, at the 15th World Congress of Soil Science, entitled **„Origin and Transmission of ideas in soil science"** comprised some ten presentations (oral and posters). It attracted an overflow audience and generated eager discussion. For the 16th WCSS in 1998 in Montpellier, France, the topic „Attitudes to soil care and land use through human history" was chosen, which so far resulted in some 20 submissions of summaries. A special journal publication is planned.

Beside the active Council of the Soil Science Society of America, there is a group in Russia supported by the Russian Foundation for Basic Research, under Igor V. Ivanov at Puschino, Moscow Region, which is actively studying questions related to the history of soil science. Hopefully, other countries will also establish similar groups. A proposal has been made to organize a joint Commission with the International Union of the History and Philosophy of Sciences, and this will be discussed at its next congress in Liege, in the summer of 1997. International symposia and publications would be the main activities envisaged.

ISSS members are encouraged to contact D.H. Yaalon or J. Douglas Helms or Don Sparks or John P. Tandarich with offers for cooperation, contributions to newsletters, reports and news on activities, publication announcements, short articles, and especially suggestions and offers for future projects. We are interested to encourage the study and preservation of the historical and sociological aspects of our science. Your contribution will be appreciated.

D.H. Yaalon, Jerusalem, Israel

MEETING OF THE WORLD REFERENCE BASE FOR SOIL RESOURCES PAMPEAN REGION - ARGENTINA, 6 - 13 MARCH 1997

I. Organisation

The meeting of the thematic group on steppe soils was organized by the Argentinean Society of Soil Science with the participation of the Faculty of Agronomy - UNCPBA (Universidad Nacional del Centro de la Provincia de Buenos Aires) and the Soils Institute - INTA (Instituto Nacional de Tecnología Agropecuaria). It was hosted by Ing. Agr. Mabel Susana Pazos, professor of the Faculty of Agronomy and Lic. Gustavo Moscatelli and Lic. Juan Carlos Salazar Lea Plaza from the Soils Institute.

II. Objective

The aim of the meeting was to come to an agreement on a number of classification issues particularly those related to soils with mollic horizon, cemented hypercalcic horizons and linkages between Phaeozems - Chernozems, Phaeozems - Vertisols and Phaeozems - Planosols.

Participants of the WRB-Meeting in Argentina

Examination of a soil profile

III Findings

The meeting and field tour were attended by scientists from the USA, Germany Scotland, Russia, Colombia, Uruguay and Argentina. AGLS sponsored the attendance of the two Latinamerican delegates.

the meeting started with a presentation on the mineralogical, geological and geomorphological aspects of the Pampean Region and was followed by a more than 2000 km long tour during which the following soils were observed: Haplic, Luvic, and Vertic Phaeozems, Mollic Planosols, Mollic Solonetz, Sodic Vertisols and Rendzic Leptosol.

The last day of the meeting was devoted to a round-table discussion dealing with the following issues: degraded mollic horizons, lithological discontinuities and poligenetic character of many of the studied profiles, cemented hypercalcic horizons under humid and subhumid conditions, albic horizons rich in weatherable minerals, Phaeozems limited in depth by the presence of hypercalcic horizons and linkages Phaeozems-Planosols.

The introduction of two new soil units: Hypercalcic Phaeozems and Abruptic Phaeozems was accepted by all the participants, as well as some minor changes in the requirements of albic horizons and definition of depth of Phaeozems.

Mabel Susana Pazos, Argentina

EU WORKSHOP ON LAND-INFORMATION SYSTEMS – DEVELOPMENTS FOR PLANNING THE SUSTAINABLE USE OF LAND RESOURCES

Hannover, Germany, 20 – 23 November 1996

A Workshop on „Land-Information Sysems - Developments for Planning the Sustainable Use of Land Resources" was held at the **Federal Institute for Geosciences and Natural Resources (BGR)** and the **Geological Survey of Niedersachsen (NLfB)**, Hannover, from 20 to 23 November 1996. It was jointly organized by **BGR, NLfB**, the **German Soil Science Society (DBG),** the **Soil Survey and Land Research Centre at Silsoe (SSLRC;** UK) and the **European Soil Bureau**, which was established in Ispra (Italy) by the European Commission in the spring of this year.

In these times of intensive use of land resources, it is essential to have comprehensive, high-resolution data on the medium „soil" and its sustainable use. For this reason, national and international groups have been formed to standardize data, evaluation methods and representation techniques on both the national and European levels. The Workshop held in Hannover had the objective of reporting on results obtained so far and defining further steps necessary to achieve a harmonization and standardization of soil information.

Participants of the Workshop in a very relaxed atmosphere, standing in front of a printout of the Soil Geographical Database of Europe at scale 1 : 1,000,000. (Foto K. Hoffmann)

About 110 soil scientists and data processing specialists, most of them representatives of West and Central European Soil Surveys, attended the Workshop in Hannover. The draft of a European Soil Map, scale 1 : 1,000,000, presented in the foyer of the BGR/NLfB building, documented the current state of the development of a digital soil map covering the entire European territory. Opening addresses were

given by Dr. P. FISCHER, Minister for Economy of Niedersachsen, and Dr. J. MEYER-ROUX representing the European Soil Bureau, Ispra, Italy.

The material presented at the Workshop on Land Information Systems (Developments for Planning the Sustainable Use of Land Resources) gave a concise overview on the present status of soil database development in various European countries and the activities to prepare an integral soil map and connected data bases (e.g. soil profile database) for whole Europe, including both EU member states and other countries. All these integration activities were extended to non-European countries, as well.

Numerous presentations emphasized the particular significance of information and measured data e.g. on soil hydraulic properties for various purposes, such as soil and land evaluation, rational land use, sustainable management of soil/land and water resources, and for the planning of agricultural water management (irrigation, drainage, soil moisture control, etc.). At the same time experts from non-European countries reported that a large amount of measured data are available in their countries on soil hydraulic properties.

A report on this meeting containing all papers will be printed in summer 1997. It then will be available at the European Soil Bureau (EU Joint Research Centre, Ispra, Italy) or at BGR.

W. Eckelmann, Hannover (D)

FIRST EUROPEAN MEETING ON PHYTOLITH RESEARCH

Madrid, 23-26 September 1996
Centro de Ciencias Medioambientales - CSIC

This first European Meeting on Phytolith Research, held in Madrid, Spain at the Centro de Ciencias Medioambientales - CSIC *(Environmental Sciences Centre - CSIC)*, brought together researchers from different research areas such as soil scientists, plant physiologists, geomorphologists and archaeologists, and promote a therefore multi-disciplinary discussion on the state-of-the-art of phytoliths in soils and plants, as well as on the utility of phytolith analysis on archaeological and palaeoenvironmental studies.

The meeting began with an opening address by Linda Scott Cummings, President of the Society for Phytolith Research (USA), who presented the most recent advances on phytolith research around the world. Three key-note papers were also given during the four days of the meeting, namely by Patricia Anderson (CNRS, France), Jordi Juan (University of Barcelona, Spain) and Urve Miller (University of Stockholm, Sweden).

Despite the initial European scope of the meeting, 12 of the 33 oral presentations held during the conference were presented by non-European researchers, namely 5 from the USA, 2 from Mexico and 1 from each of the following countries: Argentina, Australia, Canada, P.R. China, India and Israel. The other 21 oral presentations were given by European researchers from the following countries: Belgium (3), France (5), Germany (1), Russia (4), Spain (5), Sweden (1) and the UK (2). 21 posters were also presented during the meeting, 15 of them by European researchers.

The studies presented at the meeting were organised within four sessions: Session I: Phytoliths in Soils (23rd-24th); Session II: Phytoliths in Plants (24th); Session III: Phytoliths and Archaeology (24th-25th) and Session IV: Phytoliths and Paleoecology (25th). A half-day workshop took place on the 26th, during which samples were analysed by means of both petrographic and Scanning Electron Microscopes (with microanalysis EDX).

Participants of the Meeting

Organiser:	Ascensión Pinilla
Secretary:	Jordi Juan i Tresserras
Organising Committee:	Maria J. Machado; Amalia Martin, Ma Cristina Zancada
Executive Secretariat:	Rosario Santos; Ma Paz Núñez; Ma Carmen Robles
Treasurer:	Ma Elena del Río

The next meeting is planned to be held in Aix en Provence, France in 1998.

For further information, please contact:
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Centro de Ciencias Medioambientales - CSIC
Serrano 115 bis; 28006 Madrid (Spain)
Tel: (34)1 562 5020; Fax: (34)1 564 0800

Maria José Machado, CCMA-CSIC, Spain

THE 10TH INTERNATIONAL WORKING MEETING ON SOIL MICROMORPHOLOGY,

Moscow, Russia. 27/6/96 to 15/7/96.

The 10th International Working Meeting on Soil Micromorphology was held at the Moscow State University, Moscow, Russia from the 8th to 13, July 1996. The Working meeting was attended by 111 participants from 25 countries. It was conducted under the auspices of the International Society of Soil Science, Russian Soil Science Society, Moscow State University - Faculty of Soil Science, Russian Academy of Science - Institute of Soil Science and Photosynthesis, Institute of Geography and the Dokuchaev Soil Institute. The sponsors of the conference were the Soil Science Society of America and the International Scientific Foundation.

The Conference opened with a welcoming address by Professor S. A. Shoba (Russia), Chairman of the National Organising Committee.

Plenary papers were delivered by Prof. S. A. Shoba (Russia), Prof. L. P. Wilding (USA), Prof. G. Stoops (Belgium), Dr. C. Chartres (Australia), Dr. K. Tovey (United Kingdom), Dr.T.V. Tursina (Russia), Dr. N. Federoff (France), Dr. K. Oleshko (Mexico), Dr. M-A.Courty (France) and Dr S. Gubin (Russia).

The themes of the oral sessions on the days following the initial plenary session were:

1. Micromorphology of genetic types of soils: humid soils
2. Micromorphology of genetic types of soils: arid soils
3. Micromorphology of genetic types of soils: tropical soils
4. Micromorphology for paleopedology and archeology
5. Micromorphology of acid sulphate soils
6. Mechanisms of micromorphology elements formation
7. Methods

Poster sessions with the above themes followed the oral sessions. Over all there were 63 oral and 112 posters presentations.

A Pre-Conference Field Tour from 3 - 7 July , coordinated by Dr. N. Matinian and Prof. M. Gerasimova, started from St Petersburg and examining inter alia podzols on the Karelian Isthmus, an anthrosol in the Peterhof Garden, podzoluvisols in the Lissino forest and various Luvisols on the Valday upland. The Pre-Conference Tour was very well organised presenting participants with interesting soil exposures and clear presentations of the challenges that each soil poses in terms of understanding pedogenesis and appropriate soil classification. The field tour also offered participants the opportunity to experience some of the richness of Russian culture and the beauty of the Russian landscape.

The mid-conference tour on July 11 went to the north of Moscow and coordinated by Dr. O. Tursina and Dr. E. Skvortsova, was of particular interest given its focus on podzoluvisols and provoked much illuminating discussion around the pits.

The Southern Post-Conference Tour from 14 - 16 July, co-ordinated by Dr. S. Gubin and Prof. M Gerasimova, started in Pushino-on Oka with the objective of acquainting participants with the physiographic regions and soils of the Middle Russian Upland. Soil types examined included grey forest soils and a forest-steppe chernozem.

A distinctive feature of all of the field tours was the attendance by members of Working Group RB (World Reference Base) and the consequent pit-side discussions on aspects of soil classification using WRB.

In conclusion, the 10th International Working Meeting on Soil Micromorphology was excellently organised from beginning to end, provided a stimulating environment in which to present and discuss recent developments in soil micromorphology. The success of this conference is a credit to the National Organising Committee chaired by Prof. S. A. Shoba and the members of the Advisory Panel.

Leigh Sullivan Secretary, Subcommission B (Soil Micromorphology)

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NEWS FROM REGIONAL AND NATIONAL SOCIETIES
NOUVELLES DES ASSOCIATIONS RÉGIONALES ET NATIONALES
BERICHTE DER REGIONALEN UND NATIONALEN GESELLSCHAFTEN

Soil Science Society of Bosnia and Herzegovina

This is the newly elected board of the Soil Science Society of Bosnia and Herzegovina:

President:	Prof.Dr. Husnija Resulovic Institute for Agropedology, Sarajevo
Hon. Presidents:	Dr. Vojna Jaksic Dr. Jusuf Kurtovic Dr. Mihovil Vlehinic
Vice-President:	Prof. Dr. Dzenana Bisic-Hajro Faculty of Agriculture, Sarajevo
Secretary-General:	Doz.Dr. Hamid Custovic Faculty of Agriculture, Sarajevo
Execut. Secretary:	Mr. Izet Cengic Institute for Agropedology, Sarajevo
Treasurer:	Zeljko Soco Institute for Agropedology, Sarajevo

Address of the Society:
Soil Science Society of Bosnia and Herzegovina
Institute for Agropedology
Dolina Str. 6
71000 Sarajevo
Bosnia and Herzegovina

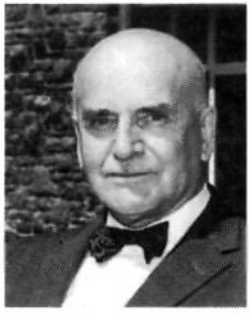
Fax: +387-71-526-222

CANADIAN SOCIETY OF SOIL SCIENCE

The Canadian Society of Technical Agriculturists (CSTA) was established in 1920. After a few years specialized groups began to develop within CSTA. The first official meeting of a group of Canadian agriculturists interested in soil science was held at the CSTA Convention in Guelph, Ontario in 1931. A resolution was passed "that a Soils group of the CSTA be formed of the members interested in soil science". Professor J.H. Ellis of the University of Manitoba, Winnipeg became the first Chairman of the Soils group formed in 1932. In 1945 the CSTA was changed to the Agricultural Institute of Canada (AIC). The Soils group became the Soils section of the AIC and remained as such during 1945-54. The final meeting of the Soils section was held in 1954 at Macdonald College in Ste-Anne de Bellevue, QC under the chairmanship of Dr. H.J. Atkinson. At that meeting a decision was made to form a Canadian Society of Soil Science (CSSS). Dr. J.D. Newton of the University of Alberta, Edmonton became the first President of the CSSS. Names of all the Presidents are given in Table 1. The first Annual Meeting was held in conjunction with the 35th Annual Convention of AIC in Edmonton in 1955. Locations of all CSSS meetings are given in Table 2. The Society meets annually to conduct its business meeting, present technical papers, and sponsor field trips.

The CSSS has participated in joint meetings with other organizations, e.g., American Society of Agronomy, Canadian Land Reclamation Association, and Canadian Society of Agronomy. The CSSS has sponsored or co-sponsored several conferences, e.g., North American Forest Soils Conference, International Society of Soils Mechanics and Foundation Engineering Conference, International Conference of Land and Waste Management, Soil Micromorphology Conference, Glacial Till Conference, Flow through Porous Medium Conference, and International Workshop on Sustainable Land Management for the 21st Century. Dr. C.F. Bentley and Dr. J.A. Toogood were the President and Vice-President, respectively of the highly successful XI International Soil Science Congress held in Edmonton, June 19-27, 1978. There were more than 1,100 registered participants from 65 countries. Dr. Vladimir Ignatieff, a Canadian soil scientist was made an Honourary Member of the ISSS for his outstanding worldwide work. At present the CSSS is involved in the AIC/CIDA (Canadian International Development Agency) Partnership Programs in Sri Lanka, Thailand, and Vietnam.

The CSSS is a non-government, non-profit organization for scientists, engineers, technologists, administrators, and students involved in soil science. It has about 400 members from Canada, the United States, and other countries. Its members are engaged in a wide variety of activities, including agriculture, forestry, environmental science, geography, geology, remote sensing, horticulture, and land-use planning. Despite their diversity, members have an important ideal in common: To promote the



Prof. Joseph Henry Ellis, First Chairman (1931-32) of the Soils group.

Dr. John Dawson Newton, First President (1954-55) of the CSSS.

Dr. Charles Fred Bentley, CSSS President (1956-57) and ISSS President (1974-78), after whom the Annual CSSS Student Oral Presentation Award is named.

Mr. Yash Pal Kalra, the current President (1996-97) of the CSSS.

wise use of soil resources. The CSSS is affiliated with the ISSS and the AIC. The AIC is a national federation of nine Provincial Institutes of Agrology and nine scientific and agriculture-related organizations.

The objectives of the Society are : (1) to promote the wise use of soil for the benefit of all society, (2) to promote research and practical application of findings in soil science, and (3) to promote information and technology exchange among people in professional soil science.

The fellowship is the highest honor the Society bestows on its members for their distinguished service to soil science. A list of the CSSS Fellows is given in Table 3. The other CSSS awards are as follows : (1) Honorary Membership Award; (2) Soil Science in Society Award; (3) Travel Awards (Annual Meeting Student Travel Awards, Conference Travel Awards, Overseas Travel Awards, Visiting Scientist Travel Awards, and Short-Term Professional Development for International Soil Scientists Travel Awards); (4) Student Presentation Awards (The C.F. Bentley Oral Presentation Awards and the President's Poster Presentation Award); and (5) Student Book Awards.

xThe CSSS Newsletter is an important mechanism of communication with our members. The Proceedings of the CSSS Annual Meetings have been published since 1956. The Canadian Journal of Soil Science is the official journal of the CSSS. The first issue appeared in February 1957. It is published four times a year by contract with the AIC. The CSSS Journal is devoted to original research and invited reviews in the various fields of soil science including agriculture, forestry, environment, ecology, engineering, geology, and geography. It is recognized internationally and averages about 70 papers of about 800 pages annually. The manuscripts undergo peer review prior to publication and members of the Society constitute a majority of the reviewers. Manuscripts for or enquiries about publication of papers in the CSSS Journal should be directed to Mr.Tim Fenton, Head, Journals Section, Agricultural Institute of Canada, Suite 1112, 141 Laurier Avenue West, Ottawa, ON, Canada K1P 5J3; phone (613) 232-9459; fax (613) 594-5190; e-mail: journals@aic.ca.

The 1996-97 Council consists of Mr. Yash P. Kalra (President), Dr. Eric G. Beauchamp (President-Elect), Dr. Umesh C. Gupta (Past President), Dr. David L. Burton (Secretary), Mr. Gary Patterson (Treasurer), Dr. Taumey Mahendrappa (Eastern Councillor), Ms. Sandra Landsburg (Western Councillor), and Mr. David A. Lobb (AIC Representative).

Further information on the Society is available from: The Canadian Society of Soil Science, Box 21018, Westend Postal Outlet, Brandon, MB, Canada R7B 3W8; phone (204) 725-4336; fax (204) 725-0624; e-mail: omni@common.net. Information is also available from Dr. David L. Burton, CSSS Secretary, Department of Soil Science, The University of Manitoba, Winnipeg, MB, Canada R3T 2N2; phone (204) 474-6045; fax (204) 275-8099; e-mail: david_l_burton@cc.umanitoba.ca. Visit us at our World Wide Web Home page (http://tdg.uoguelph.ca/~aic/csss.html).

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ASOCIACION GUATEMALTECA DE LA CIENCIA DEL SUELO

La Directiva de la Asociacion Guatemalteca de la Ciencia del Suelo, la que fue elegida durante el XIII Congreso Latinoamericano de la Ciencia del Suelo, en Brazil, en 1996 es la siguiente:

Presidente:	Jose Luis Colocho
Vice-Presidente:	Michael Wade
Secretaria:	Margarita Hurtarte
Tesorero:	J. Jesus Chonay
Vocal I:	Anibal Sacbaja
Vocal II:	Efrain Medina

Dirección:
Jose Luis Colocho
Presidente,
Asociacion Guatemalteca de la Ciencia del Suelo
30 calle 15-70 zona 12
Guatemala, 01012
GUATEMALA

61st ANNUAL CONVENTION OF THE INDIAN SOCIETY OF SOIL SCIENCE

Inaugural function (left to right): Dr. G.R. Patel, Dr. R.S. Sharma, Dr. G. Dev, Mr. V.R Mehta (lighting the lamp), Dr. V.M. Mehta, Dr. G. Narayanasamy and Dr. N.M. Patel.

The 61st Annual Convention of the Indian Society of Soil Science was held at the B.A. College of Agriculture, Gujarat Agricultural University (GAU), Anand Campus, Anand during October 28 - November 1, 1996. The inaugural function on 28th October was attended by distinguished guests, invitees and around 260 delegates from different parts of India. The program started with a prayer by the students of B.A. College of Agriculture. Dr. N.M. Patel, Principal, B.A. College of Agriculture, Anand, welcomed the participants. Dr. R.S. Sharma, Director of Campus, GAU, Anand highlighted the salient points about the Anand Campus and the added significance of the occasion due to the three important functions, *viz.* Diamond Jubilee of the Anand Campus, Golden Jubilee of B.A. College of Agriculture, Anand and Silver Jubilee of Gujarat Agricultural University. Dr. G. Dev, President of the Indian Society of Soil Science extended a warm welcome and gave introductory remarks about the Society. Mr. V.R. Mehta, Founder Vice-Chancellor of GAU and Chief Guest of the function, presented various Awards for 1996; Dr. G. Narayanasamy, Hony. Secretary, read the citations. Dr. R.P. Agrawal (Dean, Post Graduate Studies, CCS Haryana Agricultural University, Hisar), Mr. Y.P. Kalra (President, Canadian Society of Soil Science, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta, Canada), Dr. M.S. Patel (Principal, College of Agriculture, GAU, Sardar Krushi Nagar), and Dr. G.U. Malewar (Head, Department of Agricultural Chemistry & Soil Science, Marathwada Agricultural University, Parbhani) were elected as Fellows of the Society. Dr. Anand Swarup, Senior Scientist, Central Soil Salinity Research Institute, Karnal, received the 12th International Congress Commemoration Award. The recipients of Zonal Awards were: Dr. Sanjeev Kumar Sandal (North Zone), Dr. R. Santhi (South Zone) and Dr. S.B. Gupta (West Zone). Dr. V.M. Mehta, Vice-Chancellor, GAU, Sardar Krushi Nagar, presided over the inaugural function.

The 14th Prof. J.N. Mukherjee - Indian Society of Soil Science Foundation Lecture was delivered by Dr. P.N. Takkar, Director, Indian Institute of Soil Science, Bhopal, on the topic "Micronutrient research and sustainable productivity in India". The 23rd R.V. Tamhane Memorial Lecture was delivered by Dr. O.P. Meelu, Emeritus Scientist, Punjab Agricultural University, Ludhiana, on the topic "Integrated nutrient management for ecologically sustainable agriculture". A Special Symposium on "Soil organic matter and organic residue management for sustained productivity" was held on 29th October; with a keynote address by Dr. N.N. Goswami, Past President of the Society and ex-Joint Director (Education), Indian Agricultural Research Institute, New Delhi. A National Seminar on "Developments in Soil Science - 1996" was organized on October 28-31 in three concurrent oral sessions and two poster sessions. The Zonal Award Winners presented their papers on October 31. On October 30 evening, an enjoyable cultural program was organized by the Campus Ladies' Association which included some famous Gujarati dances and other exhilarating items. A field trip was organized on 1st November to visit some of the research stations and Ahmedabad; about 120 delegates participated. Dr. G.R. Patel, Organizing Secretary and the Organizing Committee are to be complimented on a successful Convention.

G. Narayanasamy
Hony. Secretary
Indian Society of Soil Science
Indian Agricultural Research Institute
New Delhi - 110012, India

IRAQI SOCIETY OF SOIL SCIENCE

The Iraqi Society of Soil Science has been established on November 4, 1996. For the period 1997-1999 the following officers have been elected:

President:	Prof.Dr. Mahdi I. Aoda
Vice-President:	Prof.Dr. Ahmad H. Alzubaidi
Secretary-General:	Prof.Dr. Waleed K. Al-agidi
Treasurer:	Dr. Ahmad S. Muhaimeed

Interior Relations:	Dr. Ahmad A. Al-rawi
Foreign Relations:	Dr. Jamal S. Dougrammaji
Chief Editor:	Dr. Salman K. Essa

Address: Iraqui Society of Soil Science
College of Agriculture
Abu Ghraib
IRAQ

ITALIAN SOCIETY OF SOIL SCIENCE

During the general assembly held in Florence on November 28, 1996, the following Directive Board of the Italian Society of Soil Science has been elected for 1997-99:

President:	Paolo Sequi
Honorary President:	Fiorenzo Mancini
Past President:	Giovanni Fierotti
Board members:	Pietro Violante (Vice-President)
	Pier Giacomo Arcara (Secretary-Treasurer)
	Nicola Senesi
	Guido Sanesi
	Angelo Aru
ISSS Representative:	Paolo Nannipieri
Commission Chairpersons:	Marcello Pagliai (Soil Physics)
	Antonio Violante (Soil Chemistry)
	Liliana Gianfreda (Soil Biology)
	Anna Benedetti (Soil Fertility)
	Sergio Vacca (Soil Genesis, classification and cartography)
	Dino Torri (Soil Technology)
	Valter Boero (Soil Mineralogy)
Standing auditors:	Carmelo Dazzi
	Rosa Francaviglia
	Franco Previtali

Addresses:
President
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Secretary-Treasurer
Società Italiana della Scienza del Suolo
c/o Istituto Sperimentale per lo Studio e la Difesa del Suolo
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SOCIEDAD LATINOAMERICANA DE LA CIENCIA DEL SUELO

Esto es la Directiva de la Sociedad Latinoamericana de la Ciencia del Suelo, elegida durante el XIII Congreso Latinoamericano de la Ciencia del Suelo, en Brazil, en 1996:

Presidente:	Itilier Salazar-Quintana
Dirección:	Universidad de La Frontera Av. Fco. Salazar 01145 Casilla 54-D Temuco, Chile
	Tel: 56-45-252627; Fax: 56-45-252547; E-mail: itisal@werken.ufro.cl
Secretario General:	Achim Ellies Universidad Austral de Chile Valdivia, Chile

El XIV Congreso Latinoamericano de la Ciencia del Suelo va a realizarse en Temuco, Chile, en 1999.

MOLDOVAN NATIONAL SOCIETY OF SOIL SCIENCE

The Moldovan National Society of Soil Science was founded on June 12, 1996.

The following officers and members of the MNSSS' Executive Board were elected:

President:	Prof.Dr. Andrei URSU
Vice-Presidents:	Prof.Dr. Serafim ANDRIES
	Dr. Gheorghe JIGAU
Secretary:	Dr. Tamara LEAH
Members:	Prof.Dr. Valentin UNGUREANU
	Prof.Dr. Valerian CERBARI
	Prof.Dr. Constantin ZAGORCEA
	Prof.Dr. Petru CORDUNEANU
	Dr. Valentin CIUBOTARU
	Ing. Vladimir VOROBIOV
Address:	Prof.Dr. Andrei URSU President Moldovan National Society of Soil Science 1 Academy str. Chisinau, 2028 MOLDOVA
	Tel: (373-2) 72-84-26

In 1996, the Moldovan National Society of Soil Science together with the Institute for Pedology, Agrochemistry and Soil Improvement „N. Dimo" organized the Scientific Conference on the 150th Anniversary of the founder of Genetic Soil Science, V.V. Dokuchaev, under the theme: „Past, Present and Future of Moldovan Soils".
The following members spoke at the Conference:

Prof. Morris Decker, Robert Hill (USA)
Prof. Nicolai Florea, Andrei Canarache, Nicolai Barbu (Romania)
Prof. Igor Krupenicov, Andrei Ursu, Valentin Ungureanu, Vasilii Grati (Moldova) etc.
The conference proceedings were published in Chisinau, Moldova, in 1996.

