

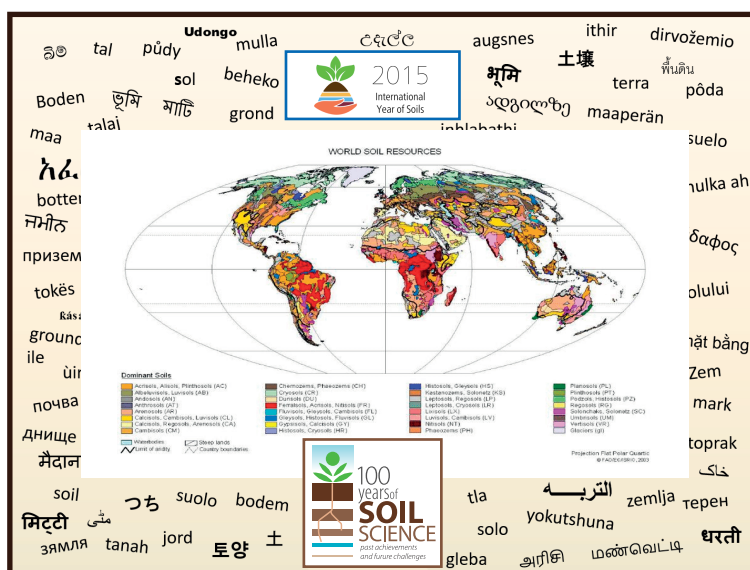


International Union of Soil Sciences



IUSS 1924-2024

A Centennial documentation of its national members



EDITORS

Rainer Horn

Winfried Blum

Laura Berta Reyes Sánchez



International
Decade of Soils
2015-2024

LE PENSEUR

**The International Union of Soil Sciences:
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of its national members**

EDITORS

**Rainer Horn
Winfried Blum
Laura Bertha Reyes-Sánchez**

International Union of Soil Sciences

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FOREWORD

This book traces the history of the National Soil Science Societies that form the International Union of Soil Sciences (IUSS). The IUSS was established during the Fourth International Conference of Pedology, held in Rome on the 19th of May 1924. At that time, it was named the “International Society of Soil Science, ISSS” and included only individual members. It was during the 16th Congress in Montpellier in 1998 that, after a lengthy debate and a strong push of members, new statutes were approved by the general assembly, introducing National Soil Science Societies as the main members of the society. On that occasion, the International Society of Soil Science (ISSS) was changed to IUSS as a Union of National Societies or Academies (the Full members), and an organization of soil scientists (the individual members of the national societies).

The IUSS is a non-profit and non-governmental organization, officially registered in the USA. The IUSS mark and logo hold international copyrights. IUSS operates in a fully democratic manner as an autonomous organization, primarily funded by member contributions. It is free from any external influence or bias, be it from the private or public sector. The IUSS serves as the global union for soil scientists, providing a reputable platform for soil scientists to collaborate.

The objectives of IUSS, as an organization, are to promote all branches of Soil Science and to support soil scientists worldwide in their pursuit of scientific activities. As a matter of fact, the IUSS is the main global melting pot of Soil Sciences, where new ideas are forged and tested by peers.

The Full members of the IUSS are 77 National Soil Science Societies or Academia. The estimated Individual members (through the National Soil Science Societies) are about 50,000. The IUSS holds relationship with 8 regional soil societies and several other scientific organizations. The IUSS is part of the International Science Council.

The IUSS structure is based on two pillars:

Governance: composed by the Council, the Executive and President's Committees, and the Secretariat, which is responsible for the management.

Science: currently composed by 4 Divisions, 21 Commissions, 17 WGs, and the Forum.

The IUSS has elaborated a strategic plan for the years 2021-2030, which includes

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among its strategic goals the increasing participation of the IUSS members, through several activities. Among them, there are some that specifically address National Soil Science Societies, namely:

- enhancing interaction and possibilities for information exchange;
- facilitating the involvement of all Regional and National Soil Science Societies in the activities of IUSS;
- supporting the establishment of National Soil Science Societies in all countries;
- creating a forum for national members;
- increasing the IUSS support for meetings in all countries.

The IUSS operates through the collaboration among its members, both individual and Full members, who contribute voluntarily with a strong commitment. We do not have support from powerful and wealthy economic institutions, significant governmental bodies, or large corporations. Instead, we rely entirely on our in-kind work, and within the IUSS, individuals are recognized solely for their contributions and scientific merit. The IUSS operates collaboratively as teams of colleagues who make decisions collectively and leverage each member's skills and capabilities. We all enthusiastically dedicate our valuable time to the IUSS, not only for the prestigious reputation of being part of the world's largest community of soil scientists, but also because of our passion to contribute to the well-being of humanity by promoting the importance of soil, one of the most vital and precious resources of the planet.

This year in 2024, we will celebrate our Centennial. Among the activities planned to commemorate our first 100 years of history, this book, documenting the Genealogy of the National Soil Science Societies, holds a special significance. It serves as both a tribute and a reminder of all those colleagues who have been and continue to be part of the chain that has supported the life of Soil Sciences in every country for so many years.

As President of the IUSS, I would like to express our deep gratitude, both on behalf of the IUSS and personally, to Prof. Dr. Rainer Horn, Prof. Dr. Winfried Blum and Prof. Dr. Laura Berta Reyes Sanchez, who initiated and edited this book, as well as to all the authors who provided information about their national societies.

For all of us, this book unquestionably represents a milestone in the history of the IUSS, instilling confidence in a lasting and prosperous future for the IUSS and its members.

Ad Maiora!
Edoardo A.C. Costantini
“PRESIDENT OF THE IUSS”

The Dokuchaev (Russian) Soil Science Society 1888



V.V. Dokuchaev
Soil Science Institute

The Society of Soil Scientists in Russia has a glorious long history dating back to the 19th century, when in 1888 Vasilii Dokuchaev founded the Soil Commission at the Free Economic Society of Russia in St. Petersburg. Free Economic Society for the Encouragement of Agriculture and Husbandry was the first non-governmental society in Russia established in 1765. Soil Commission was the first official scientific and public community of specialists in the field of Soil Science.

In 1912, Soil Commission transformed into the so-called "Dokuchaev Soil Committee", which was endowed with legal and financial rights. The Chair of the Committee was an outstanding scientist and administrator Konstantin Glinka. Under this name, the Society existed until 1918, when Dokuchaev Soil Committee was institutionalized and transformed into Soil Division of Commission for the Study of the Natural Productive Forces of the Country, which was a research body rather than a scientific society. In 1922, Arseniy Yarilov organized a new community named Bureau of Authorized Soil Scientists. After the creation of the International Association of Soil Scientists (IASS) in Rome in 1924, it was renamed to the Soviet Section of the IASS. The President of the Soviet Section was Professor Konstantin Glinka followed by Konstantin Gedroitz.

In 1938, the Soviet Section of the IASS became subordinate to the USSR Academy of Sciences and transformed into the All-Union Society of Soil Scientists. In 1946, the attempt to establish the UN Society of Soil Science failed due to the beginning of the Cold War, and the Soil Science community was rather unsettled both in USSR and in the entire world. Only in 1956 Soviet soil scientists returned to participate in the World Congress in Paris, and the first national congress took place in Moscow in 1958. The All-Union Society of Soil Scientists was headed by such prominent scientists as Leonid Prasolov, Ivan Tyurin, Innokentiy Gerasimov, Viktor Kovda, and Gleb Dobrovolskiy.

With the collapse of the Soviet Union in 1991, the post-Soviet countries established their national Soil Science societies. The first Constituent Congress of the Russian Society of Soil Scientists was held in Moscow in June 1992. Academician Gleb Dobrovolskiy was reelected as President of the Russian (Dokuchaev's since 1996) Soil Science Society and led it until 2004, followed by Sergey Shoba.

The Dokuchaev Society of Soil Science (DSSS) and its predecessors took an active

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part in the activities of the International Union of Soil Sciences (IUSS). Two International Congresses, the 2nd in 1930 and the Xth Congress in 1974, were successfully held in the USSR. Famous Russian and Soviet scientists were Presidents of the International Society of Soil Scientists in different years: Konstantin Glinka (1927), Konstantin Gedroits (1928-1930), Viktor Kovda (1968-1974). Ten soil scientists from the USSR and Russia have been elected as Honorary members of the ISSS/IUSS. Professor Victor Targulian became the first recipient of the Dokuchaev award in 2006 for his theoretical works in pedology.

In 2022 DSSS suspended its membership in the IUSS because of the Russian/Ukraine crisis. The latter resulted in impossibilities to pay membership fee and obstacles for Russian citizens to travel and participate in the IUSS events.

Members of the Executive Committee and time period:

Currently we have 77 Members of the Central Committee of the Dokuchaev Soil Science Society, and all of them were elected virtually for life-long periods. I never heard that any of the members has been excluded from the Committee.

Outstanding activities of members, awards for excellency, etc:

Ten soil scientists from the USSR and Russia have been elected as Honorary members of the ISSS/IUSS. Professor Victor Targulian became the first recipient of the Dokuchaev IUSS award in 2006 for his theoretical works in pedology.

In the Soviet Union, the Academy of Sciences awarded the Dokuchaev Golden Medal to outstanding scientists. The recipients of the medal were:

- 1947 Leonid Prasolov
- 1948 Serghey Zakharov
- 1949 Nikolay Dimo
- 1950 Vladimir Sukachev
- 1957 Aleksey Rode
- 1960 Ivan Tyurin
- 1963 Innokentiy Gerasimov
- 1966 Viktor Kovda
- 1969 Nikodim Kachinskiy
- 1972 Elena Ivanova
- 1975 Nikolay Rozov
- 1978 Serghey Zonn
- 1980 Nikolay Orlovskiy

1983 Roman Kovalev

1986 Gleb Dobrovolskiy

1989 Maria Glazovskaya

In the Russian Federation, the Dokuchaev Golden Medal was awarded to:

1992 Boris Rozanov

1996 Istwan Sabo

2000 Ilya Sokolov

2005 Feliks Zaydelman

2011 Viktor Targulian

2016 Roman Desyatkin

2021 Valeriy Kiryushin

In 2013, academician Gleb Dobrovolskiy was awarded posthumously Lomonosov Golden Medal, the highest award of the Russian Academy of Sciences.

The German Soil Science Society (DBG) 1926



The German Soil Science Society (Deutsche Bodenkundliche Gesellschaft - DBG) was founded on the 24th of February 1926 in Berlin as a section of the International Soil Science Society (ISSS). In the 1930s, our national society already had nearly 200 members, about half of them were also members of the ISSS. Even in the early days, soil scientists from Germany were involved in international cooperation in the still young but rapidly developing field of Soil Science. This applies in particular to Emil Ramann (1851-1926) and Friedrich W. Schucht (1878-1941), who together with David J. Hissink (1874-1956) from the Netherlands tirelessly worked to make the foundation of the ISSS happen.

Despite the political turmoil and substantial economic difficulties (e.g., the hyperinflation in 1923) at that time – in the aftermath of World War I, a surprisingly large delegation from Germany was able to come to Rome in May 1924 to attend the 4th International Conference of Pedology, where the founding of the ISSS took place (Figure 1).



Figure 1 – Three photographs from the 4th International Soil Conference, Rome, May 1924 (Lettering in German). Left: Dr. Lipman (New Brunswick, NJ, USA) – Prof. Stoklasa (Prague), Murgoci (Bucharest) with top hat (Zylinder) Ramann (Munich), = Monsieur ??? . Middle: Prof. Dr. E. Ramann – tired during walking tour through town. Prof. Vesterberg (Stockholm), ... Right: Russel, UK (?), Krauss (Munich) – Ramann and Murgoci.

Emil Ramann (Figure 2), Professor of Soil Science and Agricultural Chemistry at the Ludwig-Maximilian University Munich since 1900 and simultaneously section leader of the Bavarian Forest Research Institute, can undoubtedly be regarded as a precursor and leading pathfinder for the ISSS. Due to his excellent reputation, he maintained a leading role on the international stage even after the painful interruption by World War I. The conferences in Prague (1921) and Rome (1924) named him as their honorary president. He was also one of seven to receive the first ISSS Honorary Memberships in Rome. Ramann had already played an important role at the 1st International Conference on Agrogeology in Budapest in 1909: during the excursion at the famous profile at Hübösvölgy he ‘lectured’ on his concept of ‘Brown forest soil’ formation.



Figure 2 – Since 2010 the German Soil Science Society (DBG) awards the Emil Ramann Medal for outstanding research achievements.

This prototype of the ‘Ramann Braunerde’ with its underlying process of ‘Verbraunung’ (brunification) became an integral part of the literature. Emil Ramann also had been the first to receive a chair in the new discipline ‘Bodenkunde’ (Soil Science) in 1895 at the then Royal Prussian Academy of Forestry at Eberswalde. From that time onwards, notably with his pioneering textbooks which were widely used internationally, he helped to establish soil science as an independent discipline focusing on soils as four-dimensional natural bodies.

Friedrich W. Schucht (1878-1941, Figure 3), Professor of Geology, Mineralogy and Soil Science at the then Agricultural University at Berlin, served as President of the ISSS between 1935 and 1941. He was the main initiator of the foundation of DBG in 1926 and also became its first President. Already before World War I, he had fostered international cooperation by editing the ‘International Reports on Pedology’ which appeared until 1924, even during the time of World War I. Thereafter, until his sudden death in 1941, Schucht was in charge of the ‘Proceedings of the International Society of Soil Science’, the central organ of the ISSS which appeared together with ‘Soil Research’ as its supplement in the three publication languages English, French and German. In August 1937, the Executive Committee of ISSS under Schucht’s leadership met for the preparation of the 4th ISSS Congress to be held in Heidelberg. There

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were already extensively developed plans for an extended excursion on the different soil landscapes of Germany. However, World War II shattered all efforts! Such an excursion was finally realized in 1971 in connection with a joint DBG/ISSS conference headed by Ernst Schlichting in Stuttgart-Hohenheim.

Hermann Stremme (1879-1961, Figure 3) was a pioneer of soil cartography. During the period 1914 - 1945, he was Chair of Geology and Mineralogy at the Technical University of Danzig (today Gdańsk/Poland). As long-term President of ISSS Commission V, he coordinated the first soil maps of Europe (1927 1:10,000,000, 1937 1:2,500,000) for which the first international soil systematics had been developed.



Figure 3 – Professors H. Stremme and F. Schucht in the mid-1930s.

During the 1920/30s, also **Gustav A. Krauss** (1888-1968, Figure 1) significantly contributed to ISSS activities. As assistant to E. Ramann, he attended the conferences in Prague and Rome where he introduced his innovative work on particle-size analysis. His “Mechanische Bodenanalyse” combined sieving and sedimentation. Krauss proposed for each particle-size class equal logarithmic coefficients [Intern. Mittlg. 1923, vol. 3-4, pp. 152-53], a principle that is still applied today in Europe. In 1926, Krauss received the Chair of Soil Science and Forest Sites at the then Saxon Forestry Academy (TH Dresden) at Tharandt. In 1935, he went back to Munich to take Ramann’s former chair. Krauss headed the ISSS Sub-commission “Forest soils” and in 1928 he was one of the first to highlight the morphological differences between soils affected

by stagnant water (today Pseudogley) and groundwater as well as their inherent ecological-silvicultural implications.

Another key person was **Eilhard A. Mitscherlich** (1874-1956, Figure 4). Between 1906 and 1941, he was Professor of Agronomy and Soil Science at the University of Königsberg in Eastern Prussia, today Kaliningrad/Russia. From 1926 onwards, he headed Commission IV (Soil Fertility and Plant Nutrition) and organized meetings in Düsseldorf (1926), Copenhagen (1933), Königsberg (1929 and 1936), Stockholm (1939) and, on occasion, ISSS congresses. In 1935, he became an honorary member of ISSS. Already in 1909, Mitscherlich had described his findings on increasing yields in mathematical formula ('Effect law of growth factors'). In his experimental work, he developed and improved numerous instrumental designs, i.e., the 'Mitscherlich container' to investigate nutrient absorption by plants, an approach that researchers throughout the world still use today.

The National Socialist takeover in 1933 also affected the DBG and its relationship to ISSS. From 1935 onwards, the Society's structure diverged from that of ISSS. Top priority was given to applied research in order to increase Germany's agricultural productivity and to ensure food self-sufficiency. In the course of the 'alignment' (Gleichschaltung) policies of the Nazi regime, the 'leader' (Führer) principle was also imposed on scientific societies.



Figure 4 – Meeting of ISSS Commission IV (Soil Fertility and Plant Nutrition) from 15 to 20 July 1929 in Königsberg i. Pr. First row: Prof. E.A. Mitscherlich (5th from left, organizer); Prof. Lipman (7th from left, New Brunswick, NK, USA); Prof. Margarete von Wrangell (1st from left, since 1923 Chair of Plant Nutrition at the Agricultural University of Stuttgart-Hohenheim; she was the first woman who was conferred full professorship in Germany).

Unfortunately, also in our discipline, many followed the disastrous ideology of the totalitarian regime – voluntarily or involuntarily. This dark chapter of our history was not only characterized by gradual loss of academic freedom, but also by personal suffering and even political persecution and contempt for humanity. Finally, the self-destructive hubris unleashed World War II with its terrible consequences that were previously unimaginable.

Therefore, relations between soil scientists from Germany and many other countries cooled in the first post-war years. After the collapse of the Nazi regime, the DBG was dissolved like other scientific associations in Germany. The **refounding** of our Society took place on 7th of December 1949 in Wiesbaden (American occupation zone, West Germany) with only 31 members. Colleagues living in the eastern Soviet occupation zone were not allowed to travel, but eventually could also become members of the DBG. The first post-war international soil congress in 1950 in Amsterdam (with the reconstruction of the ISSS) took place without official participants from Germany. In Amsterdam, however, the decision was taken that delegates from Germany should be invited to further events and as well be admitted as members of the reorganized society.

Thankfully, soon the international isolation of the German soil science community was overcome – supported to a considerable extent by the foreign ‘**Corresponding Members**’ of DBG, i.e. G. Barbier (France), M. Gračanin (Yugoslavia), O. Tamm (Sweden), R. Tavernier (Belgium), and G. Torstensson (Sweden). Later P. Duchaufour (France), A. van Baren (The Netherlands), L. Wiklander (Sweden), R. Dudal (Belgium, FAO), D. Yaalon (Israel), and others became facilitators and friends. A special role in this context was played by Henk de Bakker (Wageningen, The Netherlands), who quite early after the war started a cooperation with E. Mückenhausen in Bonn. Not least for his achievements in fostering international collaboration, the DBG awarded H. de Bakker with its Honorary Membership in 2009. Another symbol of international understanding and reconciliation after World War II was the close contact with Dan H. Yaalon (Jerusalem), who became a Corresponding Member in 1977. Also, German was reintroduced as an official ISSS conference language already in 1954. The World Soil Congresses of 1956 in Paris and 1960 in Madison/USA were attended by numerous delegates from Germany.

A great highlight in our history was the successful organization of the **13th World Soil Congress 1986 in Hamburg** with a wide-ranging program of excursions. At that time, Karl Heinrich Hartge (1926-2009, Figure 5) served as President of the ISSS. Prior to that there had been several well-attended commission meetings in Hamburg (1958), Braunschweig-Völkenrode (1966) and Stuttgart-Hohenheim (1971). In 2013, Germany hosted the First Divisional I Conference ‘Soils in Space and Time’ at Ulm/Donau.

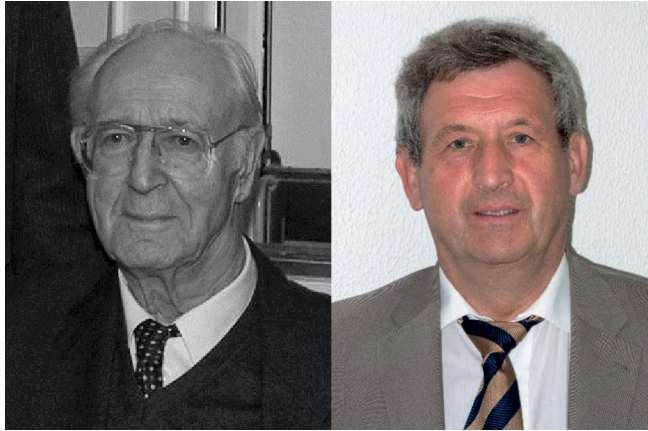


Figure 5 – Professor Karl Heinrich Hartge (Leibniz University Hannover), on the left, was President of the ISSS (1982-1986) and organizer of the 13th World Soil Congress 1986 in Hamburg. Professor Rainer Horn (Christian-Albrechts University Kiel), on the right, served as IUSS President during the period 2015-2016.

The harsh travel and emigration restrictions of the German Democratic Republic (GDR) – the Berlin wall was built in the summer of 1961 – marked not only a difficult time of separation with West Germany, but also isolation from scientists of the western hemisphere. Until the end of the 1950s, there had been conferences and excursions with participation of scientists from both the eastern and western part of Germany. A good example was the DBG conference in 1959 in Berlin with events taking place in Dahlem (West) and Mitte (East) and with numerous international participants, e.g. from East European countries (Figure 6).



Figure 6 – Excursion during the DBG conference in 1959 in Berlin with international participants (from left to right: B.W. Avery (Great Britain), N. Cernescu (Romania), W. Kubišna (Hamburg), M. Gračanin (Yugoslavia), S. Musierovicz (Poland), V. Kovda (Soviet Union), V.V. Tyulin (Soviet Union), F. Scheffer (DBG President, Göttingen)).

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An independent Soil Science Society (BG) existed in the GDR from 1967 to 1990. The founding of BG on the 21st of December 1967 was prescribed by the state. However, despite these circumstances, for its members the BG became a functioning scientific community under the given political realities. It is irony of history that the DBG membership of the GDR colleagues was not terminated but put in a state of ‘dormancy’. Despite severe travel restrictions and shortage of foreign currency, a minimum of contacts and communication could be maintained. Following the self-dissolution of BG after Germany’s reunification in 1990, numerous former members reactivated their DBG memberships. The specific knowledge and experiences of colleagues from the former GDR, in particular their contacts to soil scientists in the states of the former Eastern Bloc, were highly valuable and enhanced the establishment of good relationship and fruitful collaboration with our eastern neighbors, e.g., the Czech Republic and Poland with J. Němeček, Prague (1928-2018) and A. Kowalkowski, Kielce (1924-2020) being awarded Corresponding Members in 1991.

Today, the DBG and its members have manifold and close connections with people and institutions interested in Soil Science all over the world. This is reflected in the activities of members as heads of IUSS divisions, commissions and working groups including quite recently the long-term dedicated work of P. Schad on the further development of the World Reference Base for Soil Resources (WRB). From 2015 to 2016, Rainer Horn (Figure 5) served as IUSS President. Furthermore, it should be mentioned that Winfried Blum (Vienna), who has been a DBG member since 1965, was the long-term Secretary General of ISSS and, from 1998 onwards, of IUSS. Since 1950, several DBG members became ISSS/IUSS Honorary Members: W. Kubierna (Hamburg) 1968, F. Scheffer (Göttingen) 1974, W. Flaig (Braunschweig-Völkenrode) 1982, E. Mückenhausen (Bonn) 1982, P. Schachtschabel (Hannover) 1990, K.H. Hartge (Hannover) 1998, W.E.H. Blum (Vienna) 2004, K. Stahr (Stuttgart-Hohenheim) 2016, M.H. Gerzabek (Vienna) 2016, and R. Horn (Kiel) 2020.

The DBG, together with the German Society of Plant Nutrition (DGP), publishes the **Journal of Plant Nutrition and Soil Science (JPNSS)** as its traditional member journal. Founded in 1922, JPNSS is one of the – if not the oldest – journals still publishing in this field worldwide. Throughout all those years, there has been a continuous and successful partnership with the ‘Verlag Chemie–VCH’, founded in 1921, and today based in Weinheim, Germany. Since 1996, VCH is part of John Wiley & Sons (Hoboken, New Jersey, USA), which has built up a whole new world of modern technical and distributional facilities for JPNSS. The journal remains one of the few journals to retain the status of a ‘Cooperating Journal of the International Union of Soil Sciences (IUSS)’.

The DBG currently has about 2,200 members, a significant proportion of whom are younger than 30 years. About 10% of our members work and live outside of Germany. DBG is subdivided into 8 commissions with several working groups. Traditionally, DBG also has a large contingent of members from the neighboring German-speaking

countries Austria and Switzerland (Figure 7). Most of them are simultaneously members in their own national societies.



Figure 7 – Following the ISSS Congress in Hamburg in August 1985 the Austrian Society of Soil Science (ÖBG) and Swiss Society of Soil Science (BGS-SSP) organized a joint excursion ‘Through the Alps from Switzerland to Austria’. The memorable event was highlighted by Karl H. Hartge, then President both of ISSS and DBG, as an excellent example of the cooperation between the three societies. The two organizers Peter Lüscher (Birmensdorf, Switzerland) and Othmar Nestroy (Vienna/Graz, Austria) are also long-standing and deserving DBG members (Photo: P. Lüscher).

A crucial forum of exchange are the biannual conferences hosted by various universities, including some in Austria and Switzerland in cooperation with their respective national societies. An integral component of these conferences are the excursions. Between the biannual conferences, each of the commissions arrange workshops (e.g. on methodological aspects) and excursions.

Since 2005, DBG has co-organized the ‘Soil of the Year’ (*Boden des Jahres*) campaign under the joint umbrella of several (non-)governmental institutions. Under the annually changing patronage of national and federal state ministries the action has gained great visibility. Activities are intended to raise public awareness of soils and their functions and ecosystem services. The overall aim is to capture the interest of as many people as possible in order to foster the responsible use, and thereby the protection, of this vital resource.



Figure 8 – Posters designed for the ‘Soils of the Year’ campaigns 2020 until 2024.

The German Soil Science Society congratulates the IUSS to its 100th anniversary. We are looking forward to continuous active involvement of our society and members in the IUSS in the future!

Karl-Heinz Feger
President

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The IUSS subcommittee in the Science Council of Japan 1927



Year of foundation, development of membership until today

After the change of the IUSS structure in 2002 from individual to national participation, the IUSS subcommittee has been established in the Science Council of Japan to play a role as the Japanese representative. The IUSS subcommittee consisting of 18 Japanese academic societies has started in 2004 under their mutual agreement. Table 1 indicates the information of the eighteen societies. Substantial contributions of Japanese members to IUSS (former ISSS) can be recognized along with the history of the Japanese Society of Soil Science and Plant Nutrition (JSSSPN). The following items are described from the historical record of JSSPSN.

Table 1 – Member societies participating to the IUSS subcommittee, year of the society foundation, and number of members in the society.

No.	Name of the scientific society	Year of foundation	Number of members*
1	Japanese Society of Soil Science and Plant Nutrition	1927	2468
2	Japanese Society of Soil Microbiology	1998	352
3	Japanese Society of Pedology	1957	296
4	The Japanese Society of Soil Zoology	1978	220
5	The Japanese Society of Irrigation, Drainage and Rural Engineering	1929	10622
6	Japan Association for Quaternary Research	1956	908
7	Association of Japanese Geographers	1925	3000
8	The Japanese Forest Society	1914	2354
9	Japanese Society of Soil Physics	1955	267
10	Japanese Society of Farm Work Research	1986	354
11	Society of Environmental Science, Japan	1987	731
12	Crop Science Society of Japan	1927	1117
13	Japanese Society for Root Research	2013	285
14	The Japanese Society of Forest Environment	1959	368
15	The Japanese Association for Arid Land Studies	1990	229
16	Japanese Humic Substances Society	2002	199
17	The Japan Society of Tropical Ecology	1990	400
18	Japanese Society for Tropical Agriculture	1957	364

The total number of IUSS members is 800. The total number in each society includes people who carry out research in other scientific fields. There are many members who join several different societies.

History and Activities of the Japanese Society of Soil Science and Plant Nutrition [1927-1940 (Number of regular members 1441-2378)]

The foundation of Agricultural Sciences (established in 1887) was the main organization of agricultural study in Japan at the beginning. In 1912, the Scientific Forum on Fertilizer was established, followed by the establishment of the Society of Soil Science and Plant Nutrition (former organization of the Japanese Society of Soil Science and Plant Nutrition, JSSSPN) in 1927, after establishing the constitution with journal publications (1441 regular members). When the International Society of Soil Science (ISSS) was established in 1924, Dr. Keijiro Aso (Professor at The University of Tokyo), Dr. Koji Miyake (Professor at Hokkaido University), Dr. Arao Itano (Professor at Okayama University), and Dr. Yoshisaburo Kida (Professor at the Miyazaki College of Agriculture and Forestry) joined ISSS as members. Members of JSSSPN participated in the 1st International Congress of Soil Science (ICSS) in 1927 (Washington, USA), in the 2nd ICSS in 1930 (Moscow-Leningrad, USSR), and in the 3rd ICSS in 1935 (Oxford, UK). In this period, studies on Soil Science and plant nutrition revealed the differences in characteristics between rice paddy soils and upland fields, as well as the difference in responses to fertilization between rice and other upland crops. It was found that the natural source of nitrogen was lowest in the rice paddy field, leading to the research on rational fertilization techniques for nitrogen. Due to detailed investigation on nitrogen dynamics, the oxidation of applied ammonium-nitrogen to nitrate-nitrogen in the surface oxidation layer and the reduction of nitrate to nitrogen gas (denitrification) in the deeper reduction layer were proved in 1942, which enabled the establishment of the rational fertilization method (fertilizer incorporation to plow layer). In addition, based on the understanding of soil horizon differentiation, phosphate activation, and morphological changes in iron, manganese, sulfur, and other elements were elucidated together. Thus, Japanese scientists contributed greatly to the establishment of the basis of paddy Soil Science. Furthermore, plant nutrition science was established as a major scientific area of Soil Science as well as plant nutrition through comparative study on the nutritional and physiological characteristics of rice and barley, study on the timing of various nutrient requirements in rice and wheat, establishment of a hydroponic culture technique for rice study, and study on the production efficiency of nitrogen for rice.

[1941-1960 (Number of regular members 573-1500)]

Around the end of World War II, studies on Soil Science and plant nutrition temporarily suspended, and the membership significantly declined. Thereafter, the study on Soil Science and plant nutrition was rebuilt, and various research organizations such as the Scientific Forum on Pedology in 1958 (current Japanese Society of Pedology), the Clay Research Society in 1958 (current Clay Science Society of Japan), the Scientific Forum on Soil Microbiology in 1954 (current Japanese Society of Soil Microbiology), the Research Society of Soil Physics in 1958 (current Japanese Society of Soil Physics), the Japanese Society of Plant Physiologists in 1959, and the Scientific Forum on

Forest Environment in 1959 (current Japanese Society of Forest Environment) were established to expand and strengthen the base of soil, fertilizer and plant nutrition science. In 1955, the publication of an international journal “Soil and Plant Food” started. The participation of society members restarted at the 5th ICSS (Leopoldville, Belgian-Congo) in 1954, and at the time of the 7th ICSS (Madison, USA) in 1960, the number of Japanese members of ISSS was 52.

During World War II, the study on the efficient application of fertilizers progressed, because of serious fertilizer shortage. Air-drying effects and soil temperature growth were studied to increase nitrogen availability, and the mechanism of soil heating effects was also studied in upland soil. In addition, the cause of lower grain yield in rice paddy field due to the autumn-decline was elucidated as over-reduction due to degradation of the paddy field, and its countermeasures were promptly established. These studies provided the impetus for research development on nutrient absorption mechanisms and root physiology after the war. In the postwar period, analysis of soil organic matter and humus-clay complexes progressed, and studies on humic acid classification, soil maturation process of upland field, and the relationship between soil type and humus morphology were advanced. Clay minerals were also studied in terms of ammonia fixation and phosphate dynamics, and allophane in volcanic ash soils received much attention.

[1961-1990 (Number of regular members 1524-2254)]

In 1961, the international journal “Soil and Plant Food” was renamed “Soil Science and Plant Nutrition”. The Society of Soil Science and Plant Nutrition celebrated its 50th anniversary in 1977, and it became the JSSSPN in 1978. During this period, the international activities of the society members were well recognized by the ISSS, and the “International Seminar on Soil Environment and Fertility Management in Intensive Agriculture (SEFMIA)” was held in October 1977 in Japan as a seminar of Division 4 of the ISSS. Furthermore, Dr. Yoshiaki Ishizuka (Professor Emeritus, Hokkaido University) was elected as the first Japanese honorary member of ISSS at the 11th ISCC (Edmonton, Canada) in 1978. The 14th ICSS, held in Kyoto, Japan, August 12-17, 1990, was the first in East Asia, with a total of 1,621 participants from 75 countries. In addition, the East and Southeast Asia Federation of Soil Science Societies (ESAFS) was established in 1990 as the federation of Soil Science societies in the Asian region where rice is the main agricultural product, following the first symposium of the Working Group: Paddy Soil Fertility held in Chiang Mai, Thailand, in 1988. After 1982, a subcommittee on soil education was established to promote understanding of soil and to disseminate and raise awareness of Soil Science, leading to the establishment of the soil education committee in JSSSPN in 1992.

During the period of Japan’s high economic growth, high-yield cultivation techniques were developed for regulating rice growth, mainly based on supplemental fertilization technique, and the use of nitrogen fertilizer application reached approximately four

times of the amount before World War II. On the other hand, adverse effects such as soil acidification and deficiencies of manganese and other micronutrients that occurred as a result of the inadequate use of chemical fertilizers became apparent, and started the reevaluation of organic fertilizer, movement of soil management, and discussions on soil fertility. In addition, countermeasures against air, soil, and water pollution and the manifestation of the adverse effects of fertilizers, pesticides, heavy metals, and other chemicals on ecosystems, including agricultural ecosystems, became a priority issue in the area of Soil Science and plant nutrition from 1970s to 1980s.

Since the 1970s, the widespread use of analyzers such as a mass spectrometer for ^{15}N tracer method greatly developed plant physiology and comparative plant nutrition. During this period, mugineic acid, an iron-soluble substance, was discovered, and research on furthermore, many studies were conducted on the development, characteristics, and classification of Kuroboku soils derived from volcanic ash deposition, which greatly contributed to the establishment of Andisols as the 11th soil order in Soil Taxonomy.

[1991 – present (Number of regular members 1617-2468)]

Since 1990, various changes had been made in order to enhance the activities of JSSSPN. In 1994, the JSSSPN was reorganized and consolidated into eight divisions: Soil Physics, Soil Chemistry and Mineralogy, Soil Biology, Plant Nutrition, Soil Genesis, Classification and Survey, Soil Fertility, Fertilizer and Soil Amendment, and Environment. In 2005, the subcommittee of Soil Education was established in the division of Soil Genesis, Classification and Survey, and in 2006, the Social and Cultural Soil Science was established. Since 1990, international symposiums and workshops have been actively organized and co-organized. The JSSSPN organized the 1st workshop of the ESAFS in 1991. Dr. Koji Wada (Professor Emeritus, Kyusyu University) and Dr. Akira Tanaka (Professor Emeritus, Hokkaido University) were elected as ISSS Honorary Members at the 16th World Congress of Soil Science (WCSS) (Montpellier, France) in 1998 and the 17th WCSS (Bangkok, Thailand) in 2002, respectively. In addition, Dr. Kikuo Kumazawa (Professor Emeritus, University of Tokyo) and Dr. Kazutake Kyuma (Professor Emeritus, Kyoto University) in 2008 and Dr. Kazuyuki Inubushi (Professor Emeritus, Chiba University) in 2020 were elected as IUSS Honorary Members. In 2016, Dr. Takashi Kosaki (Professor at Aichi University and Professor Emeritus at Kyoto University) was elected President Elect of IUSS and served as IUSS President for two years from 2018 to 2020. He was awarded the International Soil Science Award in 2020 by the Soil Science Society of America (SSSA). The JSSSPN will celebrate its centennial anniversary in 2027, and preparations are currently underway to hold a commemorative event.

Since 1990, global environmental issues, especially global warming, have become increasingly serious. In Japan, food self-sufficiency has decreased to less than 40%, and the deterioration of agricultural land and soil resources due to depopulation in rural

areas have become a social problem.

Research trends include an emphasis on the quality of products in response to the social growing concern for food safety and environment, cultivation methods that reduce risk, and the effective utilization of fertilizer including controlled-release fertilizer and biological waste. These include carbon sequestration in agricultural soil as one of the solutions for mitigating global warming, control of methane and nitrous oxide emission from soil and paddy field, research on soil microorganisms using molecular biological techniques, and the establishment of a unified classification system for soils in Japan. In the area of plant nutrition, studies were greatly expanded to the DNA scale with a view to whole organisms, the discovery of various transporters and the development of recombinant crops with various stress tolerance genes.

Members of the Executive Committee and time period

IUSS Presidents and Executive Committees

Period	Position in Executive Committee	Name	Affiliation
2014-2018	Division 2 chair	Kazuyuki Inubushi	Professor, Chiba University, Japan
2014-2017	Division 3, chair	Takashi Kosaki	Professor, Aichi University, Japan
2017-2018	President Elect	Takashi Kosaki	Professor, Aichi University, Japan
2019-2020	President	Takashi Kosaki	Professor, Aichi University, Japan
2018-2022	Division 2, chair	Ryusuke Hatano	Professor, Hokkaido University, Japan
2021-2022	Past President	Takashi Kosaki	Professor, Aichi University, Japan

Outstanding activities of your members

Awards, Prizes, and Honorary member

Year	Award, Prizes, and Honorary member	Name	Affiliation
1978	Honorary member	Yoshiaki Ishizuka	Professor Emeritus, Hokkaido University
1998	Honorary member	Koji Wada	Professor Emeritus, Kyusyu University
2002	Honorary member	Akira Tanaka	Professor Emeritus, Hokkaido University
2008	Honorary member	Kikuo Kumazawa	Professor Emeritus, The University of Tokyo
2008	Honorary member	Kazutake Kyuma	Professor Emeritus, Kyoto University
2019	Pan Ming Huang Prize	Rota Wagai	Dr., National Agriculture & Food Research Organization, Japan
2020	Honorary member	Kazuyuki Inubushi	Professor, Chiba University

Short interview

We are currently facing a critical situation “close to the critical point of global warming and global environmental change” never experienced before. To solve this serious issue, which could disturb the foundation of “sustainable food production and environmental conservation” we have developed so far, we have to make the best use of all the knowledge of Soil Science and plant nutrition and make further progress

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to mitigate global warming, minimize environmental changes, and strongly promote food production adapted to them. We are at the stage where humanity is striving for survival.

Moreover, it must be a healthy and happy human life supported by safe, good quality, and enough food. We strongly feel that it is the mission of IUSS to realize this. (Keishi Senoo, President of JSSSPN)

Further topic

The Japanese Society of Soil Science and Plant Nutrition will celebrate its centennial anniversary in 2027. Based on the assets of the past 100 years, it is necessary for the society to lead the next 100 years as a society that can create new academic knowledge and technologies while responding to the demands of our time and society.

Keishi Senoo
PRESIDENT OF JSSSPN

The Danish Soil Science Society (DSSS) 1928

The Danish Soil Science Society was founded on 7th December 1928. The Danish name: "Dansk Forening for Jordbundsvidenskab". The strong connection to the foundation of the ISSS is very clear, as the first name was the Danish Section of the International Soil Science Society. Members were individual soil scientists or organisations doing research in soil science represented by a named person. The bylaws of the Danish Soil Science Society (DSSS) states the election of an executive committee of three persons at the annual general assembly. The election is for a three-year period. The executive committee constitutes itself with a president and treasurer. The first executive committee elected in 1928 was composed by Karsten Iversen, head of Askov Experimental Station for Agriculture research, Sigurd Tovborg Jensen, head of section of the national plant pathology laboratory in Lyngby, and Frederik A. Weis, professor at The Royal Veterinary and Agricultural University in Copenhagen. Professor Frederik A. Weis became the first president of Danish Soil Science Society in 1928, and S. Tovborg Jensen became the first treasurer.

In 1928, seventeen members founded the DSSS, with eleven institutions represented by the head of the institute, and six personal members. The institutes encounter the Royal Veterinary and Agricultural University, Danish Geological Survey, National Experimental Station for Agriculture research, National forest research institute, Carlsberg Laboratory, National Experimental Station for Horticulture research, the company Hedeselskabet, and covering a wide range of disciplines related to Soil Science.

From 1934 to 1936, sixteen members, with eleven institutions represented by the head of the institute, and five personal members.

The ISSS publication of the Soil Map of Europe 1:10,000,000 in 1927 had contribution for Danish soils by C.H. Bornebusch. The next ISSS soil map of Europe 1:2,500,000 had contribution for Danish soils in 1929. In parallel, several members of the Danish Soil Science Society worked on The Soil of Denmark 1:500,000, which C.H. Bornebusch and Keld Milthers published in 1935.

Topics of the time of foundation in soil science research include among many: soil bacteriology and turnover capacity of organic matter in Danish soil types; turnover of lime and the effect of liming of agricultural soils, and drainage of lowland soil and the large raise bogs; effects of shelterbelt to reduce wind erosion in cultivated course sandy soils formerly heathland; tree species connection to soil types in forest with many tree species brought to Denmark to develop the forestry; forest soil profile development and mutual impact between soil and tree species, e.g. acidification by conifers was a main focus.

The executive committee of the Danish Soil Science Society

1928: Professor Frederik A. Weis, president; head of section Sigurd Tovborg Jensen, treasurer; head of Institute Karsten Iversen; 17 members.

1960: Professor H.C. Aslyng, president; Head of Institute H.L. Jensen, treasurer; professor Sigurd Tovborg Jensen; 62 members.

1964-66: Professor H.C. Aslyng, president; Head of Institute H.L. Jensen, treasurer; Arna Andersen; 66 members.

1967-1971: Professor H.C. Aslyng, president; Head of Section Jens Jensen, treasurer; Arna Andersen; 67 members.

1972: Professor H.C. Aslyng, president; Head of Section Jens Jensen, treasurer; Associate professor Henning Sørensen; 73 members.

1973-1974: Professor H.C. Aslyng, president; Head of Institute Aage Henriksen, treasurer; Associate professor Henning Sørensen; 73 members.

1975: Associate professor Søren Storgaard Jørgensen, president; Head of Institute Aage Henriksen, treasurer; Associate professor Henning Sørensen; 73 members.

1976-1986: Professor Kjeld Rasmussen, president; Head of Institute Aage Henriksen, treasurer; Associate professor Henning Sørensen; 62 members.

1987: Professor Kjeld Rasmussen, president; Head of Institute Aage Henriksen, treasurer; Associate professor Henrik Breuning-Madsen; 62 members.

1988-1991: Professor Ole K. Borggaard, president; Head of Institute Gunner Gissel Nielsen, treasurer; Associate professor Henrik Breuning-Madsen; 52 members.

1992-2003: Professor Ole K. Borggaard, president; Professor Bent Tolstrup Christensen, treasurer; Professor Henrik Breuning-Madsen; 55 members.

2004-2010: Professor Ole K. Borggaard, president; Associate professor Lars Vesterdal, treasurer; Professor Henrik Breuning-Madsen; 52 members.

2011-2017: Professor Ole K. Borggaard, president; Associate professor Ingeborg Callesen, treasurer; Professor Henrik Breuning-Madsen; 47 members.

2018-2022: Head of section Bjarne W. Strobel, president; Associate professor Ingeborg Callesen, treasurer; Associate professor Gry Lyngsie; 32 members.

2023-2025: Head of section Bjarne W. Strobel, president; Associate professor Gry Lyngsie, treasurer; Assistant professor Nelly Raymond; 19 members.

The Austrian Soil Science Society (ÖBG) 1930



Already before 1930, an Austrian Section existed within the International Soil Science Society, to which among others W. Kubiena and W. Leiningen-Westerburg belonged.

In 1951, this Section had 29 members. In 1953 it was decided to transform it into a national society.

On 29th January 1954, the constituent meeting took place, on 25th March 1954 the foundation of the Austrian Soil Science Society (ÖBG) was reported to the International Soil Science Society. The seat of the society is still in Vienna.

According to the statutes, the purpose and aim of the ÖBG is: “[the] cultivation of Soil Science in all its theoretical and practical branches.” The ÖBG sees itself as a discussion and exchange platform for science and practice and with all related disciplines. An essential task is to provide professional training in all relevant institutions and to raise awareness of Soil Science issues among the general public and politicians.

In order to achieve these goals, several activities are offered:

Lectures/events

Since the foundation of the ÖBG, several lectures have been held each year on topics of Soil Science as a whole, in the beginning also increasingly on reports from conferences and research trips. Since 1955, it has been possible to attract a foreign speaker at least once a year, e.g., from Germany, Slovakia, Switzerland, Croatia, Slovenia, Hungary, Italy, France and Poland.

Initially these were individual evening lectures (on average 6 evenings), since 1963 also all-day block events. Since the amount of information on offer was much smaller than today, the exchange of experiences at the ÖBG events was essential. This is probably why the lecture evenings have been attended very well and the “legendary” Lecture Hall VIII at BOKU university was often overcrowded.

Apart from the annual conference of the DBG in Vienna in 1961, larger international conferences were added from 1980 onwards. Examples are: 1994 a joint symposium with the Slovak Soil Science Society, 1996 the International Symposium 10 Years Radioecological Research and 2001 the DBG/ÖBG Congress in Vienna.

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In 2000, it was decided to concentrate the lectures on a from one day to one day and a half block event annually in the framework of the General Assembly; however, increased activity led to the organisation of e.g. four full-day symposia each in 2000 and 2001. In 2002, the “Austrian Soil Forum” was established together with the Federal Environment Agency. It takes place twice a year and is a network meeting for researchers, practitioners and representatives of the provincial authorities and federal institutions on current topics. Around the Soil Day on 5th December, the “Soil Cinema Day” is organised, where films with a focus on Soil Science are presented and discussed.

Publications

The “Mitteilungen der Österreichischen Bodenkundlichen Gesellschaft” are published at irregular intervals in a uniform bound form until 2013, since then only digitally. They include original papers, reports, extensive excursion guides, conference reports and the like, partly in English. Since 1995, there have been stricter selection criteria and guidelines for the writing of contributions as well as a regular review procedure.

In addition to these “Mitteilungen”, a number of individual publications by working groups of the ÖBG together with other editors have appeared, for example “Bodenaufnahmesysteme in Österreich” in 2001 or “Bodenbewusstsein – Bildungsprojekte in Österreich” in 2018.

Excursions

The statutes stipulate an annual excursion. The first excursions were simple working excursions to coordinate the field survey, survey characteristics and nomenclature. Initially, they were carried out together with the Geological Society. Subsequently, they were mostly excursions of several days’ duration through the most diverse areas of Austria, which were very well attended. The extensive excursion guides were partly published in the “Mitteilungen”.

Seven excursions were offered during the DBG conference in Vienna in 1961, and 13 during the DBG congress in Vienna in 2001.

From 1986 onwards, excursions were also made to foreign countries: in 1986 to the ISSS Congress in Austria and Switzerland, in 1987 to Trentino-South Tyrol, in 1988 to Tyrol and eastern Switzerland, in 1989 to western Hungary, in 1992 to western Slovakia, in 1998 to Istria, in each case together with the respective sister societies. Major excursions went to Andalusia in 2000 and to northern Germany in 2003.

Subsequently, however, due to the numerous commitments of the members, the excursions took place only to a limited extent, sometimes only for half days following conference events. Since 2023, due to increased demand, an annual excursion has once again become a fixed part of the ÖBG programme.

Topics covered by the ÖBG

The thematic focus of the events and excursions changed in the course of time according to the fields of interest in Soil Science and society in general.

In the beginning, Soil Science focused on the promotion of soil fertility. The large institutions of financial soil estimation and agricultural soil mapping, as well as the emerging research institutes, shaped the professional focus of the ÖBG. The first Austrian Soil System was also created at that time.

Due to the dominance of the agricultural and technical institutions, there was a one-sided scientific focus on agriculturally used soils for decades. This was in contrast to German Soil Science, for example, which was also strongly influenced by forest site mapping from the very beginning.

From about the late 1970s onwards, soil pollution, pollutants and soil protection came into focus as a new topic. Soil was often seen only as a sink for pollutants. Soil analysis experienced an upswing, field Soil Science lost importance. The interest in Soil Science is no longer focused on arable soils, but is devoted to all soils, largely independent of their use.

By the end of the 20th century at the latest, soil was recognised as an essential environmental element, a development that today determines the orientation of scientific and practice-oriented Soil Science research in Austria. The ecological aspects, the balancing of soil functions, and soil biology are coming to the fore. Soil is moving more into the focus of public interest.

The ÖBG is entrusted by federal and provincial departments with the preparation of guidelines and documents for environmental policy decisions, e.g., in 1988 by the Federal Minister of Agriculture and Forestry for soil condition inventories and for a soil protection concept.

In the new century, the ÖBG is additionally shifting its field of activity to public relations and awareness raising. Examples of this are the “Boden macht Schule” workshops, which have been carried out continuously since 2011, the work on the “Roter Berg” soil nature trail, the soil stand at the species protection days in Schönbrunn and the provision of a wide range of information materials. The volume “Soil Awareness - Educational Projects in Austria” provides an overview of these activities.

Prizes

Since 1986, the “Walter Kubiena Prize” has been awarded annually in the categories of dissertation, master’s thesis and, since 2020, also for pre-scientific work by students. Since 2022, the “Eduard Klaghofer Prize” has also been awarded for activities, contributions and initiatives in soil protection in practice.

Members

From the beginning, almost all university institutes and institutions concerned with Soil Science were represented, the majority of them practitioners in the field of Soil Science from the technical and agricultural service – above all the employees of the financial soil estimation and the agricultural soil mapping. In the early days, the proportion of legal entities was conspicuously high: relevant departments of the state governments and federal authorities, chambers of agriculture, research institutes and industrial enterprises. With their much higher membership fees, these also had a certain sponsoring function.

In the founding year, the number of members was 28 and reached over 250 around 1990 – more or less the same since then. Unfortunately, the institutional, sponsoring members have almost completely disappeared.

With the expansion of Soil Science fields of interest, the spectrum of members shifted: the number of staff in soil mapping decreased drastically, but the number of people employed in science and administration increased. The Federal Environmental Agency, environmental departments and institutes at the state governments and chambers of agriculture are being established, engineering offices are increasingly dealing with soil and site science issues; forestry is more strongly represented than before. The hitherto dominant graduates of soil culture are joined by landscape ecologists, chemists, biologists and graduates of other disciplines.

The association's agendas, such as annual and financial reports as well as the elections of the board and the advisory board, are dealt with at the annual general assembly, which is held either during the annual conference or the soil forum.

Honorary members

1955 Head of Section DI Rudolf Leopold

1960 Retired Section Head Prof. DI Dr. Bernhard Ramsauer

1964 Univ. Prof. DI Dr. Prof hc. Dr. hc Walter Kubiena

1979 Univ. Prof. Dr Julius Fink

1979 o.Univ. Prof. DI Dr. Herbert Franz

1994 retired Univ. Prof. DI Dr Otmar Nestroy

1998 Hofrat DI Dr Walter Kilian

2004 o Univ. Prof DI Dr Dr.h.c. mult. W.E.H. Blum

2004 Univ. Prof. DI Dr. Eduard Klaghofer

2006 o Unv. Prof DI Dr Dr.h.c. mult. Martin Gerzabek

Winner of the Medal of Honour

1981 Hofrat Univ. Doz DI Dr Franz Blümel

1981 Hofrat DI Adolf Stecker

1982 Hofrat DI Dr Herwig Schiller

1985 Ministerial Councillor DI Anton Krabichler

1988 Hofrat DI Dr Fritz Ornig

2004 Hofrat DI Dr Otto Danneberg

2019 Robert Körner

Officers

Start	End	President	Vice president	Secretary General	Editor	Treasurer
1954	1957	Ramsauer	Franz	Fink	Fink- Franz	Blümel
1958	1959	Franz	Ramsauer	Fink	Fink- Franz	Krabichler/ Schiller
1960	1961	Franz	Güntschl	Nestroy	Fink- Franz	Krapfenbauer
1962	1965	Fink	Güntschl	Krabichler/ Solar	Fink- Franz	Krapfenbauer
1966	1969	Schiller	Fink	Mayr/ Bronner	Fink- Franz	Janik
1970	1971	Franz	Schiller	Kilian	Franz	Fischer
1972	1973	Blümel	Solar	Kilian	Franz	Fischer
1974	1975	Stecker	Solar	Kilian	Franz	Fischer
1976	1977	Krabichler	Solar	Hacker	Franz	Bernhauser
1978	1979	Ornig	Solar	Eisenhut	Fink / Solar	Stelzer
1980	1981	Solar	Blümel	Geßl	Nestroy	Stelzer
1982	1985	Blum	Kilian	Bis 83 Hacker, dann Nelhiebel	Nestroy	82 Stelzer, dann Klaghofer
1986	1989	Nestroy	Kilian	86 Nelhiebel Grall/Mutsch	1986 Hacker, then Eisenhut/ Nestroy	Klaghofer
1990	1993	Kilian	Danneberg	90 Spiegel, then Mutsch	Nestroy/ Eisenhut	Klaghofer
1994	1999	Klaghofer	Danneberg	Baumgarten	Nestroy/ Schwarz (since 1996 with Nestroy)	Gerzabek
2000	2001	Gerzabek	Danneberg	Baumgarten	Schwarz	Murer
2002	2005	Gerzabek	Schwarz	Baumgarten	Schwarz/Englisch	Murer
2006	2015	Baumgarten	Zechmeister- Boltenstern	Huber	Englisch	Murer
2016	heute	Baumgarten	Schwarz (ab 2016)	Huber /Oburger	Englisch	Strauss (since 2018)

Commissions and working groups

After the merger with the Austrian Society for Soil Biology, a separate commission “Soil Biology” was established, initially under the chairmanship of Prof. Paul Illmer, currently under the chairmanship of Dr. Nadine Präg. A separate commission also exists for the activities within the framework of the IUSS (headed by DI Sigbert Huber). The commission “Future Workshop” is dedicated to the development of future strategies for the ÖBG (headed by Dr. Erich Inselsbacher and Dr. Taru Sanden). The commission “Soil Assessment and Soil Protection in Practice” (headed by Dr. Markus Puschenreiter) was installed to deal with questions of soil scientists working in the private sector.

Temporary working groups are set up for current topics. So far, they have led to important documents, some of which are anchored in legislation, e.g., the guidelines for soil condition inventories (some of which have been adopted EU-wide!). Currently, the working groups “Soil Profile Recording” (headed by DI Günther Aust), “Public Relations” (headed by DI Nora Mitterböck) and “Digital Soil Mapping” (headed by Dr. Stefan Forstner) are active.

In addition, there is an elected advisory board that meets once a year and supports the board in the planning and orientation of the ÖBG’s strategy.

Outstanding activities and awards of members

Numerous members of the ÖBG are also closely involved with the IUSS and are internationally known. Here are a few prominent personalities.

Walter Kubiena (*30.06.1897, †28.12.1970) Univ. Prof. DI Dr.

It is probably pointless to write here about one of the most prominent soil scientists in Europe, honorary member of the ÖBG and IBG, the founder of genetic Soil Science.

Main fields of work: Micromorphology, soil development, regional Soil Science and soil geography, soil systematics; palaeopedology, soil biology and humus research. He was visiting professor at Iowa State College, USA (1937-38), at the Consejo Superior des Investigaciones Cientificas in Madrid (1943, 1950-51), at Purdue University Lafayette, Berkeley University, USA (1957, 1969) and at the College of Forest Resources in Seattle (1970). Honorary member of the Spanish (1950) and International Soil Science Societies, Honorary Council of the Spanish Supreme Research Council (1949), member of the Leopoldina Scientific Academy, Halle (1963), member of the Royal Spanish Academy of Sciences (1954), Winner of the Justus v. Liebig Prize (1954).

Herbert Franz (*1908, †2002) o. Univ. Prof. Dipl.Ing. Dr.

Entomologist, ecologist and soil scientist; founding member and long-time president of the ÖBG, long-time editor and honorary member.

Main fields of work: Soil biology, entomology; interrelationships of soil fauna, vegetation and soil fertility, high mountain ecology. Already 20 years before Rio, he pleaded for a new orientation towards ecology and sustainability. As one of the late universalists, who considered interdisciplinary research to be the highest principle, he was actively involved in various branches of natural science.

Honorary President of the ISSS, honorary doctorate of the University of Gödöllő (1977). Member of the Spanish Consejo Superior de Investigaciones Científicas, full member of the Austrian Academy of Sciences, Golden Decoration of Honour for Science and Art of the Republic of Austria, Medals of Honour of the Universities of Helsinki and Hiroshima.

Honorary Member of the Austrian Society for Spatial Planning, Honorary Member of the Hungarian Entomological Society

Julius Fink (*18.04.1918, †02.04.1981) Univ. Prof. Dr.

Professor of Geology and Soil Science at the University of Natural Resources and Applied Life Sciences in Vienna, 1969-1981 Univ. Prof. of Physical Geography at the University of Vienna Founding member of the ÖBG, member of the board since the foundation of the society, editor for many years, 1962-1966 president and 1966-1970 vice-president; since 1979 honorary member. Quaternary geologist and soil scientist of comprehensive stature.

Main fields of work: Quaternary geology, geomorphology and Soil Science; soil genesis, soil classification, mapping methodology. Soils in the periglacial area, palaeopedology. Classification of loess terraces and barrage loam landscape.

Founder and scientific director of the Austrian soil mapping, author of the Austrian soil systematics (1969), which is based on an open genetic system. Known as author of the first modern soil map of Austria, based on work by Prof. A. Till.

Convinced representative of comprehensive pedological representation taking into account the entire site and its landscape area. He understood how to integrate geomorphology, Soil Science and climatology into a comprehensive landscape science and in this way to derive regularities of soil genesis and the distribution of soil forms in the landscape.

Functions:

Scientific officer of FAO and UNESCO; coordinator of the Soil Map of Europe, member of INQUA; president of the LÖSS Commission, chairman of DEUQUA, president

The International Union of Soil Sciences: A Centennial documentation of its national members

of the Austrian Geographical Society for many years.

Consultant of the Austrian Soil Mapping, head of the Austrian MaB programmes from 1978 onwards. Honorary Member of the Hungarian Geographical Society (1971), Member of the Austrian Academy of Sciences, Grand Decoration of Honour for Services to the Republic of Austria.

Winfried E.H. Blum (*15.6.1941), Dipl.Ing., Dr.rer.nat.habil., Dr.h.c. mult. o.University Professor of Soil Science

1972-1974 University lecturer in Soil Science at the University of Freiburg, Vice-Dean of the Faculty of Forestry, 1975-1979 Visiting Professor at the Federal University of Paraná in Curitiba/Brazil. As of 1.10.1979, Professor of Soil Science and Director of the Institute for Soil Research at the University of Natural Resources and Applied Life Sciences in Vienna.

Main fields of work:

Soil chemistry and soil mineralogy, soil geography, soil genetics and soil classification as well as terrestrial ecology and environmental research. Activities in the field of soil protection and land use planning.

Closely networked worldwide with the Soil Science activities of other countries. Member of IUSS, Association Française pour l'Etude du Sol, Brazilian Soil Science Society, British Society of Soil Science, German Soil Science Society, Swiss Soil Science Society and Soil Science Society of America; European Society for Soil Conservation, Association Internationale pour l'Etude des Argiles, International Society for Environmental Protection, International Association for Ecology, as well as in other societies and associations.

Functions:

Secretary General of IUSS 1990-2002, Chairman of the Commission of Experts on Soil Conservation at the Council of Europe/Strasbourg from 1991-1995, member of the General Committee of the International Council for Sciences (ICSU, Paris) from 1993-1998, and of the ICSU Board from 1996-1999.

Chairman of the ICSU Committee "Sciences and Food Security".

Scientific Advisor to the French Institute for Mountain Research, Scientific Advisor to the Council of Europe, the Confédération Européenne d'Agriculture, the FAO, the World Bank, institutions in Brazil and the Federal Republic of Germany. Coordinator of various bilateral and international research programmes.

2002-2006 Secretary General of the IUSS, 2002-2006 Standing Committee.

Officer, Honours:

Honorary Doctorate of the University of Paraná in Curitiba/Brazil

Honorary Doctorate of the Agricultural University (Academy) of Lublin/Poland

Honorary Doctorate of the Georgian Agricultural University in Tbilisi

Dokuchayev Medal of the Soil Science Society of the USSR

Oczapowski Medal of the Polish Academy of Sciences

Fellow of the Indian Society for Soil Mapping and Land Use Planning

Honorary Member of the Romanian Academy of Agricultural and Forestry Sciences,

Honorary Member of the Romanian Soil Science Society

Honorary Member of the Polish Soil Science Society

Honorary Member of the Russian Soil Science Society

Honorary Member of the Ukrainian Soil Science and Agricultural Chemistry Society

Member of the Academy of Agricultural Sciences of the Slovak Republic

Medal of the City of Montpellier/France, August 1998

Award for special services to the IUSS (2003)

ISC Science for policy award (2021).

Martin Gerzabek (* 9 June 1961) Univ Prof Dipl.Ing: Dr DDDDr hc

Prof. Ecotoxicology and Isotope Application at the Inst. f. Soil Research, 2003-2010

Vice Rector for Research and 2009-2018 Rector of the University of BOKU

Full member of the Austrian Academy of Sciences, President of the Christian Doppler Research Society

Functions in the IUSS Chair Div 2 (2010-2014), Chair 2.2 Soil Chemistry (2006-2010)

Honorary Member of the IUSS, Honorary Member of the ÖBG, Emil Ramann-Medal of the DBG, Golden Ring of Honour of the University of Natural Resources and Applied Life Sciences, Vienna, Grand Decoration of Honour in Gold for Services to the Republic of Austria

Golden Commander's Cross to the Decoration of Honour for Services to Lower Austria, Golden Ring of Honour of the City of Tulln.

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In addition, numerous other members of the ÖBG have or had functions in the IUSS at the same time, e.g., Dr Andreas Baumgarten (Treasurer since 2015), DI Sigbert Huber (Secretary 2015 -2022)

Dr Barbara Birli (Contact manager homepage), Robert Körner (Webmaster 2015-2022)

DI Priv. Doz. Dr Heide Spiegel (Chair Commission 4.2 until 2022).

The French Association for Soil Research (AFES) 1934



Association Française
pour l'étude du sol

<https://www.afes.fr/afes/historique-de-lassociation/>

Keywords: History of AFES 1934-2020, functioning, activities, communications, congresses, training

October 25, 1934, creation of the

afes | Association Française pour l'étude du sol

Objectives:

- Develop soil survey
- Create a network of people
- Meet with foreign organizations
- Inform and document its members
- Develop research
- Alerting public authorities

Auguste Oudin
1886-1979

Albert Demolon
1881-1945

AFES TODAY

AFES, a learned society with charity status for both, professionals and researchers working on soils.

AFES, the French branch of the International Union of Soil Science (IUSS), is a partner of the Global Soil Partnership (GSP) and a forum for debate for the French Soil Science community.

AFES is represented in international organisations such as WVSS (World Congress of Soil Science), GSS (Global Soil Security) and WRB (World Reference Base for Soil Resources). The association is in regular contact with other European Soil Science societies.

AFES promotes the study of soil in a variety of ways: forums on its email list, including a “young people’s list”: 1) advertising job offers in the sector, publication of a journal (*Etude et Gestion des Sols*) and various books. It also organises national conferences every two years and is involved in organisations that carry out soil-related actions (Comifer, APCA, IUSS, RMT Sols et Territoires, RNEST, etc.); 2) Demoon grants are awarded each year to support young researchers who attend conferences in France or elsewhere. The Executive Committee has set up nine working groups and four committees (for example Recognition of Skills in Soil Science; 3) Board members participate in various committees: CNB, Comifer, Cofusi, CSFD, IGCS.

The International Union of Soil Sciences: A Centennial documentation of its national members

AFES is also a stakeholder in French institutions and organisations concerned with soil issues including several French learned societies in agronomy, irrigation and drainage, or teaching organizations: AFA, Afeid, Andhar, Apad, APBG, SFE.

In 2021, AFES became a member of the Pyrenean Alliance ASPir.

Changing membership

AFES membership has fluctuated over the last decades, but in general has decreased more than two-fold since 1991. In addition to the resulting changes in funding sources, this trend has caused us to question the reasons, and actions include the debate during the 2021 General Assembly, “Understanding mistrust of science. What is at stake for a learned society?”, and to the 2022 action plan, with a new objective for 4 years: involving more local elected representatives and other decision-makers whose projects have a decisive impact on the direction of soil use, in particular by organising its events in various French regions, such as the Soil World Day (JMS), or the (biennial) Soil Study Days (JES).

New Plan of Action and new Projects

Enhancing the value of documentary resources by

- Overhaul of the AFES website
- EGS journal, the only peer-reviewed French-language journal
- PromoSolsEduc project
- Soil Fresco
- Demolon Grand

Recognition of soil scientists’ skills

- Commission for recognition of Skill in Soil Science
- IPR soil project (training for forestry technicians)
- Work group and Wetlands project
- Regional soil network after the World soil day

Managing partner networks

Organising World Soil Day (JMS), or the (biennial) Soil Study Days (JES).

JMS 2022 deliverables: Journée mondiale des sols 2022.

Next JMS from 30th November to 7th December 2023 ub IRKEABS JMS 2023

- Projects with various partners
- Participatory science and research network
- Developing links with members

RECENT and ONGOING ACTIVITIES <https://www.afes.fr/actions/>

2021: following the JMS 2021 on the theme of biodiversity, the PACA soil network was born.

2022: following the 2021 AGM, a study will be carried out on “how to better reach the Afes’ communication targets and review our communication strategy.

2022: Following the joint participation with INRA in the PFUE forum in Paris in March 2022, the participatory science and research network was born, and a project manager was hired.

2022: Introduction of “soil” training for forestry technicians: soil IPR project.

In response to a call for projects from the French Environment and Energy Management Agency (Ademe), AFES supported the creation of the Fresque du sol (Soil Fresco) and is now developing training courses in how to run this educational game.

Since the end of 2021: redesign of the AFES website www.afes.fr, development of the AFES soil resource centre and collaboration with the e-Sol platform.

Opening up partnerships with other professional groups

This is the role of the PromoSolsEDuc project in particular. Initiated in 2019 by a survey of teachers in 5 regions, this operation is being set up to facilitate the teaching of soil in all its facets by creating a network of teachers and experts. In 2022 the objectives were: consolidate and lead the PromoSolsEduc network of teachers and trainers, offer collaborative workshops, update a resource centre and share virtual teaching sheets on the AFES website – search by key words. In September 2023, a collaborative collection entitled “Enseigner les sols” (Teaching soils) will be published in the “Approches” collection by Educagri. This collection is a continuation of the PromoSolsEduc project: it brings together the teaching sheets proposed by the community of 86 teachers, reviewed and brought together by a steering committee.

Following a question from the pedology skills recognition committee on the need to offer 2 levels of recognition (professional and expert), the issue of the mismatch between existing training and the knowledge needs of organisations, local authorities and consultancies came back to the fore.

The International Union of Soil Sciences: A Centennial documentation of its national members

It is part of Afes' remit to think about tools for ongoing training, peer training and specific training modules.

2023: for the 1st time, the WSD 2023 will be co-sponsored by the soil networks: RNST, GISSOL, RMT sol et Territoire, INRAe, etc.

2023: the theme of the General Meeting is "skills recognition".

Changes in the AFES budget and human resources

For many years AFES was run almost exclusively by volunteers. However, this is no longer possible, and there has been a rapid increase in salaried staff (one full time employee in 2019 and 3.5 in 2023, with a corresponding increase in budget. The principle source of income is no longer members' subscriptions.

History

AFES from 1934 to 2018

1934 created by A. Demolon, the AFES is organized into 6 "technical sections" (Genesis, Physics, Chemistry, Biology, Soil Geography and Soil and Hygiene, Overseas) and 7 "regional sections" (North, Brittany, East, South, South-West, Massif Central, Overseas).

The "Bulletin de l'AFES" was published 4 times a year.

The war stopped the AFES in its tracks. Activity did not resume until 1947 (see number of members: 173 in 1934, 405 in 1939, then 145 in 1947).

1947 was the year of the "Conférence de Pédologie méditerranéenne" (Montpellier-Alger).

1963, the revue Science du Sol replaced the Bulletin de l'AFES.

1967, the study of the spatial distribution of soils allowed the publication of the first French Soil Map at 1:1,000,000 and led to the French Classification of Soils (CPCS, 1967).

The Service d'Étude des Sols et de la Carte Pédologique de France was created within INRA. This activity results in the French Soil Reference System (RPF), published in translation, and widely distributed between 1987 and 2009.

Since 1967, the activity is centered on the organization of 2 or 3 annual scientific sessions, accompanied by publications. Diversified themes are addressed.

The AFES grew and in **1991** had more than 852 members. The activity of the technical sections decreases, the regional sections remain dynamic (indoor meetings and field trips).

AFES' Activities from 1983 to 2020

Communication, publications, scientific animation:

1983. Creation of the AFES Newsletter

1992. The journal *Étude et Gestion des Sols* (EGS), distributed in paper form, became electronic in 1997 (free access in 2013).

1994. *Science du Sol*, along with the Belgian and British reviews *Pédologie* and *Journal of Soil Science*, ceased to be published to support the joint launch of *European Journal of Soil Science*.

The sol-Afes web list (1711 subscribers in 2020) allows many online debates.

Organization of congresses:

1998. 14th World Congress of Soil Science, Montpellier. "National Soil Study Days" (JES), biennial, since 1989. "World Soil Day" (5 conferences since 2015).

Training

1998. Year of the soil, AFES is very active. France organised the 16th World Soil Science Congress in Montpellier.

2003. Creation of the "Demolon Scholarships": awarded annually to thesis students (participation in international conferences).

2004-2008. ISIS project: AFES is involved in teaching about soils in secondary schools (distribution of 20,000 leaflets entitled "Le sol, épiderme vivant de la Terre").

2011. Creation of a "Recognition of competence in pedology" procedure awarded by a jury of AFES pedologists.

2012. 1st "AFES Webinar", currently 54 videos available.

2015: declared by the UN/FAO as the International Year of Soil, was obviously an important year for AFES and French Soil Science in general. But it is also the year of COP 21, a historic COP for major global issues. It is at this COP that the French Minister for Agriculture was proposing the "4 for 1000" initiative, which puts soil at the top of the global agenda. The idea for this "4 for 1000" came from a publication by our colleagues at INRAE, Jérôme BALESDENT and Dominique ARROUAYS.¹

We should also remember that the FAO ambassador for the International Year of Soil (2015) was Claire CHENU, our eminent colleague from AFES.

2018. Birth of the PromoSolsEduc Working Group with teachers: A space for valori-

1. Land use and carbon storage in French soils: an estimate of annual net fluxes for the period 1900-1999 – C.R. Acad.Agric. Fr, 1999, 85, n°6, pp. 265-277. Session of 19 May 1999 by Jérôme Balesdent and Dominique Arrouays.

The International Union of Soil Sciences: A Centennial documentation of its national members
zation and exchange of pedagogical sheets “soils”.

INRA: Institut National de la Recherche Agronomique (National Institute for Agricultural Research) now INRAe, Institut National de la Recherche Agronomique et de l’Environnement

ISIS: Initiation of schoolchildren to soil via the Internet

Keywords: (History of Afes 1934-2020, functioning, activities, communications, congresses, training)



1998, AISS, Gironde-France

AFES today

To meet the challenges of the 21st century: Objectives and actions

AFES is a learned society of associative status bringing together professionals and researchers working on soils. It is the French branch of the International Union of Soil Science (IUSS), a partner of the Global Soil Partnership (GSP) and a forum for debate for the French Soil Science community.

In 2021, it will have less than 300 members, whereas the sol-AFES list will have more than 1,800 subscribers. This question led to the theme of the 2021 General Assembly, “Understanding mistrust of science. What is at stake for a learned society?” and the 2022 action plan.

The association promotes the study of soil in a variety of ways: forums on its e-mail lists, publication of a journal and books, participation by some of its members in working groups (e.g., Recognition of Competences in Soil Science², standardisation of methods, or the AllEnvi “Foresight” working group) and also through actions to support young researchers, such as the DEMOLON grants or the “young people” list³ advertising job offers in the sector.

The association’s dynamism and development are also due to the ability of its members to get involved in the governance of organisations carrying out complementary actions to AFES (Comifer, APCA, IUSS, RMT Sols et Territoires, RNEST, etc.).

Board members sit in various committees: CNB, Comifer, Cofusi, CSFD, IGCS.

AFES is also a stakeholder in French institutions and organisations concerned with soil issues: Afa, Afeid, Andhar, Apad, APBG, SFE.

AFES is represented in international organisations such as WCSS, GSS and WRB. The association is in regular contact with other European Soil Science associations.

In 2021, AFES became a member of the Pyrenean Alliance ASPir.

In recent years, AFES has developed a strong desire to broaden the audience targeted by its various actions, in particular by involving more local elected representatives and other decision-makers, whose projects have a decisive impact on the direction of soil use, in particular by organising its conferences in various French regions, such as the Soil World Day (JMS), or the (biennial) Soil Study Days (JES).

Governance and operation

<https://www.afes.fr/afes/fonctionnement/>

The current Executive Committee comprises 18 to 20 people from a wide range of socio-professional backgrounds. The Chairman is supported by 6 Vice-Chairmen, each responsible for a specific area: Education, Legal Affairs, Youth and Communications, Research, Private Sector, Sustainable Land Management. To achieve the Association’s objectives, the Executive Committee has set up 9 working groups and 4 committees.

2. <https://www.afes.fr/actions/reconnaissance-des-competences-en-pedologie/>

3. <https://www.afes.fr/afes/les-listes-de-diffusion/>

Communicating to promote Soil Science

This is the aim of the périodiques: d'Etude du Sol, the Webinars and the journal EGS, which has been published for 28 years, as well as the publications in which AFES participates. Next JES 26-29 June 2023 in DIJON:

[https://www.afes.fr/actions/les-journées-detude-des-sols/Supporting young researchers](https://www.afes.fr/actions/les-journées-detude-des-sols/Supporting%20young%20researchers). With Demolon grants, the Horizon-jeunes list and support for training initiatives.

Communicate to facilitate the transfer of knowledge, particularly to decision-makers

This is the purpose of the website and of World Soil Day, organised each year in conjunction with the FAO.JMS 2022 deliverables:

<https://www.afes.fr/actions/journee-mondiale-des-sols/journee-mondiale-des-sols-2022/>

Next JMS from 30 November to 7 December 2023 in ORLEANS <https://www.afes.fr/actions/journee-mondiale-des-sols/>

It facilitates the exchange of knowledge and the search for information and resources on the ground. This is the aim of the website, the AFES newsletter, the work on the Référentiel Pédologique, the Reconnaissance des compétences en pédologie, the mapping of soil scientists, as well as the mailing lists. For example, the "Sol-Afes" list Set up to provide subscribers with a fast, free way of reaching the Soil Science community. This mailing list enables online discussion, forums and announcements of events or publications.

Created in 1997, it had 200 subscribers in 1998, 816 in 2004, 1550 in 2016 and 1711 in 2021. From April 2021, summaries of the discussions will be included in the "Afes Newsletter".

Opening up partnerships with other professional groups

This is the role of the PromoSolsEduc project in particular. Initiated in 2019 by a survey of teachers in 5 regions, this operation is being set up to facilitate the teaching of soil in all its facets by creating a network of teachers and experts. 2022 objectives: consolidate and lead the PromoSolsEduc network of teachers and trainers, offer collaborative workshops, update a resource centre and share virtual teaching sheets on the AFES website – search by key words.

In September 2023, a collaborative collection entitled "Enseigner les sols" (Teaching soils) will be published in the "Approches" collection by Educagri. This collection is a continuation of the promoSolsEduc project: it brings together the teaching sheets proposed by the community of 86 teachers, reviewed and brought together by a steering committee.

New actions, new projects

2021: following the JMS 2021 on the theme of biodiversity, the PACA soil network was born. 2022: following the 2021 AGM, a study will be carried out on “how to better reach the Afes' communication targets and review our communication strategy”.

2022: Following the joint participation with INRA in the PFUE forum in Paris in March 2022, the participatory science and research network was born, and a project manager was hired.

2022: Introduction of “soil” training for forestry technicians: soil IPR project.

In response to a call for projects from the French Environment and Energy Management Agency (Ademe), Afes was behind the creation of the Fresque du sol (Soil Fresco) and is now developing training courses in how to run this serious game.

Since the end of 2021: redesign of the www.Afes.fr website development of the Afes soil resource centre and collaboration with the e-Sol platform.

2023: Following a question from the pedology skills recognition committee on the need to offer 2 levels of recognition (professional and expert), the issue of the mismatch between existing training and the knowledge needs of organisations, local authorities and consultancies came back to the fore. It is part of Afes' remit to think about tools for ongoing training, peer training and specific training modules.

2023: for the 1st time, the WSD 2023 will be co-sponsored by the soil networks: RNEST, GISSOL, RMT sol et Territoire, INRAe, etc.

2023: The theme of the General Meeting is “skills recognition”

Changes in the Afes budget and human resources

2019: €83,300; 1 salaried FTE; 217 members including 14 legal entities

2023: €270,078; 3.5 FTEs at year-end; 317 members, including 27 legal entities

APPENDICES

Appendix 1.

List of the Association's Chairmen and General Secretaries

The Afes Presidents	The Afes General Secretaries
1934-1954 A. DEMOLON	1934-1948 Maurice LENGLEN
1954-1956 M. LEMOIGNE	
1956-1959 A. OUDIN	
1959-1962 G. AUBERT	
1962-1965 R. CHAMINADE	1948-1964 Pierre BOISCHOT
1965-1968 J. HEBERT	
1968-1971 S. HENIN	
1971-1974 G. BARBIER	1964-1972 A. ANSTETT
1974-1977 G. DROUINEAU	
1977-1979 P. DUCHAUFOUR	1972-1985 Jean Claude BEGON
1979-1981 N. LENEUF	
1982-1986 G. PEDRO	1985-1992 MC GIRARD
1987-1989 J. BOULAIN	
1990-1992 A. RUELLAN	
1993-1995 J.C. REMY	1993-2002 Micheline EIMBERCK
1996-1998 MR JAMAGNE	
1999-2001 MR LATHAM	
2002-2005 D. TESSIER	2003-2008 J.P. LEGROS
2006-2008 R. POSS	
2009-2010 JP LEGROS	2008-2009 C. COLLIN BELLIER
2011-2012 C. FELLER	
2013-2015 D. ARROUAYS	2009-2013 Laurent CANER
2016-2018 C. COLLIN BELLIER	2013-2015 Guilhem BOURRIE
2019-2021 M. BROSSARD	2016-2017 Léa BEAUMELLE
2021-J. THOMAS	2017- Agnès GOSSELIN

Appendix 2. Glossary of acronyms

A3.1 French organisations and tools

Ademe:

Agency for Ecological Transition

Afnor-Iso: French standards agency producing Iso standards
AllEnvi: National Alliance for Environmental Research

APCA: Assemblée Permanente des Chambres d'Agriculture (Permanent Assembly of Chambers of Agriculture)

BRGM: Bureau de Recherche Géologique et Minière (Geological and Mining Research Bureau)

CEMAGREF: Centre d'Étude du Machinisme Agricole et du Génie Rural des Eaux et Forêts (public research institute)

CIRAD: Centre de Coopération Internationale en Recherche Agronomique pour le Développement.

CPCS: Commission de Pédologie et de Cartographie des Sols (Soil mapping and pedology commission)

CNB: National Biodiversity Committee

CNRS: Centre National de la Recherche Scientifique (French National Centre for Scientific Research)

Cofusi: French Committee of International Scientific Unions

Comifer: French Committee for the Study and Development of Reasoned Fertilisation
CSFD: French Scientific Committee on Desertification
GESSOL: "Fonctions environnementales et GESTion du patrimoine SOL", a research programme initiated by the French Ministry of the Environment
Gemmas: Methodological study group for soil analysis.

An association of around thirty agri-environmental analysis laboratories throughout France.

GEPPA: Groupement pour l'Étude des Problèmes de Pédologie Appliquée (Group for the Study of Applied Pedological Problems)

GFHN: Groupe Francophone Humidité et Transferts en Milieux Poreux. IGCS: Soil inventory, management, and conservation

INRA: French National Institute for Agronomic Research
MDG: Millennium Development Goals

ONIC: Office National Interprofessionnel des grandes cultures. ORSTOM: Office de la Recherche Scientifique et Technique Outre-Mer (Overseas Scientific and Technical Research Office)

In 1984, it became the French Institute of Scientific Research for Development in Cooperation and in 1998 the Institute of Research for Development (I.R.D.). RMT Sols et Territoires: Soil and Territories Joint

Technology Network RNEST: National network of scientific and technical expertise on soils

The International Union of Soil Sciences: A Centennial documentation of its national members

A3.2. Other French associations

Afa: Association Française d'Agronomie (French Agronomy Association) Afeid: French Association for Water, Irrigation and Drainage

Andhar: Association Nationale de Drainage et d'Hydraulique Agricole Responsable (National Association for Drainage and Responsible Agricultural Hydraulics)

Apad: Association for the Promotion of Sustainable Agriculture APBG: Association of biology and geology teachers.

SFE2: French Society for Ecology and Evolution

A3.3. AFES events and activities

WSD: World Soil Day JES:

Soil Study Days

ISIS: Initiation of schoolchildren via the Internet on the ground (conferences in schools in 2004 and 2005)

A3.4. International organisations

IUSS: International Union of Soil Science GSP: Global Soil Partnership

WRB: World Reference Base for Soil Resources WCSS: World Congress of Soil Science

GSS: Global Soil Security

Dr Taru Sanden (Chair Commission 4.2)

Agnès GOSSELIN (secretary), Jacques THOMAS (chair), Denis BAIZE (treasurer), Christian FELLER (past chair).

<https://www.afes.fr/afes/historique-de-lassociation/>

The Indian Society of Soil Science (ISSS) 1934



Indian Society of Soil Science (ISSS) is the oldest professional body among the various disciplines of agricultural sciences, starting with only 30 members in 1934 has covered 87 years of its journey. In the past 5 years, membership of the Society has stabilized around 2600 comprising Honorary members, Life members, Annual members and students members. The ISSS is unique that it sustains an annual membership of around 1800. About 52 Chapters of the Society – a lifeline of activities and ambassadors of the cause of Soil Science – have galvanized and stimulated the functioning through a peer-pressure and rendered a yeoman's service in achievement of the aims and objectives of the Society.

Origin and Headquarters: The ISSS was established in Calcutta (now Kolkata) in 1934, in the Physical Chemistry Laboratory, University of Calcutta, India. It was registered on 22nd December 1934, but was formally inaugurated on 3rd January 1935 at the Presidency College, Calcutta with Sir B.C. Burt, the then Agricultural Commissioner of the Imperial (now Indian) Council of Agricultural Research as the First President and Prof. J.N. Mukherjee as the Founder Secretary. With Prof. Mukherjee joining as the Director of the Indian Agricultural Research Institute (IARI) in 1945, the headquarters of the ISSS were shifted to the Indian Agricultural Research Institute (IARI) in New Delhi, and functioned at the Division of Soil Science and Agricultural Chemistry until 2008 when it shifted to its current office space in the recently established Grandeur National Agricultural Sciences Centre (NASC) Complex in New Delhi.