Another scientific conference was dedicated to the memory of the eminent soil scientist N. Dimo, the founder of soil science in Moldova.

Prof.Dr. Andrei Ursu

NEW ZEALAND

President:	P.E.H. Gregg
Vice-President:	R.G. McLaren
Treasurer:	I.B. Campbell
Secretary:	P.M. Fraser
Past President:	L.R. Basher
Council Members:	M.R. Balks
	B.E. Clothier
	A.D. Mackay
	V.A. Orchard
	A.S. Palmer
	C.W. Ross

From: New Zealand Soil News, Vol. 44, No. 6, 1996

RUSSIAN SOCIETY OF SOIL SCIENCE

National Congress
St. Petersburg, June 28-30, 1996

The II Congress of the Soil Science Society of the Russian Academy of Sciences was held at St.Petersburg University in St.Petersburg, June 28-30, 1996. The Congress was devoted to the 150th anniversary of V.V.Dokuchaev (1846-1903), the outstanding Russian scientist, father-founder of the basic soil science. The Congress motto was „Soil - Life - Well-being".

The Congress was attended by about 400 Russian soil scientists and about 25 guests from other countries (Austria, Belorussia, China, France, Germany, Hungary, Israel, Lithuania, Moldova, Slovakia, Tajikistan, Ukraine, USA, Yugoslavia).

The Congress consisted of 2 plenary sessions, 3 one-day major symposia, 15 sessions of Commissions and Subcommissions and related poster presentation. 218 oral and 159 poster presentations were discussed during the Congress. 756 abstracts were published in 2 volumes of the Congress transactions (in Russian).

During the Congress the newly renovated V.V.Dokuchaev Central Museum of Soil Science was opened and presented by its Director Prof. B.F.Aparin, afterwards it was visited by the participants of the Congress.

The Congress was chaired and opened by Prof. G.V.Dobrovolsky, President of the national Soil Science Society. He analysed the importance of V.V.Dokuchaev's concept of soil for the development of soil science and many other Earth sciences, ecology, geography, environmental and agricultural sciences. He stressed the Russian broad understanding of soil science as both the basic and applied science targeted simultaneously to the fundamental cognitive researches and to the very practical environmental and agricultural problems.

Opening Ceremony of the Congress

At the opening of the renovated V.V. Dokuchaev Central Museum of Soil Science

At the plenary sessions several papers were presented to analyse Dokuchaev's role in the development of soil science (G.V.Dobrovolsky, A..N.Kashtanov, R.W.Arnold - USA, I.Szabolcs - Hungary) and to discuss some actual problems of the basic and applied soil science research (A.Ruellan - France, W.B.Blum - Austria, A.P.Shcherbakov).

46 papers were presented at the simultaneously working 3 symposia on the second day of the Congress: 1. „Soil is the mirror of a landscape, landscape-adopted agriculture", convenor Prof. V.Kiryushin; 2. „Soil and ecology", convenor Prof. L.Karpachevsky and 3. „Theoretical problems of soil science as the basic science: tasks for the XXI century", convenor Prof. V.Targulian.

The main portion of oral papers and posters were presented at the sessions of Commissions, Subcommissions and Working Groups.

The Congress decided to rename the national Soil Science Society of Russia to the Dokuchaev Soil Science Society at the Russian Academy of Sciences (DSSS-RAS).

On the General Assembly of the Congress Prof. GLEB V.DOBROVOLSKY was reelected as the President of the Dokuchaev Soil Science Society at the Russian Academy of Sciences. And also 7 vice-presidents were elected: Prof. B.Aparin, Prof. I.Gadjiev, Prof. A.Kashtanov, Prof. L.Shishov, Prof. S.Shoba, Prof. V.Targulian, Prof. A.Voronin.

10 Russian and 8 foreign honorary members of the society were elected, including R.Arnold (USA), W.Blum (Austria), B.Nosko (Ukraine), T.Romanova (Belorussia), A.Ruellan (France), N.Smeyan (Belorussia), A.Travleev (Ukraine), D.Yaalon (Israel).

The resolution of the II Congress stressed the urge to develop both basic and applied facets of soil science and particularly to concentrate on the problems of the ecological and geobiospheric functions of the soil mantle, sustainable development of soils and ecosystems, soil degradation, remediation and conservation.

After the Congress 6 scientific field excursions were held: 3 in the St.Petersburg vicinities, to Valdai highlands, to Valaam island and through South Karelia.

Victor O.Targulian, Russia

SLOVAKIAN SOCIETY OF SOIL SCIENCE

Award for Winfried E.H. Blum

It was a great honour for all members of the soil science community in Slovakia, when Prof. W.E.H. Blum, Secretary General of the ISSS was elected to be Foreign Member of the Agricultural Academy of the Slovak Republic. His nomination was proposed by the Branch of Soil Science and Soil Protection of the Academy. The Soil Fertility Research Institute, Bratislava supported the nomination, as well as the Soil Science Society of Slovakia and many individual supporters.

The membership of Prof. Blum was accepted on the basis of his very active relationship with Slovakian soil science specialists and institutions, mainly for his permanent contacts and scientific influences on soil research in Slovakia and international activities of Slovakian soil science.

Prof. Blum held his official inauguration lecture at the Soil Fertility Research Institute in Bratislava on March 6, 1997, in the presence of all prominent soil scientists of Slovakia. In this lecture, under the title „Soil as a Filter, Buffer and Transformation Medium" Prof. Blum presented his very original and instructive views on actual pedological problems. Before the lecture, Dr. Pavol Bielek, the Chair-

man of the Branch of Soil Science and Soil Protection of the Agricultural Academy of the Slovak Republic and director of the Soil Fertility Research Institute handed the official Membership Diploma of the Agricultural Academy of the Slovak Republic over to Prof. Blum. - The participants had the pleasure to spend their time with Prof. Blum at a discussion after the lecture.

Dr. Bielek and Prof. Blum at the award ceremony

We are very happy about Prof. Blum's membership in our Agricultural Academy and we cordially congratulate him, hoping for many new future contacts and common activities in the field of soil science. Thank you for all you did for the development of Slovakian soil science.

Dr. Pavel Jambor
Chair, International Relations
Slovakian Society of Soil Science

ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

The Swiss Federal Institute of Technology Lausanne (EPFL) invites applications for the four following positions of

ASSISTANT PROFESSOR in

---

1. **ENVIRONMENTAL ENGINEERING**
at the Rural Engineering Department

The new collaborator will have teaching and research responsibilities for environmental biotechnology, particularly in modern biological treatments of industrial effluents. He/she must have the necessary skills within a pluridisciplinary team to develop new technologies of intensive treatments designated to biodegrade xenobiotic compounds in liquid or gazeous industrial effluents at their point of emission.

2. **SOIL MICROBIOLOGY APPLIED TO THE MANAGEMENT AND REMEDIATION OF DEGRADED SOILS**
at the Rural Engineering Department

The new collaborator will have to develop high level research and teaching in the following areas: soil microbiology, biological detoxication of contaminated soils, qualitative remediation of degraded soils by restoration of biodiversity, operational management of unstable anthropic soils. He/she must have outstanding qualities as an experimenter and model developer. The scientific approach will be the one of an engineer able to create, realize and manage projects at a very high level.

3. **BIOMATERIALS**
at the Materials Science Department

The new collaborator should have a high level of academic training with background both in materials science and engineering and medical/paramedical fields with knowledge of the interaction between synthetic materials and human tissue. He/she must have proof of his/her originality and ability through scientific publications of the highest level, for example in biomaterials research.

4. **CHEMICAL ENGINEERING**
at the Chemistry Department

The new collaborator is expected to develop high level activities in the area of Multifunctional Processes/Reactors. He/she should he a strong interest in the teaching of chemistry and chemical engineering both at undergraduate and graduate levels.

For the four positions: the activities will take place within the concerned Departments and will also involve other units of the EPFL as well as other Swiss and international academic institutions and manufacturers. An aptitude for teaching to students of graduate and undergraduate level and for conducting original and high level research projects is essential. The new collaborators will also be called on to supervise and guide students on semester projects, on engineering degrees and Ph.D. degree work. They should possess a confirmed skill in leading projects. Candidates are invited to propose and send an original research program together with their application. Applications are encouraged from people who fulfil the requirements of the Swiss program for ensuring the continuity of competent university faculty. Deadline for applications: September 26, 1997. Starting date: as mutually convenient.

Applications from women are particularly welcome. for further information, please ask for the documentation and the application form by writing to: **Présidence de l'Ecole polytechnique fédérale de Lausanne, CE-Ecublens, CH 1015 Lausanne, Switzerland**

THE TRANSCONTINENTAL EXCURSION OF THE FIRST INTERNATIONAL CONGRESS OF SOIL SCIENCE

John C.F. Tedrow and Roy W. Simonson

They came from all parts of the globe to attend the Congress, which opened in Washington, D.C., on June 9, 1927, 70 years ago. Between 500 and 600 people took part. The proceedings, published the following year, served as reference materials for more than a decade.

Valuable as the Congress sessions were, they were more than matched by the subsequent Transcontinental Excursion. A party of 206 people, including 29 women, left Washington D.C., the evening of June 22, 1927, and returned 30 days later, having traveled more than 12,000 miles. The route, shown in the map, touched 23 states (USA) and 4 provinces (Canada). All told, 34 stops were made to examine soils in the United States and 5 in Canada; 12 to visit experiment stations; about as many at factories making farm implements, fertilizers, and the like; and a few at such scenic spots as Pike's Peak, Colorado, and Jasper National Park, Alberta.

Home to the travelers for 30 days was a special train composed of 14 sleeping cars, 2 dining cars, and a conference car arranged with a) several working spaces, b) a mimeographing facility, c) some conference rooms, and d) a shower „for ladies only". The train traveled only at night as much as possible to save daylight hours for the scheduled stops. Prior arrangements had been made for necessary local transportation at each stop. The resulting assortments of some 60 vehicles at the various stops would make a story in itself. Rounding up enough cars to transport 200+ people was not easy. The mimeographing facility allowed reproduction and distribution to everyone of a single-page bulletin each day. After the first week, the bulletin acquired the informal name „Bodenbull". Thirty years later, some of the travelers still had copies.

About half of the people on the excursion were from other countries and half from the United States. Cost for the foreign guests were paid from funds that had been raised by J.G. Lipman, president of the Congress. For Americans, the cost was $300 apiece.

At the outset of the trip, each person received a copy of a guide, a book of about 250 mimeographed pages. The first 178 pages were „Descriptions, discussions, and interpretations of soils along the route..." by Curtis F. Marbut. The remainder consisted of 10 appendices ranging in length from 2 to 29 pages, chiefly about the agriculture of states and provinces.

Heading south from Washington D.C., the train made its first stop at Greensboro, North Carolina, to see examples of red and yellow soils, now called Ultisols. Additional examples were seen near Knoxville, Tennessee, and Athens, Georgia. The red B horizons of some of those soils were new to most Europeans and thus one of the highlights of the entire excursion. The excursion focused primarily on soil development, classification and geography but, there were also discussions concerning soil fertility of which E.J. Russell played an important role.

The next major stop was made near Kansas City, Missouri and prompted a spirited discussion between K.D. Glinka of the Soviet Union, newly elected president of the International Society of Soil and Science, and C.F. Marbut, leader of the excursion. Glinka considered the soil, formed in loess under prairie vegetation to be „typically Chernozem", but Marbut dismissed that suggestion vigorously, arguing that carbonates were being lost from the soil rather than being moved down to accumulate in a deeper horizon as they should in Chernozems. Good examples of Chernozems were seen later in Kansas and Alberta. By the time the train had reached Kansas City, quite a few Europeans had discovered the advantages of the khakis worn by the Americans. Spot purchases were made at some of the stops, with the result that men would be wearing khaki trousers and a cummerbund.

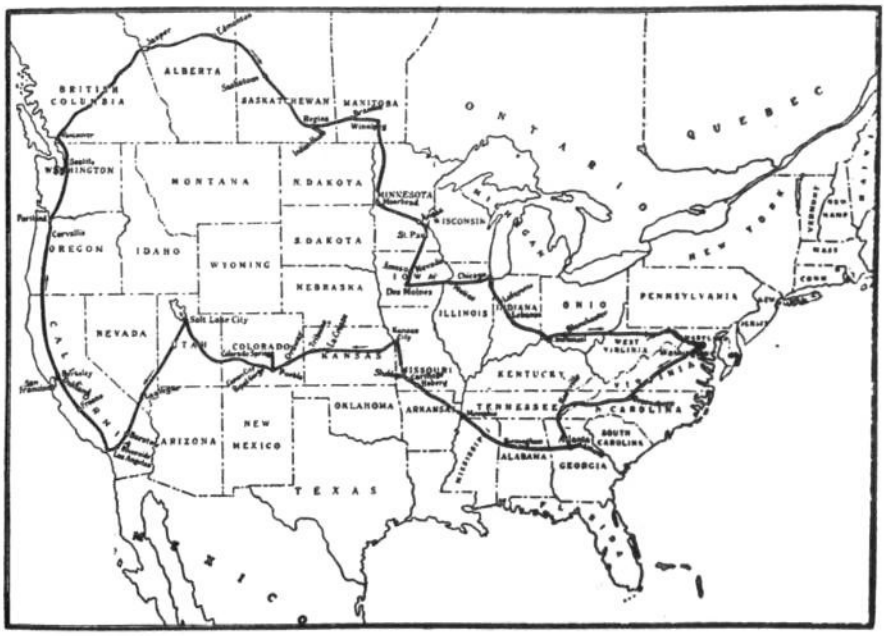
The excursion went west across Kansas into Colorado, where the first irrigation was encountered along the Arkansas River near Rocky Ford. This was of special interest to visitors from drier countries. After going through the scenic Royal Gorge, Colorado, the train stopped in Salt Lake City, Utah, where many travelers took a dip in the saltwater.

Examples of desert soils (Aridisols) were examined near Las Vegas, Nevada, and Barstow, California, after the group left Utah. In California, the excursion headed first to Riverside to see citrus groves and then turned north in the Central Valley. A detour was made to the University of California at Berkeley, after which the train ran nonstop to Corvallis, Oregon, where a visit was made to the experiment station.

Brief stops were made in Portland, Oregon, and Seattle, Washington, on the way to Vancouver, British Columbia, for another short stop before the train went east and northeast along the Fraser River into the Canadian Rockies and eventually dropped down the Great Plains near Edmonton, Alberta. A major stop was made at Edmonton for the benefit of the Soviet delegation, eager to see the soils because those should be like their Chernozems and they were!

The remainder of the route in Canada was first southeast and south through Saskatoon and Regina, Saskatchewan, then east to Brandon and Winnipeg, Manitoba, with few stops. One byplay in Canada was stocking up on liquor by some travelers. They were warned that alcoholic beverages would be confiscated at the international boundary, because the liquors were prohibited in the United States. Men then placed their bottles in soil sample bags and put them among the thousands of soil sample bags on

From left to right: K.D. Glinka and S.S. Neustruev of the Soviet Union and C.F. Marbut and A.G. McCall of the United States. Glinka was the newly elected president of the International Society of Soil Science and Neustruev the primary architect of the current model of soil genesis in the Soviet Union. Marbut was the leader of the transcontinental excursion and McCall the executive secretary of the American Organizing Committee for the Congress. Photo by R.L. Starkey



Route of the Transcontinental Excursion (Soil Sci. 25:105)

Excursion participants listening to C.F. Marbut discuss the soil at a stop near Fargo, Dakota. Formed in lacustrine sediments under prairie vegetation, the soils were then known as Chernozems. Marked by level topography, the site is in the basin of the former glacial Lake Agassiz. Photo by R.L. Starkey.

the train. The ploy was successful; customs officials finished their inspection rather quickly finding nothing,

By the time the train returned to the United States, the excursion was winding down. Few stops were made on the way back to Washington. One such stop was near Fargo, North Dakota, to examine soils formed in lascustrine sediments under prairie vegetation, known then as Chernozems. After discussing the soils, Marbut told the group that it would shortly cross „the major soil boundary" in the country as the train moved to the southeast. That line was between the Pedocals and Pedalfers, terms coined earlier that year by Marbut for his paper to the Congress.

A stop in Iowa was newsworthy, as had been true of other stops along the way. Parked on a railway siding at Nevada, a town east of Ames, the group was described in the local paper on July 18, 1927. An excerpt follows:

> When they gathered on the steps of the Central Building (Iowa State College) to be welcomed ..., they presented one of the most varied... and perhaps one of the most interesting groups ever congregated here ... There was a Hungarian count, a German baron, and a Russian lad of 15 years ... There was also a great variety of facial shrubbery, ranging from full bristling and bushy beards on through the sleek well-oiled Van Dykes, the upturned mustaches, and the English muttonchops, to the clean-shaven ...

Only three more stops were made on the remainder of the trip. one each in Illinois, Indiana, and Ohio.

Now a part of history, the Transcontinental Excursion was the last assembly of several prominent soil scientists. Within a few months, K.D. Glinka of the Soviet Union was dead. So was Milton Whitney, long-time chief of the Bureau of Soils, U.S. Department of Agriculture. The next year, S.S. Neustruev, principal architect of the current model of soil genesis in the Soviet Union was also dead. Younger soil scientists who were able to make the excursion had had an opportunity to meet these and other well-known scientists and hear the ideas of the masters. In addition to that experience, those younger people had also had a chance to see a wide variety of soils. Many have remarked about the great benefits of the excursion to their understanding of soils subsequently. One individual went so far as to say the Transcontinental Excursion had been as important to his career as the voyage of the Beagle had been to Charles Darwin.

(Most of our information came from notes kept during the excursion by the late Prof. R.L. Starkey and his wife Dr. Florence Tenney. Some were also provided by the late Prof. J.S. Joffe. Those sources were supplemented by the guide for the excursion, a short article by A.G. McCall, and a few conversations.)

INTERNATIONAL RELATIONS
RELATIONS INTERNATIONALES
INTERNATIONALE BEZIEHUNGEN

Declaration of Global Partnership in Agricultural Research

We, the representatives of the national agricultural research systems (NARS), regional and subregional organizations, universities and advanced research institutions, non-governmental organizations (NGOs), farmers' organizations, private sector, and international agricultural research centers (IARCs), gathered in a Global Forum on Agricultural Research at CGIAR International Centers Week,

- Cognizant of the formidable challenges of the future, in particular the need
  - to alleviate poverty
  - to increase productivity and resource use efficiency to feed an expanding population
    to address environmental degradation, sustainably manage the natural resource base, and develop and implement more appropriate agricultural policies and sustainable technologies;

- Aware that the world leaders are holding a summit to address the global challenge of ensuring food security;

- Convinced that scientific and technological responses and socio-cultural factors are essential elements in improving food and nutritional security aswell as more sustainable use of cropland, rangeland, aquatic, and forest resources;

- Realizing that the national agricultural research systems are the cornerstone of the emerging global research system,

- Recognizing that current cooperative research arrangements need to be

adjusted to meet challenges of unprecedented nature and magnitude;
hereby affirm our strong commitment to contribute to the development of productive, sustainable, and equitable agriculture. We recognize the crucial role played by farmers, especially woman, in agriculture and natural resource management. We agree to work in partnership with them towards their empowerment, building on their indigenous knowledge systems.

We fully recognize the immense value of collaboration and research partnership and urge that such collaboration be governed by the principles of subsidiarity, participatory decision making, complementarity of efforts, adaptability, openness, and, above all, a deep sense of commitment to the common purpose. We agree to meet the challenges of the present and the future through an efficient, effective and coherent global agricultural research system.

Washington, D.C., October 31, 1996

From: ATSAF-Circular 48/97

PLAN OF ACTION FOR GLOBAL PARTNERSHIP IN AGRICULTURAL RESEARCH

In the pursuit of our common objectives and the Declaration of Global Partnership in Agricultural Research, we commit ourselves to undertake the following actions:

- Mobilize the world scientific community in support of a global framework for agricultural research aiming at:
- alleviating poverty
- achieving food security, and
- assuring sustainable use of natural resources;

- Contribute to the strengthening of NARS and the subregional and regional fora;

- Foster the participation in research collaboration by national agricultural research institutes (NARIs), regional and subregional research organizations, international agricultural research centers (IARCs), advanced research institutes (ARIs), universities, private sector, NGOs, farmers and farmers' organizations;

- Encourage the identification of concrete collaborative projects through suitable mechanisms including sub-regional and regional fora;

- Convene a Global Forum on Agricultural Research every three years to exchange information in order to identify common challenges, confirm principles of collaboration, and propose alternative means of implementing collaborative programs with the purpose of facilitating partnerships.

By committing ourselves to this task and establishing the necessary enabling mechanisms, based on bottom-up approach and strong national, subregional and regional fora, we strongly believe that the global agricultural research system will be capable of addressing the agricultural research priorities required to meet the challenges and opportunities that humanity is facing today and in the foreseeable future.

In order to implement this Plan of Action, we propose to increase efficiency in research management and collaboration through pooling of resources, and call on the development assistance community, the governments of developing countries, and all stakeholders in agricultural and rural development to increase their support to agricultural research.

We hereby mandate the Global Forum Steering Committee, consulting as necessary, to translate this Plan into a detailed program of activities.

From: ATSAF-Circular 48/97

BRUNO MESSERLI: NEW PRESIDENT OF IGU

Prof. Bruno Messerli has been elected as President of the International Geographical Union for the next three years. He obtained a PhD in geography in 1962 and has worked as Professor at the University of Berne, Switzerland. Later he became Director of the Institute of Geography and from 1986 to 1987 he was rector of the University of Berne. He has carried out research in many areas of the world. His research interests range from geomorphology and glaciology to climatology and climate change.

NEW PRESIDENT OF WASWC

Dr. David Sanders has been elected the new President of the World Association of Soil and Water Conservation (WASWC). His address is:

Dr. D. Sanders
Flat M. 1, Queen Quay, Welsh Back
Bristol BS1 4SI,
ENGLAND

AN INTRODUCTION TO THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

Following is a reproduction of the first fact sheet of an information packet published by the Interim Secretariat for the Convention to Combat Desertification (CCD) and the United Nations Environment Programme (UNEP). Each paragraph below is explained in greater detail in sheets in the packet, making an excellent, very clear guide to the basic information surrounding desertification and the Convention. Copies are available from the Interim Secretariat, CCD, att. Ms Sylvia Jampies, NGO Liaison Officer, Geneva Executive Center-C.P.76, 1219 Chatelaine, Geneva, Switzerland, Tel.:(41-22)9799410, Fax:(41-22)9799030/1,
E-mail:Secretariat.incd@unep.ch.

The Convention offers new hope in the struggle against desertification. Over the past two decades, the problem of land degradation in dryland regions has continued to worsen. The Convention promotes a fresh new approach to managing dryland ecosystems and - just as important - to managing development aid flows.

Desertification is caused by climate variability and human activities. In the past, drylands recovered easily following long droughts and dry periods. Under modern conditions, however, they tend to lose their biological and economic productivity quickly unless they are sustainably managed. Today drylands on every continent are being degraded by overcultivation, overgrazing, deforestation and poor irrigation practices. Such overexploitation is generally caused by economic and social pressure, ignorance, war and drought.

Desertification undermines the land's productivity and contributes to poverty. Prime resources - fertile topsoil, vegetation cover, and healthy crops - are the first victims of desertification. The people themselves begin to suffer when food and water supplies become threatened. In the worst cases, they endure famine, mass migration and colossal economic losses. Over 250 million people are directly affected by desertification, and some one billion are at risk.

The Convention to Combat Desertification will be implemented through action programmes. The programmes are the core of the Convention. At the national level, they will address the underlying causes of desertification and drought and identify measures to prevent and reverse it. National programmes will be complemented by subregional and regional programmes, particularly when transboundary resources such as lakes and rivers are involved. Action programmes are detailed in the four regional implementation annexes to the Convention - Africa, Asia, Latin America and the Caribbean, and the Northern Mediterranean.

The Convention promises to dramatically reshape the international aid process. It seeks to engage donor nations and agencies and recipient countries in a new partnership. In the case of Africa, the respective roles of donors and participants will be worked out in partnership agreements developed through a consultative process. The aim is to ensure that funding programmes are better coordinated,

that funding is based on the needs of the affected countries, that donors can be sure their funds are well spent, and that recipients obtain the maximum benefit from the sums available.

Another radical departure is the emphasis on a „bottom-up" approach with strong local participation in decision-making. Traditionally, local communities have been relatively passive participants in development projects. Now the Convention puts them on an equal footing with other actors in the development process. Communities and their leaders, as well as non-governmental organisations, experts and government officials, will be working closely together to formulate action programmes. For this innovative and complicated process to work, awareness campaigns may be needed to inform people about the new opportunities presented by this Convention.

Science and technology are vital tools in the fight against desertification. Much remains to be learned about the causes and impacts of desertification, so international cooperation in scientific research and observation must be strengthened. Land degradation can be minimised with both new and traditional technologies, ranging from satellite monitoring to the terracing of steep hill slopes. Science and technology must respond to people's needs, and the Convention encourages researchers around the world to combine their talents for this purpose.

Financial resources need to be channeled and invested more efficiently. Most funding is raised domestically by the affected countries, but bilateral assistance programmes and international agencies also provide large sums. The Convention establishes a Global Mechanism to promote the mobilisation of financial resources. Innovative funding sources, including debt swaps and private sector financing, will also be encouraged.

The Convention establishes a number of institutions and procedures for guiding international action. The supreme body of the Convention will be the Conference of the Parties, which will include all ratifying governments. There will also be subordinate bodies for science and technology and for the promotion of funding. The Convention has been signed by over 100 countries, and it will enter into force three months after 50 countries have ratified, probably in 1997. Until then, the Intergovernmental Negotiating Committee that drafted the Convention will continue to meet and, among other things, start carrying out its resolution on urgent action for Africa.

Desertification is primarily a problem of sustainable development. It is a matter of poverty and human well-being, as well as preserving the environment. Social and economic issues, including food security, migration an political stability, are closely linked to land degradation. So are such environmental issues as climate change, biological research efforts and action programmes for combating desertification with these related concerns.

FAO
Rome Declaration on World Food Security

On invitation of the FAO, the World Food Summit took place from 13 to 17 November 1996 in Rome. One of the results was the adoption of the „Rome Declaration on World Food Security". The full text of the declaration is given here.

We, the Heads of State and Government, or our representatives, gathered at the World Food Summit at the invitation of the Food and Agriculture Organization of the United Nations, reaffirm the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger.

We pledge our political will and our common and national commitment to achieving food security for all and to an ongoing effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015.

We consider it intolerable that more than 800 million people throughout the world, and particularly in developing countries, do not have enough food to meet their basic nutritional needs. This situation is unacceptable. Food supplies have increased substantially, but constraints on access to food and continuing inadequacy of household and national incomes to purchase food, instability of supply and demand, as well as natural and man-made disasters, present basic food needs from being fulfilled. The problems of hunger and food insecurity have global dimensions and are likely to persist, and even increase dramatically in some regions, unless urgent, determined and concerted action is taken, given the anticipated increase in the world's population and the stress on natural resources.