Objectives of the Society: to cultivate and promote soil science and kindred branches of science; to disseminate the knowledge of soil science and its applications, through meetings, discussions, and publications; to promote judicious interactive use of soil, water and other natural resources, fertilizer and other inputs to maintain quality and resilience of soil for sustainable agriculture; to foster high standards in the teaching and education of soil science; to work in close association with learned societies and organisations having similar objectives; to create public awareness about the importance of soil as a finite natural resource, and to carry out research and to perform all other acts, matters, and things that may assist in, or be conducted to, or be necessary for the fulfillment of objectives and purposes of the Society.

Functioning of the Society: The ISSS has two arms for its functioning: (i) General administration vests with the Council, and (ii) Publication of the Journal is the responsibility of the Editorial Board. Council and Editorial Board both are responsible to the Annual General Body.

Annual General Body Meeting and Conventions: The Annual General Body Meeting is an important business meeting open to all categories of members of ISSS, and it is held as a part of the Annual Convention each year. Issues concerning election of Council members, finance, fixation of membership subscription, annual review of the programmes, amendments to rules, general policy guidelines, etc. are taken up in these meetings. The annual meeting of the ISSS has been held uninterruptedly since the inception of the ISSS. Up to 1963, it used to be held as Annual Business Meeting during the Science Congress of the Indian Science Congress Association (ISCA), Kolkata, India. But subsequently, it has been held independently and annually in different places. Punjab Agricultural University, Ludhiana had the distinction of holding the first Annual Convention independent of ISCA in 1964. During these meetings various scientific events are organized. The ISSS can take legitimate pride in successfully organizing several symposia right from its inception during these meetings. Recently, 87th Annual Convention of ISSS has been organized in ICAR-Indian Institute of Soil Science, Bhopal, Madhya Pradesh on 3-6 October 2023.

Chapters: Need was felt to have a forum for the Soil Scientists of a region in India to meet, discuss, and take steps to achieve the objectives of ISSS, with particular reference to the region and also to assist the main body of the ISSS. Ludhiana Chapter has the distinction of being the first to be formed. Currently, the ISSS has 52 Chapters located at different places. Chapters are active in organizing conferences, meetings, seminars, group discussions, special lectures, field days/visits, etc. These Chapters host the ISSS Annual Conventions in turn.

Publications of the Society

Journal: The ISSS started publication of its Journal (named as the Journal of the Indian Society of Soil Science, JISSS) in 1953 initially with half yearly-periodicity (June, December). In 1956, the periodicity was increased to quarterly, i.e. March, June, September and December.

Publications Arising out of Different Symposia and Conferences: The ISSS has an impressive list of publications (<http://iss-india.org/other-publications.aspx>). Starting with its first bulletin “Discussion on Clay Pans” published in 1938 the ISSS, has brought out 33 bulletins so far.

International Cooperation and Visibility

International Cooperation: As per historic decision in its Annual Convention at Jabalpur, the ISSS became the National Member of the International Union of Soil Sciences (Formerly International Society of Soil Science). In its policy of encourag-

ing the Soil Scientists to participate in the World Congress of Soil Science held every four years, the ISSS has been partially financing the travel of its outstanding members since 1994.

It is a matter of pride for the ISSS that since 1999 Journal of the Indian Society of Soil Science along with the Indian Journal of Agricultural Economics and the Indian Veterinary Journal has been selected as the “core” for distribution by Philadelphia-based ‘The Essential Electronic Agricultural Library (TEEAL)’ to meet the needs of 47 resource-poor developing countries in electronic form.

Organization of the International Events: Year 1971 has special significance in the history of ISSS when it organized first international event; under the stewardship of Dr. J.S. Kanwar and Dr. T.D. Biswas as the President and Secretary, respectively; entitled “International Symposium on Soil Fertility Evaluation”, during 9-14 February 1971 in the prestigious Vigyan Bhavan in New Delhi. Symposium inaugurated by Shri T.P. Singh, Agricultural Secretary, Government of India, was attended by nearly 500 participants, out of whom 108 were from 26 foreign countries. Proceedings of the Symposium were published in two volumes.



The International Union of Soil Sciences: A Centennial documentation of its national members

Again in Vigyan Bhavan, New Delhi the ISSS organized the 12th International Congress of Soil Science on theme ‘Managing Soil Resources to Meet Challenges to Mankind’ during February 8-16, 1982 on a grand scale. Shri Neelam Sanjiva Reddy, President of India inaugurated the Congress attended by nearly 1100 participants from 90 countries. Dr J.S. Kanwar, the then President of International Society of Soil Science, was the Chairman and Dr. N.N. Goswami was the Organizing Secretary. The world class organizational acumen and the quality publications printed during this congress will always remain a landmark accomplishment of ISSS.

History was created in 2000, when the Indian Society of Soil Science in collaboration with Indian Society of Soil and water Conservation, Indian Society of Agricultural Engineers, Indian Society of Agronomy, Indian Society of Plant Genetic Resources, Indian Society of Soil Survey and Land Use Planning, Indian Society of Water Management, Association of Microbiologists of India, and Indian Society of Tree Scientists organized the International Conference during February 14-18, 2000 on “Managing Natural Resources for Sustainable Agricultural Production in the 21st Century” at the IARI Campus, New Delhi; conference was inaugurated by Dr. M.S. Swaminathan, an eminent Agricultural Scientist and Chairman M.S. Swaminathan Foundation at the majestic Convention Hall of Hotel Ashoka, on February 14, 2000. The Conference – a mega event by all standards – attracted 1500 delegates from all over the world belonging to various disciplines.

Under the aegis of the International Union of Soil Sciences, the ISSS organized an International Conference on “Soil, Water and Environmental Quality – Issues and Strategies” at the IARI Campus, New Delhi during 28 January – 1 February 2005. Attended by more than 500 delegates from 16 countries it was inaugurated by Shri Montek Singh Ahluwalia, Deputy Chairman, Planning Commission.



Awarding the Excellence and Commemorating the Memories of Stalwarts

To promote excellence, the ISSS has instituted over a period of time number of honours and awards. These include:

Honours and Awards: (i) Honorary Membership; (ii) Fellowship; (iii) Dr J.S. Kanwar Twelfth International Congress Commemoration Award; (iv) ISSS–Dr. J.s.p. Yadav Memorial Award for Excellence in Soil Science; (v) Prof. Sant Singh Memorial Award for Excellence in Education and Research in Soil Science; (vi) The Golden Jubilee Commemoration Young Scientist Award; (vii) ISSS Best Doctoral Research Presentation Award; (viii) The Indian Society of Soil Science Zonal Award; (ix) Dr. S.P. Raychaudhuri Gold Medal; (x) Best Poster Presentation Awards; and (xi) Best Chapter Awards.

Special Lectures: (i) Dr R.V. Tamhane Memorial Lecture (started since 1974), (ii) Prof. J.N. Mukherjee-Indian Society of Soil Science Foundation Lecture (started since 1983); (iii) Dr. S.P. Raychaudhuri Memorial Lecture (started since 1990); (iv) Dr. D.P. Motiramani Memorial Lecture (started since 1994); (v) Dr. B.V. Mehta Memorial Lecture (started since 1997); (vi) Dr. N.S. Randhawa Memorial Lecture (started since 1999); (vii) Dr. R.S. Murthy Memorial Lecture (started since 2002); (viii) Dr. R.R. Agarwal Memorial Lecture (started since 2003); (ix) Dr. T.D. Biswas Memorial Lecture (started since 2007); (x) Prof. S.K. Mukherjee Memorial Lecture (started since 2009); (xi) Dr. G.S. Sekhon Memorial Lecture (started since 2010); (xii) Dr. N.P. Datta Memorial Lecture (started since 2011); and (xiii) Dr. S.N. Saxena Memorial Lecture (started since 2014).

The Dutch Soil Science Society 1935



Nederlandse Bodemkundige Vereniging

When the International Society of Soil Science (ISSS) was founded in 1924, there were no national societies of Soil Science except the American Soil Survey Association that had been established in 1920. National societies of Soil Science were formed in 1926 in Germany, followed by Denmark in 1928, France and India in 1934, and the Netherlands in 1935.

The Dutch Soil Science Society was founded by Prof. D.J. Hissink, Prof. J.W. Thierry and Prof. C.H. Edelman, three prestigious scientists whose contributions were well-recognized internationally.

Dr. David Hissink did groundbreaking research on physical and chemical characterization of Dutch soil types. His specialism was absorption phenomena and ‘polder’ soils (i.e., reclaimed land from sea and lakes). It was David Hissink and the Czech Josef Kopecký who managed to reconnect soil scientists after the First World War. He was instrumental in the formation of the ISSS in 1924 together with Dr. Jacob Lipmann (USA) and Dr. John Russel (UK) (Figure 1). He became Secretary General of the ISSS from 1924 to 1950. The growth of the ISSS was due to his networking efforts. The resurrection of the ISSS after the Second World War was largely due to Prof. Edelman who met in Paris in 1947 with the head of the American soil survey Dr. Charles Kellogg. They decided that the Fourth International Congress of Soil Science was to be held in Amsterdam in 1950, when Prof. Edelman was president of the ISSS.

The relationship Prof. Edelman found between landscapes and the pedon was groundbreaking and is still relevant for us today. Besides scientists, the soil maps he made are used by different practitioners that make use of the landscape, and besides the Netherlands, Prof. Edelman was invited to many different institutes (e.g., FAO) and national politicians to do a land use analysis and advise them. The Edelman auger is a globally used tool for soil research and soil survey. This tool was not developed by Prof. Edelman, but he started using the auger for soil mapping in the early 1940s. The auger made it possible to do many soil observations per day. This was necessary because Dutch soils are extremely heterogeneous. One day, the soil auger broke, and a local blacksmith (Eijkelkamp) was asked to fix it. The Edelman auger has a length of 1.20 m because this fitted best in the car being used (Volkswagen Beetle). So, no scientific reasoning for the length of the auger, but a pragmatic one.



Figure 1 – Drs. Lipmann, Prof. Hissink and Dr. Russel in New Brunswick in 1927.

Prof. Thierry, linked Soil Science to different disciplines like civil engineering. He was for example involved in the enclosure and partial reclamation of the ZuiderZee (now called the IJsselmeer). His work has contributed to the safety of Dutch citizens against floods and hunger through the reclaimant of fertile, agricultural land.

Ever since its start, the members of the Dutch Soil Science Society have played leadership roles in the ISSS/IUSS. David Hissink was Secretary General from 1924 until the Second World War, Ferdinand van Baren from 1950 to 1974, Wim Sombroek from 1978 to 1990 and Alfred Hartemink from 2010 to 2014. Pieter Buringh was the first Deputy Secretary General followed by Hans van Baren (1990-2002), and Alfred Hartemink (2002-2010). Alfred started the IUSS website, the IUSS Alerts and numerous other outreach activities. He increased connections with national Soil Science societies and shared relevant information through IUSS Alerts and Bulletins. He made a link with the Year of Planet Earth initiative, for which he co-wrote the brochure “Soil – Earth’s living skin”. He chaired the standing committee on Statutes and Structure, and the working group on ‘Digital Soil Morphometrics’. Hartemink became a honorary member of the IUSS in 2020.

At the moment, the society has several members taking part in different divisions or working groups. Dr. Laura Poggio is chair of the working group on Digital Soil Mapping, Fenny van Egmond is chair of the working group on Soil Information Standards, and Stephan Mantel is vice-chair of the working group World Reference Base.

The International Union of Soil Sciences: A Centennial documentation of its national members

In 2022, the Dutch Society of Soil Science counted 297 members, 26 student members and 4 honorary members. It connects and informs their members through seminars, webinars, newsletters, social media, and excursions. Interestingly, only 57% of the members call themselves (still) a soil scientist, as they work in many different disciplines such as (applied) sciences, education, consultancy, management, and politics. Each year, the society awards the Hissink prize to a student who writes the best thesis in applied or fundamental Soil Sciences, and in 2022, we awarded the Soil of the Year for the first time on World Soil Day (5th December). The awarded soil (Dutch classification: Vlakvaaggrond) is reclaimed land from the sea and therefore very young and vital. With proper management, it can help solve the environmental challenges we have to tackle, such as climate change, biodiversity decline, and sustainable food production. The soil has gained much attention by the general public, and we hope this will increase even more in the near future.

In the Netherlands, we are proud to have a World Soil Museum and a digitized 1:50,000 soil map publicly available. It took three decades of soil mapping before this national soil survey of the Netherlands was completed in the early 1990s. Updating and digitalization of the map is taking place by resampling (part of) the sampling locations. Especially organic soils under cultivation are changing rapidly due to the oxidation of peat. To combat climate change, our society has several members that measure and predict changes in peat thickness and the effect of management measures to avoid peat oxidation.

Our society has four honorary members of which Em. Prof Johan Bouma is well known within the IUSS because he is also honorary member of the Union since 2006 and the 2018 recipient of the Dokuchaev award (the Nobel prize in Soil Science). He is still actively involved in several programs and projects, highlighting his endless energy for pointing us on the importance of soil contributions to reaching the Sustainable Development Goals following his membership of the European Soil Mission Board. Bouma received several awards and medals. He received the Presidential Award of the Soil Science Society of America in 2014 for his global contributions to Soil Science, in 2017 he received the Alexander von Humboldt medal from the European Geosciences Union.

Dr. Bert Janssen became an honorary member of the society in 2020 because of his studies in soil fertility. He developed groundbreaking models that turned out to be relevant in sciences as well as in practice. As a vicechair of the commission “Soil fertility”, Bert put the importance of soil fertility on the scientific agenda.

Ing. Gert Peek is our third honorary member. Students remember him as their favourite teacher and he made thousands of student’s enthusiasts for the fascinating world called ‘soil’. He also won several awards because of his excellent teaching skills. He put soils in a broader perspective, which many students will remember in their current jobs.

Last but not least, Dr. Henk de Bakker is our oldest honorary member who passed away on World Soil Day 2018. Dr. de Bakker got interested in Soil Sciences when he was hiding at the same place as Prof. Edelman and his students during the Second World War. Dr. de Bakker was the first who contacted the German Soil Science Society after the Second World War, and they organised several excursions together. He even became an honorary member of the German Soil Science Society in 2009. Dr. de Bakker was also one of the first European soil scientists who contributed to the 7th approximation (precursor of the Soil Taxonomy) of the USA. His publications on the key for the Dutch soil classification are globally recognized, but especially in the Netherlands every soil scientist knows, until today, the publications of Dr. de Bakker.

The Dutch Soil Science Society congratulates the IUSS and is looking forward to continuing the active involvement of our society and members in the IUSS in the future.

The Soil Science Society of America (SSSA) 1936



History

The Soil Science Society of America (SSSA) dates to 18 November 1936. However, there were two primary precursor organizations. These were the American Association of Soil Survey Workers (AASSW), which was established in 1920 and reorganized into the American Soil Survey Association (ASSA) in 1933, and the Soils Section of the American Society of Agronomy (ASA), which was created in 1931 (ASA, which included soil scientists, dates to 1907) (Brevik, 2011). Until 1936 AASSW/ASSA and ASA competed for soil scientists as members, but in November of 1936 they came together as a unified Soil Science society, the newly formed SSSA.

From 1936 through the early 1950s, SSSA membership was less than 1,000, but the early 1950s through early 1980s saw a period of rapid and steady growth until membership exceeded 6,400.

From the mid 1980s through the present membership has fluctuated between 5,000 and 6,500.

Throughout its history, SSSA has provided a forum for scientific advances through annual meetings and publications devoted to Soil Science. It has also sponsored ad hoc and standing committees to develop and address many aspects of Soil Science; provided services for professional career development of soil scientists; improved standards of scientific, academic, and professional practice; educated the general public about Soil Science; and addressed other Soil Science issues as deemed appropriate by SSSA leadership and membership.

Leadership

SSSA is a member-driven society, and each year the membership elects its leaders to chair several subdisciplinary divisions, its Board of Directors, and its Executive Committee. Division chairs have primary responsibility for organizing sessions of the annual meeting; the Board of Directors serves to guide the society's membership, meetings, publications, and financial activities; and the Executive Committee (composed by the President, Past President, and President-Elect) provides leadership to the Board and carries out actions on behalf of the Board. SSSA activities are conducted

by a large number of committees composed of volunteers. Several people who have served as President of SSSA have also served as President of IUSS.

SSSA is also supported by professional staff who work for the Alliance of Crop, Soil, and Environmental Science Societies (ACSESS), which is a nonprofit organization providing management and administrative services to SSSA, as well as ASA and the Crop Science Society of America (CSSA). ACSESS is led by a chief executive officer and directors of several departments, including meeting planning, publications, member services, educational programs, science communication, professional certifications, marketing, and science policy advocacy.

Membership Activities

Over the years since 1937, SSSA has offered a variety of benefits to its members, including the traditional core of annual scientific meetings, opportunities for publication in journals and books, awards, and a monthly news magazine. Over the last 20 years, the society has invested in several new programs to serve its members, including science policy reports as well as webinars to develop leadership skills and to enhance professionalism and career growth. Special programs are designed to help students, both graduate and undergraduate, to navigate and strengthen their engagement with other soil scientists at meetings, in publications, via awards and scholarships, and by placement in jobs.

Today more than 50% of the Soil Science students in many US universities are women, yet there remains considerable inequity in membership, leadership, award recipients, and other areas within SSSA. As a consequence, the SSSA formed a gender-equity task force to investigate, and much of its report was published by Vaughan et al. (2019). A new task force that is looking into a broader range of diversity, equity, and inclusion (DEI) issues, including ensuring equal access to awards and leadership positions, as well as highlighting professional standards of ethical behavior, is now at work. Efforts such as these will be important to move SSSA into the future.

Awards

SSSA presents a number of awards to members and non-members to recognize a variety of achievements related to Soil Science. The highest recognition bestowed by SSSA is Fellow, and only 0.3% of active and emeritus members may be elected Fellow. Since 1937, 1001 members of SSSA have been named Fellows of the society. Other awards recognize accomplishments in a variety of areas (soil chemistry, soil physics, ag systems modeling, mentoring, research, service, teaching, and other categories), support international travel, travel to SSSA's annual conference, or provide scholarships to students. Honorary membership can also be bestowed. A complete list of SSSA awards can be found at <https://www.soils.org/awards/view/>.

Society Publications

The flagship journal of the Society, originally the SSSA Proceedings and now titled the *Soil Science Society of America Journal* (SSSAJ), has been published since 1937 (Brevik, 2011). SSSAJ is one of three journals, along with *Soil Survey Horizons/Soil Horizons* (SSH/SH) and *Vadose Zone Journal* (VZJ), published exclusively by SSSA, although SSH/SH was discontinued at the end of 2015. VZJ has been published as an online journal since 2002; it is a gold open-access journal. Published jointly with ASA and CSSA are *Journal of Environmental Quality* (JEQ) and *Agriculture & Environmental Letters* (AEL). Since 1972, JEQ has given SSSA a strong presence in the field of environmental publications. AEL, a letters journal started in 2016, is a gold open-access journal that publishes high-impact, broad-reaching, and timely research on major scientific advances across the entire range of agricultural and environmental sciences. Since 1965, SSSA (alone or in collaboration with ASA and CSSA) has published nearly 250 books. Some of our most popular books include “The Methods of Soil Analysis Series”, where individual chapters are updated online through SSSAJ and then collated into the book series. We also publish two online magazines as well as a podcast, *Field, Lab, Earth*.

Further Thoughts

Soil scientists in the USA have a long relationship with IUSS, which was founded in 1924 (van Baren et al., 2000), and SSSA has been paying IUSS (formerly ISSS) dues since before World War II (Brevik, 2011). SSSA played an integral role by collaborating with IUSS in hosting the World Congress of Soil Science in Philadelphia, Pennsylvania, in 2006. The event attracted over 2000 scientists from more than 100 countries, and a total of 2636 papers were presented. Before 2006, the Seventh International Congress was held in Madison, Wisconsin, in 1960, and the First International Congress of Soil Science was held in Washington, DC, in 1927 (Brevik et al., 2016).

At the close of the First International Congress of Soil Science, many of the participants joined together to embark on a 30-day excursion to see soils across the United States and Canada. The excursion, like the meeting itself, was quite successful, and its official report, published in the proceedings of the 1927 international meeting, opened with these paragraphs:

“The Transcontinental Excursion following the International Congress of Soil Science that took place in Washington during July 13-22, 1927, was arranged by the American Organizing Committee. A special train carrying representatives of thirty-four different countries from all continents of the world, of all shades of opinion and political affiliations, circled, during a period of thirty days, the United States and Canada, whereby the participants had an unequalled opportunity to observe not only American soils and

American agriculture, but also American life and manners as well as the economic and other conditions. This Excursion illustrated better than it would ever be possible that all nations of the world may unite and work together for a purpose which advances the common good.

Having spent thirty days and thirty nights in the same train, eating at the same tables, discussing the common problems in fifteen or twenty different languages, without ever once any misunderstanding having arisen, amply proves the ability of different peoples of the world to work in common harmony, with the sole purpose in mind, namely the advance of human knowledge, the betterment of human relations, and improvement of human welfare.”

With the inspiration of these auspicious words commemorating collaborative, international Soil Science, the Soil Science Society of America offers to IUSS our most hearty congratulations on the 100th anniversary of its founding. We pledge to maintain with IUSS an enthusiastic spirit of openness, cooperation, and scientific progress with all our sister societies in the IUSS umbrella.

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The Soil Science Society of Poland (SSSP) 1937



The Soil Science Society of Poland (SSSP) was founded by: Prof. Feliks Terlikowski (University of Poznań), Prof. Jan Włodek (Jagiellonian University) and Dr. Tadeusz Mieczysławski (National Institute of Agriculture in Puławy).

The first General Meeting in 1937 ratified the SSSP statute, determined major directions of activity and elected Prof. F. Terlikowski as the first President of the SSSP. He held the position until 1946.

The following presidents of the Society were: Arkadiusz Musierowicz (1947-1949), Marian Górski (1949-1961), Lucjan Królikowski (1962-1987), Stanisław Moskal (1987-1995), and Piotr Skłodowski (1995-2011). Since 2011, the president is prof. Zbigniew Zagórski.

After the SSSP was reactivated after the Second World War in 1946, its continuous development took place. In 1954, thanks to the efforts of SSSP members, the Soil Science and Agricultural Chemistry Committee was established at the 5th Faculty of Agricultural and Forest Sciences of the Polish Academy of Sciences, whose chairman was Prof. A. Musierowicz. In the 1970s and 1980s, SSSP had over 1,000 members, 16 Branches and 10 committees and working teams, which made it one of the largest scientific societies in Poland. Along with the change in the conditions of financing scientific research, as a result of the political and economic transformation in Poland since 1990, the Society's income drastically decreased, which resulted in weakening the activities of the Scientific Committees and reducing the number of members.

The development of the Soil Science Society of Poland is as follows:

Year	Number of members	Number of Branches	Number of Commissions
1937	44	0	1
1951	300	4	2
1961	400	9	3
1970	1000	14	7
1980	1000	16	7
1991	783	18	8
2002	440	15	1
2010	430	14	6
2020	250	13	13

The main areas of activity and achievements of SSSP include: publishing activity, leading participation in the creation of soil evaluation system in Poland in the 1950s, development of subsequent soil taxonomies and classifications in Poland, Soil Science cartographic works in Poland, standardization of field and laboratory research methods as well as Soil Science vocabulary and nomenclature, educational activity in the field of Soil Science, organization of congresses and scientific conferences, development of international cooperation, preparation of expertise, opinions, judgments in the field of Soil Science and its protection.

Polish soil scientists associated in SSSP were also active on the international scale. All the above-mentioned activities are to ensure the development of Soil Science, which will enable the rational use of soils in terms of the need to feed the growing world population, protection of soils, protection of the environment (water and food chains against pollution) and preservation of biodiversity. This can be achieved through the continuous and effective development of teaching the whole society about soil at all levels of education.

Since 1950, as part of the activities of SSSP, the journal *Roczniki Gleboznawcze* has been published. The journal changed its name to *Soil Science Annual* in 2013 and it is currently published. The editors of the journal were: Marian Górski (1950), Kazimierz Starzyński (1950-1956), Władysław Trzciniński (1957-1989), Krystyna Konecka-Betley (1990-1999), Elżbieta Janowska (2000-2007), Danuta Czępińska-Kamińska (2008-2012), Łukasz Uzarowicz (2013-2015), and Józef Chojnicki (since 2016). In the years 1955-1989, the journal *Review of Scientific Agricultural and Forest Literature* was published. Very important for the development of Soil Science were methodical scientific studies (usually monographs) published as *Works of the Scientific Committees of Soil Science Society of Poland*. In 1976, the *Five-language Soil Science dictionary* edited by Prof. Tomasz Komornicki was published, containing 1428 entries with English, French, German and Russian equivalents. In 1986, the *Soils of Poland Album* was published, which was edited by Prof. Lucjan Królikowski.

Successive Polish Soil Classifications developed by teams appointed within the Commission of the Genesis, Classification and Cartography of Soils of the SSSP were/are of great importance. These include: Polish Soil Classifications (1974, 1989, 2011, 2019), Classification of forest soils (1973), Classification of forest soils of Poland (2000), Classification of arable lands (1952), as well as Classification of Soil Texture of the SSSP (2008). Large-scale cartographic works were also very important for the rational management of agricultural lands. In the years 1949-1950, at the request of the Minister of Agriculture, soil scientists from all over Poland led by Prof. Jan Tomaszewski developed a *Soil Map of Poland* in the scale of 1: 1,000,000. In the years 1951-1960, *Soil Map of Poland* in the scale of 1:300,000 under the editorship of Prof. Arkadiusz Musierowicz. Polish soil scientists also participated in the development of the *Soil Map of Europe* (FAO) in the scale of 1:1,000,000.

The International Union of Soil Sciences: A Centennial documentation of its national members

From the beginning of SSSP's existence, conferences (congresses) of the Society were a very important activity. In the years 1949-1961, scientific meetings were held every year and were organized by individual branches of the SSSP across the country. In the years 1963-1987, 10 scientific meetings were held, which were organized every 2-4 years by individual branches of the SSSP. Since 1995, Congresses of the Soil Science Society of Poland have been organized every 4 years. The congresses are combined with the General Meetings of SSSP Delegates and the election of new authorities of the Society. In recent years, from 100 to 200 participants from Poland and abroad participated in the Congresses, among others with the participation of D. Sparks – President of IUSS, as well as W. Blum and S. Nortcliff – secretaries of IUSS. In 2023, soil scientists from the Poznań Branch of the SSSP will organize the 31st Congress of the Soil Science Society of Poland, which will take place in Poznań.

In the years 1995-2007, there was a significant development of cooperation between the Soil Science Society of Poland and Soil Science societies of other countries. In 1996, SSSP signed a cooperation agreement with the German Society of Soil Science. In 2001, SSSP signed a cooperation agreement with Soil Science societies from Russia and Lithuania, in 2002 with the American and Turkish Soil Science societies, and in 2005 with the Ukrainian Soil Science Society. Since 2018, SSSP cooperates with Czech Society of Soil Science, Paraguayan Society of Soil Science and Global Soil Partnership. In 2019, SSSP signed a cooperation agreement with the Colombian Society of Soil Science. Cooperation between societies under agreements mainly concerns: mutual exchange of scientific materials and information on scientific conferences, trainings, working workshops, participation of representatives of societies in national Soil Science congresses, organization of joint scientific conferences and seminars. Usually about 20 soil scientists from Poland actively participate in Congresses of the International Union of Soil Sciences (IUSS).

Polish soil scientists have been actively participating in the work of the IUSS commissions and working groups. In the 2006-2010 term, Zbigniew Zagórski was the vice-chairman of the Commission 1.3 – Soil Genesis. In 2018-2022, the members of SSSP performed the following functions: Cezary Sławiński – vice-chairman of Commission 2.1 – Soil Physics; Magdalena Frąc – vice-chairman of Commission 2.3 – Soil Biology; Anna Karczewska – vice-chairman of Commission 3.5 – Soil Degradation, Control, Remediation and Reclamation. Polish soil scientists are also very active in working groups: Cezary Kabała – chairman of the group: World Reference Base for Soil Resources in Division 1; Przemysław Charzyński – vice-chairman of the group: Soils of Urban, Industrial, Traffic, Mining and Military Areas (SUITMA) in Division 3 and Bartłomiej Glina – chairman of the group: Young and Early Career Scientists in Division 4.

In recognition of their contribution to the development of Soil Science and IUSS, three members of SSSP received the title of Honorary Member of IUSS:

- Lucjan Królikowski (1978),

- Jan Gliński (2004), and
- Piotr Skłodowski (2016).

SSSP also carried out many commissioned works for business units. Among others, for many years, in the last twenty years, research commissioned by the “Konin” Brown Coal Mine was carried out, which included monitoring the state of groundwater and changes of soil properties in the vicinity of brown coal open pits.

The Bulgarian Soil Science Society (BSSS) 1941



Bulgarian Soil Science Society (BSSS) is a continuer of the scientific ideas and tasks set by the founder of the Bulgarian Soil Science, the great natural soil scientist, public figure, patriot and revolutionary Nickola Poushkarov.

“Formation of soil” is the first fundamental work by Pushkarov, published in the journal “Natural Science”, (1909-1910), which applies Dokuchaev’s approach and principles for scientific consideration of soil and soil formation. In 1911, he established a scientific-administrative organization (soil or agrogeological department) at the State Agricultural Experimental Station in Sofia. As head of the department Pushkarov developed the first scientific program including the following tasks:

- Systematic study of soils in areas by collection of geological, biological and climatic data and analyzing the collected samples in chemical and physical terms.
- Tracing the causes of changes in soil properties in a given area and an indication of possibilities of eliminating the hazard.
- Producing maps for the areas of research.

In 1931, Pushkarov published the Bulgarian and German first National soil map in 1:500000 scale with private funds and the first National classification.

BSSS was founded in 1941, following the initiative of eight professors of the Faculty of Agronomy and Forestry of Sofia University “St Kliment Ohridski”.

As President of the Society the Academic Ivan Stranski was elected. In 1929, he wrote the first textbook of Soil Science (253 p.) which was published by private funds. The Society statute was confirmed on June 26th 1942 with an order of the Interior Minister but was not legally registered. According to data of the archives of Chief Council of Ministers, BSSS was registered with a Statute No 1053 of dates 1941-1950. During World War 2 and after, there are no data for its activity.

In 1959 was carried out a consecutive registration by the Sofia National Court, File No3 and a protocol of the same year, after a 2nd Founding Assembly of 58 members. Professor Tsvetan Staykov was elected President of the Society. In the following years, the Society was led successively by the Professors Ivan Garbuchevev, Lulcho Raikov, Todor Boyadjiev, Ivan Kolchakov and Raina Dilkova. Since 2013, Head of the Society is Prof. Metodi Teoharov.

The major goals of the BSSS are to popularise the knowledge and innovation achievements of Soil Science, support the state policy for rational use and protection of soil and land resources, create a high international status of the Bulgarian Soil Science and

the agrarian scientific community. These goals are realized through different creative, scientific and social initiatives, conducting national and international scientific and practical conferences, symposia, scientific sessions and seminars, meetings with renowned scientists, round tables on important topics, printing and dissemination of scientific literature, issuing of biography articles of famous scientists, training of young specialists, etc.

The Bulgarian Soil Science Society is a regular member of the International Soil Science Society, maintains regular relations and active contacts with Soil Science Societies and leading scientists from different countries all over the world and mainly EU, Russia, Hungary, Poland, Germany, France, Belgium, Netherlands, China, USA and the Balkans. More than 70 scientists and specialists from different institutes and higher education institutions, NGOs, etc. are its members and actively participate in the initiatives performed.

The Executive board of BSSS popularize among scientific community conventions, directives, programmes, regulations, resolutions, decisions and reports of OON, UNEP, FAO, IUSS, EU, EC and other institutions. The members of BSSS participated in the teams developing the European Strategy for Soil Protection, the national position of Bulgaria on the Adoption of European Directive for Soil Research Projects in support of the European strategy on soil protection, the CAP of the EC to reduce greenhouse gas emissions of agricultural lands, the INSPIRE directive management, standardization and coordination of spatial database, protection of waters against pollution caused by nitrates from agricultural sources and biogas from waste products from livestock. Our members support the legislation and government and participated in the development of Land Act, Law on Soil Protection, the National Action Program for Sustainable Land Management and Combating Desertification in Bulgaria (2007-2013, actualization 2014-2020), the National Agro-ecological Program of Bulgaria (2007-2013) within the Program for Rural Development, the Environment Operational Program (2007-2013), the National program for conservation, sustainable use and restoration of soil (2020-2030) functions in the drafting of regulations, standards and others at Parliament, ministries (Ministry of Agriculture and Food, Ministry of Environment and Water, Ministry of Regional Development), intergovernmental and parliamentary committees.

Our scientists, members of the Bulgarian Soil Science Society, contribute to the study and management of soil resources at the international level.

The National Soil Map issued in 1931 by Nikola Pushkarov was used to create a European soil map. Since 1959, the corresponding member Prof. Velin Koinov participated in the compilation of the World Soil Map in M 1:5.000.000, and from 1967 to 1975 he was a member of the team for the compilation of the Soil Map of Europe in M 1:1.000.000, as responsible and coordinator of FAO for South-Eastern Europe. From 1968 to 1986, Prof. Todor Boyadzhiev worked at the FAO headquarters as an

The International Union of Soil Sciences: A Centennial documentation of its national members

expert soil scientist, director and coordinator of FAO-UNEP projects in Asia and Africa. Prof. Ivan Garbuchevev worked for one year at the FAO and 4 years (1977-1981) at the UN-UNEP as head of the “Protection and restoration of soil and land” sector, develops the “World Soil Policy” program approved by the United Nations. From 1976-79, Prof. Slavejko Krastanov worked as an expert in soil chemistry at the FAO Secretariat. Prof. Metodi Teoharov is the bearer of the “Golden Book” prize of the Council of the European and Cultural Community for contributions in the field of Soil Science. For many years Prof. Nino Ninov worked on projects and programs of FAO and UNEP, highly appreciated by their headquarters. In the third and fourth editions of WRBSR, Assoc. Prof. Plamen Ivanov participated with materials on Technosols.

Leading scientists, members of the Bulgarian Society of Soil Science, were co-organizers of the three international meetings in Sofia in 1981-82 for the development and implementation of the International Soil Classification System (WRBSR) program:

- in the General Assembly of the Global Partnership for Soil, Bulgaria is represented by Irena Atanassova, Alternate: Svetla Rousseva (Institute of Soil Science, agrotechnologies and Plant Protection);
- in the European Soil Bureau by Prof. Svetla Ruseva (since 2012);
- in the International Network of organizations with soil information by Prof. Irena Atanassova (from 2022).

The members of BSSS popularize among the broad community fundamental scientific directions (Genesis, diagnostic and classification of soils, Soil physics, Soil chemistry, Soil biology, Soil erosion, Agrochemistry and Soil fertility, Agroecology, Ecology and protect of soil resources and Environmental protection) and the technologies and innovation decisions, first and foremost:

- National classification (1931, 1964, 1983, 1992 and dernier 2019 (ISBN 978-619-90414-3-7), worked according to all criteria WRBSR (2014, 2015);
- Reference data base for soils in Bulgaria;
- Complete diagnostic and agroproduction assessment of soil and climatic and agroecological potential of soil resources for the effective cultivation of crops;
- Models for establishing, maintaining and improving soil fertility;
- Erosion control and soil-protection technology in agricultural land use;
- Technological solutions for the remediation of contaminated land and amelioration of acidic, saline, disturbed and eroded soils;
- Methods and regulations for utilization of waste products from households, industry and agriculture;
- Methodological developments for the production of biogas from waste products;
- Biotechnological methods and solutions to increase yield and quality of plant production;
- Advanced systems and technologies for organic and sustainable agriculture;
- Checking and development of energy technologies and alternative crops;
- Radioecological and radiometric monitoring of soil, water and agricultural produce;

- Norms, regulations and directives for the harmonization of Bulgarian legislation with the EU in the field of agriculture and ecology;
- Training of farmers and specialists in the field of Soil Science, agriculture and agroenvironment.

Together with the Institute of Soil Science, Agrotechnology and Plant Protection “N. Pushkarov”, the state and non-governmental institutions and organizations, BSSS every year organized scientific conferences and scientific sessions on important themes. At present the **scientific work “Ten years World Day of Soils and movement for their protection and conservation”** is in press as a new publication of BSSS.

On the occasion of the International Year of Soils and the international decade of soils, the Society accepted a special long-time Work Programme, which is now put into action. In March 2015, the BSSS founded its own periodical, the e-Journal, Bulgarian Journal of Soil Science – paper and on-line publication (<http://www.bsos.bg/Journal.html>; email: journal@bsos.bg).

Every year on the occasion of the 5th December BSSS publishes studies (serial) “World day of soil” (ISSN: 2683-0310).

The history of BSSS is in one fact remarkable for Bulgarian Soil Science because BSSS is bearer, guardian and propagator of this science and it is in turn an inspirator of its scientists. The Executive board of BSSS thanks the galaxy of scientists who gave their modest personal contribution to the preservation of our national and secular wealth - soils and land. Let us honour the first who put its foundations and all the others who upgraded it with more consistency, new ideas and courageous work! Let us pay tribute to all those who in various stages of its development remained true to themselves, boldly defending their scientific ideas. May the science of soil and land live through the future centuries!

President of the Bulgarian Soil Science Society,
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BULGARIA

The Hungarian Soil Science Society 1943



The Hungarian Soil Science Society was first established between 1909 and 1929 and was later reestablished in 1943, but it stopped its activity after the Second World War. It was reorganized in 1954 as part of the Hungarian Agricultural Science Society and has become independent since 2002. It has 10 commissions and almost 400 members. The membership is very active, biannual meetings are held regularly.

The development of the society is closely related to the leading research and educational institutions, like the Agrogeological Department of the Geological Institute, the Agricultural University in Gödöllő and the Research Institute of Soil Science and Agrochemistry of the Hungarian Academy of Sciences – currently under different names and organizations. The first is the Agrogeological Department founded in 1891 within the Geological Institute of Hungary, led by Béla Inkey and Péter Treitz. The most important task of the department was to complete the first national soil survey of Hungary. The major milestone was the organization of the first International Conference on Agrogeology in Budapest, 1909, which is considered the first one in the World.

The staff members of the department have got acquainted with the modern soil school initiated by Dokutchayev and his colleagues in Russia, focusing on the soil forming factors as the main driving forces of the soil development and variability. The aim was to connect the Russian and the Western-school and develop a commonly agreed platform for soil mapping.

The most well-known participants were Glinka, Ramann, Sigmond, Treitz, Murgoci, among others. It was commonly agreed that the first step of any soil survey and mapping should be a small-scale general soil survey, in order to identify and define the major soil types that occur in different regions of the world. The work had started, and in 1918, the first climate-zone based soil map of the Carpathian basin was developed by Peter Treitz, who later became one of the first honorary members of the International Soil Science Society in 1927. Similar soil maps were compiled by Murgoci as well for Romania in the same time period. The small-scale soil map was followed by detailed mapping at a scale of 1:25000 between 1935-1955, led by Lajos Madari Kreybig, who revised the mapping procedure to focus on soil properties to support agricultural activities. His procedure was further extended to cover soil types and soil

classification information as well. At the end of the mapping campaign, Hungary has become the first country of the World with a complete soil map coverage at that scale.

One of the most important personalities of the Hungarian Soil Science community in the 1930s was Elek Sigmond. He was also elected as honorary member of the IUSS in 1935. His work on soil genesis, soil chemistry, colloid-chemistry, and his research on the soil forming processes - mainly on leaching and salinization - was recognized all over the world. His textbook was translated into English and has become one of the most commonly used textbooks globally. He was also the president of the Hungarian Soil Science Society and organized several international soil symposiums in Budapest, like the one on soil chemistry in 1929. His work on salt affected soils has been widely recognized. This topic has remained one of the most important topics within the Hungarian soil researchers.

István Szabolcs continued this line, who was later elected as Depute secretary general of the IUSS for the period between 1974-1990. But his work within the Salt affected soils commission was also important. He was the third Hungarian who was elected among the honorary members of the Society.

There are several significant soil scientists from recent times. Perhaps the two most important personalities were Pál Stefanovits, who renewed the Hungarian soil classification system and developed the national genetic classification. His work on soil mapping, soil mineralogy and forest soils are internationally recognized.

The other leading scientist, who was also elected as IUSS honorary member was György Várallyay. His national and international leadership contributed significantly to the development of the Hungarian Soil Science. His work focused on soil physics, salt affected soils and soil mapping. He was one of the initiators and leaders of the new soil survey of the agricultural lands of Hungary in the 1970-1980 years at the scale of 1:10.000, and also for the National Soil Monitoring System which started in 1993 and includes 1276 monitoring sites. His work was also significant in the international soil mapping activities, and international soil correlation.

The name of Erika Micheli has to be mentioned here as well. She was the chair of the WRB working group and served as Division 1. chair between 2010 and 2022. Her work on the WRB and on the international soil classification systems is well known and recognized. She initiated the renewal of Hungarian soil classification system and the introduction of the soil diagnostic system into the applied Soil Science in Hungary. She organized the “Bridging over the century” conference celebrating the 100 years anniversary of the first Agrogeological conference in Budapest. She is also one of the major organizers of the International Soil Judging Contests, and the proposer of the Soil Judging WG of IUSS (under establishment).

The Hungarian soil scientists are still active in the IUSS and have held and still hold several commission chair and vice-chair positions, namely in the Soil Morphology

The International Union of Soil Sciences: A Centennial documentation of its national members

and Micromorphology (Ádám Csorba, vice-chair), Soil genesis (Endre Dobos, chair), Soil physics (Brigitta Tóth, vice-chair), Salt affected soils (Tibor Tóth, chair), Soil evaluation and land-use planning (Gergely Tóth, vice-chair), and in the Soil degradation control, remediation and reclamation (Tibor Tóth, vice-chair) commissions.



Figure 1 – The participants of the first Agrogeological Conference held in Budapest, 1909.

Miskolc, (Hungary), 30th of May 2023.

On behalf of the Society
Endre Dobos President of the
Hungarian Soil Science Society

The Soil Science Society of China (SSSC) 1945



Words from Prof. Jiabao Zhang



“Almost everything grows in the soil. Protecting the soil is protecting ourselves and our future generations. The Soil Science Society of China will devote itself to achieving a sustainable planet together with the International Union of Soil Sciences.”

General Information

The Soil Science Society of China (SSSC), one of the top national societies under the China Association for Science and Technology (CAST), was founded in 1945. It is a non-profit organization led by the Institute of Soil Science, Chinese Academy of Sciences.



Photo of some of the founding members of the SSSC (From left to right are Profs. Rongzhi Ma, Ruicai Huang, Yi Xiong, Qingkui Li and Enfeng Chen) (©SSSC).

The International Union of Soil Sciences: A Centennial documentation of its national members

The society brings together soil and fertilizer scientists and uses its expertise in soil sciences and resources in academic institutes to perform activities such as the promotion of academic exchanges and cooperation, the provision of technical services, the evaluation and recognition of scientific and technological achievements, the recommendation of candidates and projects, the editing and publication of soil sciences articles and the divulgence of soil sciences news to the popular media.

Following the national development strategies, the SSSC keeps abreast with the latest progress in the soil sciences, and proactively engages in the ecological protection, environmental governance and soil management. The members are active in the fields related to soil sciences, including the salt-affected land management, the rehabilitation and fertility improvement of middle-low yield farmland, soil classification, soil pollution control and remediation. In addition, the SSSC members have made significant contributions to the third National Soil Survey.

The SSSC plays a dynamic role on the international stage. The society became a member of the International Soil Science Society (now the International Union of Soil Sciences; IUSS) in 1979 and co-established the East and Southeast Asia Federation of Soil Science Societies in 1990. In 2005, the SSSC signed a memorandum of understanding (MoU) with the IUSS and the European Confederation of Soil Science Societies. Now several members take positions in the IUSS and the society will host the World Congress of Soil Science in 2026.



Photo of MoU Signing between the SSSC, IUSS and European Confederation of Soil Science Societies during the Sino-EU Workshop in 2005, Nanjing (©SSSC).

Institutional Framework

The SSSC is governed by the National Congress, the Council, the Standing Council, and the Board of Supervisors.

The National Congress is the highest authority of the society. It bears the responsibil-

ity for formulating and amending the Society Chapter, electing and ousting council members, deliberating on work statements and financial statements, making decisions on working policies and tasks, the termination of the society and other important issues.

The Council, formed of members elected every four years at the National Congress, is the executive body and manages routine activities of the society on behalf of the National Congress.

The Standing Council is elected by the Council and consists of a chairperson, several vice chairpersons and members and is responsible for the execution of the Council's duties. When required, the Standing Council may set up a few specialty (working) committees to coordinate affairs and work out proposals.

The Board of Supervisors consists of members elected every four years at the National Congress and is responsible for overseeing the society.

The society has 13 Specialty Committees, 8 Working Committees and 4 Working Groups.

The Secretariat carries out the administrative work of the society and the coordination work among committees and groups as directed by the Council.

English Website: <http://en.csss.org.cn/>

SSSC office Tel: +86-25-86881992

Email: icdsssc@issas.ac.cn/sssc@issas.ac.cn

SSSC Fellows

The SSSC Fellowship was created in 2021 to recognize Chinese members who have made contributions to soil sciences and related fields or to the operation of the society. Foreign members who have contributed to China's soil sciences may also be recognized with a Fellowship.

The Fellowship is the highest academic title in the field of soil sciences and is bestowed as a life-time honor by the SSSC. Soil scientists who are not Chinese nationals are recognized with the title of "Foreign Fellow". The number of fellows elected every four years will vary with developments in soil sciences. The number of foreign fellows shall not exceed that of Chinese fellows.

The International Union of Soil Sciences: A Centennial documentation of its national members



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Institute of Soil Science,CAS



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Renfang Shen
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Yongguan Zhu
Institute of Urban Environment, CAS

Inaugural Fellows (©SSSC).



Qirong Shen
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James Michael Tiedje
Michigan State
University



Laura Bertha Reyes-Sánchez
National University of Mexico



Rainer Horn
Christian-Albrechts-
University zu Kiel

Second Group of Fellows (©SSSC).

Academic Activities

- The National Congress: China's largest conference in soil sciences held every four years with about 2,000 attendees and a dozen symposia.
- Annual Academic Conference: a comprehensive conference in the field of soil sciences in China.
- Cross-strait Symposium on Soil and Fertilizer: co-held by the SSSC and the Chinese Society of Soil and Fertilizer Sciences every two years, alternating between the Chinese mainland and Taiwan province. The first Cross-strait Symposium on Soil and Fertilizer was hosted by the SSSC in Hangzhou, Zhejiang Province in 1995. It has been held 12 times and was suspended in 2020 due to the pandemic.
- International Academic Conferences: convened irregularly.
- Academic Activities: held by specialty (working) committees with about 20 activities per year.

SSSC Awards

- Science and Technology Award: The Science and Technology Award was established and filed with the Ministry of Science and Technology of the People's Republic of China in 2005. It is given annually to recognize Chinese soil sciences researchers and groups who have made substantial contributions to China's soil sciences, and to provide incentives for their further efforts in soil sciences innovation and development.
- Outstanding Achievement Award: The Outstanding Achievement Award (formerly "the Soil Science Society of China Award") was established in 2002. It is awarded every four years to encourage young and experienced soil sciences researchers to pursue excellence. No more than four recipients are selected in a given year.
- Outstanding Young Scholar Award: The Outstanding Young Scholar Award was established in 2007. It is given every two years to recognize Chinese soil scientists under the age of 36 in order to encourage these young scientists to dedicate themselves to the soil sciences. Up to 10 recipients are selected in a given year.

Young Elite Scientist Sponsorship Program (YESS)

The YESS initiative was established by CAST in 2015 to ensure that national societies identify and cultivate promising young scientists. It vigorously supports innovative researchers in science and technology under the age of 32 that have demonstrated excellent potential for development. The sponsorship is to help them make further outstanding achievements through the provision of research funding of ¥ 300,000 (¥ 45,000 before 2022) over three years. The SSSC has awarded 16 qualified young scientists to date.

Scientific and Technological Achievements Evaluation

The society started Scientific and Technological Achievements Evaluation in 2015 to identify and improve the quality of innovative achievements and to accelerate their transformation into practical applications. For this purpose, the SSSC periodically invites experts to evaluate selected achievements and provide a report according to established procedures.

Journals

The society sponsors and co-sponsors five journals one of which is *Pedosphere* founded in February 1991 and published bimonthly in English by Elsevier Limited and Science Press. *Pedosphere* has an impact factor of 5.7 (Q1; 2022 Journal Citation Reports®). It welcomes submissions from scientists from around the world in the field of soil sciences that are high-quality, timely and original research findings. The aim is to stimulate academic exchange and cooperation, and to advance the development of soil sciences studies in China and beyond.

The SSSC launched a dedicated Newsletter in December 2021. It is a bimonthly publication that focuses on societal and conference news, research frontiers, publication releases and technical products.

The British Society of Soil Science (BSSS) 1946



The British Society of Soil Science (BSSS) is an established international membership organisation committed to the study of soil. The Society brings together those working within academia, practitioners implementing Soil Science in industry and all those working with an interest in soils.

Research on soils and enhanced understanding and engagement with soils is essential for agricultural, landscaping, construction, remediation, conservation and archaeological projects, as well as policy direction on critical topics such as climate change.

We promote research and education, both academically and in practice, and build collaborative partnerships to help safeguard our soil for the future. This included hosting the World Congress of Soil Science 2022 in Glasgow, where those with an interest in soil met to discuss the critical global issues relating to soil including: managing soils sustainably, preserving its ecosystem, and mitigating against climate change.

Our History

The British Society of Soil Science was originally discussed at a meeting of the British Empire Section of the International Society at the Bonnington Hotel, Southampton Row, London on 28 March 1946 and then formally accepted at a meeting on 13 December 1946. It was felt that there was a need and a necessity to form a Society which provided information, discourse and research on soils to anyone who had an interest. From 50 people attending the first meeting in 1947, the society has grown and developed year after year, and following the 75th anniversary of the Society in 2022, we now represent 900 members.

The Society is honoured to have as its Patron, His Royal Highness the Duke of Gloucester, KG GCVO. We were also delighted that in 2022, His Royal Highness, King Charles III, in his previous role as the Prince of Wales, addressed delegates at the closing ceremony of our World Congress of Soil Science, congratulating us on an outstanding event and encouraging continued research on soils.

Our Governance

Over the last five years, the Society has updated its governance processes to ensure there is a skilled Board in place to ensure the stability of the organisation. Our Board

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members consists of 60% soil scientists and 40% from other sectors, where the member brings skills essential to the Society's management. We also have an experienced Council, supported by six standing committees, which provides support to Board by delivering the annual strategy. The Society has had a number of eminent Presidents including Professor Bernard Tinker, 2023 – 2024 President Dr Jack Hannam and our first President Mr C.G.T. Morison. <https://soils.org.uk/about-us/past-presidents/>

Our Strategy

Our Board has set out a clear vision and strategy, helping the Society which relies heavily on volunteers, to prioritise its activities. The seven-point strategy sets out the activity areas which our work supports:

1. Seeking to publicise the key issues for the Soil Science community;
 2. Promoting change through knowledge exchange across all aspects of Soil Science;
 3. Hosting conferences and meetings focused on soils;
 4. Supporting and encouraging the education of Soil Science;
 5. Inspiring the future generations of soil scientists;
 6. Ensuring high standards of professional practice for those working with soils;
 7. Leading on the social and environmental responsibilities of a contemporary society
- <https://soils.org.uk/about-us/governance/society-strategy-and-10-year-vision/>

The World Congress of Soil Science 2022

The World Congress of Soil Science (WCSS) is the leading international Soil Science conference, held every four years in different countries and in 2022, attended by 1,700 soil scientists from around the globe. We were delighted to be chosen to organise the 22nd Congress from 31 July – 5 August 2022 at the SEC in Glasgow, on behalf of the International Union of Soil Sciences (IUSS).

The Congress theme, 'Soil Science – crossing boundaries, changing society' focused on the link between soil and society, with sessions covering soil systems, soil processes, soil management and how we interact with and use soils around the world. Specialist workshops and discussion sessions took place across a wide range of soil disciplines. The core programme was supported by tours and a cultural and arts programme for delegates and the wider public to explore our diverse environment and culture.

Alongside the scientific programme there was also a ground-breaking policy session, the first of its kind at a WCSS. The policy day was specifically aimed at policymakers and demonstrated how scientific evidence can be used to shape policy and best practice for the benefit of all. Turning evidence into policy is key if we plan to address the issues facing our natural world over the coming decades. The oversubscribed policy programme brought together researchers, practitioners and policymakers to discuss the gaps in evi-

dence which policymakers needed to fill and best practice from around the world.

WCSS also included an exhibition, soil judging competition, tours offerings, fringe event programme, and arts, cultural and outreach offerings. The scientific programme was a triumph for representation within the community, with the final programme featuring presentations from all regions of the globe across a variety of research themes.

We are determined to ensure that the World Congress of Soil Science 2022 (WCSS22) will not be a forgotten moment, that legacies from the Congress will live on and continue to inform the future of Soil Science. In an open letter to the Soil Science community, we aimed to support the legacy of WCSS22 through the sharing of learned experience and as a benchmark for the future. The Congress was a huge success, considering the difficulties at the time with regards to COVID-19 pandemic; and despite that we focused heavily on reducing the environmental impact of the event as far as possible. This included being nominated for the Best Sustainable Event award at the Association of British Professional Conference Organisers (ABPCO) awards and launching our Delivering Sustainable Events guidance in association with the International Congress and Conventions Association (ICCA).

<https://soils.org.uk/wcss22/>

Our Activities

Alongside the World Congress of Soil Science, the Society has continued to deliver against its seven-point strategy. This includes:

- Publishing our two peer-reviewed scientific journals, the *European Journal of Soil Science* and *Soil Use and Management*.
- Organising an Annual Conference and also an Early Career's conference for our members to come together and hear the latest developments in Soil Science.
- Delivering "Working with Soil" training courses to provide delegates with the relevant knowledge and skills to succeed in the Soil Science industry.
- Coordinating several Zoom into Soil webinars over the year to take a deeper look into topics around soil.
- Achieving observer status for UNFCCC COP events.
- Producing science notes, guidance and educational resources to support and encourage the education Soil Science.
- Ensuring high standards of professional practice for those working with soils and providing continued professional development opportunities.
- Working in partnership with organisations and supporting local projects to publicise key issues and drive for change.
- Communicating with governmental parties and stakeholders on important issues on policy and potential solutions in forums, such as participating in the Parliamentary Inquiry into Soil Health.

Our Impact

The Society continues to make an impact in promoting research and education, both academically and in practice, to help safeguard our soil for the future. We are working hard to further our commitment and mission to secure the future of soils by promoting an enhanced understanding of the critical importance of soils in delivering the UN Sustainable Development Goals. Through this we aim to make a positive difference in the sustainable management and long-term security of soils that is critical to solving the environmental and societal challenges we face today. As we continue to grow, these achievements over the year highlight the impact we are making in achieving our goals and furthering our vision.

- 137 new members, with membership now stretching to over 42 countries across the globe.
- 904 people attended our eight Zoom into Soil webinars, and over 3,000 people watched the Zoom into Soil content online
- A 66% average increase in usage across our social media channels
- 28.5 training hours delivered
- Our four UN Sustainable Development Goals videos generated almost 1,600 views during 2022
- 42 Chartered Scientists
- 25 external soil-related events promoted.



Our Members

The Society represents 900 members from across Soil Science research, practice and across disciplines. Over the last two years, the Society's membership has grown by 14%, demonstrating the increasing reach which the Society has.

Member achievements of note include a CBE for work on soil ecology and climate change science to Professor Richard Bardgett, an OBE for services to soil and ecosystem sciences to Professor Bridget Emmett, and an appointment as a commissioner on the UK's Food, Farming and Countryside Commission (FFCC) for Professor Lorna Dawson.

BSSS President, Jack Hannam, commented on working and being associated with IUSS: *"It is extremely important for the British Society of Soil Science to be linked with the global community of soil scientists through our collaboration with the International Union of Soil Sciences. By working in partnership, we can achieve our aligned goals of promoting Soil Science and supporting soil scientists across the world. Joint activities support our mission and enable us to make a real difference in the world."* Sarah Garry, Executive Officer of BSSS said:

"It has been a privilege to work alongside the IUSS in delivering the 22nd World Congress of Soil Science in what was the society's 75th anniversary. We would like to thank IUSS Council for selecting us as hosts of the event and helping us to ensure its success. We know that the legacy of the Congress will continue for many years to come and will influence research and policymaking all over the world. We couldn't have achieved our vision and goals for the event without IUSS and we are incredibly grateful for their continued support for us and our collective missions."

The Spanish Society of Soil Science (SECS) 1947



The Spanish Society of Soil Science (SECS) was established in 1947 by the Spanish National Research Council (CSIC), with the aims to encourage cohesion and collaboration among Soil Science professionals, with a progressive approach and a desire to serve society. One of SECS's goals is to promote the study, knowledge, research, and conservation of soil, as well as its dissemination to the public. To achieve this goal, the SECS undertakes various projects and organizes events for scholars of different ages. Overall, the SECS's efforts to promote Soil Science and raise awareness about the importance of soil protection are commendable, and their focus on engaging with different age groups is an effective approach. Over time, the SECS has witnessed a steady increase in the number of its members, with the current count standing at approximately 600.

The Executive Committee of SECS comprises of the president, three vicepresidents, the general secretary, and the treasurer. SECS had a number of distinguished past-presidents, including José María Albareda Herrera (1947-1956), Cayetano Tamés Alarcón (1956-1962), Vicente Aleixandre Ferrandis (1962-1968), Antonio Nicolás de Isasa (1968-1978), Ángel Hoyos de Castro (1978-1986), Carlos Roquero de Laburu (1986-1994), José Aguilar Ruiz (1994-2001), Felipe Macías Vázquez (2001-2009), and Jaume Porta Casanellas (2009-2017). The current Executive Committee of the SECS comprises of Jorge Mataix-Solera as president, Engracia Madejón, Sara Ibáñez, and Ana Moliner as vicepresidents, Gael Bárcenas as general secretary, and Oriol Ortiz as treasurer.

In addition to its Executive Committees, the SECS is organized into 14 sections and 4 territorial delegations. These sections and delegations are regional branches of the society that help to promote the study and protection of soils at the local level, facilitating collaboration and communication among Soil Science professionals in different regions. The sections and delegations organize events, conferences, and other activities to promote Soil Science education and research, as well as to raise awareness about the importance of soils for sustainable development. By fostering collaboration and communication among Soil Science professionals at the local level, the SECS aims to build a stronger and more cohesive community of Soil Science scholars and practitioners across Spain.

Among the regular activities of SECS, the Spanish Society of Soil Science collaborates with educational centers and various administrations, including universities, primary

and secondary schools, museums, national and international parks, and institutions related to nature, ecology, and the conservation of terrestrial ecosystems, to develop educational projects (Mataix-Solera *et al.*, 2020). These projects aim to promote Soil Science and the conservation of soil ecosystems, and they reflect SECS's commitment to increasing public awareness of the importance of soil conservation. SECS has a scientific journal, the Spanish Journal of Soil Science, and also some additional material to disseminate the activities of the members, through the NEWS_SECS bulleting and the annual calendar on a soil related topic.

The comic book titled “Vivir en el suelo” (Living in the soil) and its corresponding “Lesson Plan” have been translated into several languages, including Galician, Spanish, English, Italian, Catalan, Polish, Chinese, and German. The main goal of these materials is to promote and raise awareness about the significance of soil among scholars. The comic book has gained significant international recognition, particularly during the “2015 International Year of Soils” (IYS) and the “2015-2024 Decade International of Soils”. Since its launch in 2015, over 80,000 copies have been printed, reflecting the success of this initiative in disseminating the importance of soil conservation.

Several members of SECS have authored books on Soil Science. One such book is “Edafología para la Agricultura y el Medio Ambiente” (Soil Science for Agriculture and Environment), which had a significant impact not only in Spain but throughout Latin America as well. The book was authored by Jaume Porta, M. López-Acevedo, and Carlos Roquero, with the first edition published in 1994. It is a general Soil Science book intended for university-level students and has been widely acclaimed for its contribution to Soil Science education and research in the region.

The “Multilingual Soil Science Dictionary” is another noteworthy project of the Spanish Society of Soil Science. This dictionary is available in multiple languages, including Spanish, Catalan, Galician, and Portuguese, and provides equivalents in English and French. It is a digital dictionary that covers various aspects of Soil Science, including terminology, text, and synchronic pan-Hispanic information. The dictionary is a valuable resource for professionals and students in the field of Soil Science, facilitating effective communication and collaboration across linguistic and geographic barriers.

The Spanish Society of Soil Science (SECS) is responsible for organizing three major congresses: CONDEGRES (National Symposium on Soil Degradation Control and Recovery), CICS (Iberian Congress of Soil Science), which is held jointly with Portuguese colleagues, and RENS (National Meeting on Soils), the oldest and most traditional of the three. During RENS, attendees embark on a field trip to a designated region of Spain, where local soil scientists provide detailed descriptions of the soils in the area, including their classification and suitability for various uses. The event also encourages open discussion and exchange of ideas among attendees. The most recent

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edition, the 33rd, was held in Navarre.

The SECS convenes several annual awards to promote Soil Science, including the prize for the best doctoral thesis, photographic prize, and prizes for select teams participating in academic competitions such as the national and international “Soil Judging Contests”. These awards serve to recognize outstanding contributions and achievements in the field of Soil Science, encouraging scholars and researchers to advance the study, knowledge, and protection of soils. By promoting excellence in Soil Science research and education, the SECS aims to raise awareness about the importance of soils and their role in supporting sustainable development.

The SECS is proud to have many of its members recognized for their outstanding contributions to Soil Science both nationally and internationally.

To cite some examples, Professor José Torrent, who was awarded the Philippe Duchau-four medal from the European Geosciences Union (EGU) in 2012. This prestigious award recognizes outstanding contributions to Soil Science research and education in Europe.

Additionally, two members of the SECS have been recognized by the International Union of Soil Sciences (IUSS) as honorary members for their contributions to the field. These members are Jaume Bech in 2016 and Rosa M. Poch in 2020, who have made significant contributions to Soil Science research, education, and advocacy throughout their careers. Rosa M. Poch is currently the president of the Intergovernmental Panel of Soil (ITPS) of GSP-FAO. The SECS takes pride in the achievements of its members and strives to promote excellence in Soil Science both nationally and internationally.

In words of Rosa M. Poch, “My first contact with IUSS was in 1998, when I attended the 16th World Congress of Soil Science in Montpellier (France). It was during this congress that the former International Society of Soil Science became the International Union of Soil Sciences. I especially remember the session when the IUSS was presented as a big umbrella covering the existing Soil Science societies in the world. After that congress I was involved in the organization of one of the post-congress excursions (Catalonia-Aragón). It was an unforgettable experience: the discussions in the field and the scientific exchange with the experienced professors all around the world that joined that excursion were one of the important milestones in my career. Later on, I became vice-chair (2006-2010) and chair (2010-2018) of Commission 1.1. Soil Morphology and Micromorphology. It was an honor and a privilege to contribute to the advancement of this discipline in the frame of the IUSS. In the last editions of the IUSS congresses I actively participated in one of the best initiatives to foster basic field Soil Science among young scientists: the soil judging contests. This is in fact what I value the most: the IUSS is “the” forum where all soil scientists should be able to exchange ideas and knowledge, in order to place soils in society as a vital resource that should be taken care of for the sake of future generations.”

More information: www.secs.com.es

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National Soil Meeting. Seville, 2019.

The Brazilian Society of Soil Science (SBCS) 1947



In this brief report, we will contextualize the origin, evolution, and current state of the Brazilian Society of Soil Science (SBCS) and its interrelations with the International Society of Soil Science (ISS) and the International Union of Soil Sciences (IUSS).

Although Brazilian Soil Science began around 1877 with the creation of the Imperial Agricultural School of Bahia and the Imperial Institutes in Rio de Janeiro, in Pernambuco, Sergipe, and Rio Grande do Sul, the Brazilian Society of Soil Science was only created in 1947.

The motivation for creating SBCS emerged among Brazilians participating in the 4th Interamerican Conference of Agriculture in Carácas, Venezuela (1946). This movement intensified during the 2nd Pan American Congress of Mining and Geology (1946) in Petrópolis, Brazil, and the 5th Brazilian Congress of Chemistry in February 1947 in Porto Alegre. Finally, the creation of the SBCS was consolidated on October 20, 1947, during the First Brazilian Soil Science Meeting (precursor to the Brazilian Congress of Soil Science). This pioneering meeting was organized by the National Center for Agricultural Education and Research (CNEPA) and held at the Institute of Agricultural Chemistry, in Rio de Janeiro – at that time, the capital of Brazil. The merit of creating the SBCS is attributed to Álvaro Barcellos Fagundes, Alcides Franco, Raul Edgard Kalckmann and the approximately 40 participants in the Foundation Assembly (founding members). The creation of the SBCS coincides with the beginning of pedological studies in Brazil by the CNPEA Soil Commission (Oliveira, 2005)¹ and represents a relevant milestone in the history of Soil Science in Brazil (Camargo *et al.*, 2010)².

Since its foundation, SBCS has been governed by a statute that states that one of its main goals is to promote and increase the connection and interactions of research and teaching experiences with technical activities related to Soil Science. Another SBCS objective is to disseminate knowledge of scientific methods and adequate practices for better soil use and management.

1. <https://www.sbcS.org.br/wp-content/uploads/2015/07/Sociedade-Brasileira-de-Ci%C3%Aancia-do-Solo-UM-OLHAR-SOBRE-SUA-HIST%C3%93RIA.pdf>

2. <https://www.rbcSjournal.org/article/brazilian-soil-science-from-its-inception-to-the-future-and-beyond>

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The 76-year history of SBCS is divided into three phases. The first (1947-1975) was based at the Institute of Agricultural Chemistry in Rio de Janeiro. During the second phase (1975-1997), SBCS was at the Agronomic Institute of Campinas in the State of São Paulo, and the third phase, starting in 1997, was based at the Department of Soil Science at the Federal University of Viçosa, in Minas Gerais.

The SBCS was initially scientifically organized into thematic sections and commissions and, later, into divisions and commissions, all characterized according to the knowledge areas in Soil Science. The SBCS Statute was reformulated in 2009 when the Divisions and Specialized Committees were created according to the IUSS structure. Until 2009, the administration of the SBCS was guided by a Director Board (President, Vice-President, Secretary, Treasurer, and six Advisors), with the General Assembly as the highest decision-making body.

With the reform in 2009, the SBCS administration began to be carried out by an Executive Secretariat (President, General Secretary, Adjunct Secretary, Treasurer) and a Director Board (composed of the members of the Executive Secretariat, the last two Presidents, the Editor-in-Chief of the Brazilian Journal of Soil Science, and by the Directors of the Scientific Divisions and of the Regional or State Nuclei). The General Assembly continued as the highest body. Another highlight of the 2009 reform was structuring the SBCS into nine Regional or State Nuclei, distributed according to the geopolitical regions of Brazil. This new structure made it possible to spread SBCS actions throughout the country.

SBCS has achieved its objectives through scientific events. The Brazilian Congress of Soil Science Congress, the most significant event promoted with a biennial frequency in odd-numbered years, reached its 38th edition in 2023. With a biennial frequency, but in even years, the FertBio Meeting has been held since 1998, merging the Brazilian Soil Fertility, the Soil Biology, and the Soil Microbiology Meetings (independent meetings in the past). The Soil and Water Management and Conservation Meeting and the Brazilian Soil Education Meeting take place at the same frequency. The Soil Classification and Correlation Meeting (RCC) is promoted in partnership with other institutions, including the Brazilian Agricultural Research Corporation (Embrapa) and is linked to the Brazilian Soil Classification System (SiBCS).

SBCS also achieves its objectives through publications. The Information Bulletin, circulated between 1975 and 2018, was an instrument of historical recording and member interaction. It was subsequently continued as a Newsletter, a proposal more suited to the current digitalized world.

However, the Brazilian Journal of Soil Science unquestionably is the main vehicle for scientific dissemination of the SBCS. This journal is published without interruption since 1977, and since 2016, it has been published in English and exclusively in electronic format. It is internationally indexed and had an impact factor since 2004. SBCS is also the publisher of several books related to different topics, emphasizing the series

of textbooks supporting undergraduate and graduate Soil Science teaching.

Historically, SBCS has, on average, 600 members, and from 2013 to 2015, it reached more than 1,100 members. However, in the years influenced by the coronavirus pandemic (2020-2022), the number of members was reduced to around 450. After this period, the number of members has gradually recovered. Over these 76 years, the SBCS has had 25 presidents (Table 1).

In 2003, Dr. Mariângela Hungria was the first woman to hold the position of president. Subsequently, from 2015 onwards, three women occupied the SBCS Presidency position: Dr. Fátima Moreira (2015-2017), Dr. Lúcia Anjos (2017-2023), and Dr. Maria Eugênia (2023-2025).

Dr. Álvaro Barcelos Fagundes, the first president of SBCS (1947-1949), was the only Brazilian participant present at the 1st World Congress of Soil Science (1927) in Washington, USA. Perhaps this is the first interaction record between Brazilian Soil Science and the International Society of Soil Science (ISS). According to IUSS historical records³ in 1952, four Brazilians were members of the ISS. Between 1954 and 1974, the number of Brazilians associated with the ISS varied between 11 and 35; however, in 1977 and 1982, this number rose to 116 and 273, respectively. Among the Brazilian members of the ISS in 1982 was Gonçalo Signorelli de Farias, who became president of the SBCS (2011-2015) and is currently a member of the IUSS Committee of Presidential Elections.

Table 1. Presidents of the SBCS since its creation in 1947.

Álvaro Barcelos Fagundes	1947/1949 – 1951/1953 – 1955/1957
José Elias de Paiva Neto	1949 /1951
Moacyr Pavageau	1953/1955
Leandro Vettori	1957/1959
Waldemar Mendes	1959/1961 - 1965 /1967
José Emílio Gonçalves de Araújo	1961/1963
João Wanderley da Costa Lima	1963/ 1965
Ernst Poetsch	1967/1969
Abeilard Fernando de Castro	1969/1971 – 1971/1973
Raimundo da Costa Lemos	1973/1975
Luiz Bezerra de Oliveira	1975/1977 – 1977/1979 – 2003/ 2005
Raymundo Fonseca de Sousa	1981/1983 – 1983/1985
José Fernando Moraes Gomes	1985/1987 – 1987/1989
Fernando Barreto Rodrigues e Silva	1989-1991
Egon Klamt	1991/1993 – 1993/1995
Luiz Eduardo Ferreira Fontes	1995 /1997

3. <https://www.iuss.org/about-the-iuss/iuss-history/>

Antônio Ramalho Filho	1997/1999
Antônio Carlos Moniz	1999/2001
Mariângela Hungria	2001/2003
Mateus Rosas Ribeiro	2005/2007
Flávio Anastácio de Oliveira Camargo	2007/2009 – 2009/2011
Gonçalo Signorelli de Farias	2011/2013 – 2013/ 2015
Fátima Maria de Souza Moreira	2015/2017
Lúcia Helena Cunha dos Anjos	2017/2020 – 2020/2023
Maria Eugênia Ortiz Escobar	2023 – 2025

After the ISSS, the interaction between the SBCS and the IUSS intensified from 2002 onwards. During the 17th World Soil Science Congress (WCSS) in Bangkok, Thailand, the Brazilian delegation proposed without success to host the 19th edition of the WCSS. Another unsuccessful attempt occurred in 2006 at the 18th WCSS, in Philadelphia, USA.

In 2007, during the 31st Brazilian Soil Science Congress in Gramado, RS, the SBCS Director Board decided to present at the 19th WCSS, in Brisbane, Australia (2010), the Brazilian candidacy to host the 21st WCSS in 2018. The candidacy was prepared by Flávio Camargo and Victor Hugo Alvarez V, President and General Secretary of SBCS. Professor Alvarez worked to get the support of the Latin American Soil Science Societies for the Brazilian candidacy.

The Brazilian campaign began in 2008 at the InterCongress in Brisbane, where Dr. Camargo presented the Brazilian proposal for the 21st WCSS to the IUSS Council. From then on, Dr. Camargo intensified the interaction between SBCS and the IUSS Council. With the reformulation of the Statute in 2019 (32nd CBCS, in Fortaleza), the SBCS acquires a scientific structure compatible with the IUSS. The desired project comes to fruition at the 19th WCSS in Brisbane – SBCS will hold the 21st WCSS in Brazil in 2018! The eight years of preparation for the WCSS in 2018 undoubtedly provided a strong interaction between the SBCS and the IUSS. The three presidents who succeeded Flavio Camargo: Gonçalo Farias (2011-2015), Fatima Moreira (2015-2017) Lucia dos Anjos (2017-2023), worked hard to intensify and maintain the interaction between SBCS and IUSS.

The intensification of this interaction is seen through the growing number of Brazilians participating in the administrative and scientific structure of the IUSS: two between 2002 and 2006 and 14 between 2014 and 2018. Currently, seven Brazilians participate in the IUSS structure (Table 2). SBCS is honored to have two former presidents awarded the honor of Honorary Member of the ISS/IUSS: Leonardo Vettori (1978) and Flávio Anastácio de Oliveira Camargo (2020).

To enrich this brief report, we asked some SBCS members about: 1. their opinion or

perception about the ISSS/IUSS and 2. their suggestions for the future of the IUSS and future generations. The answers are below.

Table 2. Brazilians currently participating in the IUSS structure

IUSS Standing Committees:	
Committee of Presidential elections	Gonçalo Signorelli de Farias (Member)
Committee on statutes and structure	Flávio A. de Oliveira Camargo (Chair)
IUSS Task Forces	
Task Force on election procedures	Lúcia Helena C. dos Anjos (Chair)
Current IUSS Division and Commission Officers (2022-2026)	
Division 1:	
Commission 2: Soil Geography	Eduardo Guimarães Couto (Vice Chair)
Working Groups Digital Soil Mapping	Alessandro Samuel-Rosa (Vice Chair)
Division 4:	
Commission 4: Soil Mineralogy	Edson C. Bortoluzzi (Vice Chair)
Division 3:	
Commission 3: Soil Fertility and Plant Nutrition	Luciano Colpo Gatiboni (Vice Chair)

Maria Eugênia O Escobar, current President of SBCS (2023-2025). According to the President of SBCS, “The role played by the IUSS is important, bringing together national societies into a single entity, which makes it easier to work towards the recognition of this area of knowledge for the benefit of humanity, due to the role that soil plays in life. in the land.” She also adds: “Considering that it is not easy to maintain societies, especially in peripheral countries, due to the lack of annual fees and the number of members, much more is required than persistence, effort, determination, and cooperation. The IUSS, through national societies, must reinvent itself as the demands of humanity increase, making it more attractive and meeting the expectations of society (scientific and civil). It is necessary to diversify the functions of scientific societies, not only so that they continue to do what they already do but to improve what they do and continue to grow. Scientific-professional interaction and exchange must be encouraged with a social commitment that yields results; work together with other areas (not just Soil Science) for mutual benefit and act more directly in the training of human resources in different activities that can contribute to the growth and strengthening of societies such as scientific production, scientific publishing, administration, and promotion/carrying out social activities with an environmental focus, among others. IUSS (and national societies) must grow and diversify for a promising future.”

Lúcia Helena dos Anjos, recent past president of SBCS (2017-2023) and Chair of the Task Force on election procedures – IUSS, stated that: “The IUSS became a very

important channel for global discussions about soils, and information about their relevance to all Earth systems. Recently, the IUSS became a channel to initiatives toward valuing soil education as an important part of science and to increase the awareness of society on the importance of soils to sustain life. As examples, the project IUSS – FAO – GSP children’s book, co published in 2021 and 2022, and the International Decade of Soils. “Regarding the future, Lúcia emphasizes that: “The IUSS STRATEGIC PLAN 2021-2030 has to be reinforced, by promoting campaigns and short events with participation of the societies associated with IUSS. The relevant policies stated in this document and the nine (9) strategic goals have to become a reality; especially the goals of number 1, 2, 3, 6 and 9. The last one – “adoption of an equality and equity policy and their internal practice”, for a long time was demoted to a place of lesser importance or not practiced at all.” She adds that: “The IUSS Divisions, Commissions and Working Groups must be internationally represented, and to be stimulating for young scientists. Last but not least, the information in the IUSS home-page should be available in other languages than English; perhaps by collaboration from regional societies, as an example of the Latino American Soil Science Society, to translate general content in the home-page”.

Flavio Camargo, ex-President of the SBCS and President of the 21st WCSS, currently Chair Committee on Statutes and Structure – IUSS, said: “Regarding the ISSS/IUSS, I think that the legacy of the scientists and researchers who were and are part of the construction of knowledge in Soil Science in the world is gigantic. In less than a century, the basis of this science, its developments, and its impact on humankind were tremendous and essential for maintaining life on earth.” And he adds: “For the future, with the progressive and uncontrolled increase of the population, Soil Science and the scientists who carry it out will have great and unknown challenges to maintain the conditions of life on the planet. No other earth science will have such a dominant role in the planet’s future as Soil Science, not only to resolve food security issues but also to maintain the conditions for our spacecraft to lead us into the future. It’s a big burden for the next generations and a big responsibility to all, but yes, we can do it! Again!”

Gonçalo de Farias, ex-president of the SBCS, current Member of the Committee of presidential elections – IUSS. Gonçalo comments: “My first contacts with the then ISSS began to take place in the mid-1970s, when I was working as a researcher in Soil Conservation in a research institute in the State of Paraná, Brazil, a time when the current IUSS was still structured as International Society of Soil Science and its equivalent in Brazil was the Brazilian Soil Science Society, which had at the time about 120 associates linked to the ISSS itself.

By those years, the notable scientist Wim Sombroek was the Secretary-General of the entity, based in Wageningen/Netherlands, and had many working ties with Brazil, being well known as a soil scientist and, with it, the search for ISSS activities was a little more common in our side (besides that, the cost of being a member was only US \$ 5.00...). Also, in that time (1978), the Brazilian scientist Leandro Vettori was admitted

as an Honorary Member of the ISSS, and that fact raised the interest of the Brazilians working in this area about the existence of an international scientific society focused on Soil Science. As I lived in the pre-Internet era, the information that reached me at that time were the Bulletins (produced then by Sombroek himself and later by Rudi Dudal), in addition to some reports of meetings/congresses.

Many years later, in 2010, when I participated in the XIX World Congress of Soil Science in Brisbane, Australia, where Brazil was chosen to host the 2018 congress, I began to interact more intensively with IUSS, and my most frequent contact person was the notable Winfried Blum, who had been General-Secretary between 1990 and 2002 and was (still is!) an enthusiast of the participation of more scientists, mainly from developing countries, in the IUSS. When I was President of the Brazilian Soil Science Society (2011-2015), I encouraged the stronger insertion of this Society in the IUSS, being also a member of the Committees of Presidential Elections (2014-present) and of Awards and Prizes (2014-2018). I also sought to stimulate groups of young scientists and other professionals to participate in the Society, always telling many words about the history of IUSS in my lectures and showing them the philosophical importance and practice of “belonging”.

Today, seeing that the commemorations of the centenary of this notable Scientific Society are approaching, I think that, in addition to the recognition of the world community of Soil Scientists, it deserves to have its image and content more widely exposed in the specialized press, the entities of the UN system, the environmental NGOs, etc., because it is not every day that a Scientific Society completes a century of existence!”

Fatima Moreira, ex-president of SBCS (2015-2017) summarizes: “Most of the SDGs UN Agenda 2030 are directly or indirectly related to soil. IUSS brings together scientists and other professionals with the aim of expanding, disseminating and applying the scientific knowledge in the conservation, use and management of soils around the world. Therefore, the IUSS provides a fundamental service for the sustainability of the planet. The encouragement and greater engagement of current and future generations in this work is fundamental for the performance of the IUSS to continue and have greater success.”

Cristine Muggler, an active participant in IUSS Division 4 (2014-2022) comments: “During these years, I really enjoyed participating in the IUSS technical bodies, and there I made good friends and had the opportunity for excellent conversations.” Regarding the first question, he responds: “I consider that the entity is an important instance of articulation of social and institutional actors linked to Soil Science and soil knowledge, with an important role in bringing together and bringing together people in the knowledge and care of soils. This role, however, is often not realized to its full potential due to the limited participation of non-professional actors and soil scientists, such as artists, farmers, and traditional people. The IUSS has been moving in this direction in recent years, but this often comes up against bureaucratic issues.” For the

future, she suggests: “Strengthen awareness about what soils are to effectively care for and conserve this natural and social asset, essential to life on Earth. This starts from the need to adjust our view of soils based on the fact that they are alive. Assuming soils as living is a sine qua non for their care and conservation. This means acting in training, dissemination, and education in soils, beyond strict sens science”.

Luciano Gatiboni, current Vice Chair of the Commission 3.3. of the IUSS states: “The IUSS is of utmost importance for the interactional scientific community related to Soil Science, agronomy, and the environment. Many countries have their own Soil Science scientific societies, but these entities have the mission of promoting Soil Science within the country’s borders. However, challenges related to land use and its effects on the environment are not limited by political boundaries. Therefore, the IUSS has a greater role in dealing with these problems in an integrated manner. For example, soil degradation by processes such as erosion, salinization, and desertification challenges entire continents. Also, aspects related to climate change need to be addressed by transnational entities so that they involve collective efforts and management with international entities such as FAO and IPCC, for example.” And then he adds: “The IUSS needs to continue advocating fairly to international entities about the conscious use of soil so that it can sustain the current demands for the production of agricultural goods, but preserving it so that future generations have access to soil quality that can also support the demands of those generations. At the same time, IUSS needs to work with Soil Science entities in each country to encourage soil preservation actions. In short, IUSS needs to define agendas of local and global interest, acting at different levels in defense of the good use and preservation of soil”.

Edson Bortoluzzi, current Vice Chair of the IUSS Commission 4.4, responds that the IUSS “is a century-old entity that brings together Soil Scientists representing their respective Soil Science Societies spread around the world. The entity gives soil scientists a sense of body and allows them to politically and technically organize scientists in their respective areas and specialties within Soil Science. Furthermore, the entity promotes merit distinctions to peers who stand out in their activities. Scientific dissemination and discussion are also important points that the entity promotes through national and global congresses.” According to him, the future of the IUSS “will depend on the continued interest of new members. I believe the entry of new members, young scientists, can be an effective vestibule for new and innovative ideas. This strategy meets both the entity’s need to perpetuate itself and the soil scientists’ need to better organize themselves in their activities and action specialties.” And he adds: “In this sense, I envision an IUSS with global action that is increasingly important in society. Future generations can have fertile ground in the IUSS to help create technical/scientific guidelines that support global public policies involving soil, environment and people’s food sovereignty. I also believe that broad-spectrum soil education (reaching children of all people) is one of the global needs to face environmental challenges and food security and sovereignty.”

Eduardo Couto, current Vice Chair of the Commission 1.2. He states that “the IUSS plays a crucial role in promoting the study and sustainable use of soils, as well as advancing Soil Science and its applications around the world. Without a doubt, the possibility for its members to share their knowledge and new discoveries with scientists from various parts of the world allows global organizations such as FAO to formulate important initiatives, such as the global soil classification, and act as a global voice for awareness. Public discussion about the importance of soil in mitigating climate change.” He further adds that “the IUSS, through its knowledge dissemination mechanisms, can help increase public understanding of the importance of soil, a common good for humanity, which has the difficult task of providing food for a population of 10, 4 billion people.” Dr. Douoto detailed eight specific future actions for the IUSS. But in general, he suggests that “the IUSS actively participates in global forums, such as the ONU, PNUMA, IPCC and FAO”. He adds that “the IUSS can contribute to increasing public awareness about the importance of soil and the need to protect it, whether through the social media or publicity actions in schools and universities”. He also highlights that “the IUSS will face challenges with combating climate change, population growth, urbanization of the planet and the responsible and ethical adoption of new technologies in Soil Science.”