We reaffirm that a peaceful, stable and enabling political, social and economic environment is the essential foundation which will enable States to give adequate priority to food security and poverty eradication. Democracy, promotion and protection of all human rights and fundamental freedoms, including the right to development, and the full and equal participation of men and women are essential for achieving sustainable food security for all.

Poverty is a major cause of food insecurity and sustainable progress in poverty eradication is critical to improve access to food. Conflict, terrorism, corruption and environmental degradation also contribute significantly to food insecurity. Increased food production, including staple food, must be undertaken. This should happen within the framework of sustainable management of natural resources, elimination of unsustainable patterns of consumption and production, particularly in industrialized countries, and early stabilization of the world population. We acknowledge the fundamental contribution to food security by women, particularly in rural areas of developing countries, and the need to ensure equality between men and women. Revitalization of rural areas must also be a priority to enhance social stability and help redress the excessive rate of rural-urban migration confronting many countries.

We emphasize the urgency of taking action now to fulfil our responsibility to achieve food security for present and future generations. Attaining food security is a complex task for which the primary responsibility rests with individual governments. They have to develop an enabling environment and have policies that ensure peace, as well as social, political and economic stability and equity and gender equality. We express our deep concern over the persistence of hunger which, on such a scale, constitutes a threat both to national societies and, through a variety of ways, to the stability of the international community itself. Within the global framework, governments should also cooperate actively with one another and with United Nations organizations, financial institutions, intergovernmental and non-governmental organizations, and public and private sectors, on programmes directed toward the achievement of food security for all.

Food should not be used as an instrument for political and economic pressure. We reaffirm the importance of international cooperation and solidarity as well as the necessity of refraining from unilateral measures not in accordance with the international law and the Charter of the United Nations and that endanger food security.

We recognize the need to adopt policies conducive to investment in human resource development, research and infrastructure for achieving food security. We must encourage generation of employment and incomes, and promote equitable access to productive and financial resources. We agree that trade is a key element in achieving food security. We agree to pursue food trade and overall trade policies that will encourage our producers and consumers to utilize available resources in an economically sound and sustainable manner. We recognize the importance for food security of sustainable agriculture, fisheries, forestry and rural development in low as well as high potential areas. We acknow-

ledge the fundamental role of farmers, fishers, foresters, indigenous people and their communities, and all other people involved in the food sector, and of their organizations, supported by effective research extension, in attaining food security. Our sustainable development policies will promote full participation and empowerment of people, especially women, an equitable distribution of income, access to health care and education, and opportunities for youth. Particular attention should be given to those who cannot produce or procure enough food for an adequate diet, including those affected by war, civil strife, natural disaster or climate related ecological changes. We are conscious of the need for urgent action to combat pests, drought and natural resource degradation including desertification, overfishing and erosion of biological diversity.

We are determined to make efforts to mobilize, and optimize the allocation and utilization of, technical and financial resources from all sources including external debt relief for developing countries, to reinforce national actions to implement sustainable food security policies.

Convinced that the multifaceted character of food security necessitates concerted national action, and effective international efforts to supplement and reinforce national action, we make the following commitments:

- we will ensure an enabling political, social, and economic environment designed to create the best conditions for the eradication of poverty and for durable peace, based on full and equal participation of women and men, which is most conducive to achieving sustainable food security for all;
- we will implement policies aimed at eradicating poverty and inequality and improving physical and economic access by all, at all times, to sufficient, nutritionally adequate and safe food and its effective utilization;
- we will pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices in high and low potential areas, which are essential to adequate and reliable food supplies at the household, national, regional and global levels, and combat pests, drought and desertification, considering the multifunctional character of agriculture;
- We will strive to ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair and market-oriented world trade system;
- we will endeavour to prevent and be prepared for natural disasters and man-made emergencies and to meet transitory and emergency food requirements in ways that encourage recovery, rehabilitation, development and a capacity to satisfy future needs;
- we will promote optimal allocation and use of public and private investments to foster human resources, sustainable food, agriculture, fisheries and forestry systems, and rural development, in high and low potential areas;
- we will implement, monitor, and follow-up this Plan of Action at all levels in cooperation with the international community.

We pledge our actions and support to implement the World Food Summit Plan of Action.

From: FAO aktuell, Nr. 47/96

WIDENING KNOWLEDGE OF THE LAND

Bringing soils knowledge into the wider world and bringing world concerns into soil science

Land is prized by everyone: today and every day people are fighting each other for land. Having taken possession, maybe at great cost, people often then destroy the very resources they depend upon.

Throughout the world, degradation of soil, water, forests and farmlands continues apace. In poor countries, increasingly impoverished rural people become increasingly vulnerable to natural disasters; in rich countries there are insidious problems of soil, water and air pollution and a shrinking genetic base.

One reason for this paradox is ignorance. For all the well-documented degradation of land and the existence of apparently effective technical solutions to many problems of land use, decisions are hamstrung by a lack of well-found knowledge of the land amongst land users or policy-makers. Information counters ignorance and uncertainty. But information is not simply data. We have to interpret the data to answer the question in hand, so information cannot be divorced from either the question in hand or the person grappling with the question. When it comes to information about natural resources, three situations are common:

i) There are no data.

ii) Relevant data exist but the people making the decisions do not know about them or do not have access to them. In poor and emerging countries, data gathered in the past by heroic survey effort are often no longer available in-country, and they are being lost completely through closure or reorganisation of institutions in developed countries that still hold them.

iii) Data exist, are accessible, but are not comprehensible to the people who make policy and land use decisions. Data are of variable quality but the decision-makers, and even professionals in allied fields, have no way of knowing even which are reliable and which are not. Unless the information is carried to the point of decision by natural resources specialists, much is lost or corrupted along the way. Loss and dispersal of experienced staff also means a loss of the capacity to interpret such data as are available.

An even more fundamental problem arises because decision-makers, in general, have no sure place for natural resources information in their decision-making process. They do not know what information to ask for; what they really want they do not get; what they get they do not want.

So where does any of us turn for information about the land? Our first choice would be a colleague whose integrity and judgement we have learned to trust but, if we are working in isolation or without adequate institutional support, we may have no one to turn to. Line ministries and sectoral agencies, NGO's, commercial companies, even universities may have imperatives other than giving disinterested advice and information. But around the world, there are dedicated individuals working for the sustainable use of natural resources. They belong to no particular profession but to many. They are members of no formal society but recognise one another immediately. Why not then, have a society to provide mutual help and key information?

We have founded the International Land Use Society with this aim. All members of ISSS are welcome to join - more than welcome, we need you. The Society requires only that you respond as best you can to fellow members and, if you cannot help directly, post on the question to the Society at large. A membership list with e-mail/fax/postal addresses will be circulated regularly so that we can keep in touch; by the end of the year we mean to have a World Wide Web page operating. It would be a pity to confine our activities to the ranks of natural resources professionals. The whole idea of the new society is to also embrace people who are going to use the information in land use and management, in drawing up policies and in influencing public opinion. We already have the support of Mrs Gro Harlem Brundtland and President Nelson Mandela and will be seeking out others in all walks of life.

The Society is not in the business of consultancy. We are not supplanting any other institution, least of all ISSS. We can respond only as individuals but we know from experience that this can make a difference. Often we can make rapid progress with the problem in hand when, as with a jigsaw puzzle, a single small piece is supplied - maybe a method, quite simple equipment, or an idea bought with experience elsewhere. On the other hand, progress may be set back for years by the wrong piece of jigsaw

- false information or an inappropriate method. Fair trade in information and ideas between the far flung members of the Society can supply missing pieces, immediately, disinterestedly and free.

The Society's journal, *The Land* will deal in greater depth with topical natural resources and development issues. It will be published three times a year and distributed free to members. The journal is sponsored by FAO but the Society has complete editorial independence. You are invited to send articles, research papers, technical notes and letters to the editors. While the network is in its infancy, you may also like to send your practical problems and queries to the Editors' mail bag at either:

d.dent@uea.ac.uk
(David Dent,
School of Environmental Sciences
University of East Anglia
Norwich, NR4 7TJ, England
phone: +44-1603-593116;
fax:+44-1603-507719)

or

willy.verheye@rug.ac.be
(Willy Verheye,
Acacialaan 21
9840 De Pinte, Belgium
phone: +32-9-264-4623;
fax: +32-9-282-5413)

Membership of ILUS costs £20, annually.

For information please contact:
at robert.ridgway@nri.org.uk
(Robert Ridgway, Natural Resources Institute,
Chatham Maritime, Kent, ME4 4TB,
England
phone: +44-1634-883444; fax: +44-1634-883959

ON MEDITERRANEAN SOILS CONFERENCES: A BRIEF HISTORY

May 1997 marks 50 years since the first conference dealing specifically with soils of the Mediterranean region was organized. Following the Third International Soil Science Congress held in 1935 in Oxford, World War II interrupted effectively international meetings of soil scientists. One of the first activities in the post-war period was the initiative of the Association Française pour l'Étude du Sol to organize in May 1947 an international conference in Montpellier with excursions in southern France (10 days) and Algeria (10 days). The conference had a strong pedologic atmosphere with examination of soil profiles and lively discussions on topics related to pedology, though participants represented also many other subjects. Besides the strong French delegation there were 22 delegates from other countries, mostly from Europe, with Great Britain sending 8 delegates. Soviet pedologists, though invited, did not participate. Its official name was Conférence Internationale de Pédologie Méditerranéen, though the proceedings were titled C.R. du Congrès de Pédologie (Montpellier-Alger), 1947. A lively report on the conference was published by the American pedologist J.S. Joffe (Soil Science, 86: 350-354, 1948).

The next specifically Mediterranean soil meeting was organized by the Spanish Soil Science Society and ISSS Commission V in September 1966 in Madrid, attended by some 150 visitors, with 11 days of field trips in southern Spain and Portugal and a 10 day pre-conference excursion in Morocco organized by French pedologists. A massive volume (471 pp.) with nearly 60 papers in English, French and Spanish, Transactions of the Conference on Mediterranean Soils, was published two years later. It bears witness of the range of topics and soils represented in the Mediterranean region, though the pedological presentations and discussions around soil pits will probably remain longer in the memories of the participants. Again there were no delegates from the Soviet Union. Reports on the conference can be found in the ISSS Bulletins No. 29:28-29, 1966 and No. 30:6-7, 1967.

Thanks to the initiative of Prof. A.R. Mermut, Saskatoon, Canada and the substantial support of the Soil Science Department of the University of Cucurova and other Turkish authorities, the next meeting was organized in May 1993 in Adana, Turkey. This time called International Meeting on Red Mediterranean Soils, it was attended by some 60 foreign visitors, including several from China and the former Soviet Union, in addition to a large number of Turkish participants. This time there was only a one day field trip and the topics discussed during sessions covered mainly soil management and productivity of Mediterranean region soils. Eleven selected papers covering the pedological aspects of Red Mediterranean Soils were published in 1997 as a special issue of Catena vol. 28, no. 3-4, 173 pp. A report on the meeting by A.R. Mermut can be found in the ISSS Bulletin no. 84, p. 38-39, 1993. The newly created Working Group on Red Mediterranean Soils decided to hold such meetings at regular intervals.

The next meeting was organized in May 1995 by the Soil Science Society of Greece in Chalkidiki, with N. Yassoglou as chairman. The volume of extended abstracts includes over 90 contributions covering all aspects of red Mediterranean soils with emphasis on their physico-chemical properties and management. There was a one-day pedological field trip. Besides a large number of Greek participants there were some 90 visitors from foreign countries. A meeting report by A.R. Mermut can be found in the ISSS Bulletin no. 88, p. 69-70, 1993.

In response to the invitation of the Bulgarian Soil Science Society, the most recent meeting was held in May 1997 in Plovdiv, Bulgaria, under the chairmanship of Prof. I. Atanassov, with about 30 foreign and 30 local participants, and a 2and ½ day pedological field trip.

It seems that the aim of regular meetings in various Mediterranean region countries has been largely achieved, probably significantly benefiting the local participants, by meeting and hearing foreign participants. Assuming that invitations and sponsorship from other Mediterranean countries will continue, the tradition could continue, best by dropping again the name „Red" from the conference title. The character of the meetings has changed. While the first two conferences had a predominantly pedological flavor with long field trips including soil profile examinations and the inevitable heated discussion around the pits, the character of the later conferences has changed to mainly paper presentations, to enable all participants to demonstrate their research. Round table or round soil pit opinion exchanges have receded into the background.

There have also been and will be in the future a number of related meetings, like those specialized on soil Erosion and Land Degradation in the Mediterranean Region, sponsored by other groups and societies, which could be coordinated with the RMS Working Group. To continue attracting leading foreign visitors to such regional conferences, stress on different pedological topics, like climate moisture relations, human impact on soils (metapedogenesis), integrated mapping methods or soil-ecosystem management, and discussions of current problems could be given major emphasis at different meetings, though all usual soil science topics should continue to be promoted.

D.H. Yaalon, Jerusalem, Israel

SOIL-GEOGRAPHICAL TOUR IN RUSSIA

A group of young soil scientists organized bus excursions from Moscow to Volgograd crossing several soil-geographical zones. Those excursions were successfully held in 1994 and 1995. The tour is sponsored by the Timiriazev Agricultural Academy and Moscow State University; it was designed and is supervised by specialists in soil and environmental sciences.

Participants of the Russian soil-geographical tour

The objectives of the tour are i.a.: education in the fields of soil science and geography, scientific contacts - exchange of ideas, development of personal contacts, discussing probable joint research projects.

The tour gives an opportunity to study soils, to observe basic features of landscapes, including characteristics of relief and sediments, processes of ecosystems evolution and dynamics, as well as their Holocene history. Problems of sustainable land use and environmental control are addressed as well.

The tour starts in the southern taiga zone north of Moscow, crosses the forest-steppe and typical steppe zones, where a unique biosphere reserve with a deep Russian Chernozem („Streletskaya steppe" near Kursk) is demonstrated, as well as a 100 year old experiment on sustainable land use which was initiated by V.V. Dokuchaev („Dukuchaev oasis" in the Kamennaya steppe). Semi-desertic soils, Calcisols, Solonetzes, Vertisols and an evolutionary sequence of Fluvisols within the Volga valley are shown near Volgograd.

Presentation of soil pits is focused on discussing soil morphology as related to soil-forming agents and processes; which is followed by the discussion of correlations between the Russian and international taxonomic systems and land use facilities.

This 3-week, July-August bus tour with camp stops and visits to famous historical monuments is provided with German and/or English simultaneous translation.

Students as well as research and teaching professionals specialized in soil science, land management and control, agricultural sciences, geography and environment are invited to participate.

Additional information about the next tour, costs, program and other details may be obtained from: Dr. Yakov Kuzyakov, Humboldt University, Theodor-Echtermeyer-Weg, D-14979 Grossbeeren, Germany. Fax: +49-33701-55391; e-mail: h0367ael@rz.hu-berlin.de.

FELLOW ENVIRONMENTAL SCIENTIST/ENGINEER.

The bioremediation Discussion Group (BioGroup) consists of a moderated mailing list serving nearly 1,200 members worldwide. The BioGroup was established to provide a global forum for the technical community to discuss intrinsic/enhanced bioremediation topics. This forum provides a medium to transfer technology, standardize biotreatability protocols, and advance the science and engineering of bioremediation technologies. GeoEnvironmental, Inc. (GZA), who hosts the BioGroup on Internet, recognizes bioremediation is not a panacea for soil/groundwater contamination, however, we feel it is an under-utilized remediation technology, its limitations notwithstanding.

GZA expects the forum to be a springboard for the pursuit of innovative approaches to bioremediation. Because the success of the BioGroup is a function of the participation of its members, GZA invites anyone with experience and/or interest in bioremediation to join the BioGroup. Due to the complexities of biogeochemical processes that control contaminant biotransformation, we welcome input from environmental engineers, hydrogeologists, soil scientists, microbiologists, environmental chemists, and all who wish to contribute to this important topic.

BioGroup postings are archived as a collaborative effort of the University of Guelph Department of Environmental Biology, the National Water Research Institute (Environment Canada), and GZA. The archive URL is http://gwrp.cciw.ca/internet/bioremediation/biorem-archive.html.

To join the BioGroup, please visit http://biogroup.gzea.com, select „Membership Info", and follow the directions therein. Members may participate in either a non-digest mode (i.e., receive each message at the time it is posted) or a digest mode (i.e., receive one message each day summarizing all the postings of that day). There is no membership fee.

Please direct any questions about the BioGroup to the attention of:
I. Richard Schaffner, Jr., P.G.,
Technical Specialist, GZA GeoEnvironmental, Inc. (http://www.gza.net)
Moderator, Bioremediation Discussion Group (http://biogroup.gzea.com)
E-mail: rschaffner@gzea.com; Phone: 603.623.3600; Fax: 603.624.9463.

WETLANDS INTERNATIONAL

Wetlands International was launched on 1 January 1996, following the integration of three existing non-profit international wetland conservation organisations: International Waterfowl and Wetlands Research Bureau (IWRB), Asian Wetland Bureau (AWB), Wetlands for the Americas (WA). The achievements of the founding organisations date back more than 40 years and include the launch of the Ramsar Convention, major regional surveys and conservation programmes for wetlands and wetland species, and the development of international programmes for migratory water bird conservation. Today, Wetlands International is a leading international wetland conservation organisation with programmes, networks and projects in more than 120 countries.

Wetlands International comprises four operating units: a small International Co-ordination Unit, and three Regional Headquarters for the Asia pacific (Kuala Lumpur, Malaysia), the Americas (Ottawa, Canada) and Africa, Europe & Middle East (Wageningen, The Netherlands) regions. The International Co-ordination Unit provides overall services to the global Board (comprising representatives of 50 member countries, international organisations and Specialist Groups), the Executive Committee and leads the global promotion and development of the organisation.

The president of Wetlands International is Chris Kalden, Wetlands International, c/o/ PO-Box 20021, 3502 LH Utrecht, The Netherlands. Tel.: + 31 30 2858500; Fax: +31 30 2858991.

Additional Information can be obtained from the Regional Directors:

Ian Davidson, Wetlands International - The Americas, 7 Hinton Avenue North, Suite 200, Ottawa, Ontario, K1Y 4P1, Canada, tel.: +1-613-722-2099, fax: +1-613-722-3318, e-mail: davidson@wetlands.org.

Faizal Parish, Wetlands International - Asia Pacific, c/o Institute of Advanced Studies, University of Malaya, 50603, Kuala Lumpur, Malaysia, tel.: +60 -3-756-6624, fax: +60-3-757-1225, e-mail fparish@wiap.nasionet.net.

Michael Moser, Wetlands International - Africa, Europe, Middle East, Marijkeweg 11, 6700 AC Wageningen, The Netherlands, tel.: +31-317-474711, fax: +31-317-474712, e-mail: moser@wetlands.agro.nl.

APPOINTMENTS, HONOURS, PERSONAL NEWS
NOMINATIONS, DISTINCTIONS, INFORMATIONS PERSONNELLES
ERNENNUNGEN, AUSZEICHNUNGEN, PERSÖNLICHE NACHRICHTEN

I.B. Campbell, C.W. Childs, J.K. Syers and **P.J. Tonkin** were elected **Fellows of the New Zealand Society of Soil Science**

Dr. Hendrik Breman, an agricultural development specialist with 25 years of experience in sub-Saharan Africa, has been named **Director of IFDC-Africa**. On October 1, 1996, Breman, a citizen of the Netherlands, has succeeded Dr. A. Uzo Mokwunye, who has directed IFDC-Africa, based in Lomé, Togo, since 1990. Dr. Mokwunye has been named Special Advisor to the President.

ISNAR's Board of Trustees appointed **Dr. Stein W. Bie** of Norway as **ISNAR's fourth Director General**. He will succeed Dr. Christian Bonte-Friedheim in early summer 1997. Bie comes to ISNAR from the Sustainable Development Department of FAO in Rome. He is currently director of the research, extension, and training division there. Before joining FAO, he was the director of the Norwegian Centre of International Agricultural Development (Noragric) of the agricultural University of Norway.

Dr. Darwin Wayne Anderson has been elected a **Fellow of the Canadian Society of Soil Science** in recognition of his many and diverse contributions to soil science in Canada and the USA.

Dr. John Alfred Toogood has been elected a **Fellow of the Canadian Society of Soil Science** in recognition of his lifetime of promoting the public awareness as to the wise use of soil resources.

Drs. Hans van Baren, Deputy Secretary-General of ISSS, celebrates the 25th anniversary of his editorship of the „New Publication"-section of the ISSS Bulletin.

Shortly after his return to the Netherlands, after a stay of 8 years abroad, Hans van Baren supplied his first book reviews to the Bulletin of the Society. The first ones bearing his name were contained in Bulletin 41 of 1972, just 25 years ago. The number of announcements of new books and journals has grown from 40 to 50 per year at that time, via 50-100 when Prof. Dudal was editor and to about 200 when Dr. Sombroek was editor. This has remained more or less constant under the present editorship of Prof. Blum. The whole section of „New Publications" is prepared at ISRIC, Wageningen, the Netherlands, where Marie-Béatrice Clabaut during about ten years, and nowadays Rita de Ridder cooperate with Hans van Baren in preparing this valuable part of our Bulletin. We would like to use this occasion to thank Hans van Baren for his invaluable contribution to ISSS and to the international soil science community.

Prof. Donald R. Nielsen, University of Davis, California, was awarded the Honorary Membership of the European Geophysical Society (EGS) in April 1997, for his international merits in soil physics.

Prof. Winfried E.H. Blum, Secretary-General of ISSS, received the Doctor's Degree of Honour from the Georgian State Agrarian University in Tbilisi/Georgia, in March 1997, in recognition of his meritorious contributions to the development of science. - He was appointed Foreign Member of the Agricultural Academy of the Slovak Republic in March 1997.

Paul M. Bertsch, of the Savannah River Ecology Lab, University of Georgia, received the Jackson Soil Science Award.

John J. Mortvedt, former President of the SSSA, **and James F. Power**, retired research leader and research soil scientist from USDA-ARS, both received the Soil Science Award for Distinguished Service.

Martinus Th. van Genuchten, USDA-ARS, received the Soil Science Research Award.

Lloyd R. Hossner, Texas A&M University, received the Soil Science Applied Research Award.

Darrell W. Nelson, University of Nebraska, received the Soil Science Professional Service Award.

Marion F. Baumgardner, Chair of ISSS Working Group „World Soils and Terrain Digital Data Base", received the International Soil Science Award.

Alfred M. Blackmer, Iowa State University; **James A. Burger**, VPI&SU; **Carolyn G. Olson**, USDA-NRCS; **H. Magdi Selim**, Louisiana State Univ.; **Nicola Senesi**, Univ. di Bari; **Jean L. Steiner**, USDA-ARS; and **Oswald Van Cleemput**, Univ. of Ghent, were named Fellows of the Soil Science Society of America, in recognition of their outstanding dedication to soil science.

Donald L. Sparks is the recipient of the 1996 Francis Alison Award of the University of Delaware.

IN MEMORIAM

Cornelis van Ouwerkerk

Cornelis (Cees) van Ouwerkerk's entire career was devoted to research on soil tillage and soil management and his outstanding contributions to the formation and world-wide development of ISTRO will be long remembered.

Cees van Ouwerkerk graduated from Wageningen Agricultural University in 1958 with majors in Soil Science and in Land Reclamation and Drainage. In 1959 he started his career at the Institute for Soil Fertility Research (IB), since renamed the Research Institute for Agrobiology and Soil Fertility (AB-DLO), at Haren near Groningen. He first continued the research begun by Professor H. Kuipers in the 1950s but soon started his own tillage field experiments at the Lovinkhoeve Experimental Farm and elsewhere in which he introduced the concept of ecoagriculture into tillage research, incorporating mechanical weed control, shallow ploughing or reduced ploughing. In this research he was well known for his holistic approach to the cropping system, of which he considered soil tillage to be an integral part. He was responsible for the concept of „rational tillage" a system which sought a more appropriate compromise than reliance on only conventional ploughing or no-tillage.

Cees played a key role in the establishment and development of ISTRO, being a founding member in 1973 and serving as its first Secretary-General from 1976 to 1991. During this period, he laid the foundations of an organization which, under his guidance had grown by the time of his retirement, to achieve world-wide status and a membership which is now approaching 700.

He took an active role in the protracted negotiations between ISTRO and the publishers which led to the appearance of the journal Soil & Tillage Research in 1980.

Cees became aware that informing ISTRO members around the world required a special newsletter. Therefore, in 1977, he created ISTRO-INFO, with an associated extensive Reading Table covering recent publications in relevant topics. - He was responsible for the concept of the ISTRO East-West Relations Committee and in 1991 was appointed its first Chairman, a position for which he was ideally suited with his gift for languages and his wide experience and contacts.

Cees' distinguished service to ISTRO over 21 years was recognized by the richly deserved award of Honorary Membership at the 13th ISTRO Conference at Aalborg, Denmark, in 1994.

He was keenly aware of the difficulties facing tillage workers in eastern and central Europe and put forward the concept of National Branches of ISTRO which he subsequently initiated very successfully. These efforts were recognized by his election as Honorary Member of the Romanian Soil Science Society.

Cees assisted many scientists in central and eastern Europe by obtaining training and work experience in western Europe and by encouraging them to prepare manuscripts for publication.

It is fitting that his outstanding service to ISTRO will be commemorated by the establishment of the „Cees van Ouwerkerk Memorial Scholarship" which will give support to promising research workers who would otherwise be unable to attend ISTRO Con-ferences, a concept which, when mentioned to him shortly before he died, gained his enthusiastic support.

Cees van Ouwerkerk was taken ill during 1995 and in August of that year had major internal surgery. A further relapse occurred during the early part of 1996 and in June 1996 he was informed that his survival was threatened. From then until he died, he suffered a continuous period of pain and

sickness. However, throughout, he continued to take a searching interest in the activities of his many friends and contacts around the world.

We extend our deepest sympathy to his wife Gera, his four children Frederike, Welmood, Teun and Geert-Bernard, and his eight grandchildren.

Written by Brennan D. Soane, Penicuik, Scotland
(From: ISTRO-INFO Extra)
sent in by: Warren A. Dick

MEETINGS, CONFERENCES, SYMPOSIA
REUNIONS, CONFERENCES, SYMPOSIA
TAGUNGEN, KONFERENZEN, SYMPOSIEN

Important Notice

ISSS, as a Scientific Union Member of the International Council of Scientific Unions (ICSU), subscribes to the principle of free movement of bona fide scientists; patronage or sponsoring will therefore automatically be withdrawn if the country of venue denies or purposely delays visa awarding to any ISSS member who wishes to participate in the meeting concerned.

1997

6th Internatinal Conference on Agrophysics, Lublin, Poland, September 15-18, 1997.
Information: R. Debicki, Institute of Agrophysics, Polish Academy of Sciences, Doswiadczalna 4, P.O.Box 121, 20-236 Lublin, Poland; Tel: +48-81-450-61, Fax: +48-81-450-67; E-mail: debicki@demeter.ipan.lublin.pl.