The Latin American Soil Science Society (SLCS) 1947



76 years of our history

On October 6, 1947, the **Brazilian Society of Soil Science** was formed, being thirty-one the signatories of the founding act, and its first directive structure constituted by the soil scientists: Álvaro Barcelos Fagundes (President), José Elias de Paiva Neto (Vice- President), Raúl Edgard Kalckman (General Secretary) and Fernando Ramos (Treasurer); date in which at the same time its first congress was held: from October 6 to 20, 1947 in the city of Rio de Janeiro.

Similarly, on October 10, 1947, the **Spanish Society of Soil Science** was founded, as a result of the work of an Organizing Commission chaired by Prof. Juan Marcilla, and of which the researchers and/or professors José M. Albareda, Tomás Alvira, Lorenzo Vilas, Ernesto Cañedo, Jesús Ugarte, Luís Cavanillas, Salvador Rivas Goday, Ignacio Echevarría, Fernando Burriel, Jesús Aguirre José Antonio Jiménez Salas were members.

During the 1950s, soil studies had a significant intensification in Argentina, thanks to the creation of national and provincial organizations which, endowed with means and highly qualified technical personnel, undertook the important task of increasing the scientific knowledge of the natural resource soil.

However, before 1954, most of the existing soil scientists in Latin America formed a Scientific Society together with phytopathologists and entomologists, which had its headquarters in Turrialba, Costa Rica; it was called ALAF, and published a journal called Turrialba, which was sponsored by the Inter-American Institute for Agricultural Development (IICA). Over time, the different associations that made up the ALAF, were organizing their own societies, until the disappearance of the ALAF and its magazine.

It was in 1954, when on the occasion of an ALAF congress in Bogotá, **Dr. Antonio Arena** invited the attending soil scientists to participate in the organization of a **Latin American Soil Science Society (SLCS)** and to form national societies of soil scientists in each Latin American country; proposing, according to talks already held, that the first congress of this society in process of formation should be held in Argentina.

So, in response to Dr. Arena's invitation, about 20 Colombian soil scientists decided to form their own society and contribute with a provisional fee of \$1.00 USD per member, to the creation of the nascent Latin American Society of Soil Science; be-

ing in **1955** that **the Colombian Society of Soil Science was founded in Medellin**, through an action led by Dr. Manuel Del Llano, and other professionals of the field of Soil Science, among them: Emilio Ramírez, Javier Gómez, Francisco Galiano Sedan, Francisco Silva Parra, Jairo Correa, Jairo Gómez, Ramón Serna, Agathón Wiczorek, Bernardo Martínez, Ovidio Restrepo, Francisco Montoya, Jaime Lotero, Carlos J. Píñilla, Enrique Moncayo, Oscar Ospina, Alfonso Aristizábal, Guillermo Guerra, and Guillermo Ortiz R.

It is also in **1955**, that a group of pioneers of Soil Science, headed by Dr. Luis J. Medina, undertook the creation of the **Venezuelan Society of Soil Science**.

Meanwhile, in Argentina, a group of thirty-five members of the then Soil and Agro-technical Institute, under the Ministry of Agriculture and Livestock of that country joined the International Society of Soil Science on April 11, **1958**, creating the **Argentine Section** of the same and holding its 1st Argentine Soil Science Meeting in Buenos Aires from September 7 to 12, 1959. Among them, the names of the following engineers stand out: Antonio J. Prego, Armando L. De Fina, Luis A. Tallarico, Julio Olivieri, Oscar J. Guedes, Edgardo J. Pecora, Roberto A. Alonso, Eduardo Barreira, Antonio C. Ferreiro, Natalio Mickenberg, Jorge I. Bellati, and José Calcagno and Doctors Marcos Tschapek, Nelida Giambiagi, Pedro Etchevehere and Roberto V. A. Caravello.

After two and a half years, with the incorporation of an important number of associates, **the current Argentine Association of Soil Science** was founded in the Extraordinary Assembly held on September 2, 1960.

In **1960** the **Peruvian Society of Soil Science** was founded.

On October 19 of the same year **1962**, when the 1st Latin American Congress of Soil Science was held, the **Mexican Society of Soil Science** was founded with 142 members, among its promoters were the soil scientists: M. C. Nicolás Aguilera H., Dr. Roberto Núñez E., Dr. Antonio Turrent, Dr. Ramón Fernández G., and Dr. Nicolás Sánchez Durón, who was its first President, and celebrated its 1st Congress in July 1963.

The **Ecuadorian Society of Soil Science** was founded on November 22, **1969**, during the meeting held at the “San Carlos” Sugar Mill, Marcelino Maridueña Parish, Yaguachi Canton, Guayas Province. Legalized by agreement No. 3847 of February 5, 1970, of the Ministry of Social Welfare and Labor of Ecuador.

In **1980**, the **Costa Rican Association of Soil Science** was founded.

In November **1985**, founded by the soil scientists: Abilio Cárdenas, Alberto Hernández, Nicolás Medina, Joaquín Hernández Borroto, José Luis Durán and Rafael Martínez Viera, the **Cuban Society of Soil Science** was constituted; its first congress was held from November 30 to December 2, 1988.

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On January 5, **1988**, the **Guatemalan Society of Soil Science** was founded. On March 24, **2000**, the **Paraguayan Society of Soil Science** was founded.

In May **2004**, a group of Uruguayan professionals related to the use, research and teaching of Soil Science, founded the Uruguayan Society of Soil Science.

On May 15, **2009**, the **Dominican Society of Soil Science** was founded.

On July 8, **2013**, the **Honduran Association of Soil Science** was founded by Dr. Gloria Arévalo de Gauggel.

FIRST Latin American Congress of Soil Science was held in the city of Mendoza, from April 20 to 23, 1962.

The subsequent Latin American Congresses of Soil Science, already organized as the **Latin American Soil Science Society (SLCS)**, have been:

Number	Year	Country	City	Latin American President	Date
I	1962	Argentina	Mendoza	Dr. Oscar Guedes	20-23-IV
II	1965	Brasil	Piracicaba	Prof. Guido Ranzani	19-30-VII
III	¿?	¿?	¿?	¿?	¿?
IV	1972	Venezuela	Maracay	Dr. Richard Schargel	12-18-XI
V	1975	Colombia	Medellín	Dr. Servio Tulio Benavides	¿?
VI	1977	México	Ciudad de México	Dr. David Reyes Manzanares	16-20-XI
VII	1980	Costa Rica	Heredia	Dr. Alfredo Alvarado	30-VI-80
VIII	1983	Argentina	Mar del Plata	Dr. Ichiro Mizuno	23-28-X
IX	1985	Colombia	Cali	Dr. Fernando Munévar M.	26-30-VIII
X	1987	Venezuela	Maracaibo	Dr. Idelfonso Plá Sentis	14-21-VII
XI	1990	Cuba	La Habana	Ing. Abilio Cárdenas G.	11-17-III
XII	1993	España	Salamanca	Dr. Carlos Roquero	18 al 25-IX
XIII	1996	Brasil	Aguas de Lindóia	Dr. Rafael R. Aloisi	Agosto-96
XIV	1999	Chile	Pucón	M. en C. Itilier Salazar Quintana	8-12-XI
XV	2001	Cuba	Varadero	Dr. Rafael Villegas	11-16-XI
XVI	2004	Colombia	Cartagena	Dr. Álvaro García Ocampo	26-31-IX
XVII	2007	México	Guanajuato	Dr. José Antonio Cueto Wong	15-19-IX
XVIII	2009	Costa Rica	San José	Dr. Carlos Henríquez H.	16-20-XI
XIX	2012	Argentina	Mar del Plata	Dr. Gerardo Rubio	16-20-IV
XX	2014	Perú	Cusco	Dr. Julio Alegre Orihuela	9-15-XI
XXI		Ecuador	Quito	Dr. Gustavo Bernal Gómez	24-X-16
XXII	2019	Uruguay	Montevideo	Dr. Mario Pérez	7-X-19
XXIII	2023	Brazil	Florianopolis	Dra. Elisângela Bendet Da Silva	31-VII-23

Currently the Latin American Soil Science Society is an Association of National Scientific Societies from all over Latin America, to which Spain and Portugal were invited to participate, given our historical and cultural ties. It is made up of a Latin Amer-

ican President, a Latin American General Secretariat and 20 National Soil Science Societies corresponding to 20 countries.

Its fundamental mission is: to generate, disseminate, encourage and promote all scientific, technological, educational and cultural action that contributes to the preservation of the soil as a common good of humanity (*Latin American Declaration of Mar del Plata*, 2012) and an essential natural resource for life on Earth.

Today they are part of the historical spaces that, due to their importance and regional impact, constitute part of the format and characteristics that give their own identity to the SLCS and their Latin American Congresses of Soil Science:

1. Since 1999, the “*Andrés Aguilar Santelises. In memoriam*” Award, for the best Latin American work written on Soil Science.
2. Since 2000 the Latin American educational project “Thus are the Soils of my Nation”. For the SLCS, this Soil Science Education and Teaching project for children and young people is of paramount importance, which is promoted through the Latin American Network for Education and Teaching of Soil Science.
3. Since 2001, within the framework of the educational project of the SLCS “Thus are the Soils of my Nation” the “*Latin American Symposium of Educational Innovations in the teaching of Soil Science*”, aimed at children and young people from preschool to high school, in coexistence with Soil Science professionals.
4. Since 2004, the Latin American Network for Education and Teaching of Soil Science (RELAE ECS).

During its XIX Latin American Congress of Soil Science, the Latin American Soil Science Society (SLCS), **posthumously distinguished Engineer Antonio Arenas for his great contribution to the creation of the current SLCS and the consequent organization of the national Soil Science Societies at the Latin American level, with the unique appointment of Founding President of the Latin American Society of Soil Science.**

Also noteworthy for their work in favor of the SLCS are Don Francisco Silva Mojica (Colombian Soil Science Society) as its 1st General Secretary, and Dr. Andres Aguilar Santelises (Mexican Soil Science Society), who was World President of the International Union of Soil Sciences (IUSS) in the period 1990-1994.

The Latin American Society for Soil Science organized in conjunction with the International Union of Soil Sciences (IUSS), the World Congresses on Soil Sciences XV and XVII.

Number	Year	Country	City	WCSS President	Date
XV	1994	México	Acapulco	Dr. Andrés Aguilar Santelises	10 -16 -VII
XVIII	2018	Brazil	Río de Janeiro	Dr. Flavio Camargo	12 -18- VIII

SLCS GENERAL SECRETARIES

Name	Period at the head of the SLCS
Don Francisco Silva Mojica	1994 - 2000
Laura Bertha Reyes Sánchez	2005 - 2019
Dr. Mary Selva Ciera Vargas	2020 - 2023

SLCS HONORARY MEMBERS

During the CLACS XXI 2016 in Quito, Ecuador, a proposal was presented to exercise Article 8 of the General Statutes of the Latin American Society of Soil Science, to grant the appointment of HONORARY MEMBERS, to those persons who are deserving such distinction for outstanding services presented to the progress of Soil Science in the Iberoamerican area.

CLACS	AÑO	PAÍS	CIUDAD	PREMIADOS
XXI	2016	Ecuador	Quito	Dr. Idelfonso Plá Sentís, Dr. Jaume Porta Casanellas, Don Francisco Silva Mojica, Dr. Olegario Muñiz
XXII	2019	Uruguay	Motevideo	Dr. Álvaro García del Campo Dr. Jorge Etchevers Barra Dr. José Espinoza
XXIII	2023	Brazil	Florianópolis	Dr. Víctor Hugo Álvarez Dr. Rainer Horn

Latin American Soil Science Award

CLAC	Año	País	Ciudad	Premiados
XVI	2004	Colombia	Cartagena de Indias	Dr. Francisco Silva Mojica Dr. Jorge Etchevers Barra
XVII	2007	México	Guanajuato	Dr. Gustavo Moscatelli
XVIII	2009	Costa Rica	San José	Dr. Víctor Hugo Álvarez
XIX	2012	Argentina	Mar del Plata	Not conferred
XX	2014	Perú	Cusco	Dra. Laura Bertha Reyes Sánchez Dr. Olegario Muñiz Ugarte
XXI	2016	Ecuador	Quito	Dr. Gonçalo Signorelli De Farías
XXII	2019	Uruguay	Montevideo	Dr. Rainer Horn
XXIII	2023	Brazil	Florianópolis	Dr. Ronald Vargas

During CLACS 2004 in Cartagena de Indias, Colombia, the Latin American Soil Science

Award is established as a recognition of the Latin American Society to those who, for their scientific, organizational, dissemination and extension contribution, stand out in

the regional area for a life trajectory dedicated to the deepening of knowledge in the area of Soil Science, and to the promotion of actions in favor of the strengthening of the Latin American Society of Soil Science.

Dr. Laura Bertha Reyes Sanchez

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SIDALC-Agricultural Information and Documentation Service of the Americas.mht <http://www.sucs.org.uy/index.php/sobre-sucs/origen>

The Soil Science Society of Belgium (SSSB) 1950



As the future thrives on achievements from the past, the initiative of writing up a history of the SSSB is more than timely. Despite its small territory, Belgium sits on a crumple zone formed by a crash of several smaller subcontinents starting in the Ordovician. As a consequence, it harbors an extraordinary diversity in soils, ranging from pure sands to heavy clays and everything in between. Belgian researchers have been involved in the ISSS/IUSS and in many internationally important efforts to expand knowledge on soils. The story may begin as early as pre-Roman times when people belonging to the Menapii tribes discovered that liming with calcareous loess could lengthen cultivation years before the inevitable fallow-cycle. Plaggen culture moreover greatly enhanced the fertility of the coversands in the North. These very practices became the linchpin in the transition from shifting to settled agriculture in the area. In more recent times, the SSSB has been a focal point of soil science in Belgium, and by extension also of Central Africa (D.R. Congo, Rwanda and Burundi), and contributed greatly to the international development of soil classification systems and maps: Guy Smith, the founding father of the Soil Taxonomy system, held the Francqui Chair at the University of Ghent in 1964-65 for collaboration with Belgian and European soil scientists in the development of Soil Taxonomy. During that time, mapping for the Belgian Soil Map was at full swing. Former SSSB president Rudi Dudal, led the development of the FAO/UNESCO Soil Map of the World (1961-1980). In 1965, the first comprehensive soil map of Africa was published, led by former president Jules D'Hoore. Later, in 1998, the first version of the World Reference Base for Soil Resources was compiled by the ISSS Working Group Reference Base, chaired by former SSSB president J.A. Deckers. To date, Belgium still has one of the most detailed soil maps in the world.

The early days of SSSB

The SSSB was formally established on July 18th 1950, upon a call from the International Soil Science Society (ISSS) to co-organize the Vth International Congress of Soil Sciences in Congo, in collaboration with F. Jurion, DG of I.N.E.A.C. (Institut National pour l'Etude Agronomique du Congo Belge – National Institute for Agricultural Research of Belgian Congo).

A formal Steering Comity for the emerging SSSB comprised of the important soil scientists at that time, who were organized in a Steering Committee and a Council (SSSB, 1951):

First SSSB Steering Committee:

President: J. Van Straelen Chair

First Vice-president: F. Jurion, 1st vice-chair

2nd Vice-president: G. Manil, 2nd vice-chair

Secretary General: R. Tavernier, Secretary-general

Secretary-treasurer: J. Fripiat, Treasurer

First SSSB Council: W. Dekeyser, L. De Leenheer, A. Focan, J. Lebrun, J. Lievens, A. Noitfalise, D. Stenuit and G. Waegemans.

The first SSSB council members were representing the major Belgian universities and soil-related research institutes and enterprises in the country. The goals of the Society were set in 1951 as:

- To encourage all branches of Pedology and their applications to pursue progress, both in Pedology as scientific discipline, but also in related sciences in a multi-disciplinary way by facilitating meetings, thematic days, young scientists days and soil-related excursions;
- To provide assistance to all actors active in Pedology, hence fostering the science and applications of soil science;
- To represent ‘Pedology’ in the Royal Academy of Sciences, Letters & Arts of Belgium;
- To represent Belgium in the International Soil Science Society (ISSS) (later International Union of Soil Sciences IUSS), and in the International Council of Scientific Unions (ICSU);
- To serve as a platform for interdisciplinary networking, with a special window to attract/activate young talents;
- To advocate and bridge between employees and job seekers.

Creation of a National Committee of Soil Sciences under the umbrella of the Royal Academy of Sciences, Letters and Arts

The Royal Academy of Sciences, Letters and Arts (RASAB) is a national organization that aims to stimulate and harmonize research and its applications in different fields of science within the country and at an international level. In December 1999, the Chairman and the Secretary General of the SSSB approached the Permanent Secretaries of the Royal Academy to create a formal National Committee for Soil Science, further embedding Soil Science and the SSSB in the scientific networks of the country.

The formal request was prepared in a special session of the SSSB council on 11 April 2000, and comprised a.o. a thorough review of the statutes with regards to the council,

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as the National Committee can have a minimum of 10 members but no more than 16 and has to take into account linguistic parity and equal representations over different institutions. The request was officially presented to a joint session of the Classes of Science of the Royal Academy on 14 June 2000 by L. Bock, R. Langohr, J.A. Deckers and R. Dudal. and was unanimously endorsed. Since then, the National Committee for Soil Science has been working within the overall framework of the SSSB. Since then, the SSSB formally represents RASAB in the International Union of Soil Sciences and its activities are hosted in the Palace of the Academies in Brussels. On World Soil Day 2019, the SSSB legally transformed from a factual association to a fully-fledged NGO, recognized by the Belgian government.

Meetings of the SSSB Council and National Committee of Soil Science are usually organized in the margin of major SSSB activities. Exceptionally extra council meetings are called for to address specific topics e.g. organizing a congress or a special celebration. The General assembly is organized at the start of the year, usually at the beginning of the Day of the Young Soil Scientist, to discuss the past year and future activities, and to endorse the annual activity and financial reports to RASAB and the authorities.

SSSB-members

The number of members of the SSSB has been growing over the years and is presently between 70 and 150. Students do not pay tuition fees. Next to members from soil-research institutes in the academia, members are recruited from various corners of society, such as ministries, consultancy firms but also from abroad.

SSSB-publications

Right from the beginning, the SSSB spearheaded its own publications:

- **Pedologie**: a peer-reviewed bulletin of the Belgian Soil Science Society which was published 2-3 times per year between Volume 1 in 1951 to Volume 43 (1993). Eventually it was decided to merge *Pedologie* with the UK-based ‘Soil Science’ and the French-based ‘Science du sol’ into the newly established ‘European Journal of Soil Science’.

Pedologie is available online: <https://lib.ugent.be/nl/catalog/ser01:000010491>

- Special issues of *Pedologie*: The first PhD manuscripts in soil science were published: e.g.: Deckers, J., 1966, Contribution à l'étude de la composition et la capacité de production des sols de l'Ardenne centrale et de la Famenne orientale. *Mémoire 3, Pédologie*, 293 p.
- **Pedologie Info**: a pamphlet-type of internal publication for announcements for SSSB-activities such as meetings, excursions, etc.
- **Pedologie Themata**: Special issues publishing the papers presented at SSSB-the-

matic days and excursion guides, such as: https://www.researchgate.net/publication/293177741_Tree_sway_turbation_of_soils_as_observed_on_archaeological_sites_in_the_sandy_area_of_northern_Flanders_Belgium

SSSB-activity calendar

SSSB typically organizes 3 main activities/meetings per year. The SSSB Day of the Young Soil Scientist has been an important event from the conception of the society, giving students and young researchers a chance to interact with more experienced scientists and with each other. With the support of the society, the organization of that day is in the hands of SSSB's young researchers' council. The day also typically includes an inspirational keynote, and skill-building workshops on themes as presenting with impact or mental health during a PhD.

The annual SSSB excursion, which is alternatively organized in Belgium and in another European Country, in collaboration with its national soil science society, including a.o. Spain (1999), Luxembourg (2012 and 2022), the Netherlands (2014), Germany (2018) and France (2008 and 2020). The SSSB also hosted numerous international excursions through Belgium. Examples:

- Vancampenhout, K., Ampe, C., Mikkelsen, J., 2013. Soils of the Campine, a historical perspective. Annual excursion of the soil science society of Belgium. 44 p.
- Van Ranst, E., Baert G., Langohr, R. 1994. Excursion Ardennes and Belgian Lorraine. Laboratory of Soil Science. Faculty of Sciences. University of Gent. 47 p.

The scientific year closes with the SSSB Thematic day, a full-day scientific symposium where a particular topic is discussed during oral sessions and poster presentations. During the early days, the main focus in the SSSB was related to soil mapping in Belgium and in Central Africa. Not only the maps were subject to hot debates but also soil genesis and soil classification were hot topics in support of understanding the real world in the field. More info on soil mapping by Belgian Soil scientists in Belgium and Globally can be found on: <https://ees.kuleuven.be/soil-monoliths/references/#ref4>

Over the years topics have evolved from soil mapping to soils of the tropics, integrated plant nutrition, soil microbiology, soil erosion and soil conservation, geo-statistics, precision agriculture, proximal sensors in detailed soil surveys, remote sensing, near-infrared non-destructive measurement of soil characteristics, soil organic carbon, soil quality indicators and soil health, soil pollution and remediation.

Conferences and exhibitions

To commemorate the International Year of Soils and the 50th anniversary of the Soil Map of Africa, and the launch of the French edition of the 'Soil Atlas of Africa', the international soil conference "Africa In Profile" was organized in Leuven in 2015,

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accompanied by an exhibition of Soil Monoliths and profiles from Africa, in collaboration with a.o. ISRIC, the Soil Science Society of East Africa, the JRC and the Royal Museum for Central Africa (<https://ees.kuleuven.be/eng/africa-in-profile/index.html>). Other exhibits included (S)oil on Canvas (Turnhout, 2016), additions to the permanent collections of the Flemish Nature Education Centers, a display in the Royal Museum for Central Africa (<https://ees.kuleuven.be/soil-monoliths/tropics-congo/>) and several displays including outdoor art installations at two nature conservation areas and major science festivals.

From 2008, Seppe Deckers and Karen Vancampenhout, who had inherited the monolith collection of the Belgian Centre for Soil Mapping from the early days of the SSSB, started restoration works on the pieces of this scientific collection, which had deteriorated over time, and started adding new pieces. In 2023, the collection entered the DISSCO European databases of Scientific collections, and the collection was fully documented, digitized and reclassified (with the support of other SSSB members including Jean Poesen and Freddy Nachtergale), and the permanent exhibition was completely refurbished. The digital twin of the collection can be visited at <https://ees.kuleuven.be/soil-monoliths/>.

The collection also harbors an exhibition on the “Soils of Central Africa’: with soil monoliths on permanent loan from ISRIC (<https://ees.kuleuven.be/soil-monoliths/tropics/>).

Photo Gallery



Rudy Dudal (second from the left) in Katanga, Congo on a soil correlation tour with R. Tavernier (first left) , J. Croegaert (third from the left) and C. Sys (fourth from the left), photo: courtesy E. Van Ranst.



Rudy Dudal, the first soil scientist receiving the Guy Smith Medal Award 2010 , at the Royal Academy for Science and Arts at Brussels on 22/02/2011 (L. Rudi Dudal and R. his son Gerald) photo: S. Deckers.



SSSB celebrating its 50th anniversary at the Royal Academies, Brussels/ Launch of the National Committee of Soil Sciences, November 2000.



SSSB-Young scientists day 15/02/2017, RASAB – poster session.

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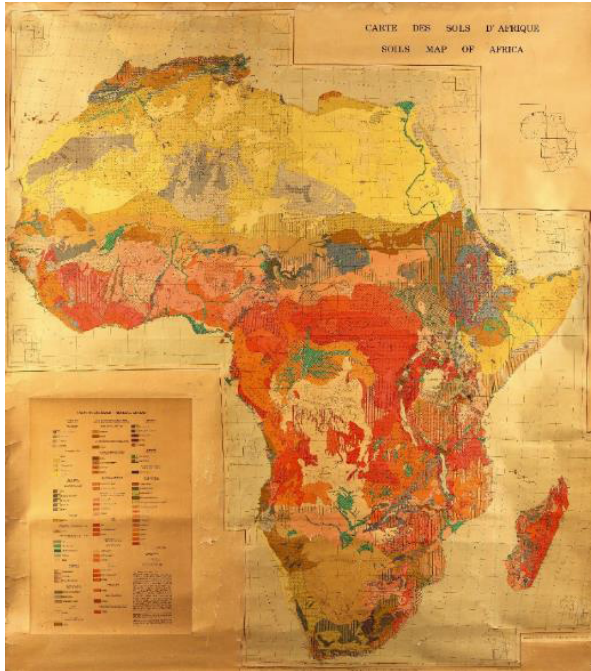
SSSB excursion to Luxembourg in 2012 and in 2022.



SSSB excursion to The Netherlands, hosted by Wageningen University, 2014.



International SSSB Excursion: Soil and land use in the upper Rhine graben and cuesta landscapes, 21-25 May 2018, with Karl Stahr, Hohenheim University.



First soil map of Africa, 1:5000000, compiled and published by Jules D’Hoore, I.N.E.A.C. in 1964.

Seppe Deckers and Karen Vancampenhout

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Vancampenhout, K., Deckers, S., Poesen, J., Boon, J., Comprehensive overview of early References related to soil mapping, soil monoliths and applications. KU Leuven Soil Monolith Website: <https://ees.kuleuven.be/soil-monoliths/references/>

The Italian Society of Soil Science (SISS) 1952



The Italian Society of Soil Science (Società Italiana della Scienza del Suolo, SISS) was founded in Florence on February 18th 1952, by the initiative of Professor Gino Passerini. SISS first headquarter was settled in Via de' Saponai 1, Florence. The preliminary meeting was arranged at the "Ispettorato Agrario Compartimentale della Toscana", with 14 attendees. Passerini was elected President of the newly formed Society, and Professor Alberto Malquori was elected secretary. At that time, SISS had 24 members, as many were the Italian members of the International Society of Soil Science (ISSS), founded in Rome in 1924. Membership fee was 1,000 lire for "directors of scientific institutes and experimental stations" and 500 lire for ordinary members ("assistants professors and researchers").

The first Council meeting of SISS was held on June 28th, 1952. On that occasion, President Passerini while complaining about "the resistance encountered in the ministerial bodies on the granting of funds (...) hoped that for the future these allowances would be expanded". He also hoped for a broader coordination of research to be achieved within the new Experimental Institute for Soil Study and Conservation (Istituto Sperimentale per lo Studio e Difesa del Suolo), which will soon come into force in Florence. The institutional headquarter of SISS was established. The Council decided to move SISS headquarter into this institute in the meeting of December 19th, 1953.

On February 1st, 1957, on a proposal of the Ministry of Agriculture and Forestry, SISS was legally established as a no profit organization by the Decree No. 207 of the President of the Republic. The act was published in the Official Gazette No. 103, Year 98, April 20, 1957, p. 1501. Note that, even today, SISS remains one of the few scientific associations formally established by Presidential act.

From the 24 founding members of SISS, the members increased up to 220 in the year 1974, reaching the peak in the 1990s, with more than 400 members. Nowadays SISS counts about 100 memberships.

Founding Members

Ernesto Alinari, Claudio Antoniani, Ettore Bottini, Ottaviano Bottini, Ugo Buli, Alfonso Draghetti, Antonio Fabris, Carlo Ferrari, Giuseppe Gattorta, John Haussmann, Cesare Lippi Boncampi, Alberto Malquori, Fiorenzo Mancini, Luigi Marimpietri,

Valentino Morani, Francesco Carlo Palazzo, Gino Passerini, Giovanni Petrosini, Ugo Pratolongo, Paolo Principi, Enrico Romano, Orfeo Turno Rotini, Giovanni Sandri, Luigi Vodret.

Among the founding members, Luigi Marimpietri was elected to represent SISS at the Council of the International Soil Science Society.

The first SISS General Assembly established that the Council had been constituted by nine Councilors. Therefore, representatives of the Commissions, which were established according to the ISSS organization, were included in the Council (1st Soil Physics; 2nd Soil Chemistry; 3rd Soil Biology; 4th Soil Fertility and Plant Nutrition; 5th Genesis of Soil and Classification; 6th Soil Technology).

Since 1952, SISS has had 18 Presidents and 13 Secretaries.

Presidents

Giuseppe Corti (2023-2024), Sara Marinari (2021-2022), Paola Adamo (2019-2020), Anna Benedetti (2017-2018), Carmelo Dazzi (2015-2016), Nicola Senesi (2009-2014), Marcello Pagliai (2003-2008), Paolo Sequi (1997-2002), Giovanni Fierotti (1990-1996), Linda Goldberg Federico (1984-1989), Gino Florenzano (1976-1983), Fiorenzo Mancini (1972-1975), Giampietro Ballatore (1968-1971), Orfeo Turno Rotini (1966-1968), Carlo La Rotonda (1959-1966), Ernesto Alinari (1956-1959), Claudio Antoniani (1954-1956), Gino Passerini (1952-1954).

Secretaries

Filiberto Altobelli (2023-2024), Tommaso Chiti (2021-2022), Simona Vingiani (2019-2020), Loredana Canfora (2017-2018), Giuseppe Lo Papa (2015-2016), Claudio Colombo (2009-2014), Rosa Francaviglia (2000-2008), Pier Giacomo Arcara (1997-1999), Giulio Ronchetti (1990-1996; 1970-1975), Pier Luigi Genevini (1984-1989), Riccardo Materassi (1976-1983), Guido Sanesi (1968-1969), no secretary, the accountant Fanny Naldi Milani was appointed to lead the secretariat (1964-1968), Alberto Malquori (1952-1963).

Since its establishment, SISS was involved in numerous international and national activities. For example, in 1956, both Gino Passerini and the President Claudio Antoniani wrote (in Italian) to Professor Luis J. Medina to congratulate him on his presidency for the newborn Sociedad Venezolana de la Ciencia del Suelo, occurred in 1955.

Curiously, on January 11th, 1960, Alberto Malquori replied to a certain Vittore Ravizza from Genoa who asked for information about a Society of pedologists; Malquori replied that no Italian Society of Pedology exists, but there is an Italian Society of Soil Science that is linked to the International Society of Soil Science based in Amsterdam,

and that in both SISS and ISSS pedologists are represented. The first School of Pedology in Florence was promoted by Paolo Principi and Fiorenzo Mancini, who led to the publication of the first Soil Map of Italy in 1966. The Italian Society of Pedology (SIPe) would have been founded after decades, in 1998!

In June 1968, the first issue of the SISS Bulletin was published on the initiative of Gian Pietro Ballatore. SISS published the main research of Italian soil scientists in 54 bulletins and 6 volumes of the National Congress Proceeding. Tommaso Eschena coordinated the National Standard Methods of Soil Analysis that were published in the SISS Bulletin No. 10 in 1976; since 1984, SISS also started to publish the periodic Newsletter. In 1985, on behalf of SISS, Edagricole (an Italian publisher specialized in agricultural themes) published the volume “Methods of Soil Chemistry Analysis” coordinated by Enza Arduino and Linda Goldberg Federico. In 1997, SISS started to edit the Series of analytical methods for agriculture, directed by Paolo Sequi, publishing the following volumes:

1. Methods for Soil Physical Analysis (1998) coordinated by Marcello Pagliai; ISBN: 8846404262
2. Method for Soil Chemical Analysis (2000) coordinated by Pietro Violante; ISBN: 8846422406
3. Methods of Water Analysis for Agricultural and Zootechnical use (2001) coordinated by Girolamo Mecella; ISBN: 8846429249
4. Methods for Soil Microbiological Analysis (2003) coordinated by Giovanni Picci and Paolo Nannipieri; ISBN: 8846443152
5. Methods for Soil Biochemical Analysis (2004) coordinated by Liana Gianfreda and Anna Benedetti; ISBN: 8846460456
6. Methods for Soil Mineralogical Analysis (2005) coordinated by Paola Adamo; ISBN: 8846469151
7. Methods for Soil and Land Evaluation (2006) coordinated by Edoardo A.C Costantini; ISBN 8882722880
8. Methods for Molecular Analysis of Soil Microorganisms (2010) coordinated by Stefano Mocali and Nerino Miclaus; ISBN: 9788882727604
9. Methods for Soil Chemical Analysis (2015) coordinated by Claudio Colombo and Teodoro Miano; ISBN: 9788894067903

SISS has kept alive the participation at the international congresses on Soil Science with the presence of distinguished Italian soil scientists who have been active members of the national Society. In the first 30 years, SISS participated to international congresses with delegations; for example, Gino Passerini, selected as representative at the IUSS, and other 13 SISS members participated in the 6th IUSS Congress held in Paris from August 28 to September 8, 1956; in 1974, Giulio Ronchetti was in Moscow, Russia; in 1978, Fiorenzo Mancini was in Edmonton, Canada; in 1982, Fiorenzo Mancini, Giovanni Fierotti, and Giancarlo Chisci went to New Dehli, India; in 1986, Fiorenzo Mancini was in Hamburg, Germany. Then, starting from 1997, the President

Paolo Sequi promoted a massive participation of Italian soil scientist to both SISS (national) and IUSS (international) congresses.

In 1991, SISS joined the initiative to establish the European Journal of Soil Science, while in 1992, SISS together with IUSS sponsored the 6th Meeting of International Humic Substances Society held in Monopoli (BA).

46 national conferences have been organized during the last 50 years. In 1993, on the initiative of the President Giovanni Fierotti, the annual conference of SISS was institutionalized.

In 2013, the new Soil Map of Italy (1: 1,000,000) was published under the coordination of Edoardo Costantini, while Edoardo Costantini and Carmelo Dazzi edited the volume *Soil of Italy for the World Soils Book Series* launched and promoted by IUSS. In 2014, on the initiative of Nicola Senesi, the SISS statute was amended, aligning the organization of the SISS with the IUSS structure and, above all, changing cultural needs of the Soil Science. Further structural amendment was introduced in 2022 on the initiative of Sara Marinari to rise the SISS up to ‘Association for Social and Cultural Promotion’ according to the new Italian regulation. In 2023, Giuseppe Corti, Claudio Colombo, Stefano Mocali, and Filiberto Altobelli started the edition of the updated series of analytical methods for agriculture and environment.

SISS has been active in promoting Soil Science awareness at all educational levels, starting from primary school. In the occasion of the World Soil Day, occurring every December 5th, celebrations, scientific, and dissemination events have been mainly carried out within primary and secondary educational levels. Furthermore, in the last 15 years, SISS has been organizing a yearly International School on “Soil Biodiversity and Bioindication”, for 20 participants (PhD students and professionals).

The Serbian Soil Science Society (SSSS) 1953



The Serbian Soil Science Society (SSSS) is the legal successor of the Yugoslav Soil Science Society (YSSS), established in 1953. The Society was renamed in 2011 to “Srpsko Društvo za Proučavanje Zemljišta” in Serbian, abbreviated as SDPZ, or the “Serbian Soil Science Society” in English, abbreviated as SSSS. The address of the Society is Nemanjina 6, 11080 Belgrade-Zemun. The current President of SSSS is Prof. Dr Boško Gajić, while the Secretary General is Dr Ljubomir Životić, both from the University of Belgrade, Faculty of Agriculture. The activities and services of the SSSS are described on the website <https://sdpz.rs/>.

It is not possible to consider the SSSS without taking into consideration the work of the YSSS. The strong development of Soil Sciences in the period between the two World Wars goes back to the work of Prof. Aleksandar Stebut of the Faculty of Agriculture at the University of Belgrade and Prof. Mihovil Gračanin of the Faculty of Agriculture at the University of Zagreb. After two unsuccessful initiatives in 1931 and 1946, the first meeting of the YSSS was held in Belgrade on November 8, 1953. This day was recognised as the foundation day of the Society. The first president of the Society was Prof. Dr Stevan Nikolić. The Society was established to improve national expertise in Soil Science and agricultural production in line with the country’s ten-years development programme.

The main activities of the newly established Society involved international cooperation and the publication of the journal “Zemljište i Biljka” – “Soil and Plant”. International cooperation was organised through membership to the International Society of Soil Sciences (ISSS), participation in international events, and knowledge exchange. The Soil and Plant journal was officially founded in 1951 and the first publications date from 1952, a year before the official foundation of the Society. After the foundation of the Society, the journal became its primary output. At the first meeting, the Society organised Sections by Republics and scientific committees, and it was decided to start organising congresses.

After the Second World War, at the first conference of pedologists of Yugoslavia, it was decided to create a map of soil types in Yugoslavia at a scale of 1:100,000, with comments, for the purpose of agricultural zoning and the appropriate utilisation of modern agricultural measures to improve crop yields. However, initial soil surveys and mapping works were not coordinated between the different federal republics. Af-

ter the establishment of the YSSS, its “Soil Genesis, Morphology, Classification and Mapping Commission” took over the role of coordinator for soil survey and mapping. After a few years, work on the soil map of Yugoslavia progressed and after two to three decades, most of the country had been mapped.

“The First Congress of the YSSS” was held in Portorož, Slovenia, in 1955. At the Congress, a decision was taken to establish a Federal Centre for Soil Cartography with the aim of producing a soil map of Yugoslavia. Thereafter, the Society organised several consultations, courses, and meetings, as well as the Fifth International Assembly of the International Centre for Mineral Fertilisers in Belgrade, Serbia, in 1956 and the Fourth World Congress for Mineral Fertilisers in Opatija, Croatia, in 1961. During this period, the Society published several special issues, co-edited a new journal “Agrochemistry”, organised the translation of international monographs and started editing “Agrochemistry Library”.

The Second Congress of YSSS was held in Ohrid, Macedonia, in 1963. At this congress, a resolution was adopted that contained the guidelines for the future development of Soil Science in Yugoslavia, and a proposal for a Yugoslav soil classification system was presented at this congress by Viktor Nejgebauer, Milivoj Ćirić, Georgi Filipovski, Arso Škorić, and Miodrag Živković. During this period, YSSS members actively participated in the Eighth International Congress of Soil Science in Bucharest in 1964. In 1965, the YSSS actively participated in the organisation of the International Seminar on the Correlation of Soil Map Legend and the Soils of the Balkan Countries and Europe under the supervision of the FAO. The members of the Society were also involved in international activities through various ISSS working groups.

The European Working Group on Saline Soils met in Novi Sad, Serbia in 1968. At that time, there was a sharp increase in PhD and Magister graduations from educational institutions. In 1965, the Society started publishing another important series, the “Manuals for Soil Investigations”. The next congresses were as follows: Zadar, Croatia – 1967; Belgrade, Serbia – 1972; Sarajevo, Bosnia and Herzegovina – 1976; Novi Sad, Serbia – 1980; Priština, Serbia – 1984; and Cetinje, Montenegro – 1988. The Eighth Congress of YSSS in Cetinje was the last congress in former Yugoslavia. Each of the events produced strong resolutions and conclusions, clear future directions, and included very well-organised excursions.

After the civil war in the former Yugoslavia, the YSSS continued its work with the active participation of institutions and scientists from Serbia and Montenegro. The next congresses were held in Novi Sad, Serbia – 1997; Vrnjačka Banja, Serbia – 2001; Budva, Montenegro – 2005; and Andrijevica, Serbia – 2009.

In 2011, the Society was renamed to the Serbian Soil Science Society. The SSSS held the 13th Congress in Belgrade in 2013 and the 14th Congress in Novi Sad in 2017. These two congresses were international. The third international and 15th national congress of the Society took place in 2021 in Soko Banja.

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One of the Society's greatest achievements is its coordinating, advisory, and supportive role in the preparation of 1:50,000 scale soil maps. This work has been carried out successfully in all former Yugoslav republics. The Society also played a very important role in the development of soil fertility control and fertiliser utilisation programmes. It also coordinated and supported the control of soil fertility and the determination of harmful and hazardous substances in the soil. The Society organised scientific symposia on degraded soils and the problems associated with their conservation. From 1975 to 1991, there were nine symposia in all former Yugoslav republics. After 2011, the Society resumed the organisation of symposia and held three symposia in 2019, 2020 and 2022. The next important task of the Society is publishing. *Soil and Plant* has now grown to Volume 72. The Society also published the journal *Agrochemistry* from 1959 to 1989, with 232 volumes.

In the sixties and seventies of the last century, the Society published the following manuals: "Manual for Chemical Methods in Soil Investigations" (1966); "Manual for Microbiological Investigations of Soils and Water (1966); Methodology for Soil Survey and Creation of Soil Maps" (1967); and "Methodology for Investigation of Soil Physical Properties" (1971). These books were the pillars of Soil Science and agricultural development in the country. During this period the YSSS published its newsletter. The SSSS published the "Monograph on Methods to Study Soil Physical Properties" in 1997, and "Monograph – The Assessment of Soil Degradation: Methods and Models" in 2022. Another task of the Society is international cooperation. The Society is a member of the IUSS (International Union of Soil Sciences), and former ISSS. It was also very active in the work of the International Scientific Centre of Fertilizers up to the civil war in Yugoslavia and is a member of the Association of Agricultural and Food Technicians, the European Confederation of Soil Science Societies, and the Federation of Eurasian Soil Science Societies.

The main activities of the SSSS today are the publication of *Soil and Plant*; the publication of monographs and books; and the organisation of scientific congresses, seminars, symposia, consultations, study tours, courses, and lectures in the field of Soil Science.

The editor-in-chief of *Soil and Plant* is the scientific advisor Dr. Elmira Saljnikova from the Institute of Soil Science in Belgrade. The Society develops all aspects of Soil Science. The current mission of the Society is the promotion of Soil Science and the application of new knowledge in the fields of agricultural production, forestry, and environmental protection. The diverse tasks of the Society include promoting the practical application of scientific results, supporting young researchers, serving as a basis for scientific and professional cooperation of soil scientists in Serbia, contributing to the economic development of Serbia, promoting cooperation between national and international institutes and scientists, and organising the exchange of scientific information and knowledge. The main bodies of the Society are the Assembly, the Executive Board, the President, the Secretary General, and the Supervisory Board. The

Society has nine Commissions, eleven Sub-Commissions, and four Working Groups.

In a challenging world, the role of Soil Science and soil societies is once again highlighted, because the future ability of soils to sustain life on Earth is in question, as improper management and the impacts of climate change compromise the regenerative capacity of soils and often lead to soil degradation.

In the future, the SSSS will continue its organizational, publishing, educational, and cooperation activities. In the field of education, the Society will focus on organising seminars, lectures, and courses for younger generations (primary and secondary schools). In the scientific field, the Society's activities will focus on renewing its editions of handbooks and guidelines and will strive to improve the quality of the Soil and Plant journal. The SSSS would also like to see soils and Soil Science become included among national priorities. Therefore, the Society will prepare a plan to facilitate interaction with governmental officials in topics of soil and land-related issues. The permanent legacy of the Society would be the inclusion of soil at the core of policies that support environmental protection and sustainable development in Serbia in line with new challenges.

Acknowledgements: to all members of the Serbian Soil Science Society

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The Soil Science Society of South Africa (SSSSA) 1953



Soil Science Society of South Africa
Grondkondevereniging van Suid-Afrika

The Soil Science Society of South Africa (SSSSA) was founded on 27 April 1953. It presently has 350 members. The Society has six types of members, namely Honorary Members, Associate Members, Student Members, Institutional Members and Retired Members. Honorary Members are limited to a maximum of 15 members at any time, to make it a real honour to be one. The SSSSA does not have members only from within South Africa, but also from its neighbouring countries, where there are too few soil scientists to form viable national societies, and further afield, such as in Australia.

The SSSSA has a strong constitution. The Society is governed by a Council, consisting of a President, Vice-President, Past President, four elected members, one coopted member and an appointed secretary. The Society's members elect a Vice-President from serving elected members. After one term the Vice-President becomes President, who after one term becomes Past President. After one term the Past President has to go off for at least one term before becoming eligible to be re-elected to the Council again. This approach (i) ensures continuity and (ii) prevents stagnation.

Deserving members of the Society may be rewarded for their excellence by means of receiving one or more of the Society's three main medals, namely the Silver Medal for exceptional service to the Society or excellent contributions to Soil Science, the Gold Medal for exceptional contributions in the field of Soil Science and Honorary Membership (a Silver Medal). Thus far only two persons have received all three of these medals. They are Prof. Alan Bennie and Prof. Michiel Laker.

The SSSSA held its first national congress in Pretoria in July 1965. Since then congresses have been held on a regular basis. They were initially held about once a year. In 1978 it was decided to change to once every 18 months in an attempt to improve the quality of papers presented at congresses. It was then also decided to alternate between only soil science congresses and combined congresses with sister societies. The first was with the Crop Science and Pasture Science societies in 1980. Thereafter, it changed and was together with the Crop Science, Weed Science and Horticultural Science societies. Since 2003, it changed to a congress once a year again and all are combined congresses. This was necessary due to certain changes, largely dictated by major sponsors.

At the Silver Jubilee congress of the Society in 1978 it was decided to introduce a

Silver Medal to be awarded for the best paper presented at a congress. This has been changed to four Silver medals: best paper by a person older than 30 years, best paper by a person younger than 30 years, best poster and best paper on new technologies. A substantial cash prize is also awarded for the best paper by a SSSSA member in the South African Journal of Plant and Soil during the previous year. Up to 1981, proceedings of most congresses were published, containing full papers presented at the congresses. In 1983, this was terminated in order to encourage members to publish in the then newly launched South African Journal of Plant and Soil (ISSN2571862).

The SSSSA has a newsletter which is published twice a year. It serves as a link between Council and members, keeping members updated with Council decisions and Society activities. It also keeps members updated with the activities of other members elsewhere.

The SSSSA initiated and/or strongly supported several important publications. These include from a scientific journal to guidelines and books. During the early 1980s Council initiated attempts to publish an international level journal for South African soil and crop scientists. In 1983, the South African Journal of Plant and Soil was launched. The Society strongly supported and its members were intensely involved in the development of an important taxonomic soil classification system for South Africa. The first version, namely Soil Classification: A Binomial System for South Africa, was published in 1977. A revised version, namely Soil Classification: A Taxonomic System for South Africa, was published in 1991 and another, namely Soil Classification: A Natural and Anthropogenic System for South Africa, in 2018. The Society published a comprehensive Glossary of Soil Science, which can be downloaded free from the Society's website. Details about the various other publications can be found on the Society's website.

The Soil Science Society of South Africa has from its inception maintained very close ties with the International Soil Science Society. For some decades the membership fee of the ISSS was added to the membership fee of the SSSSA and paid over to the ISSS by the Society. This meant that all SSSSA members were automatically members of the ISSS. A consequence was that South Africa for some time apparently had the second highest ISSS membership number, after the USA.

Later SSSSA members were given the choice to remain ISSS members or to opt out. By 1974 South Africa dropped to 7th and by 1998 to 15th on the list of 86 member countries, mainly due to increased membership numbers in other countries. The SSSSA remained the link with the ISSS, later IUSS, for those who opted to remain ISSS/IUSS members. Due to this arrangement SSSSA members did not notice any change when the change from ISSS to IUSS happened, except for the change of name.

Due to the a-political stance of the ISSS/IUSS and its policy that all soil scientists in the world should be allowed free association with soil scientists with other countries, South African soil scientists could freely participate in all ISSS/IUSS activities de-

spite the fact that the country had a government with a policy which was internationally unacceptable. This included that the ISSS ensured that SSSSA members could get visas to attend all ISSS congresses everywhere in the world. SSSSA representatives also attended general meetings of the ISSS. It was, for example, reported in a SSSSA newsletter that seven members attended the Hamburg congress of the ISSS in 1986 and that the President and Vice-President represented the SSSSA at the council meeting of the ISSS. Comprehensive reports on IUSS activities are conveyed to SSSSA members via special circulars and are also included in SSSSA newsletters.

Unfortunately, no records could be found about major involvement of SSSSA members in ISSS activities in earlier years. In 1993, Prof. Michiel Laker was drafted into the World Reference Base for Soil Resources Working Group in his personal capacity. It soon became clear that he had a specific role to play in the working group, coming from the “relatively unknown Third Major Soil Region of the World” in the hot, dry mid-latitudes, where the dominant soils are very different and require different management strategies from those in the developed countries at high latitudes in the North, where the vast majority of other WRB Working Group members came from. When he retired in 2001 it was consequently decided by the WRB Working Group to maintain having a member of the SSSSA as WRB Working Group member. Presently Prof. Cornie van Huyssteen is convenor of IUSS Division 1 on Soil Classification. Prof. Johan van Tol is chairman of the IUSS Hydropedology Working Group.

Members of the SSSSA have made significant contributions to international soil science. They have contributed to major international projects and programmes. Upon request from project coordinators they have sometimes made inputs for the whole Southern African region, including South Africa’s neighbouring countries, and not only for South Africa. Examples of the latter are GLASOD and the book on the state of the world’s mountains. They have presented numerous papers at international congresses, a significant number being invited papers. Contributions from South Africa are important from a holistic picture of the world’s soils, because they occupy a specific niche from which little data are available from elsewhere, namely the dry, hot mid-latitude regions of the world. The international soil monolith collection includes a significant number of monoliths from South Africa.

South Africa always had strong soil research programmes at various institutions, like universities and research institutes, conducted by well-trained international class soil scientists. Only a few specific fields will be touched upon here. Studies on pedogenesis within the realm of the severe limitations imposed by the combination of high temperatures and low and inefficient rainfall. The impacts of the very unfavourable parent materials covering the largest part of the country, leading to very unstable soils that are extremely vulnerable to degradation. Research on the extremely widespread, extremely severe soil degradation, particularly soil crusting, subsurface soil compaction and water erosion. Findings that inherent soil factors dominate this. In the case of water erosion, for example, soil properties over-ride factors like rainfall erosivity and

slope gradient, with parent material being a dominant factor. Findings that the dominant clay mineralogies associated with instability and vulnerability of soils differ from clay mineralogies that are internationally deemed to be dominant. Research on soil water management in marginal rainfall, high drought risk areas which are extremely important for staple grain production with a view to national food security. Findings that fine sandy soils, with their combination of very high infiltration rates and high plant-available water capacities are the highest potential soils for rainfed annual grain cropping in these areas. Hydropedological studies on subsurface lateral movement in soils and its impacts on pedogenesis and water supply to crops.

Website www.soils.org.za

Contact e-mail admin@soils.org.za

The Canadian Soil Science Society 1954



Canadian Society of Soil Science

Société Canadienne de la Science du Sol

When the First World Congress of Soil Science was held in Washington in 1927 the *Soil Congress Special* excursion train passed through the western provinces of British Columbia, Alberta, and Saskatchewan. During that Congress, Professors A.H. Joel (University of Saskatchewan) and F.A. Wyatt (University of Alberta) presented maps of “soil belts” in Saskatchewan and Alberta. These are now known as “soil zones” and have formed the basis for understanding prairie soils. They have also become an integral part of the Canadian System of Soil Classification.

C. Fred Bentley (University of Alberta) was the President of the IUSS from 1974-1978. At the end of his tenure (1978), Canada successfully hosted the 11th World Congress of Soil Science in Edmonton, during which attendees also had the opportunity to participate in a very broad range of post congress tours across the country. The tours were the result of a massive collaborative effort by pedologists in federal, provincial, and academic institutions to showcase Canada’s soil resources. These efforts also resulted in the first edition of the Canadian System for Soil Classification, which included the Cryosolic Order for the first time. The Proceedings and the Tour Guidebooks are still maintained online. A monolith display was also created for the Congress that remains on display at the University of Alberta in Edmonton.

Various members of the Canadian Society of Soil Science have been active in the IUSS in leadership roles. In recent years, Dr Ahmet Mermut (University of Saskatchewan) was the Chair of Division 1 from 2002-2010. From 2018-2022 Dr Scott Chang (University of Alberta) was the Chair of Commission 3.3: Soil Fertility and Plant Nutrition and Dr Richard Heck (University of Guelph) was the Vice-Chair of Commission 1.1: Soil Morphology and Micromorphology of Division 1. Dr Heck is currently the Chair of Division 1 (2022-2026) and also chairs the organizing committee for the 24th World Congress of Soil Science to be held in Toronto, ON in 2030.

IUSS Honorary Members from the Canadian Society include Dr V. Ignatieff (1978) and Dr Ahmet Ruhi Mermut (2012)

Ignatieff, a Deputy Director of FAO, made important contributions to our understanding of soil processes under waterlogged conditions, particularly around the behavior of iron. He also advocated for sustainable soil management, particularly in developing countries with rapidly increasing populations. Ignatieff advocated for sending trained

and experienced people from developed countries to assist with on-the-job training in developing countries. Scientists from developing countries could also be selected for special training in developed countries. He encouraged participation of scientists from developing countries in the IUSS's Congresses and advocated for having their expenses covered to attend.

Dr Mermut made several strong contributions in the areas of soil mineralogy, soil genesis, micropedology, and organic matter dynamics in agro-ecosystems. His work on Vertisols contributed to having this order recognized in the Canadian System of Soil Classification. He had a distinguished career in teaching, research, service, and international education. Dr Mermut taught all over the globe and developed a large program in Ethiopia through the Canadian International Development Agency.

History of the Canadian Society of Soil Science

Soil Science in Canada had its origins in the Dominion of Canada Experimental Farms, which were established across the country in the early 1900s. The purpose of these farms was to carry out research and development in agricultural production and to train the farming community. These scientists organized themselves into the Canadian Society of Technical Agriculturists (CSTA) 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 in 1931. A resolution was passed "that a Soils Group of the CSTA be formed of the members interested in Soil Science". This precursor to the Canadian Society of Soil Science (CSSS) was called the Soils Group and Professor J.J. Ellis from the University of Manitoba was its first president. In 1945, the CSTA transformed into the Agricultural Institute of Canada (AIC). The Soils Group became the Soils Section of the AIC and remained as such from 1945-54. The final meeting of the Soils Section was held in 1954 when a decision was made to form a Canadian Society of Soil Science (CSSS). The first President of the CSSS was Dr J.D. Newton and the first Annual Meeting was held in conjunction with the 35th Annual Convention of AIC in Edmonton in 1955.

The goal of the *Canadian Society of Soil Science/Société Canadienne de science du sol* (www.csss.ca) is to "nurture the discipline of Soil Science in Canada and ensure its relevance in the future". In 2023 there are 324 members of the Canadian Society of Soil Science (141 regular members, 116 student members, 32 Fellows, 13 emeritus, and 22 early career researchers).

The Society is administered by a 9-member Council consisting of a President, President-Elect, Past-President, Secretary, Treasurer, two Councillors (Western and Eastern Councillor), Graduate Student Representative, and the Editor of the Canadian Journal of Soil Science.

There are five active Committees within the society (Communications, Pedology, Soil

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Education, Soil Health, and 24WCSS). The CSSS publishes two to four newsletters annually and meets once per year for our conference. We recently published an open education resource, *Digging Into Canadian Soils*, an introductory Soil Science textbook that was developed by our members.

The society awards several travel grants for student members to travel to the CSSS meeting, as well as international meetings. The best presentation award at our conference is named after C.F. Bentley, a former IUSS president.

Canadian System of Soil Classification

Canada's efforts at soil classification began in 1914 when A.J. Galbraith conducted a soil survey in southern Ontario, the first in Canada. Galbraith's survey was strongly influenced by the American soil survey. His efforts spread across the country and regional differences were quickly apparent. Canadian scientists recognized the need to a taxonomic system based on properties in soils that were specific to Canada and a taxonomic system began to emerge in 1955 from the work of the Taxonomy Committee of the National Soil Survey Committee. This work progressed under Agriculture Canada as the Canada Soil Survey Committee after 1970 and then by the Expert Committee on Soil Survey in 1978. The system is based on observable and measurable properties found in real soils. The first edition was published in 1978 and there have been two subsequent editions, with the fourth edition currently in progress under the direction of the Pedology Committee of the CSSS.

Canadian Journal of Soil Science

Soil Science papers were first published in Canada as part of *Scientific Agriculture*, the journal of the CSTA, with Volume 1, No 1 published in January 1920. This journal was later renamed the *Canadian Journal of Agricultural Science*. In 1957, the *Canadian Journal of Soil Science* was first published independently and quarterly. It is now published by Canadian Science Publishing but maintains close ties with the Canadian Society of Soil Science. The journal remains quarterly and is now international in scope. Subject areas include traditional soil biology, physics, and chemistry; pedology; use, management, and development; soil and environment interactions; land reclamation and contaminant remediation.

Notable Canadian Contributions

Notable technological contributions by Canadians, now commonly employed worldwide, include the Guelph Permeameter (D. Elrick et al, University of Guelph) and Time-Domain Reflectometry-TDR (C. Topp, AAFC) probes.

Through the International Twinning Partnerships Program, supported by the Canadian International Development Agency, through the Agricultural Institute of Canada, the CSSS has contributed to the development of Soil Science in Vietnam (VietCanSol), Sri Lanka (SriCanSol), Thailand (ThaiCanSol) and Costa Rica (CostaCanSol). As an active participant in the Global Soil Partnership, representatives of the CSSS have contributed to various working groups, as well as to the Intergovernmental Technical Panel on Soils.

Released in 2010, by the European Soil Data Centre (ESDAC), Canada was a major contributor (C. Tarnocai, AAFC) to the “Soil Atlas of the Northern Circumpolar Region”, covering all land surfaces in Eurasia and North America above 50° N latitude. This work conducted under the auspices the International Polar Year Programme, was “(...) to inform the general public, policy makers, land managers, teachers and the general scientific community of the unique characteristics of northern soil and raise awareness of its environmental importance and global significance.” Among the key messages presented were that “Unbeknown to most people, soil in the northern latitudes store up to half of the Earth’s soil carbon; about twice the amount of carbon stored in the atmosphere.

The Canadian Society of Soil Science looks forward to remaining actively involved in the IUSS in the future and congratulations the IUSS on its Centenary milestone. We look forward to seeing you in Toronto in 2030.

The Colombian Society of Soil Science 1955



The Colombian Society of Soil Science, since its foundation in Medellin on September 3, 1955, has managed to comply with its Statutes, which provide, among other things, to promote in all aspects the development of Soil Science and its applications and to promote the scientific and technical improvement of professionals dedicated to the study and research of soils, through its members who work in different entities of the agricultural and academic sector, being an example for the new generations that will have to address the food problem for a growing population worldwide.

Historical antecedents

Antonio Arena, founder of the Latin American Society of Soil Science in 1954 in Buenos Aires, recommended to soil scientists from Latin American countries to found an association to strengthen the Latin American Society.

Thus, Professor Manuel Del Llano founded the Colombian Society of Soil Science in the city of Medellin on September 3, 1955, with the support of professors and students of the Faculty of Agronomy of the National University, Medellin. The major activity of the newly created Society was the publication of three issues of the *Revista Suelos Ecuatoriales*, founded and directed by Professor Del Llano himself.

In 1965 at a meeting of partners in Manizales it was agreed to move the headquarters of the SCCS to Bogota and Dr. Del Llano was appointed as Honorary President and Dr. Alfonso Garcia Espinel, Director of the Agrological Department of the Geographic Institute Agustin Codazzi, as President.

In 1968, Dr. Servio Tulio Benavides was appointed president and with the collaboration of Dr. Francisco Silva, the bylaws were drafted with which the legal status No. 1878 of June 1968 was obtained before the Ministry of Government.

In 1970, the academic activity of the society began in Medellín with the first soil colloquium on acidity and liming, whose lectures were published in the restart of the journal *Suelos Ecuatoriales*, directed by Dr. Francisco Silva Mojica. Initially, the Society operated at the Geographic Institute and in 1980 a permanent office was acquired at Carrera 11 No. 66-34 Of. 204, with Mrs. Dora Cantor as secretary. Subsequently the SCCS office was moved to Of. 202 with an annex room for Board of Directors meetings, which is owned by the Society. Since 1994 Mrs. Luz Marina Otálora is the administrative assistant of the Society.

Academic Activities

In compliance with the statutes where it is contemplated “to promote in all its aspects the development of Soil Science and its applications through national and international scientific meetings”, a series of annual colloquiums were initiated in different cities of the country, dealing with topics of major importance for Soil Science.

Since 1981, the organization of the national congresses “Colombian Congress of Soil Science” has begun, with Villavicencio as the venue. Since then, every two years the Congress is held in different capitals of the country, the XX Congress was held in the city of Neiva, Colombia from October 19 to 21, 2022. In the development of its functions, the Society created Regional Committees in the main capitals of the country, in order to strengthen its research at the regional level and achieve greater dissemination and disclosure of the results of scientific and practical studies, for which the regions prepare regional seminars.

Since 1997, the SCCS has created and coordinates the Analytical Control of Soil Laboratories – CALS network, with the objective of optimizing the analytical quality of laboratories in Colombia, both in soil and plant tissue analysis, there are currently 29 laboratories registered. In the current circumstances, the CALS network plays a fundamental role as a disseminator of the work of the LATSOLAN network (Latin American Soil Laboratory Network), responding globally to the objectives of harmonization and standardization proposed in the action plan for Pillar 5 of the Global Soil Partnership (GLA).

In 1982, with the participation of Dr. Ricardo Guerrero and the sponsorship of Monomers, the “Francisco Silva Mojica” National Soil Science Award was created for the best undergraduate and graduate thesis of students graduated from different universities in the country. The award initially consisted of a monetary recognition and as of 2008 it consists of a scholarship to obtain a master’s or doctorate degree in national or foreign universities. An Honorable Mention in Soil Science was also created to reward the scientific work of outstanding professionals in Soil Science. Likewise, 12 national and foreign scientists have been granted the category of Honorary Members.

In 2016, the SCCS submitted to the Food and Agriculture Organization of the United Nations (FAO), the work Soils and Lands of Colombia, as the work that contributed the most information required for the sustainable management of soil resources in Colombia. It was awarded with the World Soil Prize “Glinka” by FAO.

The SCCS publishes the journal SUELOS ECUATORIALES since 1956. It is currently publishing Volume 52 (2022). The journal is indexed in five databases, has DOI digital object identifier and since 2019 all issues can be consulted digitally. Every six months, the SCCS publishes the Soil Bulletin, which summarizes the symposia and activities carried out by the regional committees and the SCCS in general at the national level and the participation of its members at the international level.

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Likewise, the Society has published several books, among them “Soil Fertility: Diagnosis and Control; Fundamentals for the Interpretation of Soil, Plant and Water Analysis for Irrigation”; “Soil Science Basic Principles” with special reference to Colombian soils, which have been very well received in universities for the study of Soil Science.

On December 1st, 2017, the SCCS was invited by the Office of International Affairs of the Ministry of Environment to participate in the pillars of action of the Global Soil Partnership, WHA, in the South America and Caribbean regional, as leader of Pillar 3, which as a focal point is defined as “Promotion of development and applied research with focus on identified gaps and priorities and in synergy with related productive, environmental and social development actions”. From that date to the present, the Society has coordinated actions with other entities in the country and participated in the different symposiums organized worldwide by AMS in coordination with FAO.

During the time of the pandemic, year 2020, the Society was a pioneer in making itself visible in a virtual way with the academic diffusion of three workshop seminars composed of 18 conferences related to Chemistry, Physics and Soil Biology, dictated with great success in June and July by researchers of recognized scientific experience, most of them members of our organization.

In 2021, the SCCS nominated Dr. Martha Marina Bolaños Benavides for Colombia for the Commission 4.4 – Soil Education and Public awareness, in the framework of the call for nominations for Division Officers and Commissions of the IUSS 2022-2026, being elected as president of the mentioned Commission and, therefore, officer of the IUSS.

The bill on “Policy for Sustainable Land Management” (PGSS), has existed since 2015 and has already successfully passed the first debate in the previous legislation of Congress, however, in this new legislature, there is a need to open spaces with the new rapporteurs or whoever is assigned to the project, to advance in the construction of the law that will allow the country to have its own legislation on this natural resource.

Current National Board of Directors 2023-2024

President: Luis Armando Castilla Lozano

Main

Alternates

Luis Armando Castilla

Lozano Guillermo Lopez Perez

Edier Humberto Pérez

Leila Amparo Rojas Escobar Ibonne Geaneth

Valenzuela Balcázar

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Armando Torrente Trujillo

Diana Lucia Correa Moreno

Miguel Andres Arango Argoti

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Advisor to the President: Leila Amparo Rojas Escobar
Executive Secretary: Diana Lucía Correa Moreno
Administrative Assistant: Luz Marina Otálora López



The Venezuelan Society of Soil Science 1955



In 1955, a group of pioneers in Soil Science, headed by Dr. Luis J. Medina, undertook in the country the creation of a Scientific Society: the VENEZUELAN SOCIETY OF SOIL SCIENCE.

In July 1969, under the Presidency of Juan A. Comerma and the Executive Secretary of Ildefonso Pla S., and coinciding with the revival stage of the Venezuelan Soil Science Society, the first issue of the SVCS Bulletin was published.

In April 1970, Eng. Manuel Vicente Benezra, who at that time held the position of Dean of the Faculty of Agronomy of the UCV, assigned to the SVCS office no. 6 of the auditorium 16 of that faculty, to be the headquarters Officer of our Society. The SVCS, acquired that same year legal personality.

Since its creation, the Boards of Directors of the SVCS have established their headquarters in the area where the former Center for Agricultural Research works (Centro de Investigaciones Agronómicas – CIA), later National Center for Agricultural Research (Centro Nacional de Investigaciones Agropecuarias – CENIAP) and the Faculty of Agronomy of the UCV.

Starting in 1975, and for two consecutive periods, the Company's Board of Directors rotated, exercising in 1975/76 from Maracaibo, Zulia State and in 1976/77 from Jusepín, Monagas State.

In 1978, the Boards of Directors returned to Maracay, and from that date to the present they have continued to perform functions from their Headquarters in this city.

In 68 years of activities, the SVCS has had 26 Boards of Directors with 7 Work Commissions and Regional Delegations.

We have 22 Honorary Members selected among the professors and teachers who have contributed the most in the country to the development of the discipline of soils in all its fields. We have also held 22 National Congresses, the last congress being held in the city of Maracay, in July 2018.

This year, 2023, the XXIII Venezuelan Congress of Soil Science will be held, between November 14 and 17, in a hybrid way (face to face and virtual) with the participation of national and international scientists.

BOARD (2018-2023)
VENEZUELAN SOCIETY OF SOIL SCIENCE

BOARD		COMMISSIONS Coordinator and Alternate	
POSITION	Name and last name	COMMISSION	Name and last name
PRESIDENT	Jesús A. Viloria R. (UCV – Agronomía)	SOIL, SPACE AND TIME	Víctor Sevilla (UCV-FAGRO) Ángel Valera (UNERG)
VICE-PRESIDENT	Eladio R. Arias R. (UNERG)	PROPERTIES AND PROCESS	Magaly Ruiz Dáger (UNERG) María M. Ríos C. (UPEL)
SECRETARY	Zenaida Lozano P. (UCV – Agronomía)	USE AND SOIL MANAGEMENT	Juan Carlos Rey B. (INIA / UCV-FAGRO) Jeglay Cruz H. (Agro insumos Kruz)
ALTERNATE SECRETARY	Barlín Olivares C. (U. de Córdoba)	SOILS AND ENVIRONMENT	Deyanira Lobo Luján (UCV-FAGRO) Fernando A. Delgado E. (ULA – CIDIAT)
TREASURY	Mingrelia J. España Z. (IDEA)	SOIL AND SOCIETY	Adriana Lelys Cortez (INIA – Aragua) Igor Paiva E. (UCV-FAGRO)
ALTERNATE TREASURY	María Fernanda Rodríguez (INIA – Aragua)	EDUCATION	María Alejandra Rodríguez (UCV-FAGRO) Egli Castillo B. (UCV-FAGRO)
VOCAL 1	Roberto Hidalgo O. (ONCTI) Jairo C. Ferrer E. (Alternate)		
VOCAL 2	Mari Vargas C. (UNELLEZ) Bestalia Y. Flores (Alyternate)		

The Australian Society of Soil Science (SSA) 1955



Soil Science Australia (SSA) is the peak body for soil scientists and people who work with and are interested in soils. SSA has membership across all areas of Soil Science which ensures that the best available science is at the forefront of all relevant research and decision-making. The Society educates, advocates and advises, at all levels, in the interest of Australian prosperity in Soil Science.

1. Mission Statement

To promote the importance of soils and Soil Science in Australia through advocacy and outreach, provision of accreditation, education and training and building of a strong professional community.

2. Vision Statement

Our vision is that soils are valued and protected by all, so that current and future generations of Australians can thrive, influence policy development and advance the professional capability of our members.

3. History

In 1955, the Australian Society of Soil Science was inaugurated. In 1956, the first official meeting took place in Queensland, with representatives from the Australian Capital Territory, New South Wales, Queensland, South Australian and Victorian branches forming the Federal Council. The Western Australian branch was added in 1957, the Riverina branch in 1962 and most recently the Tasmanian branch in 2008.

Over the years awards were established: the JA Prescott Medal, the Publication Medal, the JK Taylor OBE Gold Medal, the CG Stephens PhD Award, the LJH Teakle Award, conference presentation awards, Fellowships and Honorary life Membership.

The Society hosted its first world congress, the 9th International Society of Soil Science Congress, in Adelaide in 1968 with 720 delegates. Forty-two years later, the 19th World Congress of Soil Science returned to Australia in Brisbane with 1914 delegates from 68 countries. A commemorative stamp was produced for the first Congress and another stamp was created in 2007 to celebrate the 50th anniversary of the Society.

An inaugural joint conference with the New Zealand Society of Soil Science was

held in Rotorua in November 1986 with joint national conferences every four years. In 1998 the first Executive Officer was appointed and in 2010 the then Governor of Queensland, Her Excellency Ms Penelope Wensley AC accepted the invitation to become the first Patron.

In 1996 the premier accreditation Certified Professional Soil Scientist (CPSS) program was developed, partly in response to the increasing demand by government authorities for certified professionals in soil and land management. Accreditation is available to members (and non-members) with requirements for accreditation listed in the Standards for Professionals in Soil Science.

4. Structure

Soil Science Australia is a member of the International Union of Soil Sciences (IUSS) and contributes to the National Committee on Soil and Terrain (NCST). Soil Science Australia's governing body is the Federal Council, consisting of the Executive Committee, the President of each of the seven branches, and the Chairs of the Accreditation and the Training Boards.

5. Federal Honour Board

(see at the end)

6. Statement of Purposes and Rules

SSA is incorporated under the Associations Incorporation Act 1991 of the Australian Capital Territory and is governed by a Statement of Purposes and Rules.

7. Equity & Diversity

Soil Science Australia is a vibrant community that reflects the diversity of people, interests and backgrounds around the world from undergraduate students to eminent retired academics, research scientists, government employees, industry practitioners and consultants.

8. National Conference Awards

Conference awards include oral and poster presentations on the basis of the most effective communication of the presenter's work to a scientific audience including Johan Bouma Award for the best oral presentation integrating hard and soft sciences. These are open to all soil scientists entering an abstract or poster at the National Soil

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Conference. In the event of a joint Australian New Zealand national soil conference the conference awards are open to Australian soil scientists or soil scientists working in Australia.

Support is provided for students to attend the conference. They must apply through their branch and have been a member of Soil Science Australia for at least one year.

9. National Committee on Soil and Terrain

The National Committee for Soil and Terrain (NCST) is a collaborative committee comprising Australian and State government agencies with a lead role in soil and land resource assessment and reporting. It is a Standing Committee for the Australian Soil Network (ASN – the implementation committee for the National Soil RD&E Strategy) and advises the Terrestrial Ecosystems Research Network (TERN) Landscapes activity.

10. Boards

The Society is governed by a Federal Executive, Federal Council, Accreditation Board and Training Board.

11. Accreditation

CPSS Accreditation (Certified Professional Soil Scientist) provides soil scientist the highest peer-recognition of skills and experience. The CPSS seal has become the mark of trust, expertise and excellence in Soil Science. Specialisations include Contaminated Site Assessment and Management (CSAM) and Australian Soil Survey (AusSS). CPSS accredited members.

RSP Accreditation (Registered Soil Practitioner) facilitates a new accreditation for soil practitioners. It targets existing professionals in the agricultural sector to improve the quality of advice provided to farmers.

12. National Soil Judging Competition

SSA organises an annual Australian Soil Judging Competition to bring together students, early career and experienced soil scientists for a prestigious professional development event. The competition requires team and individual entrants to correctly identify soil features, classify soil profiles, and interpret soil capability. It is one of the best practical training and networking events for aspiring soil professionals. The event includes two training days and one competition day and prizes are awarded for team and individual performances.



13. Parliamentary Friends of Soil

Launched in early 2020, this group delivers a bi-partisan forum for parliamentarians to interact with farmers, scientists, industry groups and policy makers on issues relating to health and maintenance of Australia's soils.

It was formed as a result of collaboration between Soil CRC, Soil Science Australia and Soils for Life with valuable input from the National Soils Advocate's Office. The Parliamentary Friends of Soil Group is made up of MPs listed below:

The Honorable Michael McCormack MP,

Ms Meryl Swanson MP,

National Soil Advocate – The Honourable Penelope Wensley AC

Parliamentary Friends of Soil now has 27 members up from 10 in 2021, co-partnering with SSA, SoilCRC and Soils for Life.



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14. Deductible Gift Recipient Status (DGR Status)

In December 2022, the Australian Federal Government provided SSA with Deductible Gift Recipient Status which means it can receive donations that are tax deductible by the donors.

15. Global Soil Partnership

SSA is proud to participate in the Global Soil Partnership (GSP), a globally recognized mechanism to promote sustainable soil management

16. Additional SSA Projects

Primary Industries Education Foundation Australia (PIEFA)

Smart Farms Building Landcare community and Capacity – developing new ‘healthy living soils in food and fibre production systems’ teaching materials for Australian schools.

Australian Centre for International Agricultural Research (ACIAR).

Assessment of the capacity and sustainability of Pacific Agricultural Chemistry Laboratories.

Future Projects

Mentoring Program

17. Our Mascot “Mottley”

Mottley is our treasured Mascot named after the Victorian state soil the Mottled Brown Sodosol. Mottley loves to attend Soil Science Australia events and meet new people interested in Soil Science.



18. Contact

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Soil Science Australia

Website: soilscienceaustralia.org.au PO Box 14 BRAESIDE VIC 3195

Federal Honour Board

Year	President	Vice-President	Treasurer	Secretary
2023	Edward Scott (SA)	Darren Kid (Tas)	Isaac Kelder (WA)	Justine Cox (NSW)
2022	Vanessa Wong (VIC)	Edward Scott (SA)	Isaac Kelder (WA)	Justine Cox (NSW)
2021	Vanessa Wong (VIC)	Edward Scott (SA)	Isaac Kelder (WA)	Justine Cox (NSW)
2020	Luke Mosley (SA)	Vanessa Wong (VIC)	Ashlea Doolette (SA)	Darren Kidd (TAS)
2019	Luke Mosley (SA)	Vanessa Wong (VIC)	Ashlea Doolette (SA)	Darren Kidd (TAS)
2018	John McLean Bennett (QLD)	Luke Mosley (SA)	Ashlea Doolette (SA)	Daniel Brough (QLD)
2017	John McLean Bennett (QLD)	Luke Mosley (SA)	Zoe Read (ACT) Ashlea Doolette (SA)	Daniel Brough (QLD)
2016	Tim Overheu (WA)	Jane Aiken (NSW)	Cath Botta (VIC)	Noel Schoknecht (WA)
2015	Tim Overheu (WA)	Jane Aiken (NSW)	Cath Botta (VIC)	Noel Schoknecht (WA)
2014	Richard Doyle (TAS)	Tim Overheu (WA)	Cath Botta (VIC)	Sarah Richards (TAS)
2013	Richard Doyle (TAS)	Tim Overheu (WA)	Cath Botta (VIC)	Sarah Richards (TAS)
2012	Richard MacEwan (VIC)	Richard Doyle (TAS)	Cath Botta (VIC)	Lucy Burkitt (TAS)
2011	Richard MacEwan (VIC)	Richard Doyle (TAS)	Jonathan Holland (NSW)	Lucy Burkitt (TAS)
2010	Richard MacEwan (VIC)	Jason Condon (RIV)	Jonathan Holland (NSW)	Gemma Heemskerk (VI)
2009	Richard MacEwan (VIC)	Jason Condon (RIV)	Jonathan Holland (NSW)	Gemma Heemskerk (VI)
2008	Stephen R. Cattle (NSW)	Richard MacEwan (VIC)	Alice Melland (VIC)	Brendan H. George (NS)
2007	Stephen R. Cattle (NSW)	Richard MacEwan (VIC)	Alice Melland (VIC)	Brendan H. George (NS)
2006	Neal W. Menzies (QLD)	Stephen R. Cattle (NSW)	Cameron Gourley (VIC)	Steven. Raine (QLD)
2005	Neal W. Menzies (QLD)	Stephen R. Cattle (NSW)	Cameron Gourley (VIC)	Steven Raine (QLD)
2004	Cameron D. Grant (SA)	Neal W. Menzies (QLD)	Keith Lindbeck (WA)	Anne McNeil (SA)
2003	Cameron D. Grant (SA)	Neal W. Menzies (QLD)	Keith Lindbeck (WA)	Anne McNeil (SA)
2002	Lyn Abbott (WA)	Richard Harper (WA)	Keith Lindbeck (WA)	Richard Harper (WA)
2001	Lyn Abbott (WA)	Richard Harper (WA)	Keith Lindbeck (WA)	Richard Harper (WA)
2000	G. Price (QLD)	L. Abbott (WA)	D. Lester (QLD)	S. Raine (QLD)
1999	G. Price (QLD)	L. Abbott (WA)	D. Lester (QLD)	S. Raine (QLD)
1998	G. Price (QLD)	L. Abbott (WA)	D. Lester (QLD)	S. Raine (QLD)

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1997	P.A. Hazelton (NSW)	G. Price (QLD)	D. Yates (NSW)	P. Mulvey (NSW)
1996	P.A. Hazelton (NSW)	G. Price (QLD)	D. Yates (NSW)	P. Mulvey (NSW)
1995	R.E. White (VIC)	P.A. Hazelton (NSW)	P. Chalk (VIC)	C. Weston (VIC)
1994	R.E. White (VIC)	P.A. Hazelton (NSW)	P. Chalk (VIC)	C. Weston (VIC)
1993	A.S. Black (RIV)	R.E. White (VIC)	M. Win (RIV)	M. Conyers (RIV)
1992	A.S. Black (RIV)	R.E. White (VIC)	M. Win (RIV)	M. Conyers (RIV)
1991	K.R.J. Smettem (SA)	A.S. Black (RIV)	P.M. Clayton (SA)	R.H. Merry (SA)
1990	K.R.J. Smettem (SA)	A.S. Black (RIV)	P.M. Clayton (SA)	R.H. Merry (SA)
1989	R.J. Gilkes (WA)	K.R.J. Smettem (SA)	K. Lindbeck (WA)	J. Dixon (WA)
1988	R.J. Gilkes (WA)	K.R.J. Smettem (SA)	K. Lindbeck (WA)	J. Dixon (WA)
1987	J.R. Freney (ACT)	R.J. Gilkes (WA)	W.J. Bond (ACT)	A. Pinkerton (ACT)
1986	J.R. Freney (ACT)	R.J. Gilkes (WA)	W.J. Bond (ACT)	A. Pinkerton (ACT)
1985	L.A. Douglas (VIC)	J.R. Freney (ACT)	R.S. Costello (VIC)	B.L. Finlayson (VIC)
1984	L.A. Douglas (VIC)	J.R. Freney (ACT)	R.S. Costello (VIC)	B.L. Finlayson (VIC)
1983	J.S. Russell (QLD)	L.A. Douglas (VIC)	J.A. Mullins (QLD)	I.F. Fergus (QLD)
1982	J.S. Russell (QLD)	L.A. Douglas (VIC)	J.A. Mullins (QLD)	I.F. Fergus (QLD)
1981	K.G. Tiller (SA)	J.S. Russell (QLD)	R.M. McKenzie (SA)	A.M. Alston (SA)
1980	K.G. Tiller (SA)	J.S. Russell (QLD)	R.M. McKenzie (SA)	A.M. Alston (SA)
1979	P.E.V. Charman (NSW)	K.G. Tiller (SA)	R. Hicks (NSW)	B.S.C. Wood (NSW)
1978	P.E.V. Charman (NSW)	K.G. Tiller (SA)	R. Hicks (NSW)	B.S.C. Wood (NSW)
1977	A.N. Smith (RIV)	P.E.V. Charman (NSW)	P.R. Cary (RIV)	G.D. Batten (RIV)
1976	A.N. Smith (RIV)	P.E.V. Charman (NSW)	P.R. Cary (RIV)	G.D. Batten (RIV)
1975	M. Mulcahy (WA)	A.N. Smith (RIV)	G.M. Dimmock (WA)	N.J. Barrow (WA)
1974	M. Mulcahy (WA)	A.N. Smith (RIV)	G.M. Dimmock (WA)	N.J. Barrow (WA)
1973	C.H. Williams (ACT)	M. Mulcahy (WA)	A.V. Blackmore (ACT)	J. Loveday (ACT)
1972	C.H. Williams (ACT)	M. Mulcahy (WA)	A.V. Blackmore (ACT)	J. Loveday (ACT)
1971	J.K.M. Skene (VIC)	C.H. Williams (ACT)	C.B. Campbell (VIC)	G.P. Briner (VIC)
1970	J.K.M. Skene (VIC)	C.H. Williams (ACT)	N.C. Uren (VIC)	G.P. Briner (VIC)
1969	G.D. Hubble (QLD)	J.K.M. Skene (VIC)	I.F. Fergus (QLD)	J.S. Russell (QLD)
1968	G.D. Hubble (QLD)	J.K.M. Skene (VIC)	I.F. Fergus (QLD)	J.S. Russell (QLD)
1967	T.J. Marshall (SA)	G.D. Hubble (QLD)	J.T. Hutton (SA)	D.J. Greenland (SA)
1966	T.J. Marshall (SA)	G.D. Hubble (QLD)	J.T. Hutton (SA)	D.J. Greenland (SA)
1965	J.P. Quirk (WA)	T.J. Marshall (SA)	N.J. Barrow (WA)	J. Keay (WA)
1964	J.P. Quirk (WA)	T.J. Marshall (SA)	N.J. Barrow (WA)	J. Keay (WA)
1963	B.E. Butler (ACT)	J.P. Quirk (WA)	D. Cosgrove (ACT)	R.J. Hunter (ACT)
1962	B.E. Butler (ACT)	N. Collis-George (NSW)	D. Cosgrove (ACT)	R.J. Hunter (ACT)
1961	R.G. Downes (VIC)	B.E. Butler (ACT)	W.R. Rothols (VIC)	J.S. Murray (VIC)
1960	R.G. Downes (VIC)	B.E. Butler (ACT)	W.R. Rothols (VIC)	J.S. Murray (VIC)
1959	J.K. Taylor (SA)	R.G. Downes (VIC)	R.D. Bond (SA)	A.R.P. Clarke (SA)
1958	J.K. Taylor (SA)	R.G. Downes (VIC)	R.D. Bond (SA)	A.R.P. Clarke (SA)
1957	L.J.H. Teakle (QLD)	G.W. Leeper (VIC)	K.C. Leverington (QLD)	A. McDonald (QLD)
1956	L.J.H. Teakle (QLD)	G.W. Leeper (VIC)	K.C. Leverington (QLD)	A. McDonald (QLD)

The Georgian Soil Science Society (GSSS) 1956



Georgian Soil Science Society (GSSS) was founded in 1956 in Tbilisi, Georgia. The purpose of the society is to develop and popularize knowledge of Soil Science in a wide society, support educational institutions to prepare qualified personnel in the field, provide training on actual soil-related topics, and strengthen relations with farmer's associations and with other professional and scientific organizations to promote interdisciplinary research.