International Symposium on Soil Erosion and Dryland Farming, Xian, P.R. China, September 16-19, 1997.
Information: SEDF97 Secretariat, Institute of Soil and Water Conservation, 26 Xinong Road, Yangling, Shaanxi 712100, People's Republic China; Fax: +86-910-701-2210; Tel: +86-910-701-2411; E-mail: office@ms.iswc.ac.cn

XIII International Symposium on Environmental Biogeochemistry: „Matter and Energy Fluxes in the Anthropocentric Environment", Monopoli, Bari, Italy, September 21-26, 1997.
Information: Prof. Nicola Senesi, XIII ISEB, Istituto di Chimica Agraria, Università di Bari, Via Amendola 165/A, 70126 Bari, Italy. Tel: +39-80-544-2853; Fax: +39-80-544-2813; E-mail: nsenesi@mail2.clio.it

International Symposium: Sustainable management of salt affected soils of the arid ecosystem, Cairo, Egypt, September 22-27, 1997.
Information: Prof. A.M. Elgala, Chairman, Organizing Committee, Department of Soil Science, Faculty of Agriculture, Ain Shams University, Hadayek Shobra, 11241, Cairo, Egypt; Fax: 202-2214461.

International Working Meeting on Paleopedology, Rauischholzhausen near Marburg, Germany, September 24-26, 1997.
Information: Prof. A. Bronger, Department of Geography, University of Kiel, 24098 Kiel, Germany; Phone: +49-431-880-2952; Fax: +49-431-880-4658. E-mail: bronger@geographie.uni-kiel.de

First International Conference and Industrial Exhibition „Field Screening Europe", Karlsruhe, Germany, September 29 - October 1, 1997.
Information: Forschungszentrum Umwelt, Dr. J. Gottlieb, Dr. K. Iluck, Universität Karlsruhe, Field Screening Europe, Kaiserstr. 12, 76128 Karlsruhe, Germany; Tel: +49-721-608-2053; Fax: +49-721-608-6109; E-mail: Conferences@fzu.uni-karlsruhe.de.

Comm. IV Conference „Soil Resilience and Sustainable Land Use for Small Holdings", Dhaka, Bangladesh, October/November 1997
Information: Dr. Z. Karim, D.G., BRRI, G.P.O. Box 64, Ramna, Dhaka, Bangladesh; E-mail: IRRI.Dhaka@DRIKTAP.TOOL. NL; Fax: 880-2-883416.

9th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, S. Agnello di Sorrento, Italy, October 4-9, 1997.
Information: Prof. Alessandro Piccolo, MESAEP 1997, Dipartimento di Scienze Chimico-Agrarie, Università di Napoli „Federico II", Via Università 100, 80055 Portici, Italy; Tel: +39-81-7755672; Fax: +39-81-7755130; E-mail:alpiccol@ds.unina.it.

XI World Forestry Congress, Antalya, Turkey, October 13-22, 1997.
Information: Mesut Y. Kamiloglu, Scretary-General, XI World Forestry Congress, Department of Foreign Relations, Ministry of Forestry, Ataturk Bulvari 153, Ankara, Turkey; Tel: 90-312-4177724; Fax: 90-312-4179160; E-mail: obdi-f@servis.net.tr.

1er Congreso Iberoamericano de Química Ambiental y **1ras Jornadas Chilenas de Física y Química Ambiental**, Santiago, Chile, 19 al 22 de Octubre de 1997.
Información: Centro de Quimica Ambiental, Universidad de Chile, Facultad de Ciencias, Las Palmeras 3425, Casilla 653, Santiago, Chile. Fono: (56-2)678-7370; Fax: (56-2)678-7274; http://macul.ciencias.uchile.cl/cqa/index.html.

International Conference on Soil Quality Management and Agroecosystem Health for East and Southeast Asia, Cheju Island, Korea, November 11-14, 1997.
Information: Dr. Sang Kyu Lee, The Organizing Committee, Plant Nutrition Division, National Agricultural Science and Technology Institute, 440-707, Suwon, Korea; Fax: (82)331-290-0261.

International Symposium „Soil Systems Behaviour in Time and Space „ (ISSS Commission V and ISSS WG-RB), Vienna, Austria, November 19-21, 1997.
Information: Dr. W.W. Wenzel, Institute of Soil Research, University of Agriculture, Gregor Mendel-Str. 33, 1180 Vienna, Austria; Tel + Fax: +43-1-47654-3119.

1998

GCTE-LUCC Science Conference, Barcelona, Spain, March 14-18, 1998.
Information: GCTE-LUCC Science Conference, GCTE Core Project Office, PO Box 84, Lyneham ACT 2602, Australia; Fax: +61-6-241-2362; E-mail: rowena.foster@dwe.csiro.au.

3rd European Symposium on Rural and Farming Systems Analyses: Environmantal Perspecitves; Stuttgart-Hohenheim, Germany, March 25-27, 1998.
Information: Prof.Dr. Werner Doppler, Institut 490C, Universitaet Hohenheim, 70593 Stuttgart, Tel: +49-711-4592514; Fax: +49-711-4593812; E-mail: doppler@uni-hohenheim.de.

Symposium International „Les Perspectives du Développement Agricole Durable sur al rive sud de la Méditerranée, Tunis, Tunisie, 12-14 mai 1998.
Information: Institut National Agronomique de Tunisie (INAT), Comité du Symposium International, 43, Av. Charles Nicole-Tunis, Tunisie; Fax: 216-1-799-391; Tel: 216-1-287-110.

ConSoil '98, 6th International FZK/TNO Conference on Contaminated Soil, Edinburgh, UK, May 17-21, 1998.
Information: Forschungszentrum Karlsruhe GmbH, PSA, Frau B. Mathes, P.O.B. 3640, 76021 Karlsruhe, Germany; Tel: +49-7247-82-3949; E-mail: mathes@psa.fzk.de.

3rd International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Quebec City, Quebec, Canada, May 20-22, 1998.
Information: 3rd Spatial Accuracy Symposium, Centre de recherche en géomatique, 0722 Pavillon

Casault, Université Laval, Québec (Québec) G1K 7P4, Canada. Tel: +1-418-656-5491; Fax: +1-418-656-3607; E-mail: spatial.accuracy@scg.ulaval.ca; Web site: http://www.crg.ulaval.ca/

27th International Symposium on Remote Sensing of Environment, Tromso, Norway, June 8-12, 1998.
Information: 27th Intl. Symposium on Remote Sensing of Environment, Norwegian Space Centre, P.O.Box 113 Skoyen, N-0212 Oslo, Norway; Fax: +47-22-51-18-01; E-mail: isrse@spacecentre.no; http://www.spacecentre.no/

International Symposium: Modelling for Crop-Climate-Soil-Pest System and its Application in Sustainable Crop Production (MCCSP), Nanjing, China, June 22-26, 1998.
Information: Prof. Liangzhi Gao, Jiangsu Academy of Agricultural Sciences (JAAS), Nanjing, China; E-mail: lgao@public1.ptt.js.cn.

5th European Palaeobotanical-Palynological Conference, Kraków, Poland, June 26-30, 1998.
Information: Mgr. Grzegorz Worobiec, Secretary, 5th European Palaeobotanical-Palynological Conference, W. Szafer Institute of Botany, Polish Academy of Sciences, Lubicz 46, 31-512 Kraków, Poland; Fax: (48-12)21-97-90; E-mail: worobiec@ib-pan.krakow.pl.

International Symposium on Modelling Soil Erosion, Sediment Transport and Closely Related Hydrological Processes, Vienna, Austria, July 13-17, 1998.
Information: Mr. Wolfgang Summer, Dept. of Civil and Environmental Engineering, University of California, Davis, CA 95616, USA. Tel and Fax: +1-916-752-2385; E-mail: wsummer@ucdavis.edu.

6th International Symposium on Earthworm Ecology - ISEE6, Vigo, Spain, July 1998.
Information: Dr. D.J. Díaz Cosín, Dpt. Biología Animal I - Universidad Complutense, 28040 Madrid, Spain; Tel: +34-13944953; Fax: +34-13944947; E-mail: dadico@eucmax.sim.ucm.es;
or:
Dr. S. Mato, Dpt. Recursos Naturales y Medio Ambiente, Facultad de Biología, Lagoas-Marcosende; 36200 Vigo (Pontevedra), Spain; Tel: +34-86812583; Fax: +34-86812556; E-mail: smato@uvigo.es

Canadian Society of Soil Science Annual Meeting, Vancouver, British Columbia, Canada, July 5-9, 1998.
Information: R. Blair, Tel: (+1)-604-822-4400.

2nd International Conference on Climate and Water, Espoo, Finland, August 17-20, 1998.
Nea Helenius, Helsinki University of Technology, Water Resources Engineering, Tietotie 1, FIN-02510 Espoo, Finland; Fax: +358-9-451-3827; E-mail: nhelenius@ahti.hut.fi.

XVIth World Congress of Soil Science, Montpellier, France, August 20-26, 1998.
Information: XVI World Congress of Soil Science, Congress Secretariat, 1101, Avenue Agropolis, 34394 Montpellier Cedex 5; France; tel: (+33)67 04 75 38; fax: (+33)67 04 75 49

International Conference and Special Workshops: Groundwater Quality: Remediation and Protection, Tuebingen, Germany, September 21-25, 1998.
Information: Conference Secretariat GQ'98, c/o Lehrstuhl fuer Angewandte Geologie, Sigwartstr. 10, 72076 Tuebingen, Germany; Tel: +49-707174692 (from the USA or the Netherlands: +49-7071-290 - ask for extension 74692 or 76486); Fax: +49-7071-5059
E-mail: mike.herbert@uni-tuebingen.de.

International Symposium on Problematic Soils - The Japanese Geotechnical Society, Sendai, Japan, October 1998.
Information: Prof. N. Moroto, Dept. of Civil Engineering, Hachinohe Institute of Technology, 88-1 Ohbiraki, Myo, Hachinohe 031, Japan. Fax: +81-178-25-1013; E-mail: istohoku@ hi-tech.ac.jp.

Hydrological Changes in Africa, Abidjan, Côte d'Ivoire, November 16-19, 1998.
Information: Dr. Eric Servat, ORSTOM, 06 BP 1203, Cedex 1, Abidjan 06, Côte d'Ivoire; Tel: +225-1-45-00-74/45-41-70; Fax: +225-45-00-76/24-65; E-mail: 101727.2773@compuserve.com OR servat@orstom.rio.net.

1999

2nd International Conference on Land Degradation, Khon Kaen, Thailand, January 22-31, 1999.
Information: The President, Soil and Water Conservation Society of Thailand, c/o Department of Land Development, Chatuchak, Bangkok 10900, Thailand; Tel: +66-2-5791939 and -5790111;
Fax: +66-2-5613029 and -5611959; E-mail: ibsram@cgnet.com or ibsram@nontri.ku.ac.th

IUGG Assembly, Birmingham, UK, July 19-30, 1999.
Information: Dr. Gordon Young, Secretary General, IAHS, Department of Geography, Wilfrid Laurier University, Waterloo, Ont N2L 3C5, Canada; Tel: +1-519-884-1970; Fax: +1-519-846-0968; E-mail: 44iahs@mach1.wlu.ca.

XV International Congress of the International Union for Quaternary Research (INQUA): „The Environmental Background to Hominid Evolution in Africa" Durban, South Africa, August 3-11, 1999.
Information: Conference Secretariat, Conference Africa, P.O. Box 1722, Parklands, 2121, Johannesburg, South Africa; Tel: +27-11-447-8143; Fax: +27-11-447-8144; E-mail: cafrica@iafrica.com.

Congress of the Polish Society of Soil Science: „The role of soil in the functionality of ecosystems", Poland, September 7-10, 1999.
Information: Prof. Adam Kaczor, Department of Agricultural Chemistry, Agricultural University of Lublin, Akademicka 15, P.O. Box 158, 20-950 Lublin, Poland, Tel: +48-81-537-67-34; Fax: +48-81-33-549.

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Information: Mrs. Greta Camps, Course Secretary, Institute for Land and Water Management, K.U. Leuven, Vital Decosterstraat 102, 3000 Leuven, Belgium. Tel: +32-16-32-97-45; Fax: +32-16-32-97-60; E-mail: greta.camps@agr.kuleuven.ac.be

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- Postgraduate Diploma and Msc. Degree Courses: Socio-Economic Information for Natural Resource Management.

Information: ITC, Student Registration Office, Attn. Mrs. A Scheggetman, P.O.Box 6, 7500 AA Enschede, The Netherlands, Tel: +31-(0)53-4874-205; Fax: +31-(0)53-4874-238; Telex: 44525 itc nl; E-mail: scheggetman@itc.nl.

Post-Graduate Course: Remote Sensing and Natural Resources Evaluation, Istituto Agronomico per l'Oltremare, Florence, Italy.
Information: Istituto Agronomico per l'Oltremare, Via A. Cocchi, 4, 50131 Florence, Italy; Tel: 39-55-573-201; Fax: 39-55-580-314.

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External Programme, specialised courses on Managing Agricultural Development, Environmental Management in Agricultural Development, Kent, UK.
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International Post-graduate Training Course in Eremology, (Desert Science), Ghent, Belgium.
Information: **The International Center for Eremology, University of Ghent**, Coupure Links 653, B-9000 Gent, Belgium (Tel.: ++32-91-646036; Fax: ++32-91-646247).

Master's and Advanced Course in Soil Science, International Training Centre for Post-Graduate Soil Scientists, Ghent, Belgium.
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Post-graduate Courses in Soil Science, Plant Production, and Ecology. MSc and PhD Degree, Universidad de Buenos Aires, Argentina.
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International Agriculture Courses at MSc. Level, Larenstein International Agricultural College, The Netherlands.
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Masters Programme in Human Ecology, Vrije Universiteit Brussel (endorsed by UNESCO-MAB Programme)
Information on admission requirements: Mr. Eddy Nierynck, International Relations Officer, Human Ecology Department, Faculty of Medicine and Pharmacy, VUB (MEKO GF), Laarbeeklaan 103, B-1090 Brussels, Belgium.
Tel: +32-2-477-4282 or -4961; Fax: +32-2-477-4964; E-mail: gronsse@meko.vub.ac.be.
Other information: Dr. Christine Horton (Programme Co-ordinator) and Ms. Karin de Bruyn (Assistant Programme Co-ordinator).
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Curso de Pós-Graduaçao em „Solos e Nutriçao de Plantas"
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Fax: +31-317-484464; E-mail: Office@DOIS.SZ.WAU.NL; HTTP://WWW.WAU.NL/; Internet for education and student information: HTTP://WWW.WAU.NL/WAUEDUC.HTML

The Soil Science Department, Faculty of Agriculture, of the Minia University, Minia, Egypt, organizes the following International Courses:
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Information: Prof.Dr. M. A. Kishk, Minia University, Faculty of Agriculture, Service Laboratory for Soil, Plant & Water Analysis, Minia, Egypt. Tel and Fax: +20-86-345-394; Fax: +20-86-322-182.

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Publisher: Taylor & Francis New York
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Size: Eight issues per year, in two volumes of about 750 pages.
Publisher: Springer Verlag, Berlin-Heidelberg-New-York-Tokyo.
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3. CATENA, an interdisciplinary journal of Soil Science-Hydrology-Geomorphology, focusing on Geoecology and Landscape Evolution.
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4. GEODERMA, an International Journal of Soil Science.
Publisher: Elsevier Science Publishers, Amsterdam, the Netherlands.
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5. SOIL BIOLOGY & BIOCHEMISTRY
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6. SOIL TECHNOLOGY, journal concerned with applied research and field applications on soil physics, soil mechanics, soil erosion and conservation, soil pollution, soil restoration, drainage, irrigation and land evaluation.
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7. PEDOBIOLOGIA, international journal, focusing on soil biology, especially on soil zoology and microbiology.
Size: 6 issues per year, in 1 volume with 450 pages.
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Wind Erosion in West Africa. The Problem and its Control. Proceedings of the International Symposium, University of Hohenheim, Germany, 5-7 December 1994. B. Buerkert, B.E. Allison and M. von Oppen, editors. *Margraf Verlag, Weikersheim, 1996, viii + 397 p.* ISBN 3-8236-1250-6. Softcover.

In the Sahel, deforestation, overgrazing and declining fallow periods have resulted in increased wind erosion problems which contribute to the constraints that limit crop production. The control of wind erosion in West Africa is a challenge that requires an interdisciplinary approach. Therefore, a symposium was organized in which agronomists, climatologists, economists, social scientists and extensionists as well as project experts with on-farm experience in wind erosion control in the Sahel and other semi-arid zones of the world were brought together.

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Orders to: see below.

Soil Conservation in Andean Cropping Systems. Soil Erosion and Crop Productivity in Traditional and Forage-Legume Based Cassava Cropping Systems in the South Colombian Andes. M. Ruppenthal. Hohenheim Tropical Agricultural Series, D.E. Leihner, editor. Margraf Verlag, Weikersheim, 1995, xxii + 110 p + 14 colour photographs. ISBN 3-8236-1248-4. Paperback.

Cassava (*Manihot esculenta* Crantz), an important subsistence and cash crop of small farmers, is grown up to 1,800 m a.s.l. in the tropical Andes, mainly as a sole crop on already degraded soils. Due to its slow initial development fields planted to cassava are especially prone to erosion. There is an urgent need to develop alternative cropping practices, adapted to local political and socioeconomic conditions, which maintain or even increase soil fertility and crop productivity.

The objective of the present investigation, which is part of a broader research project on soil conservation in the South Colombian Andes were: 1. to determine the erosivity of rainfall and erodibility of soils, 2. to evaluate the erosion control effectiveness of alternative practices in cassava based cropping systems and their productivity, with special emphasis on forage legume intercropping, 3. to determine losses of organic matter and nutrients in sediments and water runoff and 4. to investigate the changes in chemical and physical properties of soils, induced by erosion and management practices.

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Lost crops of Africa. *Volume I. Grains. Board on Science* and Technology for International Development (BOSTID). National Research Council. National Academy Press, Washington, 1996. xix + 383 p. ISBN 0-309-04990-3. Paperback.

Africa's nutrition situation is deteriorating. Much of the population is more vulnerable to malnutrition and starvation than ever before. By highlighting the broad potential for Africa's own native biodiversity to reduce the vulnerability of seriously at-risk people to food shortages, the so-called „lost-crops" can help provide food security in their native areas, which include many parts of Africa threatened with hunger. More than 2,000 native grains, roots, fruits, and other food plants can be found and these have been feeding people for thousands of years but most are given no attention whatever today. At the same time, however, maintaining the diversity of these ancient crops will protect options for the rest of the world to use.

This book tries to draw attention to traditional African cereals and especially to their potential for expanding and diversifying African and world food supplies.

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State of the World 1996. A Worldwatch Institute Report on Progress Toward a Sustainable Society. L.R. Brown, project director and L. Starke, editor. W.W. Norton & Company, New York, London, 1996. 249 p. ISBN 0-393-31339-5. Paperback.

In this edition the rapid acceleration of trends that is driving the human experimentation across thresholds of change far more rapidly than in the past, challenging our ability to react rationally and quickly is identified and described. Among these trends are the deterioration of freshwater ecosystems, the emergence of new deadly diseases and the reemergence of diseases once thought to have been conquered, the competition for shrinking water supplies for agriculture and urban needs, the loss of topsoil, and the increasing number of pests resistant to pesticide. Evidence for climate change, effect of ecosystem damage and the efficiencies of sustainable industries is accumulating quickly, this volume shows practical ways to deal with the negative trends that threaten to darken our children's future. This volume is published in 27 languages.

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Precious Earth. From soil and water conservation to sustainable land management. International Soil Conservation Organisation (ISCO), Berne, 1996, 87 p. ISBN 3-906151-11-5. Paperback.

The scientific and administrative community working in soil and water conservation has been shaken over the past decades by the fact that only some successes have occurred among many memorable failures in sustainable use of land and soil. Since its inception, the International Soil Conservation Organisation (ISCO) has been very concerned that too little was being done to improve the situation in ways that would respond to land users' problems and opportunities. At the same time, it was realised that combating soil erosion is not a very appealing activity for land users because it is not their first priority, and rarely brings short-term economic benefits at the farm level.
In view of these developments, the Organising Committee of the 9th ISCO conference decided to commission a pre-conference issue paper on sustainable soil management, in order to present new perspectives on soil and water conservation, land management technologies, and multi-stakeholder approaches to decision-making. It was considered of importance that conference participants, and the concerned community at large, be inspired by new thinking and conceptual development. This publication presents new perspectives on caring for the precarious soil resource, which provides us with over 90% of all human food, livestock feed, fibre and fuel. Soils, however, have more than just productive functions. The key challenge in coming years will be to address the diverse and potentially conflicting demands now being made by human societies and other forms of life on Earth, while ensuring the future generations have the same potential to use soils and land of comparable quality.
This attractive booklet provides a well-balanced global overview of current thinking and action, and includes ideas on how to initiate and build positive momentum towards sustainable land management.
Price: CHF 12.
Orders to: Centre for Development and Environment (CDE), Institute of Geography, Hallerstrasse 12, CH-3012 Berne, Switzerland. Fax: +41 31 631 8544; E-mail: hurni@giub.unibe.ch.

Human Ecology as Human Behavior. Essays in environmental and development anthropology. J.W. Bennett. Transaction Publishers, New Brunswick, London, 1996, x + 387 p. ISBN 1-56000-849-0. Paperback.

This publication is based on research and writings produced over the past thirty years dealing with aspects of human relationships with the physical environment. The theoretical background of most of the chapters are ecological transition, socionatural system and adaptation. Human interaction with the natural environment has a dual character. By turning increasing quantities of natural substances into physical resources, human beings might be said to have freed themselves from the constraints of low-technology survival pressures. The process has generated a new dependence on nature in the form of complex „socionatural systems", in which human society and behavior are so interlocked with the management of the environment that small changes in the systems can lead to disaster.
Price: USD 23.95; GBP 15.95.
Orders to: Transaction Publishers, Rutgers -The State University of New Jersey, New Brunswick, NJ 08903, USA *or:* Plymbridge Distributors Estover, Plymouth PL6 7PZ, UK.

Landscape formation and soil genesis in volcanic parent materials in humid tropical lowlands of Costa Rica. A. Nieuwenhuyse. Thesis, Wageningen Agricultural University, 1996. 131 p. ISBN 90-5485-544-4. Paperback.

The influence of volcanism on landscape genesis, and formation of soils in volcanic material was studied in the hot, humid Atlantic lowland of Costa Rica, in which thick alluvial and marine sediments are accumulated. It was found that the formation of beach ridges and landscape dynamics in the middle and lower parts of the alluvial plains are strongly influenced by volcanism. Using micromorphological, mineralogical and chemical analysis, weathering and neoformation of minerals was investigated in a Holocene chronosequence along the Caribbean coast.
Furthermore, an attempt was made to quantify aspects of soil formation in eight profiles in volcanic material.
Orders to: Department of Soil Science and Geology, P.O.Box 37, 6700 AA Wageningen, The Netherlands.

Sulphur in Indian Agriculture. Special issue of Sulphur in Agriculture, vol. 19, 1995. H.L.S. Tandon. Sulphur in Agriculture Volume 19, 1995. ISSN -160-0680.

India holds significant interest to the agronomic and fertilizer communities. This country's population, which is growing at a rate of 15 million people per year, has forced the government to focus on its agricultural and fertilizer policies to ensure adequate food production.
In India, the rate of fertilizer consumption per unit area is about one-fourth that of China - a country also faced with the need to increase food production. India must address these fertilizer requirements to determine the best applications to ensure balanced fertilizer programs that increase the efficiency of applied nutrients, thereby optimizing capital expenditures and improving crop yield and quality, while preserving the environment. In recent years, research has shown that sulphur fertilization is paramount to balanced fertilizer programs in India. Sulphur fertilizer responses have been demonstrated on more than 40 crops in over 130 districts - roughly 30% of land under crops.
The present issue features recent research on the need for sulphur fertilization within India. The Sulphur Institute estimates that there will be an annual deficit of 1.5 million tons of sulphur fertilizers in 2010 in India.
Requests to: The Sulphur Institute, 1140 connecticut Avenue, N.W., Suite 612, Washington, DC 20036-4001, USA. Facsimile: (202) 293-2940; E-Mail: sulphur@access.digex.net.

New Publications from the International Centre for Integrated Mountain Development (ICIMOD)

Landslide Hazard Management and Control in the Hindu Kush-Himalayas. A Report on the Regional Workshop held in Kathmandu, July 12-14, 1995. S.R. Chalise and S. Karki. International Centre for Integrated Mountain Development, Kathmandu, 1995, 41 p. ISBN 92-9115-425-0. Paperback.

The inherent unstable nature of mountain areas is a well recognised fact. Steep slopes, unstable geology, and the intense monsoon rains combine to make the Hindu Kush-Himalayas one of the most hazard-prone areas in the world. In the Hindu Kush-Himalayan countries hazard-prone areas are increasingly being occupied for human activities as a result of population pressure as well as improved accessibility. Natural and man-made disasters are on the rise and each event affects an even greater number of people than before. The present levels of understanding and analysis of disasters are very poor and databases are virtually non-existent. There are no monitoring activities and investment in developing practical guidelines for managing such events and in forecasting has been inadequate. ICIMOD has recently initiated a programme on Landslide Hazard Management and Control. Several activities have already been undertaken in this programme and the Regional Workshop was one of the major activities to develop linkages and establish a long-term relationship among institutions and experts engaged in landslide hazard mitigation and control within and outside the region.
The primary concern of the Workshop was to identify priorities for a regional collaborative training programme on landslide hazard management and control. This document shows that much progress has been made in this context.
Orders to: see below.

Landslide Studies and Management in Nepal. B.N. Upreti and M.R. Dhital. International Centre for Integrated Mountain Development, Kathmandu, 1996, 87 p. ISBN 92-9115-502-0. Paperback.

After an introduction of the geographical make-up and geological framework of Nepal, topics such as erosion and sediment yield in the Himalayas are covered. Landslides are classified and factors causing them described, including the geological background to landslides. Climate and vegetation are among the factors covered along with hazards such as glacial lake outburst, floods and earthquakes. The main part of the document focuses on landslides and their mitigation; the landslide sections are introduced by a short review of landslide studies in Nepal. The text is supplemented by an extensive bibliography.
Orders to: see below.

Landslide Hazard Management and Control in India. V.C. Thakur. International Centre for Integrated Mountain Development, Kathmandu, 1996, 51 p. ISBN 92-9115-497-0. Paperback.

This document examines the problem of landslides in a mountain environment in which rising populations and an increase in infrastructural construction have led to augmentation in the probability of landslide occurrence. The various landslide triggers (rain erosion, deforestation, earthquakes, overburden of and construction of inappropriate infrastructure, geological causes, etc.) and parameters of occurrence are discussed; a number of case histories are given in illustration. Methodologies for Landslide Hazard Zonation and map preparation are discussed, along with landslide hazard rating. Methods of landslide hazard mitigation are covered and an outline for a training programme is proposed as part of the paper's principal recommendations.
Orders to: see below.

Challenges in Mountain Resource Management in Nepal. Processes, Trends, and Dynamics in Middle Mountain Watersheds. H. Schreier, P.B. Shah and S. Brown, editors. International Centre for Integrated Mountain Development, Kathmandu, 1995, 263 p. ISBN 92-9115-449. Paperback.