Nowadays, GSSS has 77 active members and governed by the presidium of the society.

GSSS unites professionals and scientists engaged in Soil Science and soil-related issues, such as agronomists, geochemists, agricultural engineers, foresters, environmentalists and students from different fields of study. GSSS is actively involved in the organization of symposia, conferences, workshops, students' competitions and field schools.

Periodically, GSSS was preparing publications on soil genesis, soil fertility improvement, amelioration and other actual issues.

Since the establishment of the GSSS different distinguished Georgian scientists, such as Dimitri Gedevanishvili, Mikheil Sabashvili, Mikheil Daraselia headed the society, which led to the development of Soil Science in Georgia. In 1986, Tengiz Urushadze was elected as the president of the GSSS and served in this position till 2021. T. Urushadze was very active in establishing international relations with the International Union of Soil Scientists and Soil Science societies of USA, Germany, Austria, Russia, Armenia, Azerbaijan, Israel, Spain, Chile and other countries. He introduced many novelties in the country and managed to engage youth in the GSSS.

At the beginning of 90-ies of the last century, the GSSS actively worked with the Parliament of Georgia to initiate the Law on Soil Protection, which was successfully finalized in 1994. It was the first law related to the conservation of natural resources in Georgia after regaining independence.

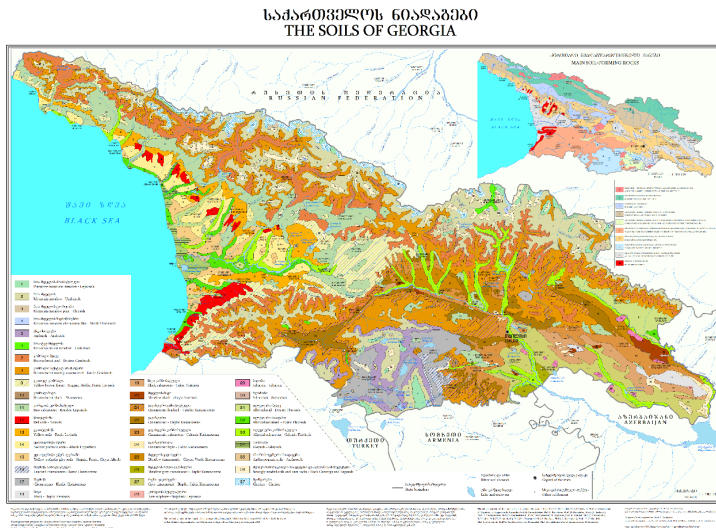
Under the leadership of T. Urushadze GSSS published an updated Soil Map of Georgia on a scale of 1:500,000 in 1999, which was awarded with State Prize of Georgia in 2002.

GSSS intensified activities towards harmonization of national soil classification with World Reference of Soil Resources (WRB) and in 2003 organized the "Field Collo-

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quium” dedicated to those issues where many prominent soil scientists from all over the world took part and their input greatly contributed to the deepening of the research in that direction.

In 2019, GSSS revised the Soil Map of Georgia reflecting all advancements in the field of soil genesis and classification.



In 2018, T. Urushadze was elected as an honorary member of the IUSS and awarded during the 21st World Congress of Soil Science in Rio de Janeiro, Brazil, becoming the first Georgian scientist to receive this great distinction.



The Estonian Soil Science Society (ESSS) 1957



Estonian Soil Science Society (ESSS or in est EMTS – Eesti Mullateaduse Selts) is a non-profitable association of private persons and organizations interested in Soil Science, agrochemistry, plant nutrition, pedo-ecology, sustainable land use and soil protection.

The competence of acting under auspice of Estonian Academy of Science (EAS) enables the society to be the distributor of practical knowledge on sustainable and efficient land use in agricultural and forest management. Society and its members are forming consulting hub for education, research and policy formulation. The awareness raising is successful thanks to collaboration with local stakeholders (farmers unions, state agencies etc.), Soil Science societies of neighbour countries, International Union of Soil Science (IUSS), Global Soil Partnership. The residence of society is the Chair of Soil Science (CSS) of Estonian University of Life Sciences (EULS).

The association of universities, scientific societies and research institutions form together a composite time axis with which we bind most notable practical trends in local agriculture and activities of outstanding national leaders of Soil Science. The development of soils' management, beginning from their primitive use to contemporary knowledge-based use, was broken and complicated. Dependent on political status during the last century the management of agricultural and forests' land alternated drastically. The history of Estonian Soil Science will be treated here by periods of different governmental policies.

Period before 1918

With transition from manor to individual farmstead management, Estonia stayed an agricultural state based on farmstead husbandry. As experiences of previous generations were absent, the peasantry needed urgently elementary knowledge about land management. The developing farmstead husbandry received much useful information and help from regional farmers' societies, the firsts of which have been formed at the end of 19th century.

The main sources of information for peasantry were different newspapers, journals, calendars and others issued in national language. First Soil Science manual in Estonian was published in 1916. From the 1806 at University of Tartu (UT) J.W. Krause started lectures about Soil Science. His work continued J.F.L. Schmalz, G.P.A. Petzholdt,

A.D.L. Thomson and others. Essential role in distribution knowledge belonged as well to practical agricultural schools.

First independence period of Estonian Republic (1918-1940)

The land reform in Estonia proceeded in 1918-1924. Most important event was the founding of Academic Agricultural Society (AAS) in 1920, in auspice of which, in collaboration with Estonian Agronomist Society (EAS), the scientific journal "Agronomy" issued from 1921 to 1940.

In 1919 at UT the faculty of agriculture was established, where Soil Science lectures were continued. The chair of agrochemistry and Soil Science leded by A. Nõmmik (1882-1957) was formed at UT in 1920. A. Nõmmik was a well-known soil scientist, who studied soil properties and mapping of soils. After the establishment agricultural experimental station in 1921, he dedicated studying organic fertilizers and their use in agriculture. He participated in IUSS commissions meetings during the period 1929-1939. He had good relationships with G.F. Marbut from USA and with K.O. Glinka, S.S. Neustrujev and P.S. Kossovits from Russia.

In this period A. Lillema (1897-1965) initiated the large-scale survey of Estonian soils with their mapping and studying pedo-ecological principles of their forming.

A well-known advisor for peasantry in the field of Soil Science (physical status, use of organic and mineral manures, efficient land use) was K. Liidak, who worked previously in the laboratory of D.N. Prjanišnikov in Moscow. K. Liidak's activity, as adviser, was continued by N. Ruubel. Working as assistant of A. Nõmmik, O. Hallik continued and enlarged multisided researches of his mentor about soils' acidity and liming.

Period 1945-1964

After II World War, the severe repressions among peasantry took place and the agriculture collapsed for years. Previously successfully acted farmers' societies were forbidden. The forming of kolkhozes (in 1947-1950), was the next destroying act for rural life. Still in years 1958-1965, some kind advances in agricultural activities and normality in countryside life were obtained.

In connection with numerous emigrations of agricultural scientists, the leadership of Soil Science at university level and agricultural practice was going to the shoulders of younger generation. O. Hallik (1906-1964) was the head of CSS at UT and later the head of Department of Soil Science and Agrochemistry (DSSA) at Estonian Agricultural Academy (EAA). The main challenge was the restoration of teaching at the university and the continuing scientific research on actual themes of agriculture. During the most part of soviet time the studies of DSSA were involved by two state financed board research themes (Soil Science and agrochemistry).

In elaboration methods for soil mapping, the leading role belonged to A. Lillema. Based on his previous research, the soil map of Estonia in scale 1:400,000 with legend was issued in 1946. From 1954 to 1958 the elaboration and validation of suitable for local pedo-ecological condition soil survey methods took place. In this work participated research from DSSA (O. Hallik, L. Reintam, A. Piho, E. Kitse, I. Rooma, R. Sepp), from Estonian Agricultural Institute (EAI) (A. Lillema, R. Kask), from UT (A. Kongo) and some others.

Extensive soil mapping of agricultural lands was carried out from 1958 to 1970. This work was done by soil mapping specialists from reformed in 1962 Soil Science Department (SSD) of “Estonian Agriproject” (EAP) under leadership of R. Kokk and soil scientist in chief I. Rooma.

Leaders of the field works and forming final reports were highly experienced specialists as T. Teras, V. Valler, V. Voiman, R. Lehtveer, R. Leet and others. Most of soil surveyors were by their speciality agronomists and geographers, and in smaller part land managers and geologists.

The first chairperson of the Estonian Branch of All-Union Society of Soil Science (A-USSS) from 1957 to 1964 was prof. O. Hallik being as well the member of A-USSS Presidium. Most of DSSA soil scientists and members of SSD soil mapping team belonged to the A-USSS.

Period 1965-1991

The head of DSSS during this time was prof. L. Reintam (1929-2010), who was an academic of EAS and merited scientist of Estonia. He was also chairman of Estonian Branch of A-USSS, member of its presidium and vice-president in 1971-1977. In this period complex characterisation of dominated soil types was carried out on basis of stationary research areas by soil scientists of DSSA (E. Kitse, H. Roostalu, A. Oja, E. Arvisto, R. Kõlli) under the leadership of L. Reintam. Studies focused on soil properties, regimes, autecology and productivity. Also the complex characterization of soil organic matter and studies on soil degradation and sustainable use were prioritized. On basis of field experiments led by E. Turbas and P. Kuldkepp, the plant nutrients cycles in plant-soil-environment system and balanced fertilization studies were completed. From the middle of this period more and more the agro- and pedo-ecological principles were introduced into research and teaching.

With exceptional importance event was organized by Estonian soil scientists, IIIrd Name and last name A-USSS Congress with field excursion around Estonia in 1966. Soil scientists of DSSA participated as well in UNESCO IBP and in programme MAB. In 1968-1976 at EAA totally 9 series of soil specialist curriculum were educated.

The research of EAP SSD completed the quality estimation of agricultural soils, map-

ping of forest soils and compilation of dominated soils' model profiles. The studying of mutual relationships of natural grasslands' plant covers with soils and determination of grasslands ecosystems' productivity was proceeded in 1978–1982 by leadership of E. Aug and an extensive monitoring of arable soils during 1983–1992 by DSS team (R. Kokk, E. Aug, R. Lehtveer and others).

First period after re-independence of Estonian Republic (1991-2005)

The head of the DSSA of Estonian Agricultural University (EAU, renamed EAA) was during this period prof. R. Kõlli. Notable success reached by the DSSA scientists (R. Kõlli, A. Kanal, I. Lemetti, P. Penu) in studying forest, arable and grasslands soils' humus status, agrochemical and physical properties, and peculiarities of their pedo-ecological functioning. These results were generalised on background of soil matrixes and preserved in database "Pedon".

Founding of the IT-based advisory service, on the base of soils' functioning peculiarities and digitized soil maps, was initiated by H. Roostalu and A. Astover. GIS based exploitation of soil data help to foster the efficacy of production processes and to diminish risks related with specificity of land management in dependence of land use peculiarities and market situation.

The continuation of long-term field experiments enabled to explain the functioning peculiarities of different soil species and dynamics of yield formation, to find ways for optimization of nutrient turnover by local plant residues, to elucidate environmentally sound use of industrial waste composts and to elaborate biological methods for remediation of soil physical properties. The leading DSSS researchers dealing with these topics were A. Astover, E. Reintam, M. Shanskiy and others.

In 1990 the extensive monitoring of forest soils started. During first five year under guidance of E. Asi in the framework of ICP Forest programme totally 91 research areas founded, on which the repeated sampling was done in 2006-2007. From 2002 the monitoring of arable soils continued by Agricultural Research Centre (ARC) under leadership of P. Penu. Beside of newly established monitoring areas, as well on some founded by DSS areas the soil monitoring was continued.

In connection with ending existence of A-USSS, the soil scientists of Estonia acted together from 1991 to 2009 as non-formal association under the leadership of L. Reintam.

Soil Science activities in Estonia since 2006

The head of CSS of EULS in 2006-2007 was prof. H. Roostalu and from 2007 prof. A. Astover. The main research themes are effective use of soil and land resources, land use economics, turnovers of substances in agroecosystems, influence of fertilization on biological productivity, soil and environment quality, and optimizing of mineral

and organic fertilizer using. The research of previous years enabled to upgrade the spatial agro-economic decision support system for efficient soil cover management.

On 23rd October, 2009 the modern-time ESSS was founded. President of ESSS is A. Astover and the board members were or are now E. Reintam, E. Asi, T. Vahter, T. Köster. All members of ESSS belong to the IUSS.

Honorary members of society are L. Reintam, I. Rooma and R. Kölli.

ESSS arranges mutual relationships with other professional natural science's societies of Estonia, belongs to European Confederation of Soil Science Societies (ECSSS) and represents Estonia in ESSC, WASWAC, NJF, ISTRO and others. As tradition, in every year the members of ESSS elect and propagate Soil of the Year (since 2014), celebrate Soil Day (since 2010), organize scientific excursions and conferences.

Value of legacy institutions, collections and datasets supporting sustainable soil management and public awareness

The Soil Museum was initially founded by A. Nõmmik at UT, but was unfortunately destroyed during the war. Restoring of museum was initiated O. Hallik, but the dominating part of soil monoliths was prepared during special expeditions organized by L. Reintam. Besides soil monoliths the soil museum of EULS has a set of different kind soil maps, collections of soils' parent materials, textures and structural particles, specimens of minerals/rocks and samples of fertilizers. In archive of museum the soil samples from national soil monitoring areas, long-term field experiments, permanent research areas and landscape transects are preserved.

Laboratories. The aim of the Soil Science laboratory formed in 1947 was to provide technical support for researchers of Soil Science and agrochemistry. Established in 1958 independent fertilizer requirement laboratory was the basis of agrochemical service in Estonia. The organisers and leaders of local agrochemical service were E. Raudväli, L. Kevvai, A. Sirendi, R. Tüür and others. Reorganized later many times it is from 2023 the Centre of Estonian Rural Research and Knowledge. Besides laboratories of chemical analyses, there acted periodically as well the laboratories of radioactive isotopes leaded at EAA by V. Hellenurme and at EAI by H. Kärblane.

In the Institute of Experimental Biology was the laboratory of soil microbiology, where the researches on microflora of dominated soil types and their changes relation with land use change were proceeded by P. Rahno, O. Rõõs, L. Murdam and others. The agrochemical service has now huge databases about six periods of agrochemical monitoring on liming and fertilization requirements with according digital maps.

With high scientific value for Estonian Soil Science are databases formed during different kind long-term researches of soil cover. These data preserved in archives of diverse institutions. Estonian Land Board is responsible for large-scale digitized soil

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map, various other small-scale soil maps, databases of soil survey and reports on inventory of natural grasslands. Dispersed by responsible institutions are databases on geochemical monitoring of humipedons, and classical monitoring of forest and arable soils. In CSS of EULS are preserved data about complex researches of soils at stationary areas, about field experiments on fertilization and liming of arable soils, about studying composition of soil organic matter and its role in soil functioning, and about pedo-ecological characterization of soils' humus status and productivity. CSS was one of initiators in investigation of exhausted oil shale mining areas' recultivation. Different, with smaller amount, databases exist as well in alternative institutions, mentioned in actual review.



Field excursion of IIIrd A-USSS III Congress in Estonia. Convenor of discussion is L. Reintam (second from the right).



International WRB field workshop in Estonia. Explanation gives A. Astover (in the middle with raised hand).

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The Ukrainian Society of Soil Scientists and Agrochemists (USSSA) 1958



1. USSSA General information

1.1. Establishment. In fact, in 1958-1991, the Ukrainian branch of the All-Union Society of Soil Scientists operated in Ukraine. After Ukraine gained independence, in accordance with the legislation of the country, the Ukrainian Society of Soil Scientists and Agrochemists (hereinafter the USSSA or the Society) was registered by the Ministry of Justice of Ukraine on August 31, 1992 as an all-Ukrainian association of citizens – a non-state non-profit public organization. The full current name of the society – Public organization “Ukrainian Society of Soil Scientists and Agrochemists” was approved on June 26, 2017 at the 10th Congress of the USSSA.

1.2. Basic institution and sources of funding

According to the charter, the main sources of funding for the statutory activity of the Society are membership fees of natural persons – registered members of the USSSA, charitable assistance, grants or subsidies from special funds, state or local budgets, income from scientific and other activities under state or other orders.

The state does not provide systematic financial support to the USSSA.

The basis for the functioning of the USSSA is the National Scientific Center “Institute for Soil Science and Agrochemistry Research named after O.N. Sokolovsky” – the leading soil scientific institution of Ukraine, which was founded in 1956 on the initiative of O.N.Sokolovsky, who was Vasyl Dokuchayev’s student.

1.3. Structure and management

Members of the USSSA are natural persons – scientists, specialists, teachers, students, politicians and other citizens interested in the development of soil science and agrochemistry in Ukraine, who recognize the Statute of the Society and regularly (once a year) pay membership fees. The basis of the Society consists of regional subdivisions created at the place of work, study or residence of USSSA members (at least 10 people). In 2018, USSSA included 23 branches with a total number of about 600 members.

The highest governing body of the Society is the Congress of Soil Scientists and Agrochemists, which is convened by the Central Council of the Society at least once every four years. From 1992 to the present day, 11 congresses of USSSA have been held: the IV congress – Kherson (1994); the V congress – Rivne (1998); the VI Con-

gress - Uman (2002); the VII Congress – Kyiv (2006); the VIII Congress - Zhytomyr (2010); the IX congress – Mykolaiv (2014), the X extraordinary congress of the Society was held on June 26, 2017 in connection with the introduction of changes to the Statute of the Society, and the last XI Delegates' Congress of the UTSSA was held in Kharkiv on September 17-21, 2018. In connection with the hostilities in Ukraine, the XII Congress of the UTSSA, planned in Chernivtsi (2022), has been postponed by the decision of the Central Rada for approximately one year after the end of martial law in the country, which will be announced further. In the period between congresses, the highest governing body of the Society is the **Central Council of the USSSA** (up to 48 members), which for current work elects the **Presidium of the USSSA** (up to 20 members), which includes the General Secretary, Deputy General Secretaries, the President of the Society, the Chief Academic Secretary and other members of the Central Rada.

The General Secretary of USSSA is elected at the Society's congress for a term of 8 years. He/she represents the Society in relations with state bodies of executive power, public, international public (non-governmental) organizations and citizens. Traditionally, the Director of the basic scientific institution of the Society - the National Scientific Center "Institute for Soil Science and Agrochemistry Research named after O.N. Sokolovsky" (hereinafter NSC ISSAR). In the period 1992-1998, the duties of the General Secretary of the USSSA were assigned to B.S. Nosko – Academician of the National Academy of Agrarian Sciences; from 1998 to 2006 for V.V. Medvedev - Academician of the National Academy of Agrarian Sciences, from 2006 to 2010 for V.I. Kisel – Corresponding Member of the National Academy of Agrarian Sciences. Since 2010 and until today, Prof.Svyatoslav Baliuk, Director of NSC ISSAR, DSc, Academician of the National Academy of Agrarian Ukraine, has been the General Secretary of the USSSA. From 2006 to the present, the Chief Scientific Secretary of USSSA is Hanna Momot, PhD, Head of the NSC ISSAR Department.

The President of the USSSA is appointed by the Central Council from the separate unit that will hold the next Congress of the Society. The main task of the President of the Society is the organization and holding of regular and extraordinary Congresses of the USSSA. In addition, his/her official duties include the performance of the Society's representative functions before any physical and legal entities, both in the country and abroad.

The **Commissions** and **Sub Commissions** of the USSSA carry out the current issues of coordination of cooperation of Ukrainian soil scientists in various areas of research (<https://issar.com.ua/4911-2/>).

The USSSA Commissions: 1. Soil physics; 2. Soil chemistry; 3. Soil biology; 4. Agrochemistry and soil fertility; 5. Genesis, geography and classification of soils; 6. Land reclamation; 7. Soil protection; 8. Commissions on programs and methods of teaching soil science, agrochemistry and soil cartography; 9. Dictionary terminology,

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development of standards; 10. History of soil science and cataloguing; 11. Commission for work with scientific youth.

The USSSA Sub Commissions: 1. Forest soil science and forest hydrology; 2. Mathematical methods in soil science and geoinformation systems; 3. Soil monitoring; 4. Soil micromorphology; 5. Nomenclature and classification of soils; 6. Reclamation of waterlogged soils; 7. Irrigated soils; 8 Erosion; 9. Agricultural reclamation; 10. Forest reclamation; 11. Man-made soil pollution; 12. Radioecology of soils.

The main statutory tasks of the Society are:

- comprehensive promotion of the development of soil science and agrochemistry as important branches of modern natural science;
- promoting the comprehensive study of soil and land resources of Ukraine with the aim of their most rational use, increasing productivity, forecasting changes and protection, participation in the implementation of domestic and international programs on topical issues of soil science;
- promoting the popularization of soil science, agrochemistry and related sciences among the general population; organization of representative events to popularize knowledge about soils and their importance for human existence; facilitating the organization of education in higher and secondary schools, in special educational institutions that correspond to the profile of the Society;
- assistance to members of the Society in the practical implementation of their scientific works, inventions and innovative proposals, in improving their professional qualifications; providing assistance in the protection of various rights of members of the Society;
- establishment of creative relations with related domestic and international public non-governmental and other organizations.

2. The historical basis for the creation of the USSSA

The founding of the modern independent Ukrainian Society of Soil Scientists and Agrochemists in 1992 became possible thanks to the well-known historical events of the reconstruction of the Ukrainian state and the previous rapid development of soil science in the territory of Ukraine starting from the Dokuchaev period. Let us note some key events that marked the development and structuring of the Ukrainian school of soil science and which quite naturally led to the creation of USSSA.

1918. The first edition of A. G. Ternichenko's textbook "Soil Science" from the series "Agricultural Course" in Ukrainian. The updated edition of the textbook was published in 1922.

1923. On April 15-20, 1923, the first official meeting of Ukrainian scientists, soil scientists and researchers of other branches of agricultural science related to soil science

in Soviet Ukraine took place in Kyiv - the 1st Congress of Soil Scientists of Ukraine, organized by the Soil Science Section of the Agricultural Scientific Committee (SSC) of Ukraine. Hryhoriy Makhov was its Head from 1920 to 1927.

1924. At the First International Congress of Soil Scientists in Washington (USA), a collection of Ukrainian soils selected by H. G. Makhov and D. G. Vilenskyi was presented

1924 p. The beginning of the work of O. N. Sokolovsky in Ukraine (Kharkiv, Research Department of Soil Science of the Kharkiv Agricultural Institute) on the unification of the scientific forces of the republic, which ended with the creation of a single scientific center for soil science - the Ukrainian Research Institute of Soil Science in 1956.

1924-1925. From December 28, 1924 to January 5, 1925, the First All-Ukrainian Congress on the Study of Productive Forces and the National Economy of Ukraine was held in Kharkiv, at which, in particular, a key joint report by Professor H.G. Makhov and O.N.Sokolovsky “Soils of Ukraine as a productive force of nature, their use and improvement”, the results of the work on the compilation of the general soil map of Ukraine and the natural zoning of the country were discussed, the need for a comprehensive study of the dynamics of the republic’s soils was emphasized, taking into account the depletion of soils by agricultural crops and the need to improve their fertility.

1925. The textbook “Soil Science” by H. G. Makhov was published in Ukrainian, which had a morphological and genetic orientation both in the construction and in the given soil maps and their classification.

1928. On May 28-29, 1928, the All-Ukrainian meeting of soil scientists was held in Kharkiv, organized by the research department of the Kharkiv Agricultural Institute.

1928. The All-Ukrainian Society of Soil Scientists was founded, its Statute was developed and the Bureau of the Society was elected.

1929. On May 7-12, 1929, the All-Ukrainian Congress of Soil Scientists (66 delegates) was held in Kharkiv, the main purpose of which was to discuss the problems of agronomic soil science, in particular, issues of increasing soil fertility - the main natural factor in agriculture.

1930. Publication of the fundamental monograph by H. G. Makhov “Soils of Ukraine”, in which a detailed system of morphological features for determining the types of soils of Ukraine is proposed for the first time. The monograph summarized all previous developments in the study of soils in Ukraine.

1933. The release of a textbook “Soil Science” by Academician O.N. Sokolovsky - one of the founders of modern agronomic soil science, in which the author gives the first scheme of genetic classification of soils. The textbook is printed in Ukrainian.

1931-1935. Creation of the All-Ukrainian Research Institute of Agro-Soil Science and

Chemistry of Agriculture and its agro-inventory research of the soils of Ukraine (with the participation of O. N. Sokolovsky).

1934. In Ukraine, new developments, which have not yet been seen in the civilized world, are appearing – laboratory houses, which at the end of the 60s of the 20th century turned into collective farm research stations.

1951. The monograph “Soils of Ukraine” (N.B. Vernander, M.M. Godlin, G.N. Sambur, S.A. Skorina) was published, which summarized the main available data on the soils of the republic.

1956. On the initiative of O.N. Sokolovsky, student of academicians V.R. Williams and D.M. Pryanishnikov, the Ukrainian Research Institute of Soil Science was founded (today – the National Scientific Center “Institute for Soil Science and Agrochemistry Research named after O.N. Sokolovsky” – the leading soil scientific institution of Ukraine, which is the basis for the functioning of USSSA).

1957-1961. A revolutionary breakthrough in the development of Ukrainian soil science took place due to the implementation (in accordance with the decision of the Government of Ukraine) of a continuous large-scale soil survey of agricultural lands of Ukraine on an area of more than 30 million hectares and their subsequent mapping. The initiator and coordinator of the large-scale soil survey, in which more than 1.900 qualified specialists participated, was O.N. Sokolovsky- the first director of the newly created Ukrainian Research Institute of Soil Science, and his subsequent supervisor was M.K. Krupsky (Director since May 1959).

According to the results of large-scale studies of the soils of Ukraine by students and followers of Academician O.N. Sokolovsky, soil maps and accompanying materials of various scales and purposes were compiled - from soil maps on a scale of 1:10.000 and 1:25.000 for each of the 7.000 farms of Ukraine to all regional soil maps on a scale of 1:200.000 and soil maps of Ukraine on a scale of 1:750.000.

The great work on surveying the soil cover of Ukraine gave impetus to the development of many scientific directions of the Ukrainian school of soil scientists:

Large-scale soil mapping 1957-1961 (M.K. Krupsky, O.M. Grynchenko, G.S. Gryn, V.D. Kysil, N.B. Vernander, G.M. Sambur, M.A. Kochkin ., Yarovy A.F., Andrushchenko G.A.);

- Agro-soil grouping, zoning, classification of soils (M.K. Krupsky, S.G. Gryn, V.P. Kuzmychov, G.V. Novikova, S.A. Baliuk, V.V. Medvedev, M.I. Polupan);
- Soil processes and regimes (Hryn G.S., Kysil V.D., Chesnyak G.Ya., Truskavetsky R.S., Nosko B.S., Polupan M.I.);
- Soil fertility (Sokolovsky O.N., Grinchenko O.M., Krupskyi M.K., Mozheyko A.M., Truskavetsky R.S., Nosko B.S., Chesnyak G.Ya. and others);
- Soil microbiology (Obraztsova O.A., Mikhnovska A.D., Kanivets V.I., Khristenko S.I.);

- Soil physics (P.O. Havryk, V.V. Medvedev, T.M. Laktionova);
- Soil assessment (M.K. Krupsky, V.P. Kuzmychev, V.V. Medvedev, M.I. Polupan, M.V. Lisovy);
- Soil erosion (Kholupyak K.L., Dolgilevich M.Y., Shikula M.K., Golovachev V.F., Bulygin S.Yu. and others);
- Remote sensing (V.O. Grekov, A.V. Shatokhin, S.Yu. Bulygin, A.B. Achasov, S.R. Truskavetsky);
- Soil reclamation (L.V. Yeterevska, G.F. Momot, M.E. Bekarevich, M.G. Masyuk);
- Colloid-chemical technology (M.K. Krupskiy, O. Ya. Demydienko, A. D. Ivashina, G. M. Bilonenko);

Formation of the “Soil Properties of Ukraine” database, information systems (V.V. Medvedev, T.M. Laktionova, I.V. Plisko);

Saline and alkaline lands (Sokolovsky O.N., Grinchenko T.O., Mozheyko O.M., Novikova G.V., Vorotnik T.K., Kukoba P.I., Baliuk S.A.);

Water-deficient and drained lands (S.T. Voznyuk, R.S. Truskavetsky);

Acidic lands (Krupsky M.K., Oleksandrova H.M., Truskavetsky R.S., Grinchenko T.O., Mazur G.A., Tsapko Yu.L.);

Soil monitoring (V.V. Medvedev, M.I. Polupan, S.A. Baliuk);

Normative-legal and normative-methodical provision of soil protection and quality (Baliuk S.A., Lazebna M.E., Kucher A.V and others);

Economic provision of land protection (S.A. Baliuk, A.V. Kucher);

Research on agrochemistry (M.K. Krupsky, B.S. Nosko, A.I. Fateev, M.V. Lisovy and others).

The unsurpassed experience of these large-scale and effective works on soil survey and cartography was later spread to other republics of the then Soviet Union and beyond.

The results of large-scale studies of the soils of Ukraine in 1957-1961 are widely used even in modern times, in particular, for the development of digital cartographic materials of various scales, the creation of soil databases, the determination of damage from soil damage as a result of the aggressive invasion of the Russian Federation, and for the development of post-war reclamation projects of the affected soil cover of the country.

1958-1991. The Ukrainian branch of the All-Union Society of Soil Scientists (AUS-SS, 1939-1991) operates in the country. The 1st congress of the AUSSS was held in Moscow only in 1958. The next – the 2nd congress of the All-Union Society of Soil Scientists was held in Ukraine (Kharkiv) in 1962.

1964. The beginning of the organization of a centralized state agrochemical service in Ukraine with the creation of 25 zonal agrochemical laboratories, which in 2013 turned

into the state institution “Institute of Soil Protection of Ukraine”.

1966 – till now. In Ukraine, has been started mandatory agrochemical certification of arable land every 5 years, as well as hayfields, pastures and perennial plantations every 5-10 years, for all landowners and land users. To date, eleven full rounds of such surveys have already been conducted and the work continues. During the tenth round (2011–2015), about 20 million hectares of agricultural land were examined with the selection of more than 1.9 million soil samples, and almost 10 million soil laboratory tests were conducted to determine the content of more than 20 nutrients and pollutants (<http://www.old.iogu.gov.ua/pasportizaciya/ahrohimichne-obstezhennya-silskohospodarskyh-uhid/>).

The presence of an agrochemical passport of a field or a plot of land is mandatory when transferring land plots into ownership, use, granting a permit for removing and transferring the soil cover (fertile soil layer) of a plot of land, conservation and reclamation of land and in other cases provided for by law. Currently, 360,800 units of agrochemical passports with recommendations on increasing the efficiency of use and preservation of soil cover have already been issued to land users and landowners.

1982. The first independent congress of Ukrainian soil scientists was held in Dnipropetrovsk.

1986. The second independent congress of Ukrainian soil scientists was held in Kharkiv.

1992. The 3rd Congress of Ukrainian Soil Scientists was held, at which the 1st version of the Statute of the Ukrainian Society of Soil Scientists and Agrochemists was approved.

3. Relations between USSSA and IUSS

Relations between UTHA and IUSS are developing in different directions:

- individual membership of Ukrainian soil scientists and full membership of USSSA in IUSS;
- participation of Ukrainian scientists in IUSS events;
- visits of IUSS representatives to Ukraine and their participation in USSSA congresses;
- participation of Ukrainian soil scientists in the work of commissions and in meetings of IUSS;
- honorary membership of Ukrainian soil scientists in IUSS;
- participation of USSSA in leadership elections of IUSS;
- other areas of cooperation.

Currently, USSSA is a full member of the IUSS, although there are certain problems with the payment of the corresponding membership fees, related to both the martial

law in Ukraine and the general unsatisfactory financial and economic condition of the country as a whole. Several examples of connections between USSSA and IUSS. Individual members of IUSS in different years were, for example, O.N. Sokolovsky, B.S. Nosko, V.V. Medvedev, etc.

Academician of the National Academy of Agrarian Sciences B.S. Nosko became an Honorary Member of IUSS in 2004. O.N. Sokolovsky and V.V. Medvedev were elected vice-presidents of the Soil Physics commission of IUSS for a number of years (1994-1998). Ukrainian scientists took part in dozens of international meetings, conferences, congresses of soil scientists. For example, O.N. Sokolovsky participated in international conferences and congresses of soil scientists in Rothamsted (1926), Washington (1927), Budapest (1928), Moscow (1930), etc. The President Elect of IUSS Takashi Kasaki (Japan) personally participated in the Plenary Session of the XI Congress of UTGA (Kharkiv, 2018). In 2022 and 2023, the Past President Dr Laura Bertha Reyes Sanchez took part in two international online events in Ukraine organized by NSC ISSAR with the participation of USSSA – International Scientific and Practical Conferences dedicated to the degradation of Ukraine’s soils under the influence of the armed aggression of the Russian federation.

4. The main challenges of soil science and agrochemistry in the country, which have been solving in recent years with the participation of USSSA members:

- conducting an accelerated survey and post-war rehabilitation of degraded and polluted soils of Ukraine on an area of several million hectares;
- the consequences of the armed aggression of the Russian federation;
- overcoming the consequences of the destruction of Europe’s largest Kakhovka reservoir: destruction of irrigation on an area of up to 500.000 hectares and solving the problem of rational use of 1 million km² of land previously flooded;
- overcoming the consequences of the world’s largest radioactive soil contamination (Chernobyl disaster);
- reduction/prevention of degradation processes of the country’s soil cover, prevention of the negative effect of mineral fertilizers and pesticides on the condition of the soil and the environment; improvement of soil health in Ukraine;
- optimization of the influence of the soils of Ukraine on global climate changes and their adaptation/evolution under the influence of global climate changes;
- overcoming the uncontrolled spread of sealing and removal of agricultural soils in Ukraine;
- improvement of the legislative and normative-methodical provision of soil protection in Ukraine, its harmonization with the soil conservation legislation of the European Union, creation of the National Register of degraded and contaminated land plots;
- improvement of the state soil monitoring system;

- preparation for the second round of continuous full-scale survey of the country's soil cover, first of all – in areas affected by the war.

5. Peculiarities of the USSSA work during the war. Importance of IUSS support

During the war with the Russian Federation, the work of USSSA faces a series of new problems.

The basic organization of the USSSA – NSC ISSAR – is located in the front-line city of Kharkiv with all the associated factors: periodic shelling and bombing, air raids, blackouts, etc. Most of the staff of the NSC ISSAR works remotely. At the same time, there is almost no possibility of continuing field experiments and research in the experimental farms of the NSC ISSAR and in the war-affected regions of the country, and the series of stationary field experiments has been stopped. The Presidium of the USSSA was forced to cancel the regular 12th Congress of the Society. The collection of membership fees, which were the main source of the Society's financial resources, has been stopped.

At the same time, USSSA continues to consolidate the efforts of Ukrainian soil scientists to solve the extremely urgent problem of studying and overcoming large-scale military soil degradation in Ukraine. Currently, the main task of the Society is to survey the affected soil cover of the country and prepare for its accelerated post-war recovery and reclamation. In the conditions of very limited opportunities for conducting field surveys of war-damaged lands, the main ways are remote methods.

In these force majeure conditions, the support of USSSA and Ukrainian soil scientists from IUSS is very important. The directions of such support can be very diverse: informational and methodical support for access and processing of high-resolution space images, the organization of remote monitoring of damaged land/soils, increasing the potential of Ukrainian soil institutions for soil surveys, technologies for the reclamation of contaminated and degraded soils to direct participation of IUSS experts in the tasks of restoring the country's soil cover or direct financial support of USSSA.

6. USSSA Contacts

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Mr Arkadiy Levin – USSSA Presidium Member, Coordinator of International Activity,
alevin@ukr.net



Participants of the 11th USSSA Congress (Kharkiv, Ukraine, 2018).

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President of IUSS Takashi KOSAKI and USSSA General Secretary Sviatoslav BALIUK with the participants of the 11th USSSA Congress, 2018.



Demonstration the Profile of chernozem typical on the loess – Calcic Chernozems or Profundihumic – during FAO Training on saline soil (Grakovo, Kharkiv, Ukraine, 2017).

War and Ukrainian soils



The Soil Science Society of Pakistan (SSSP) 1958



The Soil Science Society of Pakistan (SSSP) is a non-government and non-profitable organization of scientists, engineers, technologists and students, and serving the profession of Soil and Environmental Sciences and allied disciplines. The Society, established in 1958, was revived in 1980.

Headquarter/Secretariat of the Society is located at the National Agricultural Research Center, Islamabad, Pakistan. The active members of the Society are over 400, including life members, honorary members, regular members, and students' members.

Affairs of the society are managed by an Executive Council in accordance with the By-Laws of the Society. The seventeen members Executive Council (including the president, Vice Presidents, General Secretary, Joint Secretary, Treasurer and Councilors) are elected for a period of two years by secret ballot. Immediate past President and Editor-in-Chief of the Society's journal are ex-officio members of the Executive Council.

One of the major aims of the Society is to highlight soil issues and find out solutions for solving soil problems, to promote research and its application in soil and the environment, to create facilities and provide a platform for close cooperation among the scientists working in Soil Science and allied disciplines.

Major activities of the Society include:

- i) to organize an international congress of Soil Science (once in a 2-years and has arranged 19 congresses regularly since 1985) and special seminars;
- ii) establish link with international Soil Science societies;
- iii) publish an impact factor journal "Soil & Environment" (previously published as Pakistan Journal of Soil Science) and Newsletters;
- iv) maintain national directory of soil scientists;
- v) award fellowships and honorary memberships;
- vi) the Society also recognizes significant professional contributions in the field of Soil Science and environment conferring awards;
- vii) strengthen partnership with industry, etc.

The official website of the society is <https://sss-pakistan.org>.

The Argentinean Soil Science Association (AACS) 1960



Overview

The Argentinean Soil Science Association (**AACS**) is a scientific non-profit non-governmental society founded in 1960. The objectives of the AACS are to stimulate, support, and promote the development and transfer to the society of scientific knowledge concerning the protection, conservation, restoration, and rehabilitation of the soils in general and, particularly, those of Argentina and Latin America. The AACS is concerned about the fundamental role of the soil in the ecosystem, and the ecosystem services it is expected to provide. The members of the AACS are soil scientists from universities, scientific and technological research public and private institutions, graduate and undergraduate students, private consultants, producers, and individuals concerned about the soil and its care. The association is an active member of the Latin American Soil Science Society and of the International Union of Soil Science (IUSS). Besides, the AACS is also member of the Global Soil Partnership (GSP) and of the Soil Partnership of Latin America and the Caribbean. At present, members of the AACS are Chairs of commissions of the IUSS and one member integrates the Inter-governmental Technical Panel on Soil of the GSP.

History

The research activities on soil in Argentina showed a significant promotion in the fifties of the 20th century. Several national and/or provincial research institutions were created with important availability of means and highly qualified personnel. The scientists started very important and sound research on the soils of Argentina.

As a consequence, the number of scientists from universities and public research institutions concerned about the soil, grew rapidly. The soil scientists started to link and to look for means of interaction and sharing and discussion of their research results.

In 1958 a group of thirty-five pioneer soil scientists from a national public research institution decided to join the International Soil Science Society (ISSS, later re-named as IUSS) and created its Argentinean Chapter. This initiative was very successful and attracted many other scientists from the whole country.

As one of its initial tasks and actions, the Argentinean Chapter of the ISSS decided to organize the First Argentinean Meeting on Soil Science to be held in September of

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1959. During the meeting, the participants decided to create scientific commissions according to those existing in the ISSS and appointed the Chairs for each one. After one year, in an assembly of members on September 2, 1960, it was decided to found the Argentinean Soil Science Society, later called Argentinean Soil Science Association because of administrative requirements of the Argentinean legislation. In 1961, it was approved the first statute of the AACCS. In April of 1962, it was held the Second Argentinean Meeting on Soil Science in Mendoza.

In summary, the AACCS was born as a consequence of the initiation and promotion of the research on soil and its role on agricultural production and environment protection in Argentina. Those visionary soil scientists that decided to create the AACCS understood that the development of Soil Science in Argentina would be better accomplished if the soil scientists joined in a society to share and discuss their results and findings.

Missions and activities

The missions of the AACCS are:

- to do whatever it is necessary to protect the soil and its functions in the ecosystem;
- to be aware of the correct use and evaluation of soil and warn about potential problems;
- to promote and organize scientific and technical events on Soil Science;
- to spread the knowledge on Soil Science to scientists, producers, students, and the society in general, through meetings, congresses, books, journals, and other publications, website and social networks;
- to create scientific committees to evaluate and promote Soil Science through the different aspects related to soil functioning in the whole environment;
- to advise government agencies respect soil and its protection and good use and collaborate with decision makers on legislation and actions about soil care;
- to accompany and encourage young scientists and students concerned on soil and worried about its care.

To carry out those missions the AACCS performs the following activities:

- Organization of the Argentinean Congresses on Soil Science: This is one of the most important activities of the AACCS. These congresses have been held since 1959 (the first nine as “meetings”) all around the country every three or two years.

At present, the number of congresses held since 1959 is 28, being three of them also Latin American: the 1st (Mendoza, 1962), the 8th (Mar del Plata, 1983), and the 19th (Mar del Plata, 2012) Latin American Soil Science Congresses. In all those congresses, both national and Latin American scientists, students, fellows, and consultants can participate of conferences, workshops, round tables, courses,

poster sessions, and oral presentations of works. The proceedings are published and are a very valuable and recognized source of scientific information on soil.