The use of resources in the Middle Mountains of Nepal is approaching the limits of the natural carrying capacity. The traditional sectoral approach to resource evaluation is no longer appropriate because forestry, agriculture, socio-economics, hydrology and climate are becoming more interdependent and environmental issues are beginning to influence the global economics. A workshop has been organized to show that a watershed approach combined with Geographic Information Systems (GIS) has much to offer as an integration tool for resource evaluation, monitoring and management. This volume contains the papers of the workshop. Part I consists of twelve papers covering the resource issues that are most pertinent to the Middle Mountains. Part II focuses on a study which has been carried out over the past six years by an inter disciplinary team to develop a comprehensive quantitative resource database of the watershed, to set up a long term monitoring program of resource degradation processes, to use computer techniques to collect, analyze and communicate information, to improve our understanding of indigenous knowledge and to translate some of these research results into action to assist development. The last part contains the outcome of the discussion and recommendations.
Prices of all publications: free of charge (except for shipment cost).
Requests to: International Centre for Integrated Mountain Development, ICIMOD, P.O.Box 3226, Kathmandu, Nepal.

Cartographies des sols. De l'analyse spatiale à la gestion des territoires. J.P. Legros. Collection Gérer L'Environnement 10. Presses Polytechniques et Universitaires Romandes, Lausanne, 1996, vi + 321 p. ISBN 2-88074-298-6. Livre de poche.

Cette publication montre comment aborder l'étude des sols dans le milieu naturel et comment donner de ceux-ci une représentation sous forme cartographique. Il s'attache aussi à préciser comment on passe des observations à leur interprétation (thématisation) dans le cadre d'applications relatives à l'utilisation ou à la protection du milieu naturel.

L'ouvrage rend compte des progrès récents réalisés dans la discipline et obtenus au moyen des systèmes d'information géographiques, des bases de données, de l'analyse multicritère et de différentes autres méthodes nouvellement employées en cartographie des sols. Le texte est divisé en dix chapitres qui traitent les bases méthodologiques, les différentes phases des travaux, l'informatisation, les applications et enfin l'état de la question dans quelques pays francophones.
Dans tous les chapitres, les approches proposées sont valables au-delà de la science du sol. L'ouvrage montre la généralité des méthodes de saisies de l'information dans le milieu naturel des méthodes de contrôle de l'information géographique ou des méthodes d'interprétation des résultats.
Il comprend une liste bibliographique de près de 400 titres.
Prix: CHF 87.70
Commandes à: Presses Polytechniques et Universitaires Romandes, EPFL-Centre Midi, CH-1015 Lausanne, Suisse.

L'Homme peut-il refaire ce qu'il a défait? R. Pontanier, A. M'Hiri, J. Aronson, N. Akrimi, E. Le Floc'h. John Libbey Eurotext, Montrouge, 1995, xxvi + 455 p. ISBN 2-7420-01018. Livre de poche.

Au cours des dernières décennies, de nombreuses manifestations internationales ont fait le point des connaissances concernant la dégradation, la désertification et la baisse de la productivité des terres en zone aride, et des conséquences socio-économiques que ces phénomènes entraînent.
A ces occasions, des ébauches de solutions pour lutter contre ces désordres, voire désastres écologiques, ont été avancées, et de nombreuses tentatives visant à „refaire ce que l'homme a défait" ont été entreprises.
C'est donc dans ce cadre, conformément aux mesures inscrites à l'Agenda 21 de la conférence de Rio en 1992, que s'est tenu en Tunisie, 1994, un congrès international sur la „Restauration et la réhabilitation des terres dégradées des zones arides et semi-arides, organisé par le Gouvernement Tunisien et l'ORSTOM. Cette publication n'a pas pour but de restituer dans leur intégralité ou exclusivement les actes de ce congrès. Les éditeurs espèrent fournir une vision à la fois pragmatique et réfléchie des problèmes posés par la restauration et la réhabilitation, et apporter par cet ouvrage la contribution du congrès aux sciences de la reconstitution du milieu rural.
Commandes à: Edition John Libbey Eurotext, 127, Avenue de la République, F-92120 Montrouge, France; or: John Libbey and Company, 13, Smiths Yard, Summerley Street, London WS18 4HR, England.

Einführung in die Geomorphologie. F. Ahnert. Verlag Eugen Ulmer, Stuttgart, 1996, 440 S. ISBN 3-8252-8103-5.

Thema des vorliegenden Buches ist die Formengestaltung der Erdoberfläche. Diese wird im wesentlichen bestimmt vom Zusammenwirken geologischer Faktoren und Prozesse, z.B. Krustenbewegungen und Vulkanismus, und meteorologisch bzw. klimatologisch gesteuerter Prozesse der Verwitterung, der Abtragung des verwitterten Materials und seiner Ablagerung an anderer Stelle. Es erläutert diese Prozesse und die Gestalt und Entwicklung der von ihnen erzeugten formen, darunter die morphostrukturellen Großformentypen der Kontinente, die Hangformen, Flußbett- und Talformen, Struktur, und Karstformen, Glazial- und Küstenformen, mit Beispielen aus vielen Gebieten der Erde. Die wechselseitige, z.T. auch quantitativ vorgestellte funktionale Abhängigkeit von Formen, Prozessen und Gesteinsmaterial, bedingt durch zahlreiche Rückkoppelungen (feedbacks), findet dabei besondere Beachtung. Ebenfalls erörtert wird die Bedeutung der Prozesse und Formen als Bestandteile der Umwelt des Menschen.
Price: DEM 78.
Orders to: Verlag Eugen Ulmer, Postfach 700561, 70574 Stuttgart, Germany.

ATSAF/AIDA. Bericht über das erste Forum der Allianz der International Ausgerichteten Deutschen Agrarforschung am 20. Februar 1995 in Bonn. Arbeitsgemeinschaft für Tropische und Subtropische Agrarforschung. W. Ritter und M. Reule (Hrsg.), Bonn, 1995, 71 S + 59 S. Annex. Keine ISBN.

Mit der Durchführung der ersten Forumsveranstaltung in 1995 in Bonn und der Vorlage dieses Tagungsbandes ist die Bildung der „Allianz der International Ausgerichteten Deutschen Agrarforschung (AIDA) vollzogen. Ziel der Allianz ist es, in einem offenen Angebots- und Nachfrage-Dialog zwischen allen genannten Allianzpartnern Forschungsprioritäten von internationaler Bedeutung zu identifizieren, konkretisieren und zu umsetzbaren Programmen weiterzuentwickeln. Die vielfalt der Allianzpartner und deren unterschiedlicher Erfahrungshintergrund steht dabei als Garant für einen bedarfs- und problemorientierte Forschung einen effizienten Beitrag zur nachhaltigen Entwicklung leisten kann.
In dem vorliegenden Tagungsband enthält die Vorträge, Arbeitsgruppenberichte und Diskussionsbeiträge verschiedener Vertreter aus nationalen und internationalen Forschungseinrichtungen, aus Politik, der technischen Zusammenarbeit, der Industrie und der Nicht-Regierungsorganisationen, die auf innovative Prozesse und nicht auf die Schaffung neuer Strukturen setzt, breite Unterstützung auf vielen Ebenen.
Zu beziehen über: Arbeitsgemeinschaft für Tropische und Subtropische Agrarforschung (ATSAF) e.V., Ellerstrasse 50, 53119 Bonn, Germany. Telefax: +49 228 9846 99.

Bodenökologie: Mikrobiologie und Bodenenzymatik. Springer-Verlag, Berlin, Heidelberg.
Die in der vierbändigen Publikation angesprochenen Themen berühren die Wissens- und d Anwendungsbereiche der Bodenbiologie, der Bodenchemie, der Bodenphysik, der Ökologie, Land- und Forstwirtschaft, der Industrie, der Abfallwirtschaft und des Umweltschutzes. Das Werk soll mit seinem nur auf bestimmte Kapitel bzw. Kapitelteile beschränkten Lehrbuchcharakter in seiner gesamtheit einen umfassenden Literaturüberblick zu wesentlichen teilgebieten der Bodenmikrobiologie und Bodenenzymatik geben.

Band I. Grundlagen, Klima, Vegetation und Bodentyp. F. Schinner and R. Sonnleitner. Springer-Verlag, Berlin, Heidelberg, 1996, xii + 450 S. ISBN 3-540-61010-3 (Gebunden)

Im vorliegenden erster Band wird zunächst ein Überblick zur Geschichte und zu den Perspektiven der Bodenmikrobiologie und -enzymatik gegeben. Der spezifische Lebensraum Boden wird vorgestellt. In der folge wird auf die den Boden besiedelnden Organismen und auf im Boden ablaufende biochemische Umsetzungen näherer Bezug genommen. Dem Fachgebiet der Bodenenzymatik wurde in Wesen, Bedeutung und Methodik ein Schwerpunkt eingeräumt. Das Klima und die Vegetation sind zwei wichtige die Bildung und Entwicklung von Böden steuernde Faktoren. Der Einfluß dieser beiden größen auf bodenmikrobiologische und bodenenzymatische Parameter wird in zwei weiteren Kapiteln dargestellt. Das letzte Kapitel beschäftigt sich mit der mikrobiologischen und enzymatischen Charakterisierung von Bodentypen.
Preis: DEM 148.

Band II. Bodenbewirtschaftung, Düngung und Rekultivierung. ISBN 3-540-61023-5 (Gebunden)

Der zweite Band ist dem Einfluß von Bewirtschaftungsmaßnahmen auf chemische, physikalische, mikrobiologische und enzymatische Parameter des Bodens gewidmet. Im speziellen wird der Einfluß der Nutzungsform, der Bodenbearbeitung, des Bestellungsregimes, der Düngung, der konventionellen und alternativen form der Bewirtschaftung sowie der Rekultivierung angesprochen. Einen besonderen Schwerpunkt bilden potentielle Düngemittel wie Abfälle aus Siedlung, Gewerbe und Industrie.

Band III. Pflanzenschutzmittel, Agrarhilfsstoffe und organische Umweltchemikalien. ISBN 3-540-61025-1 (Gebunden).

Die Schwerpunkte des dritten Bandes betreffen den Einfluß von Urease- und Nitrifikationshemmstoffen, von Pflanzenschutzmitteln sowie von organischen Umweltchemikalien auf bodenmikrobiologische und bodenenzymatische Parameter. Ein eigener Schwerpunkt wurde dem mikrobiellen Abbau organischer Xenobiotika sowie biotechnologischen Ansätzen zur Sanierung von mit organischen Xenobiotika kontaminierten Böden eingeräumt.
(erscheint Sommer 1997)

Band IV. Anorganische Schadstoffe. ISBN 3-540-61027-8 (gebunden)

Der vierte Band behandelt den Einfluß anorganischer Schadstoffe auf chemische, physikalische, mikrobiologische und enzymatische Parameter des Bodens. Der Eintrag von Schwermetallen, Halbmetallen, nichtmetallische Elementen, Säuren, Säurebildern und Streusalzen wird berücksichtigt. Eigene Kapitel wurden dem Phänomen der „neuartigen Waldschäden", den diesbezüglich diskutierten Ursachen sowie den Möglichkeiten zur Sanierung geschädigter Waldökosysteme gewidmet.
(erscheint Herbst 1997)
Bestellungen an: Springer-Verlag, Tiergartenstrasse 17, D-69121 Heidelberg, Germany or: Springer-Verlag, 175 Fifth Avenue, New York, NY 10010, U.S.A.

Scenario Studies for the Rural Environment. J.F.Th. Schoute, P.A. Finke, F.R. Veeneklaas and H.P. Wolfert, editors. Environment & Policy, Volume 5. Kluwer Academic Publishers, Dordrecht, Boston, 1995, xv + 743 + colour plates. ISBN 0-7923-3748-4. Hardcover.

In 1994 a Symposium was held in Wageningen, organized by the DLO Winand Staring Centre for Integrated Land, Soil and Water Research. The central objective was to further understanding of the needs, aims and methodologies of future-oriented and decision-supporting research for the rural environment, and in particular the role scenario studies could play. This book comprises four parts. Each part starts with more theoretical considerations and finishes with concrete cases and reflects to a large extent the framework of the symposium. It covers the following themes: Part I covers the needs, aims and methodologies of future-oriented and decision-supporting research for the rural environment. It deals with scenario studies as a tool for policy-making and with the components and elements needed for scenario studies. Part II elaborates on the ability of scenario studies to enhance the management of soil, water and nutrients. Scenario studies are generally model-based. In Part III the use of scenario studies is discussed in the context of landscape quality policies, and the requirements of scientific tools, models and data in the wide and dynamic field of landscape ecology are examined. Part IV discusses the tools and operational methods of scenario studies for planners. Two questions are central to this Part: What is the gap te be bridged between scenario studies and actual rural physical planning? and: What are the practical experiences in drawing up scenarios supportive to policy and regional development?
Price: NLG 425; USD 285; GBP 183.
Orders to: see below.

Geographical Information. From Research to Application through Cooperation. Proceedings Joint European Conference and Exhibition on Geographical Information, March 1996. Two Volumes. R. Rumor, R. McMillan and H.F.L. Ottens, editors. IOS Press, Amsterdam, Oxford, 1996, 1366 pp. ISBN 90-5199-268-8. Paperback.

These volumes contains the proceedings of the Second Joint European Conference & Exhibition on Geographical Information, held in Barcelona, Spain, in March 1996. Geographical Information is defined as the collection of data on real virtual objects which have a fixed place above, on, in or beneath the surface of the earth. It involves all information, administrative and geometric. Changes in social and economic interests have caused the emphasis to shift over the years. Geographical information cannot be regarded as the informational side of one policy area. It is not only necessary for the layout and management of space, but also for taxation, environmental policy, water management, maintenance and protection of pipeline systems and making maps.

These volumes address the latest developments with respect to technological innovation, scientific progress and advanced professional application in the field of geographical information. Articles dealing with the state of the art and coming innovations with respect to major fields of GI research and application are included. Also for soil scientists working or interested in GIS, these proceedings have much to offer.
Price: NLG 260; GBP 104; USD 158.
Orders to: IOS Press, Van Diemenstraat 94, 1013 CN Amsterdam, The Netherlands; IOS Press/Lavis Marketing, 73 Lime Walk, Headington, Oxford OX3 7AD, England; or IOS Press, P.O.Box 10558, Burke, VA 22009-0558, USA.

Cultural Landscapes of Universal Value. B. von Droste, H. Plachter and M. Rössler, editors. Gustav Fischer Verlag, Jena, 1995, 464 p. ISBN 3-334-61022-5 (Gem.ed); 1-560-434-9 (US ed.). Hardcover.

Since 1992, outstanding cultural landscapes can be protected under the World Heritage Convention; the first international legal instrument recognizing and safeguarding this type of property for future generations.
This book represents a comprehensive view on the protection and development of cultural landscapes, it points out the necessity of an interdisciplinary approach and contributes substantial information. It highlights in an interdisciplinary approach some of the most outstanding cultural landscapes of universal value in their geocultural and environmental context. Contents a.o.: Cultural landscapes of the World; Africa and Arab States-Asia-Australia and the Pacific-the Americas-Europe; Conserving cultural landscapes; Elements for a strategy of protection through development. Annexes (a.o. World Heritage Convention (1972)); Action Plan for the Future (Cultural Landscapes) adopted by the seventeenth session of the World Heritage Committee in December 1993).
Price: DEM 98; USD 70.
Orders to: Gustav Fischer Verlag, Postfach 100537, D-07705 Jena, Germany or Gustav Fischer Verlag, 220 East 23rd Street, Suite 909, New York 10010, USA.

Application of Geographic Information Systems in Hydrology and Water Resources Management. K. Kovar & H.P. Nachtnebel, editors. Publication No. 235, IAHS Series of Proceedings and Reports. International Association of Hydrological Sciences, Wallingford, 1996, xii + 711 p. ISBN 0-947571-84-1. Paperback.

This publication is the proceedings of the second HydroGIS conference, three years after the first conference (IAHS Publ. no. 211) in 1993. The main goal of the conference was to track the progress in the methodology of GIS and in sophisticated applications in water-related areas from 1993-1996. The conference also aimed to help participants in determining critical factors in their evaluation of the applicability and benefits of GIS for their own field of work. The following topics were to set the frame for the conference: GIS Functions and Hydrological Modelling; Methodological Aspects; Coupling GIS with Hydrological Models; Digital Terrain Models in GIS; Application of GIS in Water and Environmental Management, Surface Water Systems and Groundwater Systems; Remote Sensing and GIS; GIS in Relation to Decision Support and Expert Systems.
Price: GBP 58.
Orders to: Jill Gash, IAHS Press, Institute of Hydrology, Wallingford, Oxfordshire OX10 8BB, UK. Fax: +44 1491 692448.

Strengthening National Extension Services in Sub-Saharan Africa. K.A. Cassaday, G. Monnet and C.R. Dowswell, editors. SAA/Global 2000/CASIN, Tokyo, 1995, v + 106 p.

This publication is the proceedings of a workshop held in Switzerland in May 1994. The major issues were related to strengthening national extension services in sub-Saharan Africa, availability and sustainability of improved agricultural technology for the region; extension methodology, human resources development with the extension service; management and financing, and linkages with research, production, and credit organizations. The proceedings concludes with three papers that are strategic in nature, focusing on ways of meeting the challenges that extension will face in fostering greater food security and economic security in sub-Saharan Africa.
Orders to: Sasakawa Africa Association (SAA), c/o Sasakawa Peace Foundation, Sasakawa Hall, 3012 Mita, Minato-ku, Tokyo, Japan.

Climate Change, 1995. In 3 volumes, published by Cambridge University Press.
The Intergovernmental Panel on Climate Change (IPCC) was set up jointly by WMO and UNEP to provide an authoritative international consensus of expert opinion on global warming. Publications of the results of the IPCC's periodic assessments of the causes, impacts, possible response options and socio-economic aspects of climate change continue to be used as a 'gold standard' reference for all those involved in policy making in government and industry, particularly those concerned with energy, pollution and transport. Through three Working Groups, several hundred international scientists and other experts have been brought together to assess climate change in this Second Assessment. the three reports of the Working Groups are mentioned here.

Climate Change 1995. The Science of Climate Change. contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change. J.T. Houghton, L.G. Meira Filho, B.A. Callander, N. Harris, A. Kattenberg and K. Maskell, editors. University Press Cambridge, New York, 1996, xii + 572 p. ISBN 0-521-56433-6 (hardback); 0-521-56436-0 (paperback).

This volume provides a comprehensive assessment of the detection, observation, and physical causes of climate and sea level change. It gives the scientific underpinning of the intergovernmental negotiations that led to the United Nations Framework Convention on climate Change at the 1992 Rio Earth Summit. Subsequent reports in 1992 and 1994 supplemented this pub-

lication. It is the first full sequel to the original volume, bringing us completely up to date on the full range of scientific aspects of climate change, and forming the standard scientific reference for many years to come.
Price: GBP 22.95.
Orders to: see below.

Climate Change 1995. Impacts, Adaptations and Mitigation of Climate Change: Scientific-Technical Analyses. Contribution of Working Group II to the Second Assessment Report of the Intergovernmental Panel on Climate Change. R. Watson, M.C. Zinyowere, R.H. Moss, editors. Cambridge University Press, New York, Cambridge, 1996, x + 878 p. ISBN 0-521-56431-X (hardback); 0-521-56437-9 (paperback).

This volume provides a roadmap for disentangling the seemingly divisive public debate about the consequences of climate change. Potential impacts that have been identified include shift in ecosystems, loss of biodiversity, changes in water availability, declines in agricultural productivity, losses of human habitat due to a higher sea-level, economic losses in the insurance industry and increases in the incidence of human diseases. the volume reviews the state of scientific information on potential impacts and adaption options in natural ecosystems and socio-economic sectors. This volume will be of great value to decision-makers and the scientific community, and forms an excellent introduction for students to this complex, multidisciplinary area.
Price: GBP 24.95.
Orders to: see below.

Climate Change 1995. Economic and Social Dimensions of Climate Change. Contribution of Working Group III to the Second Assessment Report of the Intergovernmental Panel on Climate Change. J.P. Bruce, H. Lee, E.F. Haites, editors. Cambridge University Press, New York, Cambridge, 1996, x + 448 p. ISBN 0-521-56051-9 (hardback); 0-521-56854-4 (paperback.

Large, irreversible changes in climate may have a major effect on the economies of the world. the social costs of climate change will vary dramatically from country to country. This landmark assessment from Working Group III addresses the costs of climate change, both in terms of society and equity issues, and the economic burden of combating adverse climate change.
Available policy options, the applicability of cost-benefit analysis to climate change, and the costs faced by the many countries committed to limit greenhouse gas emissions by the year 2000, are all assessed.
Price: GBP 19.95.
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Watershed Hydrology. P.E. Black. Ann Arbor Press, Twickenham, 1996, xxx + 449 p. ISBN 1-57504-027-1. Hardcover.

Watershed is, a natural system, a unit of the landscape that functions in occasionally predictable ways. It functions in certain predictable ways because it both derives from and consists of certain characteristics that reflect expected reactions to external influences. It is also a complex, often unpredictable system owing to both its fundamental probabilistic nature and the existence of numerous nonlinear feedback loops.

This revised and expanded second edition discusses the principles and process of water movement and storage in the context of a natural land unit of the hydrosphere - the watershed. It begins with an overview of the hydrologic cycle, the basic concepts of storage in the hydrologic cycle and is followed by chapter on topic as water and energy, storage of water in the atmosphere, water in the vegetative zone, and in the terrasphere, hydrosphere, and watershed management. In this second edition there is information on the significance of the hydrologic seasons; water in hydrospheric systems, including wetlands; variable source area; and watershed functions.
Price: GBP 34.95
Orders to: Cassell plc, Stanley House, 3 Fleets Lane, Poole, Dorset BH15 3AJ, England. Fax: + 44 1202 666219.

Soil Erosion and Conservation. Special Issue of Soil Technology, vol. 8, no. 3, 1995. C.w. Rose, guest editor. Elsevier Science. ISSN 0933-3630.

Especially on sloping land in the tropics, and under permanent rather than the traditional form of shifting cultivation, soil erosion by water presents a constant threat to the sustainability of crop production. \the change from shifting to permanent cultivation, and the continual cultivation of lands previously considered too steep for cultivation, are outcomes of increased population pressure and other factors.

During a cropping season, there can be considerable change in soil condition and in the protection of the soil against erosion provided by growing vegetation or by mulch. Therefore there has been increased interest in methodologies of erosion study which allow an interpretation of erosion outcomes on an event-by-event basis. The methodology illustrated by the Universal Soil Loss Equation recognised the importance of runoff rate. The measurement and recording of such rates has been facilitated by electronic dat loggers, and the interpretation of such data assisted by the use of computer programmes.

The Australian Centre for International Agricultural Research (ACIAR) develops cooperative projects between scientists in Australia and other countries where the problems are defined and seen as a priority by the other countries. Concern with soil erosion and its consequences in the Philippines, Malaysia and Thailand led ACIAR to respond by establishing a project entitled „The Management of Soil Erosion for Sustained Crop Production" in which a common methodology of measurement and interpretation, with adaption in particular situations, was adopted in a series of soil erosion and conservation studies carried out in \australia and the countries mentioned.The first paper outlines the common methodology, the results of which are described for each country in five papers.

The methodology includes investigation of soil erosion from a bare, unprotected plot, and seeks to interpret the reduction in soil loss achieved by the various countries are those proposed by their scientists as likely to be effective, economic and acceptable. The soil conserving methodologies compared include the current farmer practice where this is appropriate.

It is encouraging that, in each case, effective soil conserving practices emerge with characteristics which appear favourable to their adoption, and, in some cases, such adoption has been stimulated by the studies themselves.

Requests to: Elsevier Science, P.O. Box 1527, 1000 BM Amsterdam, The Netherlands, Fax: +31 20 4853418 or: Elsevier Science, Journal Information Center, 655 Avenue of the Americas, New York, NY 10010, USA, Fax: + 1 212 633 3764.

Land Cover Assessment and Monitoring (Bangladesh, Cambodia, Lao P.D.R., Myanmar, Nepal, Vietnam. Volume 1-A (Overall Methodological Framework and Summary); Volume 2-A (Bangladesh); volume 3-A (Cambodia); Volume 4-A (Lao People's Democratic Republic (P.D.R.); Volume 5-A (Myanmar); Volume 6-A (Nepal); Volume 7-A (Vietnam). Environment Assessment Technical Reports, UNEP, Bangkok, 1995, various paging.

As emphasized in Agenda 21 of UNCED, in a broad sense everyone is a user and provider of information in pursuing sustainable development. While considerable data already exist, more and different types of data need to be collected at the local, provincial, national and international level, indicating the status and trends of the planet's ecosystem, natural resources, pollution and socio-economic variables. The availability, quality, coherence, standardization and accessibility of data between the developed and developing world have been increasing, improving the capacities of countries to make informed decisions concerning environment and development. the present UNEP project is directed in providing information about land cover at a regional scale for selected countries in the Asian region. the investigation of the NOAA AVHRR satellite data is directed towards the detection and monitoring of ecologically important vegetation types. It provides an opportunity to identify areas of major land cover transformation („hot spots") which will serve as an early warning system that will low for a more detailed analysis, and a sound link of in formation in order to derive criteria for any future action plan governed by this valuable knowledge on land cover variable. Major land cover resources of Bangladesh, Cambodia, Lao P.D.R., Myanmar, Nepal, and Vietnam have been investigated under two time frames (i.e. 1985-1986, and 1992-1993). The recognition of the potential and usefulness of the remotely sensed date, particularly NOAA AVHRR is assessing and monitoring the land cover dynamics, in conjunction with ancillary dat with a GIS structure have been fully underscored.

The basic principles, methodological background and overall summary behind this activity can be found in Volume 1-A while each country's result appear in separate volumes, 2-7. Specific observations and conclusions have been presented on a country basis.

Follow-up activities such as repeating the same exercise for the selected Asian countries in order at arrive for more comprehensive land cover resource monitoring have been scheduled. Sri Lanka and Pakistan were added for a wider scope of assessment in the Asian region. Experts from China, India and Iran will be invited to help and be trained in tackling major activities under this project.

Requests to: Dr. S. Shrestha, Regional coordinator UNEP-EAP/AP, Asian Institute of Technology, G.P.O. Box 2754, Bangkok 10501, Thailand. Fax: + 66 2 516 2125.

Sols des Tropiques. Propriétés et Appréciation. A. van Wambeke. Centre Technique de Coopération Agricole et Rurale (CTA) et Huy Trop ASBL, 1996, 335 p. ISBN 92-9081-135-8. Livre de poche.

Cet ouvrage est la traduction française du livre „Soils of the Tropics, Properties and Appraisal", paru en 1992 chez McGraw-Hill. Il comporte deux grandes parties. La première concerne l'environnement des sols tropicaux et est divisée en 5 chapitres traitant du climat du sol, des matériaux originels, de la végétation et de la matière organique, de la formation des horizons et des termites. La seconde partie intitulée: „Les Ordres de sols, suit la Soil Taxonomy et comporte 8 chapitres: classification des sols, Oxisols, Alfisols et Ultisols, Vertisols, Andisols, Inceptisols, Spodosols et Entisols. Chacun des ordres considérés est défini; on en donne la descriptions, la répartition et les propriétés ainsi que les pratiques d'aménagement. Un glossaire, la description et les analyses de 17 profils caractéristiques et un index terminent l'ouvrage. Dans les pays tropicaux, ce livre intéressera tous les francophones qui étudient et aménagent les sols agricoles ou forestiers, tandis que dans les pays industrialisés, il sera recommandé aux étudiants, enseignants et chercheurs en relation avec l'agronomie tropicale. C'est également une excellente introduction à la Taxonomie des Sols de l'USDA.

Prix: BEF 600 (frais de port compris)

Commandes à: Huy Trop - ISI, Rue St. Victor 3, B-4500 Huy, Belgique. Télécopie: +32 85 211541.

Jean Lozet, Wanze, Belgique.

Research Partnerships for Common Concerns. Proceedings of the International Conference on Scientific Research Partnership for Sustainable Development - North-South and South-South Dimensions, Berne, March 5-7, 1996. D. Maselli and B. Sottas, editors. LIT Verlag, Hamburg, 1996, 192 p. ISBN 3-8258-2987-1. Paperback.

Agenda 21 indicates the work that research policy makers, funding organisations and researchers themselves need to do in order to achieve sustainable development in both North and South. Research on sustainability in the 21st century requires us to go beyond purely offer-driven research collaboration. Balanced partnerships and common agenda setting are of crucial importance. All attempts have to start where the Southern partners are and not where the North wants - or expects - them to be. However, a shift in the agenda set-

ting is an issue which does not only concern the North. These considerations were addressed by a working group, which elaborated on the Swiss strategy for the promotion of scientific research in developing countries, which was followed by a conference reported on in the present publication. It contains the statements and addresses to the conference, and a summary, the conclusions and a list of recommendations.
Price: CHF 48.
Orders to: KFPE-Secretariat, „Proceedings", Bärenplatz 2, CH-3011 Berne, Switzerland. Fax: + 41 31 312 32 91. E-mail: kfpe@sanw.unibe.ch.

Soil Degradation and Desertification in Mediterranean Environments. J.L. Rubio and A. Calvo, editors. Geoforma Ediciones, Logroño, 1996. 290 p. ISBN 84-87779-26-3.

This publication includes selected papers of two International Courses held in Valencia (Spain) under the auspices of Universidad Internacional Menédes Pelayo. It addresses the role of erosion, soil degradation, land use and desertification processes on Mediterranean environments, and some strategies to combat them.

The 15 papers have been grouped in 4 chapters, which provide information of the main degradation processes threatening the future of Mediterranean environments. I. Erosion processes (rainfall agressivity, soil erodibility, runoff, variability, etc.). 2. Other factors and degradation processes (salinization, pollution, forest fires, land abandonment, etc.). 3. Degradation and Modelling. 4. Practices to reduce land degradation (conservation tillage, soil restoration, revegetation, etc.).
Orders to: Geoforma Ediciones, Apartado de Correos 1293, E-26080 Logroño, Spain.

J.L. Rubio, Valencia, Spain

Symposium on Land Degradation and Poverty. Chamber of Deputies, Palazzo San Macuto, Sala del Refettorio, Rome, 16 June, 1995. International Fund for Agricultural Development (IFAD), Rome, 1996. 27 p.

This publication contains the quotations and remarks from the different keynote speakers at the Symposium on Land Degradation and Poverty. The meeting was held to commenorate the World Day to Combat Desertification and Drought, proclaimed by the United Nations General Assembly as 17 June.
Orders to: IFAD, Via del Serafıcon 107, 00142 Rome, Italy. Fax: +39 6 5043463. E-mail IFAD@IFAD.ORG.

Causes of Soil Degradation and Development Approaches to Sustainable Soil Management. Causes de la Dégradation des sols et approaches pour la promotion d'une utilisation durable des sols dans le cadre de la coopération au développement. K.G. Steiner. Pilot Project Sustainable Soil Management. Margraf Verlag, Weikersheim, 1996. 133 p. ISBN 3-8236-1259-X. Paperback.

Soil degradation and irreversible destruction of agricultural soils are advancing at an alarming rate. Tropical soils are most affected, due to the nature of the soils and harsh climates. Soil degradation is threatening the food security of an expanding world population, and the decomposition of soil organic matter favours climatic changes and loss of an important CO2-sink. The present state of knowledge-report describes the extent of soil degradation, its bio-physical and socio-economic causes and macro- and micro-economic impacts. The causes behind the failure of soil conservation projects are analyzed. The report proves that it is not just because land users lack efficient technologies that they do not protect the soil better; the major causes are insufficient participation in technology development and the lack of favourable socio-economic, institutional and legal framework conditions. The last chapter describes approaches for creating more favourable agro-political framework conditions. Economic incentives for farmers and participatory approaches in research and technology development are discussed in detail. The annex gives additional data on the extent of global soil degradation, information on soil-related research in international research centers and German research institutes, and indicates development cooperation projects focusing on soil management. English and French editions are available.
Price: DEM 40; USD 30.
Orders to: Margraf Verlag, P.O.Box 105, D-97985 Weikersheim, Germany. Fax: + 49 7934 8156.

Soil Sampling, Preparation, and Analysis. (Books in Soils, Plants, and the Environment Series). K.H. Tan. Marcel Dekker, New York and Basel, 1996, xx + 408 p. ISBN 0-8247-9675-6. Hardcover.

Books on soil analysis can in general be put in two classes: those that are cook-books and ready to use in the laboratory, and those that are textbooks and which elaborate on the principles each chemistry behind the various methods of analysis. The book of Prof. Tan lies in between and also aims to be a single-source reference for soil sampling and sample preparation. The soil analysis section covers half of the book and is divided into physical and chemical determinations. Descriptions of soil physical determinations include: water (gravimetric, pF, tensiometers), texture (hydrometer, pipette, centrifuge), and bulk density (disturbed P?, pore space). The various methods are briefly described, including apparatus required and examples of calculations. Soil chemical determinations include; pH (colorimetric, potentiometric, KCl, CaCl2), CEC (NH4OAc, CECp, CECt), exchangeable and total Ca, Mg, K, and Na. Also the commonly used methods for determining S, micronutrients and oxidizable organic C as well as the various C fractions are discussed. About one-third of the book is devoted to the description of the principles of spectrophotometry and colorimetry, x-ray diffraction and differential thermal analysis. This is where the author is at his best: explaining the definition and principles of complex analytical methods. It should be noted that the whole book is written in an easy to read text, but is suffers from some inconsistencies. Non SI units occur in a number of chapters (oF, cc, lbs/acre, me/100 mg) and from some determinations the procedures are only very briefly described. The book title promises more than it delivers, as soil sampling and sampling preparation cover only a small fraction of the

book. Those designing sampling schemes for contaminated soils or who want to know how many samples are needed for a semivariogram, should consult other works. The reference list contains some 190 references of which half are pre-1970. Overall the book is a valuable reference for soil scientists and students who do not deal daily with soil analysis and the commonly used methods. For the hard core professional it has little else to offer other than the excellent writing style of a distinguished colleague.

Price: USD 99.75

Orders to: Marcel Dekker, 270 Madison Avenue, New York, NY-10016, USA; or: Marcel Dekker, Postfach 812, CH-4001 Basel, Switzerland.

A.E. Hartemink, Lae, Papua New Guinea

Handbook of Photosynthesis. (Books in Soils, Plants, and the Environment Series). M. Pessarakli, editor. Marcel Dekker, New York and Basel, 1996, 1056 p. ISBN 0-8247-9708-6.

This comprehensive reference details all of the photosynthetic factors and processes under both normal and stressful conditions - covering lower and higher plants as well as related biochemistry and plant molecular biology.

Containing contributions from over 125 experts this handbook explores the relationship between photosynthesis and other plant physiological processes; relates photosynthesis to plant production and crop yields; discusses how to improve photosynthesis and photosynthate formation; presents the plant genetic factors affecting photosynthesis; examines mathematical models and response functions of photosynthesis; and analyzes the spatial and temporal relationships between respiration and photosynthesis. It contains nearly 8000 bibliographic citations. This book is an exhaustive reference for plant, crop, soil, and environmental scientists.

Price: USD 195.

Orders to: Marcel Dekker, 270 Madison Avenue, New York, NY-10016, USA; or: Marcel Dekker, Postfach 812, CH-4001 Basel, Switzerland.

Soil Map of the North Island, New Zealand Soil Classification. 1:1.000.000 scale. W.C. Rijkse and A.E. Hewitt. **Soil Map of the South Island, New Zealand Soil Classification. 1:1.000.000 scale.** A.E. Hewitt. Manaaki Whenua, Landcare Research, Lincoln, 1995.

These maps are derived from New Zealand Land Resource Inventory and Natural Soils Database, using the New Zealand Soil Classification (A.E. Hewitt, 1993). This system distinguishes 15 Orders, Groups, Subgroups and Series; the map shows the Orders, sometimes Subgroups. A useful addition is also: Methods and Rationale of the New Zealand Soil Classification (A.E. Hewitt, 1993).

Price of both maps: NZD 80.

Orders to: Manaaki Whenua Press, Landcare Research, P.O.Box 40, Lincoln 8152, New Zealand.

Polyphenols 94. 17th International Conference on Polyphenols, Palma de Mallorca (Spain) May 23-27, 1994. R. Brouillard, M. Jay, A. Scalbert, editors. Les Colloques series, No. 69. INRA Paris, 1995, 487 p. ISBN 2-7380-0602-7. Paperback.

This book presents papers with up-to-date research results about polyphenols. Five topics were selected: Polyphenols of plants and of their transformation products; Genetics, biochemistry and molecular biology of polyphenols; Polyphenols and metal ions; Biological and pharmacological activities of polyphenols; New analytical techniques in polyphenol investigations. The volume contains 12 review articles and about 150 other contributions presented as either oral or poster communications. A the summary of a round-table discussion is also enclosed..

Price: FRF 230

Orders to: INRA Éditions, Route de St-Cyr, F 78026 Versailles Cedex, France. Fax: +33 30833449.

Soil Fertility and Crop Productivity under Long-Term Fertilizer Use in India. K.K.M. Nambiar. Publications and Information Division, Indian Council of Agricultural Research, New Delhi, 1994, vii + 144 p.

The history of the long-term manurial experiments in India dates back to 1885 with the establishment of the first permanent manurial experiment based on the Rothamsted model at Kanpur (Uttar Pradesh). The succeeding decade saw the establishment of two more such experiments - one at Pusa (Bihar) in 1908 and the other at Coimbatore (Tamil Nadu) in 1909. It was followed between 1935 and 1956 by a series of permanent trials at ten other locations. These experiments did make some outstanding contributions to our understanding of the value of fertilizers, manures and sequential cropping. However, these experiments were lost to posterity except the permanent plot experiments at two locations.

With the change-over of the cropping pattern and the adoption of high-production technology, modern farming achieved a breakthrough in the age-old yield barrier giving new dimension to agricultural production. The nutrient input requirements have also increased several-fold with the introduction of high-yielding and nutrient-responsive crop varieties resulting in a rapid turnover of nutrients in the soil-plant systems. This would naturally have a much greater impact on soil and crop environments than ever conceived before. It becomes, therefore, imperative to examine the sustainability of modern intensive farming on a long-term basis. With this objective, the Indian Council of Agricultural Research sponsored the All-India Co-ordinated Research Project on Long-term Fertilizer Experiments in eleven centres.

The impacts of the long-term use of single nutrients, nutrient combinations with and without organic manures on crop-productivity and soil-fertility parameters under varied soil-climate situations are discussed in this book.

Price: INR 35.

Orders to: Indian Agricultural Research Institute, Division of Soil Science & Agricultural Chemistry, New Delhi-110012, India.

Étude des phénomènes spatiaux en agriculture. La

Rochelle (France), 6-8 décembre 1995. C. Christophe, S. Lardon, P. Monestiez, éd. INRA Éditions, 1996, 382 p. ISBN 2-7380-0699.

La modélisation a connu dans les deux dernières décennies un développement très important dans les disciplines agronomiques, que ces disciplines soient liées aux sciences physiques, aux sciences biologiques ou aux sciences humaines.
Rares sont cependant les modélisations qui prennent en compte directement l'aspect spatial ou l'interaction entre l'espace et le temps. Au mieux les résultats de ces modélisations sont „spatialisés" dans des cartes de synthèse.
Il apparaît cependant que la prise en compte des interactions locales, des flux entre voisins, de l'existence de réseaux au travers d'une dimension spatiale, peut profondément transformer certaines modélisations et la compréhension des phénomènes associés, notamment en matière d'aménagement de l'espace rural.
Ce livre présente les actes d'un séminaire organisé par un groupe de travail pluridisciplinaire. De nombreux points méthodologiques sont abordés, soit pour répondre à des questions pratiques, soit pour soulever des problèmes plus en amont. De nombreux exemples venant des sciences agronomiques, choisis pour leur diversité, illustrent le foisonnement de ces nouvelles approches.
Prix: FRF 170.
Commandes à: INRA Éditions, Route de St Cyr, F-78026 Versailles Cedex, France.

The price of soil erosion. An economic evaluation of soil conservation and watershed development. J. de Graaff. PhD. thesis. Wageningen Agricultural University, 1996, xii + 298 p. ISBN 90-6754-460-4. Mansholt Studies 3, ISSN 1383-6803. Paperback.

Soil erosion by water is the principle cause of land degradation, and a major constraint to agricultural development in developing countries. In semi-arid zones measures have to be taken to reduce on-site soil, water and nutrient losses and in sub-humid mountainous zones the focus should also be on reducing sedimentation of reservoirs and on other downstream effects. Soil conservation and watershed development activities and projects are hard to evaluate, since neither their effects nor their beneficiaries can be easily detected. Methods are developed to identify potential participants and to assess on-site and downstream effects of conservation measures, by using water and nutrient balances and yield response functions. In the evaluation of these projects cost-benefit analysis (CBA) and multicriteria analysis (MCA) can complement each other. The efficiency of the projects can be conveniently assessed with CBA when the effects can be quantified and valued. While MCA can be used to assess scores on non-monetary attributes of the efficiency, equity and conservation criteria, and to show how conflicting objectives of different actors affect the scores. These methods were applied in case studies in Burkina Faso, Tunesia, Indonesia and Jamaica.
Price: DFL 80
Orders to: Backhuys Publishers, P.O. Box 321, 2300 AH Leiden, The Netherlands. Fax: + 31-71-5171856. E-mail: backhuys@euronet.nl

Integrated modelling for 3D GIS. M. Pilouk. ITC Publication 40. Wageningen Agricultural University, PhD. Thesis, 1966, viii + 200 p. ISBN 90-6164-122-5. Softcover.

A three dimensional (3D) model facilitates the study of the real world objects it represents. A geoinformation system (GIS) should exploit the 3D model in a digital form as a basis for answering questions pertaining to aspects of the real world. With respect to the earth sciences, different kinds of objects of reality can be realized. These objects are components of the reality under study. At the present state-of-the-art, different realizations are usually situated in separate systems or subsystems, resulting in redundancy and uncertainty when different components sharing some common aspects are combined. Relationships between different kinds of objects, or between components of an object, cannot be represented adequately. This thesis aims at the integration of those components sharing some common aspects in one 3D model. Since the model should permit not only the representation of known aspects of reality, but also the derivation of information from the existing representation, the design of the model is constrained so as to afford these capabilities. The tessellation of space by the network of simplest geometry, the simplicial network, is proposed as a solution. The known aspects of the reality can be embedded in the simplicial network without degrading their quality.
Orders to: ITC, P.O.Box 6, 7500 AA Enschede, The Netherlands.

Dynamics in farming systems. Changes in time and space in Sukumaland, Tanzania. B. Meertens, L. Ndege and D. Enserink. Royal Tropical Institute, KIT Press, Amsterdam, 1995, 96 p. ISBN 90-6832-819-0. Softcover.

This studies describes agricultural practices in Sukumaland over a period of hundred years, for which a relatively large amount of data is available. Detailed descriptions of agricultural practices and changes in Sukumaland since 1875 provide background information important to current and future work regarding agricultural development. The Sukumaland case study is then used to test several theories of agricultural development: evaluating these theories in the light of farming systems dynamics helps to illuminate the process of agricultural development in Sub-Saharan Africa. This knowledge can help to improve the choices made by agricultural development planners, in cooperation with local households, as they take decisions regarding agricultural inventions. Farming systems dynamics is advocated as giving a more adequate perspective than the usual farming systems research. Labour productivity is seen as a key variable; further, study of Sukumaland indicates that in this setting, rapid population growth does not necessarily lead to land degradation and poverty.
Price: DFL 29
Orders to: KIT Press, P.O.Box 95001, 1090 HA Amsterdam, The Netherlands. Fax: + 31 205688286.

Modelling Organic Matter Mineralization and Exploring Options for Organic Matter Manage-

ment in Arable Farming in Northern China. H.S. Yang. Thesis. Wageningen Agricultural University, 1996, 159 p. ISBN 90-5485-641-6. Softcover.

The primary objectives of this thesis were to identify key factors in soil organic matter (SOM) dynamics in arable land of northern China; to predict long-term SOM dynamics under various scenarios, and to give suggestions for the most efficient use of the available organic resources. Modelling was chosen as a tool. Experimental data were collected, and used to test some C mineralization models, to develop and test a new mode, to study various factors affecting mineralization, to compare efficiencies of various organic materials in SOM accumulation and to predict long-term SOM dynamics in northern China.

It was found that the average relative mineralization rate has a linear relationship with time in double logarithmic scales under constant environmental conditions. Based on this, several functions were derived for the description of the dynamics of SOM built from added substrate. This new model proved valid under diverse conditions for all types of substrates encountered in practice.

Orders to: Department of Soil Science and Plant Nutrition, Wageningen Agricultural University, P.O.Box 8005, 6700 EC Wageningen, The Netherlands.

Current Land Use in Vietnam. Proceedings of the second Land Use Seminar, Bac Thai, Vietnam, September 1994. C. Howard, editor. The International Institute for Environment and Development, London, 1995, 123 p. ISBN 0-905347-84-6. Softcover.

This publication contains the papers of the Second Land Use Seminar in Bac Thai, 1992, and reviews various projects launched since the first meeting in 1991, in such fields as policy renovation, methodology for integrated land use planning, participatory methods for allocating land to farmers, effect of land use pattern on household economies.

The papers range from a history of land use policy in Vietnam to an overview of current policies, laws and land uses. The proceedings close with suggestions for future directions for the land Use Working Group in Vietnam..

Price: GBP 7.50 plus postage.

Orders to: IIED, 3 Endsleigh Street, London WC1H ODD, UK. Fax: +44 171 388 2826; or: The Land Use Working Group, c/o the Ministry of Forestry, 123 Lo Duc Street, Hanoi, Vietnam. Fax: +84 42 12661.

Conditions and Management of the Rangelands in the Western Province of Zambia. R.M.T. Baars. Doctoral Thesis. Wageningen Agricultural University, 1996, 152 p. ISBN 90-5485-548-7. Softcover.

A land evaluation for extensive grazing was conducted to determine the potential carrying capacity of the Western Province of Zambia. A land classification resulted in Land Regions (9), Land Systems (32), Land Units (124) and Land Facets (415). The vegetation was surveyed, resulting in a 1;500,000 map of landscapes and grasslands.

Mid dry-season grazing capacities were assessed for the delineated Land Units. Grazing management systems were surveyed. Two transhumance and two sedentary grazing management systems were described. The condition of the rangelands in high cattle density areas ranged from poor to good. There were no signs of overgrazing. Fire plays an important role in range management, despite the general poor regrowth after burning.

An economic analysis at herd level indicated the increase in cattle numbers, cattle sales, ploughing and milk production as the major sources of income. Manure transport and local slaughter played minor roles. There is a high potential to increase cattle numbers and improve livestock productivity.

Orders to: Wageningen Agricultural University, Agronomy, P.O.Box 341, 6700 AH Wageningen, The Netherlands.

Manual de Classifição de Solos do Brasil. 3a Edição Revisada e Ampliada. H. do Prado. FUNEP, Jaboticabal, 1996, 196 p.

This textbook about the classification of soils in Brazil comprises chapters about diagnostic horizons, morphological, physical and chemical attributes, soil survey and mapping at different scales and several methods of interpretation of the maps for different agronomic purposes. Fourty soil profiles are shown in colour.

An interesting part shows the relationship of soils and landscapes in some selected areas of Brazil.

Orders to: Dr. H. do Prado, Coordenadoria da Pesquisa Agropecuária. Avenida Bar_o de Itapura, 1.481, Cx.Postal 28 -13.020-Campinas, Brazil.

L'Humus sous toutes ses formes. B. Jabiol, A. Brêthes, J.-F. Ponge, T. Toutain and J.-J. Brun. ENGREF, Nancy, 1995. 63 p. ISBN 2-85710-043-4. Quadrichromie.

Après une introduction qui redéfinit les termes, l'ouvrage est articulé en trois chapitres. Le premier donne des précisions concernant les descriptions de terrain et l'intervention des organismes du sol dans la transformation des litières, les suivants décrivent les différentes couches résultant de cette transformation puis leurs successions possibles (formes d'humus). La dernière partie expose une typologie des formes d'humus reposant sur les conceptions les plus récentes, telles qu'elles ont été proposées, discutées puis adoptées lors de la parutions du Référentiel pédologique en 1992, et leur permet sur le terrain un „rattachement" facile aux types définis.

Il sera possible d'intégrer observations à l'écosystème, de raisonner en termes de fonctionnement, de causalité, et de pronostic.

Prix: FRF 110 + frais de port.

Orders to: École Nationale du Génie Rural, des Eaux et des Forêts, Service Edition, 14 Rue Girardet, F-54042 Nancy Cedex, France.

The Economics of Soil Degradation: Technological Change and Policy Alternatives. SMSS Technical Monograph No. 22. J.H. Sanders, D.D. Southgate and J.G. Lee. World Soil Resources, USDA, Washington, 1995, 74 p. Papaerback.

The authors first consider some of the various tech-

nological responses to increasing population pressure and land degradation in developing countries; the importance of soil degradation to economies in developing countries and to the U.S. They explain natural-resource accounting with illustrations from Burkina Faso, Honduras and Sudan. They analyze policy approaches to pay for or reduce soil degradation, utilizing economic theory on public choice. They review U.S. conservation experience and draw implications for developing countries and discuss the roles of different private and public agencies in reducing soil degradation and make some concluding recommendations and also for analytical techniques to monitor the physical and economic effects of soil degradation. In the three appendices, technical details on property rights, measurement, and modeling of erosion effects on yields are provided.
Orders to: World Soil Resources, Natural Resources Conservation Service, U.S. Department of Agriculture, P.O.Box. 2890, Washington, DC 20013, USA. Fax: +1 202.7204593.

Biodiversity. Bibliography on Biodiversity. International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, 1996, 226 p.

Information on studies related to biodiversity in the countries of the Hindu Kush-Himalayas is of interest not only to the subject matter specialists but also to a wide range of experts and researchers from various fields, as it is of vital importance for management and conservation of natural resources and of economic activities. However, such information is not only sparse but often widely scattered and not easily accessible. The bibliographic references included in this volume are collected from articles, books, and documents published in various journals and proceedings of seminars. Altogether 652 documents have been included and is a first attempt to fill the gap. The references are arranged under Biodiversity and Conservation, Biodiversity in Agroecosystems, Biodiversity in Natural Habitats/Protected Areas and National Parks, Legislation and Policy, and Socioeconomic and Cultural Aspects in Biodiversity. Author and title indexes are provided. In the indexes, back reference is made to sequentially arranged entry numbers in the main body. As far as possible, the location of the documents has also been provided.
Requests to: see below.

GIS Database of Key Indicators of Sustainable Mountain Development in Nepal. International Centre for Integrated Mountain Development (ICIMOD). Kathmandu, 1996, 84 p., 53 maps + appendices. ISBN 92-9115-516-0.
The Hindu Kush-Himalayan (HKH) Region is the world's highest mountain region, extending of 3,500 km from Afghanistan in the west to Myanmar in the east and ranging from the Tibetan Plateau in the north to the Ganges Basin in the south. The HKH Region presents a formidable range of both ecological and development problems that have physical as well as socioeconomic dimension. Isolated solutions have proved to be counter-productive, since most of the problems are interconnected. Development interventions must be formulated and implemented in an integrated manner. Solving the problems one needs a strong database. The Geographic Information System (GIS) technology is an effective tool for adapting and disseminating knowledge and experiences from the Region as well as from various other mountain areas; it can be used as a tool for integrated and sustainable development of the HKH Region. In 1990, ICIMOD established the Mountain Environment and Natural Resources'Information Service (*MENRIS*) as a resource centre for the *HKH* Region for the study and application of GIS technology. This publication is the first of a series of eight documents that have been envisaged for mountain areas of the eight countries of the HKH Region.
Orders to: International Centre for Integrated Mountain Development, G.P.O. Box 3226, Kathmandu, Nepal. Fax: + 977-1-524509; E-mail: icimod@mos.com.np.

Guidelines for Integrated Coastal Zone Management. J.C. Post and C.G. Lundin, editors. Environmentally Sustainable Development Studies and Monographs Series No. 9. The World Bank, Washington, D.C., 1996, 16 p. ISBN 0-8213-3735-1.
Coastal zones throughout the world have historically been among the most heavily exploited areas because of their rich resources. In coastal countries today an estimated half of the total populations live in coastal zones, and migration from inland areas to the coast is increasing. There is a sharp conflict between the need for immediate consumption or use of coastal resources and the need to ensure the long-term supply of those resources. To answer this need, a management system has been designed: Integrated Coastal Zone Management (ICZM). ICZM should ensure that the process of setting objectives, planning and implementation involves as broad a spectrum of interest groups as possible, that the best possible compromise between the different interests if found, and that a balance is achieved in the overall use of the country's coastal zones.
Price: USD 7.95
Orders to: see below.

Enabling the Safe Use of Biotechnology. Principles and Practice. J.J. Doyle, G.J. Persley, editors. Environmentally Sustainable Development Studies and Monographs Series No. 10. The World Bank, Washington, D.C., 1996, vii + 75 p. ISBN 0-8213-3671-1.

This publication is a practical guide for policymakers and research managers who are responsible for making decisions on ensuring the safe use of modern biotechnology; producing new products in medicine, agriculture, and the environment; and promoting environmentally sustainable development. It reports on the steps required to establish a national regulatory framework for biotechnology that will enable safe use of new products emerging in the fields of agriculture, the environment and human health, especially in developing countries. It reviews material accumulating on the introduction and commercial use of new biotechnolgy products. It describes how the regulatory requirements

in these countries are being modified in light of increasing familiarity with the products and processes of modern biotechnology. This publication summarizes the international context in which national biosafety systems are developed.
Price: USD 7.95
Orders to: World Bank Publications, P.O.Box 7247-8619, Philadelphia, PA 191970-8619, USA; Fax: + 202 522 2627. E-mail: books@worldbank.org.

Potential for Forage Legumes on Land in West Africa. Land Productivity Assessment of Legumes for Crop-Livestock Systems. World Soil Resources Reports 82. FAO, Rome, 1996. x + 111 p. ISBN 92-5-103790-6.

This publication discusses assessment of the production potential of forage legumes as an element of integrated livestock production systems on different kinds of land. It uses the FAO agro-ecological zones (AEZ) methodology of land productivity assessment. It also presents the results of primary land productivity estimates for a number of forage-based types of land utilization. The information will help support the sustainable use of land resources to meet the future needs of the populations of the Sahelian, Sudano-Sahelian and Sudano-Guinean zones.
Orders to: Selling agents around the world, or, in case of difficulty, Distribution and Sales Group, Publications Division, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy.

Understanding our Planet. An overview of the major activities of ICSU and its partners that address global environmental change. Second edition. J.S. Perry, editor. International Council of Scientific Unions, Paris, 1996, 48 p.

This publication summarises the major ongoing (and rapidly evolving) activities of the International Council of Scientific Unions (ICSU) and its many partners that are directed at understanding the dynamics of the interactive Earth system. ICSU Members have established a number of interdisciplinary bodies to address specific problems that require international collaboration. Many of the initiatives are carried out jointly with other international bodies, to maximise the benefits of independent scientific collaborations. The overall goal is to provide a sound basis for prudent and timely policies, at both the national and international level.
Orders to: International Council of Scientific Unions, 51 Blvd de Montmorency, F-75016 Paris, France. Fax: +33-1-42889431. E-mail:icsu@lmcp.jussieu.fr.

Inventory of Institutions and Projects Operating in the Amazon Region of Suriname. Amazon Cooperation Treaty. Pro Tempore Secretariat, TCA, Lima, 1996, viii + 106 p.

This study has been carried out by the PROJEKTA Foundation at the request of the Ministry of Foreign Affairs of Suriname. It abridges data about institutions and projects being carried out in the Amazon Region of Suriname. It gives detailed description of various institutional activities and the needs and priorities identified in the zone. This information serves as a guiding framework for defining and implementing national sustainable development policies in Suriname and to strengthen the regional cooperation and integrating network between the Countries Party to the Amazon Cooperation Treaty (ACT).
Orders to: Amazon Cooperation Treaty, Av. Prolongacion Primavera No. 654, Surco Lima 33, Peru. Fax: +511 449-8718; E-mail spt-tca@unired.net.pe.

Irrigation in Africa in Figures. Water Reports 7. L'Irrigation en Afrique en Chiffres. Rapport sur l'eau 7. Food and Agriculture Organization of the United Nations, Rome, 1995, x + 336 p. English and French. ISBN 92-5-003727-9. ISSN 1020-1203.

The „thirst" for water data is ever increasing and there is considerable demand for data on rural water use from national governments and development agencies. This resulted in the AQUASTAT Programme, the objective of which is to generate rural water use data at country level in a systematic manner. It was decided to give priority to the countries (53) of the African continent, in view of the urgent need to promote irrigation development for food security in most countries with relevant tables and maps. The AQUASTAT programme has been initiated with the view of presenting a comprehensive picture of water resources and irrigation in developing countries. This publication presents the results of a survey on Africa taken between October 1994 and April 1995. The survey relied mostly on country-based statistics and information contained in sector studies and master plans. A general summary presents a regional analysis of water resources and irrigation in Africa, and 53 profiles describe the situation in each country in more detail.
Requests to: Chief, Water Resources, Development and Management Service, Land and Water Development Division (AGLW), FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy. Fax: +39-65225-6275; E-mail Land-and-Water@FAO.org.

Bodenübersichtskarte der Bundesrepublik Deutschland 1:1 000 000. Karte mit Erläuterungen, Textlegende und Leitprofilen. General Soil Map of the Federal Republic of Germany 1:1,000,000. Explanatory Notes, Legend and Key Profiles. R. Hartwich, J. Behrens, A. Richter, et al. Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover, 1995, 43 p.
The first country-wide soil map at a scale of 1:1,000,000 has been compiled on the basis of soil maps of the former German Democratic Republic and the pre-1990 federal states of Germany. To do this, it was necessary to match the soil systems used in East and West Germany and to develop standardized descriptions of soil units. A relatively homogeneous map has resulted, which permits uniform assessment of the soils throughout Germany.
The map shows 72 soil mapping units, described in the legend on the basis of the German and FAO soil systems. Each soil unit has been assigned a characteristic soil profile as an aid to map interpretation. For the first time the subdivision of the country into 21 soil regions is shown on the map. These soil regions represent the highest hierarchic level of nation-wide soil maps.

The colours of soil units correspond to the standards of the „Bodenkundliche Kartieranleitung" (Guidelines for Soil Mapping). The various hues characterize differences in relief or soil humidity.
The map has been produced digitally. It is an important part of the spatial database integrated in the Soil Information System currently being established at the Federal Institute for Geosciences and Natural Resources. It can be used together with the characteristic soil profiles to derive thematic maps related to nation-wide soil protection. The scale of the map makes it especially suitable for small-scale evaluations at the federal European level. The explanatory text is in German, an abstract and the legend are in English also.
Orders to: Bundesanstalt für Geowissenschaften und Rohstoffe, Alfred-Bentz-Haus, Postfach 51 01 53, D-30631 Hannover, Germany.

Fertilité du milieu et stratégies paysannes sous les tropiques humides. Actes du séminaire 13-17 novembre 1995, Montpellier, France. J. Pichot, N. Sibelet and J.-J. Lacoeuilhe, éditeurs scientifiques. CIRAD-Ministère de la Coopération, 1996, 567 p. ISBN 2-87614-227-9.

Ce séminaire fait le point sur la fertilité des zones tropicales humides à la lumière des progrès réalisés par la recherche et des problèmes rencontrés par les sociétés rurales. Le croisement de ces éclairages permet de dépasser les approches classiques centrées sur le sol ou le milieu physique et fait apparaître la fertilité comme l'aptitude à satisfaire durablement les besoins des populations rurales au travers des systèmes de production et d'aménagement qu'elles mettent en oeuvre. Ce faisant, la fertilité devient le résultat d'une interaction de l'homme et du milieu et d'une construction sociale évolutive. Dans cette optique, la fertilité dépend d'une part des caractéristiques physiques et biologiques du milieu et d'autre part des stratégies (Alimentaires, monétaires et sociales) et des moyens (techniques, économiques et organisationnels) des groupes sociaux qui exploitent et façonnent ce milieu pour en tirer un environnement favorable à la réalisation de leurs objectifs.
Trois axes majeurs structurent ce séminaire: le bilan des apports des disciplines concernant la fertilité, la réalisation de synthèses par type de culture ou de système de culture et, en contrepoint des deux perspectives précédentes, l'analyse d'études de cas qui présentent la fertilité et ses problématiques diverses. Ces études de cas constituent des bases empiriques de compréhension des interactions homme-milieu. Ces différentes façons d'aborder la fertilité permettent de multiplier les points de vue et de déboucher sur une représentation nouvelle et sur des règles d'action.
Prix: FRF 250 (CEE et pays du Nord), FRF 150 (Pays du Sud)
Commandes à: CIRAD-SAR-Service Edition, BP 5035, F-34032 Montpellier Cédex 1, France.

The Role of Fertilizer in Sustaining Food Security and Protecting the Environment to 2020. Food, Agriculture, and the Environment Discussion Paper 17. B.L. Bumb and C.A. Baanante. International Food Policy Research Institute, Washington, 1996, 54 p.

In this publication, part of IFPRI's 2020 Vision initiative, the authors analyze the need for fertilizers, discuss past and future trends in fertilizer use and supply, and identifies the policies needed to promote environmentally sound growth in fertilizer use and supply. The paper assesses environmental concerns and energy implications related to fertilizer use and suggests technical and policy-related measures to safeguard against possible harmful environmental effects and to optimize energy use efficiency.
Orders to: IFPRI, 1200 Seventeenth Street, N.W., Washington, D.C. 20036-3006, USA. Fax: +1-202/467-4439. E-mail: ifpri@cgnet.com.

Les sites pollués. Traitement des sols & des eaux souterraines. P. Lecomte. Tec & Doc Lavoisier, Paris, 1995, 200 p. ISBN 2-7430-0023-6. Livre de poche.
Cet ouvrage fait le point sur ces acquis multidisciplinaires en insistant sur les solutions pratiques. L'auteur propose une approche rigoureuse et organisée comprenant différentes phases: le diagnostic, l'évaluation du risque, la réhabilitation du site. L'aspect „décontamination" est particulièrement souligné en considérant spécifiquement deux milieux naturels: le sol et les eaux souterraines. Ainsi, l'auteur passe en revue: les différents types de sites pollués et leur classification selon le polluant, l'activité du site; le diagnostic des pollutions et des dangers qu'elles représentent; l'étude de faisabilité; l'ensemble des techniques actuellement disponibles; l'estimation des coûts de la dépollution; les réglementations à prendre en compte; le point de vue des assurances.
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Le sol: interface dans l'environnement, ressource pour le développement. M. Robert. 3e cycle et recherche Collection Sciences de l'environnement. Masson, Paris, 1996, xiv + 244 p. ISBN 2-225-85177-8. Livre de poche.
L'auteur montre la complexité des phénomènes physiques, chimiques et biologiques qui caractérisent les sols, leur dépendance du substrat géologique autant que du climat, de la végétation ou de l'activité anthropique. Cette ouvrage est articulé en trois parties. La première récapitule les éléments essentiels à la compréhension des sols: aspects structuraux biologiques et minéraux; comportement physico-chimiques et biologiques des constituants; mécanismes de formation. La deuxième partie étudie les sols en tant que ressources naturelle indispensable aux développements. La troisième partie présente un aspect parfois négligé des sols: L'interface cruciale dans l'environnement. Interface avec l'atmosphère en recevant les pluies acides et en contrôlant en partie l'effet de serre; interface avec l'eau dont il détermine la qualité (phosphates, nitrates, pesticides); bioréacteurs vis-à-vis des déchets organiques ou accumulateur des éléments traces toxiques ou des radionucléides. Toute dégradation du sol est quasi irréversible à l'échelle humaine.
Commandes à: Masson éditeur, 120, boulevard Saint-Germain, F-75280 Paris cedex 06, France. Télécopieur +33 1 40466001.

Soil Salinization and Alkalization in Europe. N. Misopolinos and I. Szabolcs, editors. European Society for Soil Conservation, Special Publication, Thessaloniki, 1996, 182 p. ISBN 960-7425-09-X. Paperback.

The worldwide scarcity of water resources, particularly in dry regions and, as a consequence, the worsening of water quality available for irrigation, poses a serious danger to the production potential of soils by developing salinization and alkalization. Such soils cover roughly 10% of the continents. This hazard is also present in Europe. The fact that 10% of the surface of the lands of our globe is covered by salt affected soils does not mean that it only threatens 10% of the yield. The areas affected by adverse soil processes are on the increase and this may lead to disasters.

The target of research and practical means should not only be recuperation and rehabilitation of salt affected areas, which is difficult and expensive, but rather the prediction and prevention of expectable adverse processes. To plan and carry out irrigation and drainage in full accordance with local environmental conditions is decisive in facing the salt problem and the preservation of the production potential at an exceptable level. These problems led to the decision of the European Society for Soil Conservation to organize a Conference on „Soil Salinization and Alkalization in Europe" which took place in 1994 in Budapest, Hungary.
This volume contains selected papers mainly concerning European salinity problems and their solutions. The papers go through not only with the problems of soil salinity and alkalinity in Europe but also with saline soil solution, soil reclamation and prediction models and scenarios of potential salinization in the most threatened parts of our continent. The papers presented at the conference cover a broad field of pedological, cartographical, hydrological and agronomical problems on the subject including remote sensing and GIS methods and techniques.
Price: DEM 59
Orders to: Prof. Dr. G. Richter, University of Trier, D-54286 Trier, Germany.

Dictionary of Natural Resource Management. The comprehensive, single-source guide to natural resource management terms. J. and K. Dunster. CAB International, Wallingford, 1996, xv + 363 p. ISBN 0-85199-148-3. Hardcover.

The field of natural resource management is expanding, attracting individuals and ideas from a wide array of disciplines. For communication to take place, it is important for everyone involved to be familiar with the exact meanings being attached to the terms in use. This book has been compiled to address the need and it provides more than 6,000 entries, many illustrated and a detailed set of appendices covering the classification of organisms, geological time scales and conversion factors. The scope of the dictionary is interdisciplinary. Definitions, along with the multiple meanings that some terms now have, are provided for each entry. In order to make the dictionary accessible to a wide audience, the terms and illustrations are cross-referenced so that opposite and allied terms can be easily located.
Price: GBP 47.50
Orders to: see below.

Grassland Nitrogen. D.C. Whitehead. CAB International, Wallingford, 1995, xi + 397 p. ISBN 0-85198-915-2. Hardcover.

This publication provides a comprehensive overview of grassland nitrogen, incorporating information from crop science, soils and fertilizers, ruminant consumption and environmental aspects.
Large quantities of nitrogen fertilizer are often applied to grassland to increase the production of milk and meat from ruminant livestock. Less than 25% is actually converted into animal protein. The book describes the factors that influence the response of grassland to the application of fertilizer nitrogen, and how the optimum rate of application may be determined. Information is reviewed on the various transformations of nitrogen in temperate grassland systems. These include those taking place in plants and animals as well as those that take place in soils. The effects of soil, weather and management practices are discussed and considerable emphasis is placed on soil-plant-animal interactions. Nitrogen balances are described for different grassland systems, showing how the annual inputs and outputs vary greatly depending on sward type and management.
Price: GBP 49.95
Orders to: see below.

Tree-Crop Interactions. A. Physiological Approach. C.K. Ong and P. Huxley, editors. CAB International and International Centre for Research in Agroforestry (ICRAF), 1996, xv + 386 p. ISBN 0-85198-987-X. Paperback.

Agroforestry is rapidly being transformed from an empirical, largely anecdotal collection of beliefs and practices into an emerging science in the field of natural resource management. The specific aim of the volume is to outline and discuss how the principles of crop physiology can usefully be applied, adapted and/or extended to agroforestry. The themes included are discussed, to a large extent, starting from what has been learned from the last 50 years of work with agricultural crops. The authors have applied principles of plant ecology and crop physiology to develop more precise approaches that quantify biological interactions in agroforestry systems. The various models developed, particularly the tree-crop interactions equation, provide practical but rigorous approaches for both above- and below-ground processes. The book focuses on two basic resources: water and light and breaks new ground in showing how the principles of crop physiology can be applied to the understanding of tree-crop interaction.
Price: GBP 25
Orders to: see below.

Methods for the Examination of Organismal Diversity in Soils and Sediments. G.S. Hall, editor. CAB International, Wallingford, in association with Unesco and IUBS, 1996, xii + 307 p. ISBN 8-85199-149-1. Paperback.

Our lack of knowledge of the organisms dwelling in soils and sediments and of their roles in ecological processes, constitutes a major barrier to understanding how ecosystems operate. In order to forecast the implications of perturbations in a site on both the species pre-

sent and ecosystem functioning, methods need to be available that can be used to ascertain what organisms are present in a sample.
This publication provides a manual of the techniques now used for different organisms. It has been developed within the DIVERSITAS programme as part of a project initiated by the International Union of Biological Sciences (IUBS). It covers both soil organisms and those inhabiting freshwater and marine sediments, from microbes (bacteria, algae, fungi, etc.) to macrofauna (earthworms, nematodes, molluscs, etc.). The chapters are arranged by organismal groups.
Price: GBP 25
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No-Tillage Seeding. Science and Practice. C.J. Baker, K.E. Saxton and W.R. Ritchie. CAB International, Wallingford, 1996, ix + 258 p. ISBN 0-85199-103-3. Hardcover.

Since the early 1960s farmers have been urged to adopt some form of conservation tillage to save the planet's soil, to reduce the amount of fossil fuels burnt in growing food, to reduce runoff pollution of our waterways, to reduce wind erosion and air quality degradation etc. However, the experience of many farmers of no-tillage suggests greater short-term risk, in the form of reduced seedling emergence or crop yield or even crop failure. This publication is partly written from the farmer's perspective. The aim is to show how the risks in the practice of no-tillage can be reduced. It describes the inter-relationships between soils, machines, seeds and growing plants. It focuses on the needs of the plants which thus determine the requirements for a no-tillage seed drill. The key result is the inverted T-shaped no-tillage soil slot and the Cross SlotTMdrill and planter opener, around which a new high-technology suit of machines for no-tillage farming has emerged. The 25-years of science and testing of existing technologies which underpinned the eventual Cross SlotTM development are documented in this text with guidelines for putting these new technologies into practice around the world for more risk-free no-tillage farming with agronomic, economic and environmental benefits.
Price: GBP 49,95
Orders to: see below.

Driven by Nature. Plant Litter Quality and Decomposition. G. Cadish and K.E. Giller, editors. CAB International, Wallingford, 1997, xvi + 409 p. ISBN 0-85199-145-9. Hardcover.

The chapters in this book are largely based on oral presentations made at the International symposium 'Driven by Nature: Plant Litter Quality and Decomposition" held in 1995 at Wye College, UK. The contributions range from a comprehensive historical overview, specific biochemical and faunal mediated processes through to agronomic and socioeconomic aspects of managing biological inputs. A number of chapters on simulation modelling examine how far current knowledge of the role of litter quality has been integrated into general concepts of decomposition and soil organic matter turnover. An attempt has also been made to set a minimum dataset for characterization of plant quality for decomposition guidelines for description of plant litter quality.
Price: GBP 55
Orders to: CAB International, Wallingford, Oxon OX10 8DE, UK; or: 198 Madison Avenue, New York, NY 10016, USA. Email: cabi@cabi.org.

Measuring and Monitoring Biodiversity in Tropical and Temperate Forests. T.J.B. Boyle and B. Boontawee. Center for International Forestry Research (CIFOR), Bogor, 1995, xii + 395 p. ISBN 979-8764-01-3. Hardcover.

This publications contains 24 selected papers from among those presented at a IUFRO Symposium held at Thailand, 1994. The papers were selected to give as broad a coverage as possible of key topics, including Principles of Measuring and Monitoring Biodiversity (8 papers), Genetic Diversity (6 papers), Species and Ecosystem Diversity (5 papers) and Methodology (5 papers). Forest trees are the subject of many papers but also papers dealing with diversity of arthropods, micro fungi, birds and butterflies, and gibbons, and others dealing with the range of biodiversity are included.
Orders to: CIFOR, PO Box 6596 JKPWB, Jakarta 10065, Indonesia.

The Role of Soil Science in Interdisciplinary Research. R.J. Wagenet and J. Bouma, editors. SSSA Special Publication Number 45, ASA and SSSA, Madison, 1996, 143 p. ISBN 0-89118-821-5. Softcover.

This publication contains the proceedings of a symposium held in Seattle, 1994. The symposium was an attempt to present several ways in which the discipline of soil science contributes, sometimes in a central role, other times in an accessory role, to interdisciplinary research. Examples of each category f.i. desirable developments in soil science that would fill disciplinary gaps and the important issue of education in soil science. Future soil scientists, will need to have a broader world view and be active in resource management and environmental quality problems that are becoming a primary domain of the soil science discipline. This publication will alert readers to the changing roles of disciplinary sciences in our world.
Price: USD 22
Orders to: SSSA, ASA Headquarters Office; Attn: Book Order Department; 667 South Segoe Road; Madison, WI 53711-1086, USA. Fax: +1 608-273-2021.

Water Resources Management in the Face of Climatic/Hydrologic Uncertainties. Water Science and Technology Library Volume 18. Z. Kaczmarek, K.M. Strzepek, L. Somlyódy and V. Priazhinskaya, editors. Kluwers Academic Publishers, Dordrecht, 1996, xii + 395 p. ISBN 0-7923-3927-4. Hardbound.

This book presents the results of the first international effort to examine a broad range of impacts, including hydrological impacts, impacts on water use and demand, and water quality impacts, of climatic fluctuations and climatic change on water resources management. It includes studies of river basins in Europe, Asia, Africa and North America. The analyses

were undertaken by scientists from the many disciplines related to water resources research and range in scope between watershed scale and the national scale. This volume was prepared by the Water Resources Project at the International Institute for Applied Systems Analysis (IIASA) in Austria, to provide a comprehensive, international analysis of the impact of climate change and variability on hydrologic resources and water resources management. It reports on the latest findings, and also on the state of the art of climate change impact assessment in late 1993.
Price: USD 169
Orders to: Kluwer Academic Publishers Group, Marketing Department, P.O. Box 989, 3300 AZ Dordrecht, The Netherlands or Kluwer Academic Publishers, 101 Philip Drive, Norwell, MA 02061, USA.

Proceedings of National Symposium on the Use of Phosphate Rock for Sustainable Agriculture. April, 24-25, 1995. R. Siddaramappa, M.S. Badrinath and M.A. Girish, editors. University of Agricultural Sciences, Bangalore, 1996, 250 p.
In this symposium an attempt was made to take stock of the research work undergone in different areas viz., transformation of phosphate rocks in soil, bio-organic influence vis-à-vis their performance in crop production, both in the field and horticultural crops.
Phosphorus level in most soils is low and there is a need to augment the supply of soil phosphorus through fertilizers. It is emphasized that a balanced supply of nutrients is necessary for sustainability in production. Supply of nutrients plays an important role in improving crop yields. Although there has been an increase in consumption of nutrients over years, the per hectare consumption in India is still low compared to the rest of the world. The challenge is not only to increase nutrient consumption, but also to maintain their balanced uses. The high cost of water soluble phosphatic fertilizers have led to the search for alternative sources and thus the use of rock phosphate has become imperative at least in the neutral and acidic soils.
Orders to: Department of Soil Science and Agricultural Chemistry, University of Agricultural Sciences, GKVK, Bangalore, 560 065, India.

Soil Mechanics in Engineering Practice. Third Edition. K. Terzaghi, R.B. Peck and G. Mesri. John Wiley & Sons, New York, Chichester, 1996, xxx + 549 p. ISBN 0-471-08658-4. Hardcover.

This third edition is divided into three parts plus references, author index and subject index. Part I, Physical Properties of Soils, it deals with the physical and mechanical properties of homogeneous specimens of undisturbed and remolded soils. It discusses properties which serve as convenient criteria for distinguishing between different soils and provides instructions for describing soils adequately. It deals with soil properties that have a direct bearing on the behaviour of soil masses during and after construction operations, and the techniques for securing information about the soil conditions at the chosen site by boring, sounding, sampling, and testing.
Part II, Theoretical Soil Mechanics, provides an elementary knowledge of the theories required for solving problems involving the stability or bearing capacity of soils or the interaction between soil and water. These theories are based on radically simplifying assumptions regarding the mechanical and hydraulic properties of the soils. Part III, Problems of Design and Construction, deals with the application of our present knowledge of soil behaviour and of the theories of soil mechanics to design and construction in the field of foundation and earthwork engineering, f.i. retaining walls, earth dams, and foundations. The behaviour of all such structures depends chiefly on the physical soil properties and the subsoil conditions. Like its predecessor, this book is very well illustrated.
Price: GBP 60.
Orders to: see below.

Geomorphic Hazards. O. Slaymaker, editor. John Wiley & Sons, Chichester, New York, 1996, viii + 204 p. ISBN 0-471-96213-9. Hardcover.

In 1993 the Third International Geomorphological Conference was held in Ontario, Canada. This volume is the third of the conference volumes to be published in the „International Association of Geomorphologists Series". Geomorphic hazards occupy a central role in hazard assessment and new methods of hazard assessment draw on satellite remote sensing and geomorphological survey. Geomorphic hazards are characterized by magnitude, frequency and areal extent. The risk approach to geomorphic hazards enables a fuller incorporation of both expert analysis and societal synthesis in the solution of the natural hazards problem. In this volume such a approach is provided. In an innovative approach to hazard assessment by exploration of resident oral histories in a remote part of British Columbia, about hazard perception and hazard communication is incorporated in their research methodology.
Price: GBP 45.
Orders to: see below.

Biotechnical and Soil Bioengineering Slope Stabilization. A practical Guide for erosion Control. D.H. Gray and R.B. Sotir. John Wiley & Sons, New York, Chichester, 1996, xvii + 378 p. ISBN 0-471-04978-6. Hardcover.

This guidebook discusses the general principles and attributes of biotechnical/soil bioengineering stabilization and describes specific soil bioengineering measures that can be employed on slopes, such as live staking, live fascines, brushlayering, branchpacking, live crib walls, and slope grating. The book describes recent developments with biotechnical ground covers or „reinforced grass" systems, which include the use of nets, mats, and other types of structural/mechanical reinforcement to improve the establishment and performance of grass cover on steep slopes or temporary waterways. Four illustrated case studies, each addressing a different set of problems and solutions, demonstrate both the application of particular technologies and the site investigation, planning scheduling, and organization. It is a reference handbook for practising professionals in the field of geotechnical engineering, geology, soil science, forestry, environmental horticul-

ture, and landscape architecture. The book can also be used as a reference text.
Price: GBP 50; USD 64.95
Orders to: see below.

Regolith, Soils and Landforms. C. Ollier and C. Pain. John Wiley & Sons, Chichester, New York, 1996, ix + 316 p. ISBN 0-471-96121-3. Hardcover.

Regolith is the layer of broken and unconsolidated rock and soil material that forms the surface of the land and covers the bedrock nearly everywhere.
The authors write that the regelith is a new area for study, of which even the general outlines of the subject are not agreed. This book tries to integrate a wide range of views, describing many economic aspects of regolith studies, such as the formation of mineral deposits, the importance of weathering zones and how the chemistry of regolith affects human health. It presents a new view of the geological history of the earth, it places emphasis on the formation and destruction of regolith materials and provides a challenge for established concepts in landscape evolution.
Price: GBP 65.
Orders to: see below.

Microbial Transformation and Degradation of Toxic Organic Chemicals. L.Y. Young and C.E. Cerniglia, editors. Wiley-Liss, New York, 1995, xii + 654 p. ISBN 0-471-52109-4. Hardcover.

Interest in the microbes that attack toxic chemicals in the environment has increased as the focus shifts from the laboratory to the real-world concerns of chemical spills and toxic waste disposal. Current perspectives from both laboratory and field studies on the biodegradation of toxic chemicals are provided. This book is divided into four parts. Part I examines the diversity and versatility of microorganisms involved in the degradation of hazardous chemicals, and the sources, types, and fate of synthetic organic chemicals in the environment. Part II explores the basic pathways and mechanisms of microbially mediated biodegradation of a variety of hazardous chemicals found in the environment. Part III discusses biodegradation principles applied in managed processes and in situ treatment for biotreatment of toxic chemicals such as solvent, chlorinated aromatics, fuel-derived waste. In part IV new strategies with molecular biotechnology approaches and examination of risk assessment are discussed.
Price: GBP 105; USD 160.
Orders to: see below.

Amazonian Deforestation and Climate. J.H.C. Gash, C.A. Nobre, J.M. Roberts and R.L. Victoria. editors. John Wiley & Sons, Chichester, New York, 1996, xviii + 611 p. ISBN 0-471-96734-3. Hardcover.

This book describes the results from ABRACOS, the Anglo-Brazilian Amazonian Climate Observation Study. ABRACOS was a major collaboration between British and Brazilian scientists with the objective of quantifying the changes to the water and carbon cycles and the interaction between the soil, vegetation and atmosphere, which occur when the primary rainforest is removed and replaced with cattle ranchland.
The book describes the carefully made measurement in the pasture and rainforest at a series of sites across Amazonia. The data are analyzed and interpreted to allow them to be used as the basis of accurate and realistic descriptions of the land surface in the Global Circulation Models which are used to predict the climate effects of large scale deforestation. Results are presented at all scales: for the centimetre scale of leaf and soil moisture measurements, the field scale of micrometeorological flux measurements, through to the scale of meteorological models which predict the climate of the whole Amazonian Basin.
This publication provides a wealth of information to all those interested in the environmental effects of Amazonian deforestation and how that deforestation will affect the climatology, hydrology and ecology of the region.
Price: GBP 65
Orders to: John Wiley & Sons, Baffins Lane, Chichester, West Sussex, PO19 1UD, England; or: 605 Third Avenue, New York, NY 10158-0012, USA.

Publications on CD-ROM

CD-Rom HYPP. Hypermédia pour la protection des plantes. Hypermédia for plant protection. Librairie Lavoisier.

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New FAO Publications

Tillage systems in the tropics. Management options and sustainability implications. R. Lal. FAO Soils Bulletin 71. R. Lal, FAO, Rome, 1995, xviii + 206 p. ISBN 92-5-103776-0. Softcover. ISSN 0253-2050.

This publication collates up-to-date information on tillage requirements for soils in the tropics. Is assesses the impacts of different modes and means of tillage on the soil, the environment and crop productivity, and it outlines criteria for developing environmentally friendly and economically viable tillage techniques for sustainable use of soil and water resources. Tillage, mechanical soil manipulation for seedbed preparation,

affects the rate and trend of soil degradation. The question „Is tillage necessary?" is addressed to explore viable alternatives to mechanical soil disturbance. The term 'mode' refers to the type of tillage whether primary, secondary or tertiary based on tools for soil inversion, loosening, levelling, mixing or pulverizing. This bulletin is written for field staff, extension agents, policy-makers, project manager and researchers interested in tillage requirements and soil surface management for sustained crop production.
Orders to: see below.

Sustainable dryland cropping in relation to soil productivity. FAO Soils Bulletin 72. C.J. Pearson, D.W. Norman and J. Dixon, Rome, 1995, xi + 146 p. ISBN 92-5-103792-2. Softcover. ISSN 0253-2050.

The themes of this bulletin are that management of soil productivity is central to sustainable dryland cropping and that successful management depends on understanding the mechanisms underlying soil productivity and on the recognition of non-technical factors such as human goals. It follows that its conclusions are not prescriptive. It aims to encourage researchers and policy-makers to work jointly with farmers to develop better cropping systems and devise locally acceptable indicators of sustainability.
The text is illustrated by figures and tables and a list of references. Is does not pretend to be a comprehensive review of sustainability, soil processes and cropping systems.
Orders to: FAO, viale delle Terme di Caracalla, 00100 Rome, Italy.

Erosion-induced loss in soil productivity: second workshop: Preparatory Papers and Country Report Analyses. M. Stocking and J.R. Benites. Workshop held at the Chapecó EPAGRI Training Centre, Santa Catarina, 1996. FAO, Rome, 53 p.

Loss in soil productivit is recognised as the principal ecological way in which sustainable agriculture is threatened. Not only the threat to biomass and economic yield, but also the quality of the soil resource base is challenged to ensure that future yields are reduced and that land use will become progressively more difficult. This range of processes is called Erosion-Induced Loss in Soil Productivity.
A workshop was hosted by The Santa Catarina Agricultural Research and Rural Extension Organization, Brazil. The main aspects of erosion-productivity discussed were: 1. The quantitative relationship between erosion, yield and time; 2. The specific soil limiting factors which control the quantitative relationships; 3. The impact of erosion-induced loss in soil productivity on yields, other farming activities, farm income, household security, rural livelihoods and national economies. The Workshop concluded with a set of outputs from Working Groups, addressing issues related to (1) data collection and analysis; (2) practical issues and experimental design; and (3) interpretation and use of results.
Requests to: J.R. Benites, FAO, Land and Water Development Division, Viale delle Terme di Caracalla, 00100 Rome, Italy.

Multilingual Soil Database. World Soil Resources Reports 81. Food and Agriculture Organization, International Soil Reference and Information Centre and Institute of Natural Resources and Agro-Biology, Rome, 1995, vi + 111 p (with diskette). ISBN 92-5-103778-7. Softcover. ISSN 0532-0488.

This report is the user manual for the first version of the multilingual (English, French, Spanish) soil database software (SDBm). The software is intended as a user-friendly tool to facilitate the organization, storage and retrieval of soil profile data on a microcomputer. It can be used to store site description and morphological data as well as analytical data. Management tools are provided to facilitate the retrieval, tabulation and standard statistical analysis of the available data. SDBm is in a continuous process of development; as an „open" system which can be easily modified in the future.
Orders to: Chief, AGLS, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy.

Biodiversity and Savanna Ecosystem Processes. A Global Perspective. Ecological Studies, Vol. 121. O.T. Solbrig, E. Medina and J.F. Silva, editors. Springer-Verlag, Berlin, New York, 1996, vi + 233 p. ISBN 3-540-57949-4. Hardcover.

Savannas are the most widespread ecosystem in the tropics and as such are subjected to great human pressure that may result in massive soil degradation.

This work is a joint contribution of the Responses of Savannas to Stress and Disturbance (RSSD) Program of the Decade of the Tropics, a joint IUBS-UNESCO International Program, and of the DIVERSITAS Program, a joint IUBS-SCOPE-UNESCO International Program. It addresses the role of species in the function of savanna ecosystems. Savannas are enormously diverse and four factors determine the function of savanna ecosystems: Plant Available Moisture; Plant Available Nutrients; Fire; Herbivores.

The chapters presented in this book resulted from a conference held in Brasilia, on „The Role of Biodiversity in the Function of Savanna Ecosystem", 1993. The book is divided into two sections. The first consists of nine chapters that were solicited by the editors prior to the conference. The second part, „Summary and Areas for Future Research", 3 chapters, were written after the conference and deals with the issues as the participants in the conference saw them. The last chapter summarizes the major conclusions.
Orders to: see below.

Methods in Soil Biology. F. Schinner, R. Öhlinger, E. Kandeler and R. Margesin, editors. Springer-Verlag, Heidelberg, New York, 1996, xvii + 426 p. ISBN 3-540-59055-2. Hardcover.

In terrestrial ecosystems soil microorganisms and animals are essential for litter degradation, soil formation and the availability of nutrients and trace elements. The measurement of biological soil parameters allows a rapid evaluation of the effects of chemical and physical influences due to pollutants or soil management. This book introduces a number of well proven methods for the analysis of carbon, nitrogen, phosphorus and sulphur cycles. It also focuses on the determination of

the numbers and biomass of microorganisms, algae and animals in the soil. The selection of methods was based on thorough experimental testing of numerous procedures described in the literature. Emphasis was placed on a comprehensive description of all experimental steps and calculation and/or evaluation of results.

This book is an English version of the second German edition of „Bodenbiologische Arbeitsmethoden" and is supplemented with some actual and proved methods.

Price: DEM 98; ATS 715,40; CHF 86,50.
Orders to: see below.

Soil Pollution. Processes and Dynamics. B. Yaron, R. Calvet and R. Prost. Springer-Verlag Heidelberg, New York, 1996, xi + 313 p. ISBN 3-540-60927-X. Hardcover.

This book is dedicated to understanding the processes governing the fate of pollutants in soils, originating from both agriculture and industry. Investigated are the properties of the interacting materials, pollutant partitioning between the soil phases, pollutant behaviour in soils affected by environmental factors, as well as the principles to be considered in defining pollutant behaviour. Th book consists of four parts. The first part informs on the knowledge of the properties of soil pollutants. In the second part the partitioning of pollutants between the aqueous, solid and gaseous phase of the soil medium is discussed. The retention, transformation and transport of pollutants in the soils is described in the third part. The fourth part deals with models used to predict the behaviour of pollutants in soils and the general principles of soil restoration.

Price: DEM 198; ATS 1445,40; CHF 187.
Orders to: see below

Environmental Compartments. Equilibria and Assessment of Processes Between Air, Water, Sediments and Biota. E.K. Duursma and J. Carroll. Springer-Verlag, Heidelberg, New York, 1996, xv + 277 p. ISBN 3-540-61039-1. Hardcover.

This book contributes to a better understanding on the equilibria which exist between the substances in the different environmental compartments. It is based on university courses, extended with pertinent case studies of recent environmental problems. A number of exercises is incorporated in the text; the answers are presented in Appendix I. A demo model of radionuclide transport from dumped nuclear waste in the Kara Sea, a shallow Arctic sea east of Novaya Zemlya and a demo model, called COSMOBIO, illustrating the role of biodiversity in coastal zone management, assessing risks of multiple stresses caused at the population level by various human activities are added on a disk for beginning modellers.

Price: DEM 98; ATS 715,40; CHF 86,50.
Orders to: see below.

Crystallography. Second Edition. W. Borchardt-Ott. Springer-Verlag, Heidelberg, New York, 1996, xiii + 307 P. ISBN 3-540-59478-7. Softcover.

This second English edition is a translation of the fifth German edition. The author introduces crystallography in an elementary and easy to understand approach. The heart of the book is geometrical crystallography. It is from the concept of space lattice that symmetry operations, Bravais lattices, space groups and point groups are all developed. At the end of all chapters, a large number of exercises and their solutions are given. It is well-illustrated and has a relatively low price.

Price: DEM 48; ATS 350,40; CHF 43.
Orders to: Springer-Verlag, Tiergartenstrasse 17, D-69121 Heidelberg, Germany; *or* springer-Verlag, 175 Fifth Avenue, New York. NY 10010, USA.

Report on the International Workshop on Soil Conservation Extension: Concepts, Strategies, Implementation and Adoption, Chiangmai, 1995. S. Sombatpanit, M.A. Zöbisch, D.W. Sanders et al. Soil and Water Conservation Society, Bangkok, 1996, iii + 134 p. ISBN 974-7721-69-4. Paperback.

This report has been compiled and written by a group of authors, to inform readers of the details of the Workshop. The objective of the above mentioned Workshop was to review and evaluate past and present modes of extension being employed in soil conservation projects, to relate them to the success of the projects and to recommend guidelines for effective soil conservation extension in the future.

All 69 papers were presented and categorized into four groups: concepts of soil conservation extension, strategies to gain farmers' awareness and willingness to cooperate, implementation processes for soil conservation extension and the adoption of soil conservation technology.

The subjects were discussed in working groups and the results used in compiling soil conservation extension guidelines with recommendations on the subjects and the role on non-government agencies in soil and water conservation, the utilization of indigenous knowledge, the use of subsidies and incentives, awareness raising and researcher-extension worker-farmer linkages. A selection of the full papers will be published in a book.

Price: free of charge.
Request to: The Secretary, Soil and Water Conservation Society of Thailand, Department of Land Development Building Chatuchak, Bangkok 10900, Thailand. Fax: +66 2 561 3029; E-mail: oibsram@nontri.ku.ac.th.

Minerale. Bestimmen nach äußeren Kennzeichen. 3. Auflage. R. Hochleitner, H. van Philipsborn und K.L. Weiner. 3. Auflage. E.Schweizerbart'sche Verlagsbuchhandlung (Nägele u. Obermiller), Stuttgart, 1996, v + 390 p. ISBN 3-510-65164-2.

Die vorliegende, 3. vollständig überarbeitete Auflage des „Philipsborn" geht auf die 1988 von Albin Weiss in 13 Auflagen veröffentlichten „Tabellen zur Bestimmung von Mineralien nach äußeren Kennzeichen" zurück. Diese Neubearbeitung ist eine unentbehrlicher und praktischer Helfer bei der präzisen Bestimmung von Mineralen. Die Bestimmungstabellen beginnen mit einem Überblick über Eigenschaften, Entstehen, Vorkommen und die Radioaktivität der Minerale. Sie enthalten die Eigenschaften (Härte, Strichfarbe, Spaltbar-

beit, Farbe, u.a.) von 487 Mineralen, unter ihnen die wichtigsten gesteinsbildenden Minerale, Erz- und Nutzminerale. Farbbilder ergänzen Bestimmungstabellen und zeigen die Formenvielfalt der Minerale. Das Vorgehen bei der Mineralbestimmung wird verständlich erklärt. Die Kristallzeichnungen (von K. Rapp und -abbildungen wurden zum ersten Mal in die Bestimmungstabellen integriert, so daß sie auf der selben Seite wie die Mineraleigenschaften zu finden sind.
Preis: DEM 98
Bestellungen an: E. Schweizerbart'sche Verlagsbuchhandlung (Nägele u. Obermiller), Johannesstrasse 3A, D-70176 Stuttgart, Germany. Fax: +49 711 625005.

Policy Making in an Era of Global Environmental Change. Environment & Policy, Volume 6. R.E. Munn, J.W.M. la Rivière and N. van Lookeren Campagne, editors. Kluwer Academic Publishers, Dordrecht, Boston, 1996, xviii + 225 p. ISBN 0-7923-3872-3. Hardcover.

Major international, interdisciplinary research programmes are underway to increase our understanding of how the Earth System operates and how it is changing. This research involves the complex physical, chemical and biological interactions between atmosphere, oceans and continents which regulate the unique environment that the Earth System provides for life. it involves the changes - natural and man-made - in the system and the manner in which these will affect society.

Although the understanding of the Earth System, and the prediction of its carrying capacity, are still limited, scientists already agree that significant changes in global and regional environments can be expected in the next 50 years and that these will affect the possibilities of the Earth to sustain life. Insight into the relations between the pressures on the Earth System and its carrying capacity are a prerequisite for planning a more sustainable future.

In the development of societal responses to environmental changes, it is vital that policy makers and scientists understand one another so as to make effective cooperation possible. This book aims to provide a contribution to it.

The first part of the book gives a description of what is understood by global change and presents an overview of the ongoing relevant research, focusing on two major research programmes. In the second part an analytical overview is given of the response process exemplified by responses at the intergovernmental and governmental level, and by business and public interest groups.
Price: DFL 80; USD 49,50
Orders to: Kluwer Academic Publishers Group, P.O.Box 17, 3300 AA Dordrecht, The Netherlands; or Kluwer Academic Publishers, 101 Philip Drive, Norwell, MA 02061, USA.

The North African Environment at Risk. State, Culture, and Society in Arab North Africa. W.D. Swearingen and A. Bencherifa, editors. Westview Press, Oxford, 1996, xiv + 286 p. ISBN 0-8133-2127-1. Hardcover.

This book focuses primarily on Morocco, Algeria, and Tunisia. Their distinctive regional character gives coherence to the present study. Deforestation, soil erosion, desertification, air and water pollution, loss of wildlife habitat, and declining biodiversity are interrelated manifestations of a growing environmental crisis in North Africa that had received relatively little attention from government policymakers. In this volume a group of scholars explores the range of human activities causing the deterioration of North Africa's fragile environment, including population pressure and poverty, rapid urbanization, intense competition for land and water, mismanagement of natural resources. They examine in particular the conflict between economic development and environmental sustainability, and analyze the historical roots of current environmental problems, the underlying socioeconomic causes, potential solutions, and differences in environmental policies among various countries. The authors explore the conflict between economic development and environmental sustainability.
Price: GBP 41.50
Orders to: Westview Press, 12 Hid's Copse Road, Cumnor Hill, Oxford OX2 9JJ, UK.; or: Westview Press, 5500 Central Avenue, Boulder Colorado 80301-2877, USA.

The Science of Plant Life (Vrikshayurveda). Humans have continuously responded to societys values and aspirations in the selection and management of plants. Knowing how our ancestors viewed land and how they addressed crop husbandry and land management provides another dimension to our current approaches to crop selection and management. The Asian Agri-History Foundation has made a major contribution towards capturing this indigenous knowledge by translating the Sanskrit 6th century text by Surapala into English.
The text deals with about 170 species of plants, including herbs, shrubs, and trees. It is written in 325 verses beginning with the utilitarian value of trees, with sections dealing with management and aspects of biodiversity conservation. Special references are made to procuring, preserving, and treatment of seeds and planting materials; preparation of pits for planting; identification and selection of soils; methods of irrigation and means of finding ground water; fertilizer management, and identification of pests and diseases. The text is also written in the context of common people*s beliefs, religious attitudes, superstitions, and folk knowledge to persuade people to plant trees. Some of the methods of fertilization or disease management prescribed may seem odd and even impractical. For example, one method to enhance crop performance is to add a concoction of plant and animal parts together with other ingredients. The important factor to note is that there was a recognition of the importance of soil nutrients to plant growth and also the notion of re-cycling of organic wastes. The interesting conclusion that one arrives at, after struggling through the text with its many local terms (for which an index is provided), is that many of the problems we are confronted today are not new and that, these ancient thinkers have evaluated biophysical and social problems and came with approaches for their solution,

There is philosophy built into the text as illustrated by the following quotation: *Ten wells are equal to one pond. Ten ponds are equal to one lake. Ten lakes are equal to one son. Ten sons are equal to one tree*. Anybody interested in the evolution and sustainability of agriculture should take some time to read this book.

Copies of the English translation may be purchased for $25.00 each from the Asian Agri-History Foundation, 47 ICRISAT Colony-1, Brig. Sayeed Road, Secunderabad 500 009, Andhra Pradesh, India.

Hari Eswaran

NEW JOURNALS, NOUVEAU PÉRIODIQUES, NEUE ZEITSCHRIFTEN

Hydrological Processes. An International Journal. Volume 10(8), 1021-1126. M.G. Anderson, N.E. Peters and D. Walling, editors. Wiley, Chichester, 1996. ISSN 0885 6087.

This issue contains 9 papers, mainly related to LISEM, the Limburg Soil Erosion Model. Limburg is a province in the south of the Netherlands, where loess occurs over rather large areas with hilly terrain. Surface runoff and soil erosion has increased during the last two decades. The model developed as a tool for planning and conservation purposes, is a physically based hydrological and soil erosion model.

The papers cover i.a. the development of the model and its validation, the relevant soil erodibility parameters vader various crops and cropping systems, and the generation of runoff and soil erosion

Orders to: John Wiley & Sons, Baffins Lane, Chichester, West Sussex PO19 !UD, England; or: John Wiley & Sons, 605 Third Avenue, New York, NY 10158-0012, USA.

FAUNUS, Newsletter of the Livestock Systems in Integrated Rural Development (LSIRD) Network. Twice yearly. Jerry Laker, editor. Information from: Mr. J. Laker, Macaulay Land Use Research Institute, Craigiebuckler, Aberdeen AB15 8QL, Scotland, UK. Fax: + 44 1224 311556. Email: J.Laker@mluri.sari.ac.uk.

Agriculture and Environment for Developing Regions. A comprehensive information source for Africa, Asia, the Pacific, Latin America and the Carribean. (TROPAG) is published monthly by the information departments of the Royal Tropical Institute (KIT), The Netherlands and the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), France, in collaboration with the Instituto de Investigaç_o Científica Tropical (IICT), Portugal, on behalf of the European Consortium for Agricultural Research (ECART). W. de Boer, editor. The journal offers annually 6000 abstracts and contains a subject index, a geographical index, a plant taxonomic name index, and an author index. It covers literature on agricultural development, environmental management, plant and animal production, and postharvest technology. The journal incorporats *Abstracts on Tropical Agriculture*. All the abstracts published are collected on compact disc to form the TROPAG & RURAL CD-ROM. It gives the flexibility to undertake unlimited literature searches and to keep abreast of the latest development in the literature. The CD-ROM is updated twice a year.

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Environmental & Nutritional Interactions. Volume 1, Number 1, 1997. S.T. Omaye and N.M. Elsayed, Editors. Bimonthly issue by Taylor & Francis. ISSN 1086-5683.

The principal aims of this journal are to identify nutrient interactions with environmentally induced disorders, and to understand the mechanisms of such interactions and their effect on health and welfare. It is dedicated to advancing scientific knowledge and disseminating information on the interaction between natural and synthetic substances and nutrients; the impact of changes in the environment and nutrition; the effect of nutritional status on the response to agents in the environment; and the significance of such interactions on health and disease.

Subscription rate: GBP 12 (institutional subscription); GBP 76 (personal subscription).

Orders to: Taylor & Francis, Rankine Road, Basingstoke, Hampshire, RG24 8PR, UK; E-mail: adaly@tandf.co.uk; *or:* Taylor & Francis, 1900 Frost Road, Suite 101, Bristol, PA 19007-1598, USA.; E-mail: ssullivan@tandfpa.com.

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A. Salt Affected Soils/Sols Salins/Salzboden
Dr. M. Redly, Research Inst. for Soil Science & Agric. Chem., Hungarian Academy of Sciences, Herman O. ut. 15, 1022 Budapest, Hungary

B. Soil Micromorphology/Micromorphologie du Sol/Bodenmikromorphologie
Prof.Dr. Sergey Shoba, MSU, Dokuchev's Soil Institute, Pygevsky per 7/109017 Moscow, Russia

C. Soil and Water Conservation/Conservation des Sols et des Eaux/Boden- und Wasserschutz
Dr. Ch. Valentin, ORSTOM, B.P. 11416, Niamey, Niger

D. Soil Zoology/Zoologie du Sol/Bodenzoologie (with/avec/mit IUBS)
Prof.Dr. D. Parkinson, Dept. Of Biological Sciences, University of Calgary, 2500 University Drive N.W., Calgary, Alberta T2N 1N4, Canada;

E. Forest Soils/Sols forestiers/Waldboden
Dr. P.K. Khanna, CSIRO, Div. of Forest Research, P.O.Box 4008, Queen Victoria Terrace, Canberra, ACT 2600, Australia

F. Land Evaluation/Evaluation du Terrain/Landbewertung
Prof.Dr. K.J. Beek, ITC, P.O.Box 6, 7500 AA Enschede, The Netherlands

G. Soil Remediation/Restitution des sols/Bodensanierung
Prof.Dr. D.C. Adriano, Savannah River Ecology Lab., Savannah River Site Bldg. 737A, Aiken, S.C., USA

Working Groups/Groupes de Travail/Arbeitsgruppen - Chairpersons/ Présidents/Vorsitzende:

AS Acid Sulphate Soils/Sols Sulphates Acides/Saure Sulfatboden
Dr. S. Sadio, ISRA/ORSTOM, B.P. 1386, Dakar, Senegal

CR Cryosols/Cryosols/Frostboden
Dr. D.A. Gilichinsky, Inst. of Soil Science & Photosynthesis, Pushchino, Moscow District 142292, Russia

DE Soil Resources of Desert Ecosystems/Ressources de sol dans des ecosystemes de désert/Boden in Wustenokosystemen
Dr. A. Souirji, Rue de la ville 2, 5660 Couvin, Belgium

DM World Soils and Terrain Digital Data Base/Carte Internationale Numérique des Sols et des Terrains/Digitalisierte Internationale Boden- und Landkarte (SOTER)
Prof.Dr. M.F. Baumgardner, Dept. of Agronomy, Purdue University, West Lafayette IN 47907, USA

FA Soil Organic Fertilizers and Amendments/Produits organiques d'engrais et d'amendement du sol/ Dunger und Bodenverbesserungsmittel
Prof.Dr. P. Sequi, Istituto Sperimentale per la Nutrizione delle Piante Via della Navicella 2-4, 00184 Roma, Italy

LI Land Evaluation Information Systems/Informatique de l'Evaluation des Terres/Informationssysteme zur Landbewertung
Dr. J. Dumanski, Land Resources Research Institute, Agric. Canada, Ottawa, Ontario, Canada K1A 0C6

MO Interactions of Soil Minerals with Organic Components and Microorganisms/Interactions entre les Mineraux du Sol, les Composees Organiques et les Microbes/Wechselwirkungen zwischen Bodenmineralen, organischen Substanzen und Mikroorganismen
Prof. Dr. P.M. Huang, Univ. of Saskatchewan, Dept. of Soil Science, Saskatoon, Sask., Canada S7N 0W0

MV Soil and Moisture Variability in Time and Space/Variabilité du Sol et de l'Humidité dans le Temps et l'Espace/ Boden- und Feuchtigkeitsvariabilitat in Raum und Zeit
Prof.Dr. R.J. Wagenet, Dept. of SCAS, Bradfield Hall, Cornell University Ithaca, NY 14853-1901, USA

PM Pedometrics/Pedometrique/Pedometrik
Prof.Dr. A.B. McBratney, Dept. of Agric. Chem. &Soil Science, A03 Ross St. University of Sidney, NSW 2006, Australia

PP Paleopedology Paleopedologie/Palaopedologie
Prof.Dr. Arnt Bronger, Dpt. of Geography, University of Kiel, 24098 Kiel, Germany

PS Paddy Soils Fertility/Fertilite des Sols Rizicoles Irrigues/Fruchtbarkeit von Reisboden
Prof.Dr. Tasnee Attanandana, Dept. of Soil Science, Faculty of Agric., Kasetsart University, Bangkok, 10903, Thailand

PT Pedotechnique/Pedotechnique/Pedotechnik
Dr. J. Koolen, Dept. of Soil Tillage, Wageningen Agric. Univ. Diedenweg 20, 6703 GW Wageningen, The Netherlands

RB World Reference Base for Soil Resources/Base de référence mondiale pour les ressources de sol/weltweite Referenzbasis fuer Bodenressourcen
Prof.Dr. J. Deckers, Wildenhoge 13, 3020 Winksele, Belgium

RS Remote Sensing for Soil Survey/Pedologie et Teledetection/Fernerkundung fur Bodenkartographie
Dr. M. Mulders, Dept. of Soil Science & Geology, Wageningen Agric. University, P.O. Box 37, 6700 AA Wageningen, The Netherlands

RZ Rhizosphere/Rhizosphere/Rhizosphare
Prof.Dr. P.J. Gregory, Dept. of Soil Science, Univ. of Reading, Whiteknights P.O.Box 233, Reading, RG6 2DW, U.K.

SG Soils and Geomedicine/Sols et Geomedecine/Boden und Geomedizin
Prof. Dr. J. Lag, Dept. of Soil Science - AUN, P.O.Box 28, 1432 As-NLH, Norway

SP Soil and Groundwater Pollution/Pollution du Sol et des Eaux
Souterraines/Boden- und Grundwasserverschmutzung Prof. Dr. P.J. Wieringa, Univ. of Arizona, Soil & Water Science, Tucson AZ 85721, USA

US Urban and Periurban Soils/Sols urbains et periurbains/Stadtische Boden
Dr. J. Celecia, Div. of Ecological Sciences, UNESCO, 75700 Paris, France

Standing Committees/Comités Permanents/Standige Komitees - Chairmen/Présidents/Vorsitzende:

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Prof.Dr. P.B. Tinker, GCTE Associate Project Office, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB, U.K.

CIP Committee on International Programmes/Comite sur les Programmes Internationaux/ Komitee fur Internationale Programme
Dr. J. Kimble SCS/NSSC, Federal Bldg. Room 152, 100 Centennial Mall North Lincoln, NE 68508-3866, USA

CST Committee on Standardization/Comité sur la Standardisation/Standardisierungskomitee
Dr. S. Nortcliff, Dept. of Soil Science, Univ. of Reading, Whiteknights P.O.Box 233, Reading RG6 2DW, U.K.

CBF Committee on Budget and Finances/Comite sur Budget et Finances/Budget- und Finanzkomitee
Prof.Dr. W.R. Gardner, USA, College of Natural Resources, Univ.of California, Berkeley, Calif. 94720, USA.

CES Committee on Education in Soil Science/Comite pour l'Enseignement de la Pédologie/ Komitee fur Bodenkundeausbildung
Prof. Dr. M. Dosso, CNEARC, 1101 Av. Agropolis, B.P. 5098 Montpellier Cédex, France

CHP Committee on the History, Philosophy and Sociology of Soil Science/Comite sur l'Histoire, Philosophie et Sociologie de la Science du Sol/Komitee fur Geschichte, Philosophie und Soziologie der Bodenkunde
Prof. Dr. D.H. Yaalon, Institute of Earth Sciences, Hebrew University, Givat Ram Campus, Jerusalem 91904, Israel

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ARID SOIL RESEARCH AND REHABILITATION; BIOLOGY & FERTILITY OF SOILS; CATENA; GEODERMA; SOIL BIOLOGY & BIOCHEMISTRY; SOIL TECHNOLOGY;

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