- Publication of the scientific journal *Ciencia del Suelo*: this journal is other of the most important activities of the AACCS. The journal has been published continuously since 1983 and is the only journal on soils science of Argentina and one of the few journals on Soil Science in the world published in Spanish. The journal is open access and receives contributions not only from Argentinean soil scientists but also from very many Latin American soil scientists. *Ciencia del Suelo* publishes two issues per year (June and December) and is indexed in Scopus, Latindex, and SciELO, and integrates the DOAJ. <https://cienciadelsuelo.suelos.org.ar/>
- Publication of the scientific magazine *Nuestro Suelo*: this magazine is being published online since 2018. The objective of *Nuestro Suelo* is to spread the knowledge on Soil Science generated by soil scientists from the whole country in an agile and friendly format to be easily accessible persons concerned about soil care that are not familiar with scientific publications. *Nuestro Suelo* publishes two issues per year (April and October). <http://www.suelos.org.ar/sitio/publicaciones/revista-nuestro-suelo/>
- Integrating together with other private and public institutions the System of Methodological Support of Soil, Water, and Plant Analysis Laboratories (SAM-LA) and the System to Evaluate Soil Analysis Laboratories (PROINSA). With this, the AACCS collaborates and advises on actions to improve the quality of soil analyses through the training of the personnel, the standardization of procedures and techniques, and the evaluation of the performance of soil laboratories.
- Communication of news about soil, scientific or technical meetings and congresses, publications, etc. through the e-mail list of AACCS (lisaacs) with more than 1000 members and social networks (i.e., Facebook, Instagram, Tweeter, LinkedIn). Both the mailing list and social networks of the AACCS are open to any stakeholder concerned about soil and its care that are habilitated to subscribe to the e-mail list or follow the social networks whenever they want.
- Organization of technical, transfer, and teaching meetings on Soil Science for producers, private consultants, general public, and elementary, primary and secondary school students.
- Publication of either hard copy or online books and teaching material for soil scientists, university students, children, and youngsters.
- Joint work through agreements or letters of understanding with organizations (i.e. universities, research institutions, government offices and agencies), producer or professional organizations to spread the word about Soil Science and the role of the soil for the life on the Earth and human being welfare and the integrity of the ecosystem.
- Joint work with government offices and agencies about soil care legislation and initiatives to protect the soil and regulate its use and management.
- Encouragement of young soil scientists through awards to the outstanding pres-

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entations of young soil scientists in the national congresses (e.g., “León Nijensohn” award) and financial support of activities of students to promote the concern about soil and its care.

Organization of the association, members and Directive Board

The statute of the AACS allows its members to organize the activities of the association in regional chapters. At present the AACS has only one regional chapter: the Northwestern Argentinean (NOA) chapter. Besides, the general association’s activities are organized in disciplinary commissions that partially replicate those of the IUSS. These commissions organize scientific and technical activities and collaborate with organizations of the Argentinean Congresses on Soil Science.

Nowadays, the AACS has 320 active members. Active members are those who are up to date with the membership payment and those with some honorary appointment.

The members of the AACS are soil scientists from universities and research organization (both public and private), graduate and undergraduate students, government officers, private consultants, producers, and other people concerned about soil care. The body of active members of the AACS is composed by 50% women and 50% men.

The functioning of the AACS is conducted by a Directive Board composed by President, Vice-president, Secretary, Vice-secretary, Recording Secretary, Treasurer, Vice-treasurer, eight Board Members, and two Audit Committee Members. These board members are elected by the association members and last two years in their functions. At present, the Directive Board of the AACS is integrated by 50% women and 50% men.

Contact information

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Facebook: <https://www.facebook.com/AACS.Suelos/>

Instagram: <https://www.instagram.com/aacs.suelos/>

Twitter: <https://twitter.com/AACSuelo>

LinkedIn: <https://www.linkedin.com/company/aacsuelo/>

The Romanian National Soil Science Society 1961



The Romanian National Society of Soil Science was founded in 1961, during the preparation of the 8th World Congress of the International Society of Soil Science, as a result of the activity of some Romanian scientists in various international organizations, the increasing number of researchers and professors in soil field, the demand for specialized information in the Romanian economy and the need for a rapid exchange of information on international level.

The promoter of Soil Sciences activity in Romania was Gheorghe Munteanu Murgoci. The scientific soil survey started in 1906, with the establishment of the Agrogeology Department from the Geological Institute of Romania, led by Gheorghe Munteanu Murgoci. The first International Conference of Agrogeology took place in Budapest in 1909, being the occasion for Gh. M. Murgoci to present the soil map of Romania.

The Second International Agrogeology Conference was organized in Stockholm (1910) Gh. M. Murgoci being elected editor of the “Internationale Mitteilungen für Bodenkunde” publication.

At the third conference held in Prague in 1922, Gh. M. Murgoci was elected president of the Soil Mapping Commission. In this capacity he published a remarkable volume entitled “L’etat de l’etude et de la cartographie du sol dans divers pays de l’Europe, Amerique et Asie”, which he presented at the fourth International Conference of Agrogeology in Rome in 1924. In his report, presented at the conference in Rome as president of the Soil Mapping Commission, Gh. M. Murgoci shows the situation of the organization of pedological studies in different countries, the purpose and usefulness of the maps that must be drawn up, the working method and the way of presenting the maps.

At the Rome conference (in 1924), the International Soil Science Society (SISS) was founded. Gheorghe Munteanu Murgoci was named honorary member and was elected president of the commission for drawing up the soil map of Europe, developing guidelines for the preparation of the general soil map of Europe.

The first International Congress organized by the new International Soil Science Society was held in Washington in 1927. It was attended by T. Saidel, P. Enculescu and N. Florov from Romania, who, among other works, presented the soil map 1: 1,500.000,

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composed in the genetic-naturalistic conception.

In the same year, 1927, the Central Agricultural Research Institute (I.C.A.R.) was established in Romania, within which the Department of Chemistry, Microbiology and Agricultural Physics was created.

The activity of Romanian soil scientists carried out in three large institutions: the Geological Institute (from 1906), I.C.A.R. (from 1927) and the Forest Research Institute (from 1933). The activity included the characterization of the Romanian soils and the introduction of new analysis methods by T. Saidel, Gh. Pavlovschi, Gh. Ionescu-Șișești, A. Vasiliu, N. Cernescu, C. Chiriță and others.

After the Second World War, the Soil Science Department of the Geological Institute was developed and the systematic soils mapping at medium-scale began, an important role falling to the 37 County Offices of Soil Science and Agrochemical Studies, under the coordination of Gheorghe Timariu. The first offices were coordinated by C.D. Chiriță, C.V. Oprea, N. Bucur, M. Nemeș, I. Csapo, C. Păunescu.

In 1954, within the framework of ICAR, the Soil Science section was established, in order to study the agricultural soils, taking into account their characterization and use, conservation and improvement.

In 1960, at the 7th International Congress of Soil Science, in Madison, USA, where N. Cernescu also participated, Romania was proposed by the USSR as the host of the future congress. This hastened the establishment of the Romanian National Soil Science Society (SNRSS), which appeared following the Decision of the Council of Ministers no. 421/July 11th 1961 aiming mainly to organize the 8th International Congress of Soil Science from 1964 in Bucharest.

The first Management Council of SNRSS was formed by Gh. Ionescu-Șișești – president, and as members: Nicolae Bucur, Nicolae Cernescu, Constantin Chiriță, David Davidescu, Nicolae Florea, Ion Maxim, Mircea Moțoc, Marian Nemeș, Grigore Obrejanu, Costache Oprea, Petre Papacostea, Constantin Păunescu, Mircea Popovaț, Irimie Staicu, Dumitru Teaci and Amilcar Vasiliu.

Some of the Romanian Soil Scientists were part of the governing bodies of the SISS/IUSS as following:

- Irimie Staicu – president of the 6th Commission during 1974-1968.
- Nicolae Florea – vice-president of the 5th Commission during 1968-1974.
- Andre Canarache – vice-president of the 6th Commission during 1986-1990.
- Cristian Hera – president of the 4th commission during 1974-1982.

As milestones in the organization of Soil Science research in Romania, the following years have to be noticed:

1969 – the Institute for Soil Science Research was created, transformed in 1970 into the Institute for Soil Science Studies and Research, transformed in 1973 into the Re-

search Institute for Soil Science and Agrochemistry, transformed in 2004 into the National Research and Development Institute for Soil Science, Agrochemistry and Environment.

The SNRSS presidents were as follows:

- 1961-1967 Gheorghe Ionescu Sisesti
- 1967-1985 Grigore Obrejanu
- 1985-1994 Cornelius Rauta
- 1994-2000 Radu Lacatusu
- 2000-2003 Sebastian Udrescu
- 2003-2006 Ion Munteanu
- 2006-2023 Mihail Dumitru

During 1954-1989, soil survey studies and other research studies in the Soil Sciences field developed continuously along with the development of Romania's economy, the staff increasing accordingly. Since 1990, the activities in the Soil Science began to decline. The main problems of the field began to be underfunded, to be carried out only on incoherent projects, to respond only to some momentary requests, the staff was greatly reduced.

At the 1964 Congress, 1283 people from 63 countries on 5 continents participated, a record number of participants for that period, being present also participants of the international organizations FAO, UNESCO, IAEA.

At this congress, the FAO and UNESCO World Soil Map project was discussed starting from the presentation of V.A. Kovda, L. Bramao, R. Duval and F.A. van Baren. The activity of the 7 commissions of the S.I.S. was the subject of 59 sessions, in which 512 papers were presented. The organizing Committee of the Congress presented summaries of the communications in English, French and German: Soil study guides (2 volumes, 59 soil profiles and 2 quaternary sections), brochures and leaflets for experimental agricultural stations visited during study tours, as well as the Scientific Soil Dictionary. During the works, translations into 4 foreign languages (English, French, German, and Russian) were provided. Before and after the Congress, scientific trips to Romania were organized on three different routes, lasting 10 days, attended by 672 specialists from 40 countries. The participants examined and held scientific discussions on the genesis of soils, their origin, the age of the parent material, the agro-productive properties and characteristics of soils, as well as fertilization and improvement technologies. Between August 16 and August 27, a complementary trip to Russia between Moscow and Kherson was organized, attended by 149 soil scientists from 30 countries.

Agriculture has undergone radical transformations, the lands have become excessively fragmented, the intensive agriculture was replaced with an extensive one.

After the adhering of our country in the European Union, new opportunities have

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appeared in the Soil Science research. Scientists could participate in different training or fellowship courses, congresses, conferences, and symposia, improving their knowledge in the field of Soil Science. Modern agricultural technologies have been introduced and could be tested in different specific local conditions in order to evaluate their effect on soil quality. The Soil Science research had to be adapted and put in line with the European strategies and regulations. Research organizations were included in different European research programs such as FP5, FP6, FP7, Horizon Europe 2020. A new Horizon Europe Program started. One of the targets within this program is to maintain healthy soils for healthy food. Romanian scientists try to teach this target in different national or international programs.

Even though there are still problems about subfunding, Soil Science researchers hope that at least on medium term will maintain and improve the knowledge about the Soil Science field.

The Mexican Soil Science Society (SMCS) 1962



The Mexican Soil Science Society (SMCS) was formally constituted on October 19, 1962. At the onset of this scientific and technological association, 134 founder members were registered. However, it has to be stated that there were meetings and colleague discussions before this official foundation.

After 63 years, the SMCS has been led by 29 prominent Soil Science specialists. This society launched a scientific journal called ‘Terra Latinoamericana’ in 1983 (<https://www.terralatinoamericana.org.mx>), and in 2023, a divulgation journal named ‘Voces del Suelo, Agricultura y Medioambiente’ (<https://vocesdelsuelo.org.mx/>) was launched. The SMCS has organized one World Congress of Soil Science (1994), two Latin American Congresses of Soils Science (1977 and 2007), 47 National Congresses of Soils Science, and several symposiums and workshops throughout Mexico. Besides, the SMCS has collaborated with different government secretaries or dependencies to promulgate national laws or regulations and led scientific or technological projects while supporting different universities. However, SMCS history is not too fast and will be disclosed briefly in the following paragraphs.

According to Lindemann (2011), the modern era of Soil Science in Mexico started in 1926, when American scientists arrived in Mexico supported by the Irrigation National Commission from Mexico, with the instruction for training Mexican agronomists. The Rockefeller Foundation and the Mexican Ministry of Agriculture were critical in developing Soil Science in the 1940s through scientific exchange.

In 1954, the Soil Department was founded in the National School of Agriculture (today named ‘Universidad Autónoma Chapingo’), and in 1959 the Postgraduate College (Colegio de Posgraduados) was inaugurated with a soil study area. Besides, different universities and technological institutes began or strengthened their Soil Sciences studies, focusing explicitly on some agricultural practices. Still, these institutions increased their technical and academic capacities and trained more specialists, later affiliated with the SMCS. National Autonomous University of Mexico (UNAM) and the Antonio Narro Agrarian Autonomous University (UAAAN), among others, have also contributed to strengthening the community of specialists in Soil Science.

The first president of the SMCS (1962-1963) was Professor Nicolás Sánchez Durón, and through his leadership, the first National Congress of Soil Science was held in 1963 in Mexico City. However, 28 other soil specialists have led the SMCS until the current president, Professor Otilio Arturo Acevedo Sandoval, who will give the investment on October 2023 to the current vice-president, Fabián Fernández Luqueño.

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Professor Edna Alvarez Sánchez has been the unique woman SMCS president, leading this society during 2004-2005. However, another notable woman soil scientist has contributed and walked along the SMCS, such as Professor Laura Bertha Reyes Sánchez. Finding a SMCS ex-president without relevant credentials and leadership is impossible, but giving their full names is nonviable in these lines. However, the presidents complete list can be found in Palacios-Rangel et al. (2011).

Two members of the SMCS have been Presidents of the International Union of Soil Sciences (IUSS): Dr. Andrés Aguilar Santelises in the period 1990-1994 and Dr. Laura Bertha Reyes Sánchez for the period 2019-2024, being the first woman elected as President of the IUSS in 96 years of its history at the time of her election.

IUSS Presidents



Dr. Andrés Aguilar Santelises



Dr. Laura Bertha Reyes Sánchez

Dr. Andrés Aguilar Santelises received the IUSS Medal Dokuchaev Award in 1994.

Terra Latinoamericana, the scientific journal of the SMCS, is indexed in Scopus and WoS, in the Emerging Sources Citation Index, and their current Volume is 41. Eight Mexican scientists have been Editors-in-Chief, including Professor Bernardo Murillo Amador, who currently has this position. This journal has published hundreds of scientific papers or reviews by specialists from Peru, Colombia, Ecuador, Germany, the Dominican Republic, Venezuela, Brazil, Cuba, Uruguay, United States, Spain, Argentina, Greece, Denmark, Indonesia, the United Kingdom, and Chile.

‘Voces del Suelo, Agricultura y Medioambiente’ is a new divulgation journal that will launch its first online number during the 47 Mexican Congress of Soil Science in October 2023. After that, this divulgation journal will be published every three months. Well-known novel and young scientists integrate its Editorial Committee.

As stated above, the SMCS is a traditional scientific organization in which scientists from diverse universities, institutes, or centers have collaborated to diffuse and divulge soil functions and their ecosystem services. These specialists have worked hard,

contributing to different positions in the government or national and international organizations. Therefore, the social, technical, and scientific contribution of the SMCS and its affiliated members has been registered in books, proceedings, journals, laws, and regulations and hundreds of speeches in any academic, technical, or scientific meetings. Besides, the formation of specialized human resources must be highlighted through its 47 National Congresses of Soils Sciences and other worldwide remarkable meetings, along with the technological transference that its affiliated members do throughout the national territory. Therefore, *vivat haec societas*.

Dr. Fabián Fernández-Luqueño

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The Slovak Soil Science Society 1964



Foundation

The establishment of the Pedological branch of the Slovak Geographical Society at the Slovak Academy of Sciences was made in Bratislava under leading of prof. Juraj Hraško in 1964. Some significant milestones of the Slovak Soil Science Society development were recognized like establishment of the Slovak Soil Science Society in 1969, incorporation of this society into the Slovak Society of Agricultural, Forest, Food and Veterinary Sciences in 1973 as Pedological section Later it was renamed the society on *Societas pedologica slovacica* in 1990, presents itself as a member of the International Union of Soil Sciences (IUSS). On November 4, 2005, *Societas pedologica slovacica* was transformed into a civil organization based on the registration list of the Ministry of the Interior of the Slovak Republic under the registration number: VVS/1-900/90-26959 (legal subjectivity). The headquarters of the civil organization is Trenčianska 55, 82109 Bratislava, Slovakia, official website www.pedologia.sk.

Main goals of the society are:

- To organize scientific activities promoting the all-round development of soil science, environmental protection and related scientific fields and to support the professional growth of members of the civil organization.
- To advocate the promotion of the results of soil science research among the wider professional public and thus contribute to a better connection between research and practice.
- To influence and support the soil and land policy as well as to cooperate in designing new legislative measures related to complex and multifunctional land use and the preservation of a sustainable management of soil and land.
- To support the development of international contacts of Slovak Soil Science Society within the IUSS, ESSC, ECSSS, FAO, European Union and other world insitutions and to support the international exchange of knowledge. Czech Soil Science Society has special status with close mutual relations.
- To support an education of the young generation of soil science researchers through educational and training activities, pedological field excursion, PhD. students support, etc.
- To pay special attention to the development and promotion of soil and land policy/ sustainable management with the ecological and environmental aspects of land use and protection, while preserving the potential of soil functions and services in ecosystems, the country and society.

Members of the Executive Committee and time period

Slovak Soil Science Society has 21 honorary members, 7 foreign honorary member and 53 members. It is full member of the IUSS. Members are from universities, public sector, companies, and NGO.

Executive Committee

President: prof. Jaroslava Sobocká, PhD. (Soil Science and Conservation Research Institute Bratislava)

Vice-president 1st: prof. Dr. Pavel Dlapa, PhD. (Comenius University Bratislava)

Vice-president 2nd: Ing. Pavel Pavlenda, PhD. (Forest Research Institute Zvolen)

Secretary: Dr. Blanka Ilavská, PhD. (Soil Science and Conservation Research Institute Bratislava)

Treasurer: Dr. Beata Houšková, PhD. (Soil Science and Conservation Research Institute Bratislava)

Committee members

Prof. Dr. Erika Gömörýová, PhD. (Technical university Zvolen)

Prof. Ing. Nora Polláková, PhD. (Slovak Agricultural University Nitra)

Mgr. Rastislav Skalský, PhD. (Soil Science and Conservation Research Institute Bratislava).

The time period of the Committee's work is 5 years.

Outstanding activities

Pedological Days – the cycle of international scientific conferences under participation of Slovak and Czech soil scientists since 2002 up to now. There were organized in various sites of the Slovakia and Czech Republic, e.g., in Slovakia: Račkova dolina (2002), Stara Lesná (2003), Mojmírovce (2004), Čingov (2005), Sielnica (2008), Rožnava (2010), Snina (2012), Skalica (2014), Dudince (2016), Bratislava (2018), Zvolen (2022). The first joint conference of soil experts from the Slovakia and Czech Republic (after the establishment of both independent republics) was held in Rožnov pod Radhoštěm on August 20-23, 2007. It was international scientific conference titled “Soil in the modern information society”. The main goal of the conference was demonstration of the common history pedologists and to indication of the mutual beneficial cooperation in the future.

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Soil Anthropization – a special block of scientific seminars at the national and international level focused on the topic of anthropogenic and urban soils. The first three in the years 1994, 1995 and 1998 were organized by the Department of Pedology of the Faculty of Natural Sciences of the Comenius University in Bratislava, the other 7 seminars (Soil Anthropization IV, V, VI, VII, VIII, IX, X) were held in the Soil Science and Conservation Research Institute Bratislava in the years 1999-2013.

Pedological excursions – organization of many field excursions in Austria (Burgenland) and southern Bohemia in 1993, in Lower Austria (Salzburg) in 1996, in Austria (High Tauern) in 1997, in Austria and Italy (Dolomites, Carnic Alps) in 1998, in Austria and Switzerland (Vorarlberg, Swiss Alps, Jura) in 2000. Excursions were organized in Slovakia at the end of the 20th century for the Austrian Pedological Society (1994, 1996, 2007), for German students from the University of Bonn (1994) and for the Belgian Soil Science Society (1997). For the EUROSIL international conference in Vienna in 2008 two excursions were prepared in Slovakia. Both excursion routes were also used as a domestic excursion “Soils of Zahorska and Danubian Lowland” (2008). Further excursions were carried out to Western Ukraine 2009, in Toruń and its surroundings (Poland) in 2011. Later, in cooperation with the Czech Soil Science Society, pedological excursions were organized in Banat (Romania 2017) and in Debrecen (Hungary 2018). The last was a pedological excursion to the Javorina Military District (Slovakia 2019).

Jubilee and memorial seminars – after 1997, the scientific seminars dedicated to the several anniversaries were organized (Dr. Michal Džatko, PhD., Ing. Vladimír Linkeš, PhD., prof. Ing. Juraj Hraško, DrSc. prof. RNDr. Pavol Bielek, DrSc.). A memorial ceremony was held to mark the 10th anniversary of the death of the former SPS chairman Ing. P. Jambor, PhD. in Kočín farm in 2015.

Publishing activity – Slovak Soil Classification System revision: a commission was created for the revision of the Czechoslovak Morphogenetic Soil Classification System (1991). 7 working groups were created, while the work was coordinated by prof. Ing. Rudolf Šály, DrSc. In 2000, the first version was issued by the Societas pedologica slovacica and Soil Science and Conservation Research Institution Bratislava under the title “Slovak Soil Morphogenetic Classification System”. The preparation of the second version began in 2009, coordinated by prof. Ing. Bohdan Juráni, CSc. The second revised edition was published by Societas pedologica slovacica, o.z. in 2014.

The publication of a multi-lingual Slovak-English-German-French-Czech Soil Science Dictionary recognizing the memory of Ing. Pavel Jambor, CSc., who died in 2005 and left behind this unfinished and unpublished work. Between 2006 and 2010 individual entries of the dictionary were revised and supplement under leadership ass. prof. Jaroslava Sobocká. (English language) with the participation of the dipl. Ing. dr. Othmar Nestroy (German language), ass. prof. Zoltán Bedrna (French language), prof. Alois Prax, PhD. (Czech language) and prof. Rudolf Šály (remarks). The work

was published posthumously in 2011. The last publication published in cooperation with the Czech Soil Science Society was 100 years of common history of Czech and Slovak pedology (2018) by authors Jaroslava Sobocká, Bořivoj Šarapatka and team. The publication describes the most important historical milestones from the timid beginnings to the full integration of pedology into the family of soil sciences, the contributions of Czech and Slovak pedologists to global soil science knowledge, as well as a wide encyclopedia of important soil scientists working in our branch. Slovak and Czech soil scientists at the IUSS World Congress in Philadelphia (USA) 2006, from left Ing. J. Macků, prof. P. Bielek, ass. prof. J. Sobocká, prof. B. Šarapatka, ass. prof. B. Lomský and prof. J. Kulhavý.

By Jaroslava Sobocká, president of the Slovak Soil Science Society,
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The Korea Society of Soil Science and Fertilizer (KSSSF) 1968



사단
법인 **한국토양비료학회**
Korean Society of Soil Science and Fertilizer

The Korea Society of Soil Science and Fertilizer (KSSSF) was established in 1968 and has played a significant role in the academic and technological advancement of soil and fertilizer studies in Korea. It has been actively involved in various areas such as soil physics, soil chemistry, plant nutrition, and soil microbes, starting with the soil investigation project in the 1960s. The KSSSF has achieved notable accomplishments, including the development of the Korean Soil Information System (KSIS). This system provides diverse soil-related information and offers recommendations for suitable fertilizer usage in farmland and crop cultivation.

Initially comprising only 127 members, the KSSSF has grown over the years and had 500 members by 2018. Since its establishment until 2023, it has organized a total of 68 domestic symposiums and 12 international symposiums. In November 1997, the KSSSF hosted the 4th International Conference of East and Southeast Federation of Soil Science (ESAFS in Jeju Island). Furthermore, it hosted the same conference in Seoul in October 2009.

In June 2014, the society successfully organized the 20th World Congress of Soil Science (20th WCSS) in Jeju Island, attracting more than 3,000 participants from 110 countries. The event received high praise as the most exemplary congress in the history of WCSS.

During the 20th WCSS, the 1st International Soil Judging Contest was held, marking a significant milestone for the Soil Survey Contest organized by the International Union of Soil Science (IUSS).

Additionally, the Jeju Declaration of Soil was announced during the conference and delivered to the UN in honor of World Soil Day, contributing significantly to the establishment of global soil policies.

Furthermore, the society introduced the Jeju Award, which recognizes and honors young soil scientists during each WCSS event, actively contributing to the activities of the IUSS.

1. Presidents of KSSSF

Year	President	Year	President	Year	President	Year	President
1968	Cho, Baik Hyun	1983	Maeng, Do-Weon	1998	Ryu, In-Soo	2013	Kim, Jeong-Gyu
1969		1984		1999	Im, Jeong-Nam	2014	Lee, Sang-Eun
1970		1985	Oh, Wang-Keun	2000	Shin, Jae-Sung	2015	Kim, Kye-Hoon
1971		1986		2001	Kim, Bok-Jin	2016	Lee, Deogbae
1972		1987	Cho, Sung-Jin	2002	Kim, Jeong-Je	2017	Sa, Tongmin
1973		1988		2003	Kim, Jae-Jeong	2018	Lee, Jinho
1974		1989	Park, Chon Suh	2004	Kim, Yong-Woong	2019	Zhang, Yong Seon
1975		1990		2005	Chang, Ki-Woon	2020	Park, Man
1976	Kim, Young Seob	1991	Shin, Yong-Hwa	2006	Kim, Han-Myeong	2021	Kim, Seok Cheol
1977		1992		2007	Jung, Yeong-Sang	2022	Kim, Pil Joo
1978		1993	Han, Ki-Hak	2008	Hong, Soon-Dal	2023	Ko, Byong Gu
1979	1994	2009		Eom, Kicheol			
1980	Shim, Sang	1995	Ok, Chang-Su	2010	Jung, Kwang-		
1981	Chill	1996	Yoo, Sun-Ho	2011	Young		
1982		1997	Kim, Kwang Sik	2012	Hyun, Hae-Nam		

2. Outstanding activities of the Society's members

2.1 Dr. Oh, Wang-Keun

Dr. Oh, Wang-geun is an esteemed soil scientist who played a crucial role in the establishment of the KSSSF and had a significant impact on the advancement of soil science in Korea, as well as the mentorship of younger soil scientists. Additionally, Dr. Oh served as the 9th president of the KSSSF.

During his tenure at the National Institute of Agriculture (predecessor of the Rural Development Administration), Dr. Oh made remarkable contributions to soil research. He successfully secured project funding for land classification, soil management, and soil investigation through a UN foreign technical assistance project. These projects, focusing on soil fertility and soil investigation, were successfully accomplished with the acquired funding. Furthermore, in 2003, Dr. Oh generously donated funds and established the Toam Award. The Toam Award is a prestigious accolade bestowed upon scholars who have made significant contributions to the development of KSSSF. This distinguished award has been presented annually for the past 20 years and will continue to be awarded in the future.

2.2 Dr. Jae-Jeong Kim

Dr. Jae-Jeong Kim served as the 22nd President of the KSSSF and played a crucial role in establishing our society's presence on the global stage, particularly in securing the hosting rights for the 20th World Congress of Soil Science (20th WCSS).

During the general meeting of the KSSSF in 2002, a decision was made to apply for

hosting the 20th WCSS to be held in 2014. The initial application, accompanied by a letter of support from the president of the Korean Academy of Science, was submitted to the IUSS Secretariat. Subsequently, a Korean delegation was sent to the 17th WCSS in Bangkok in February 2002, where they briefly presented the invitation proposal to the IUSS Board of Directors. In 2003, a bidding committee was formed, and in 2004, they participated in the Inter-Congress Meeting in Philadelphia, submitting a second bidding application and proposal. In 2006, 120 copies of “A Proposal to Host the 20th World Congress of Soil Science in 2014” were presented to the board of directors of the 18th WCSS, leading to the successful announcement of the final bid. Throughout this process, Professor Kim, as the chairperson of the bid committee, played a pivotal role in securing the 20th WCSS through proactive efforts. As a result of his contributions, Dr. Jae-jeong Kim was honored as an honorary member of IUSS for the second time in 2012, following in the footsteps of Dr. Cho Seong-jin in 2004.

2.3 Dr. Jae E Yang

Dr. Jae E Yang has been an active member of the Korean Society of Soil Science and Fertilizer (KSSSF) since 1990, holding positions as an international officer and international vice president. His research activities span a wide range of fields, including agricultural and environmental soil sciences, with a particular focus on assessing soil ecosystem services in Korea.

Notably, he played a pivotal role in bringing the 20th World Congress of Soil Science (20WCSS) to Korea, successfully bidding for it during the 18th World Congress of Soil Science in Philadelphia in 2006. Dr. Yang’s contributions extend beyond research and conference hosting; he served as the president of the International Union of Soil Sciences (IUSS) from 2010 to 2014 and proposed the Jeju Declaration on Soil during the 20WCSS, leading to the designation of World Soil Day. Additionally, he established the IUSS Jeju Award to promote internationalization within the KSSSF. Dr. Yang’s accomplishments have been recognized internationally, with designating as IUSS honorary member in the 21st WCSS and receiving the ESAFS Award at the 2015 meeting in Nanjing, China. He has also played an active role in organizing various international symposiums and conferences, including the 2005 International Symposium, the 2009 ESAFS meeting in Korea, and the 2023 Global Soil Security Conference in Korea. Dr. Yang’s leadership and expertise in soil science are evident through his extensive contributions to the field.

Dr. Yang left the following message to IUSS and the next generation of scholars:

The elderly individuals, who have retired, continue to exert significant control over IUSS in a way that restricts the involvement of younger generations in its governance and hinders the opportunity for innovation within the union. It is crucial for IUSS to foster inclusivity and provide access to all individuals, rather than limiting it to a select few.

2.4 Dr. Kye-hoon Kim

Dr. Kye-hoon Kim has been a member of the KSSSF since 1991. He has held various positions within the society, including International Secretary, International Vice President, and served as the President in 2015. Throughout his membership, he has actively engaged in research and academic activities.

From 2000, Dr. Kye-hoon Kim initiated efforts to invite the 20th WCSS to Korea. These efforts resulted in successfully bringing the 20th WCSS to Korea during the 18th WCSS held in Philadelphia in 2006. This achievement significantly contributed to the internationalization of the KSSSF.

From 2010 to 2014, Dr. Kim served as the Vice President of the International Union of Soil Sciences (IUSS), further strengthening his involvement in global soil science activities. He was honored as an honorary member of the IUSS at the 22nd WCSS held in Glasgow in 2022. This recognition reflects his outstanding contributions and dedication to the field of soil science.

Since 2016, Dr. Kim has served as the Chair of the Working Group on Soils of Urban, Industrial, Traffic, Mining and Military Areas (SUITMA). Under his leadership, significant advancements have been made in this field. Additionally, he played a crucial role as the Co-chair of the organizing committee for the 10th SUITMA International Conference, which took place in Korea in 2019.

Since 2020, Dr. Kye-hoon Kim has held the position of Chairperson of the standing committee for budget and finance within the IUSS, overseeing financial matters related to the organization.

These achievements highlight Dr. Kye-hoon Kim's remarkable contributions to the field of soil science, both at the national and international levels.

Dr. Kye-hoon Kim left the following message to IUSS and the next generation of scholars:

Chairs of the standing committees should be balanced based on age, sex, geographical distribution, etc. This ensures diversity and inclusivity in decision-making processes within IUSS. Much of the money in IUSS needs to be used for the future generations with clarity. It is important to allocate resources effectively and transparently, prioritizing initiatives and programs that benefit and support the upcoming generations of soil scientists.

The Soil Science Society of Nigeria (SSSN) 1968



Soil Science Society of Nigeria (SSSN) came into existence in 1968 through the efforts of a group of soil scientists who shared a common aspiration of promoting the knowledge and practice of Soil Science.

Through the commitment of the founding members, coordinated by Dr. Jaiyebo, the society reached out to soil scientists in Universities, Research Institutes, the Ministry of Agriculture, Colleges of Agriculture, and other Institutions and Agencies. Nigeria was in a civil war when the Society was formed. Hence, membership was limited to scientists from the West and the North between 1968 and 1971. At a conference of the Society in 1971 at the University of Ife (now Obafemi Awolowo University, Ife), Professor Walter Enwezor, who visited Ife to conduct laboratory sessions for his students from the University of Nigeria, Nsukka was elected as the Secretary of SSSN. Dr. D. O. Ataga, then Director of NIFOR, Benin City, was also elected the first President of the Soil Science Society of Nigeria (SSSN). From Ife in 1971, the conference moved to Kano in 1972 and to Calabar in 1973. The conferences in 1972 and 1973 were marked with very poor attendance. Consequently, annual scientific meetings were suspended for some time. An opportunity came a few years later to revive the Society when A. O. Nnodi, a member of the Society, became a Director in the Ministry of Agriculture and Natural Resources. He saw the opportunity of using the Society to make an impact on agricultural development and invested in it. Through his department, he sponsored the conferences of SSSN for some years, while the members of the Society worked closely with his Ministry to address all agricultural challenges brought to their knowledge. Prof. Enwezor served as the Secretary of the Society from 1971 to 1984. On the 9th day of December 1984, the Soil Science Society of Nigeria was duly registered with the Corporate Affairs Commission as a corporate body with the following as duly appointed trustees – D. O. Ataga, W. O. Enwezor, G. O. Obigbesan, S. A. Adetunji, A. O. Nnodi.

From its inception in 1968, the Soil Science Society of Nigeria has concerned itself with the furtherance of the application of scientific methods in the use of Nigeria's land resources, primarily in soil conservation and fertility management, to support the nation's economy. Specifically, SSSN has played significant roles in issues dealing with:

- Inorganic and organic fertilizer usage and development.
- Soil testing.
- Classification and mapping of soils.
- Land clearing and development.
- Soil conservation through erosion, desertification, and pollution control.
- Manpower development and training in Soil Science at the undergraduate and postgraduate levels, and capacity building for practicing soil scientists.

Soil Science Society of Nigeria has worked in close collaboration with the Federal Ministry of Agriculture over the years to tackle soil-related challenges to crop production. The Society, over the years, participated actively in the activities of the International Soil Science Society (ISSS), now the International Union of Soil Science (IUSS). For instance, SSSN was represented by the strongest contingent from Africa at the 13th ISSS conference in Hamburg, Germany, in August 1986. This feat was repeated at the 20 World Congress of Soil Science in Jeju, South Korea, in June 2014.

Past and present leadership

Many distinguished soil scientists have provided leadership to the Soil Science Society of Nigeria from its inception to date. Officers of the Society are elected at the annual general meeting for a period of two years, which is, however, renewable for a final term of another two years.

Name	Office Held	Date
Dr O. O. Ataga	President	1971-1984
Prof W. O. Enwezor	Secretary	1971-1984
Prof W. O. Enwezor	President	1986-1988
Dr U. Omoti	Secretary	1986-1988
Late Prof A. G. Ojanuga	President	1989-1992
Late Prof R. Sobulo	President	1993-1996
Prof S. O. Ojeniyi	Secretary	1993-1996
Prof G. Lombin	President	1997-1999
Prof V. O. Chude	Secretary	1997-1999
Dr U. Omoti	President	2000-2002
Prof S. O. Ojeniyi	Secretary	2000-2002
Prof V. O. Chude	President	2003-2018
Late Dr A. E. Isenmila	Secretary	2003-2007
Dr A. C. Odunze	Secretary	2007-2009
Prof J. A. Adediran	Secretary	2010-2018
Prof B. A Raji	President	2018-2022
Prof P. I Ogban	Secretary	2018-2022
Prof J. M. Jibrin	President	2022-Date
Dr Jude Obi	Secretary	2022-Date

Prof Victor Chude, who served for fourteen (14) years, remains the longest-serving president. Under his watch as President, the bill for the establishment of the Nigerian Institute of Soil Science (NISS) was started and successfully prosecuted. In all, there have been nine (9) Presidents since 1971 to date. Quality leadership has been responsible for the steady growth of the Society. The following executive officers have piloted the affairs of the society at different times.

Membership Trajectory

The Constitution and by-laws of the Soil Science Society of Nigeria provides for the following classes of membership, namely ordinary membership, corporate membership, student membership, honorary membership, and life membership. Membership is open to all persons who are working with soil and are interested in the objectives of the Society. Honorary membership is, however, by recommendation to the executive committee and approval by the congress of the Society. Life membership is open to an ordinary member of the Society above the age of 50 years that desires it. Membership of the society has grown over the years from a few foundation members at inception to a current figure of one thousand five hundred members. Similarly, attendance at conferences has increased from less than 30 at the first conference to 60 in 1986, 200 in 1999, 250 in 2010, and 450 active members in 2018. As the membership grows, the activities and impacts of the Society on national development continue to grow. The constitution and by-laws of the Soil Science Society of Nigeria provide for deserving members to be honored as Fellows of the Society. Recipients of this honor must be members who have made worthwhile contributions to the Society with proven records of scholarship and public service, are in good standing, and must have been active members of the Society for at least 10 years. The award of fellows of the Society started in 2003 when the first 6 awards were conferred on prominent members at the 28th annual conference held at Umudike in Abia State. In the same year, two organizations that have distinguished themselves in large-scale sustainable agricultural production were given honorary memberships. From the official record of the Society, a total of seventy-five members have so far been conferred with the fellow of the society.

Some achievements

In the last fifty-four years, the Soil Science Society of Nigeria and, indeed, member soil scientists have contributed enormously to the agricultural development of the country. It could also be pointed out that such contributions even predate the formal formation of the Society. In most cases, these contributions can be viewed as part of their responsibility through teaching, research, and administration in the various institutions where they serve.

Some of the notable services provided by SSSN members include but not limited to Ministerial appointments (Prof. I. E. Esu), Vice Chancellorship of Federal, State and private universities (Prof. I.E. Esu, Prof Saminu Ibrahim, Prof. Bashir Babaji, Prof. M. Kundiri, Prof. Bashir Usman, Prof. C. Igwe, Prof. B.A. Raji, Prof. A. Bala, Prof. F.K. Salako, Prof. O. Aina, Prof. J.O. Ogunwole, Prof. N.N. Oti. Prof. S. A. Fasina etc.), Deputy Vice Chancellorship, Provosts (Dr Mrs F.I. Oguntoyinbo, Prof Muhammed Yakubu, Dr. M. Aliyu etc.) and Rectors, Commissioners at the State level (Dr. Ogunsawo, Prof. T. Ibia, Prof. M.A.N. Anikwe, Dr. U.C. Udo-Inyang etc), Deans and Directors of Faculties and Parastatals, while several others are active in various

religious and socio-cultural Associations. Many members hold Chieftaincy titles in recognition of their contribution to the growth of their communities.

The Society has consistently held its Annual Conferences since 1969, except during some periods of national emergencies. The 2023, the annual conference would be the 49th, while members have also participated actively in the IUSS Conferences every four years.

Prof. O. Chude, our long-term former President, is currently the IUSS President-Elect, the first from the African Continent. We also won the 2020 World Soil Day celebration award, which is a good testimony of our active and robust participation in the yearly Soil Day Celebrations.

Lastly, our yearly Conference resolutions have impacted on governmental policies and influenced the production of National Soil Fertility Soil Maps of Nigeria, Nigeria Soil Information System (NiSIS) aimed to nationally store and retrieve digital soil information for use by different land users. The Nigeria Institute of Soil Science (NISS) established by law, regulates all activities related to use and land uses in Nigeria and was the culmination of a joint working relationship between the Society and various stakeholders.

The Soil Science Society of Sri Lanka 1969



The Soil Science Society Sri Lanka is a professional society, established in 1969 with a vision to provide scientific knowledge to promote beneficial soil management practices to sustain the soil resource of Sri Lanka, focusing mainly on the provision of food, income and a quality environment. The first meeting was held on 28th June 1969 with the participation of 33 founder members which included eminent soil scientists like the late Dr. A.W.R. Joachim who is considered the “Father of Soil Science in Sri Lanka” and the late Prof. F.S.C.P. Kalpage of the University of Peradeniya, Sri Lanka. Thereafter the activities of the society continued serving the general public, research scientists and the academia, with the objective to promote the advancement of soil science and to facilitate interaction between scientists, farming community, industry and students.

The total number of memberships granted by the society since its inception is over 360. From this as of now, the society has about 100 active members, and this includes professionals in soil science and other related discipline working in Universities, Department of Agriculture, Irrigation Department, Department of Export Agriculture, Research Institutes and the Agro-industrial Corporate sector institutions in Sri Lanka.

The Executive Committee (ExCo) is appointed by the membership at the Annual General Meeting for a period of one year. The following members were elected to the ExCo at the 2023/2024 Annual General Meeting:

- President** - Prof. W.S. Dandeniya of University of Peradeniya
Vice President - Dr. M.S. Nijamudeen of Department of Agriculture
Secretary - Dr. B.L.W.K. Balasooriya of Wayamba University of Sri Lanka
Treasurer - Dr. D.N. Vidana Gamage of University of Peradeniya
Editor - Dr. D.M.P.D. Dissanayake of Coconut Research Institute of Sri Lanka
Auditor - Dr. H.B. Nayakakorale of Department of Agriculture (retired)

Committee Members:

Prof. W.A.U. Vitharana of University of Peradeniya

Prof. R.S. Dharmakeerthi of University of Peradeniya

Prof. K.G. Premathilake of Uva Wellassa University

Dr. M. Liyanage of Tea Research Institute of Sri Lanka

Ms. M. Karunaratne of Ministry of Environment

Ms. T.E. Weerawardena of Department of Export Agriculture

Mr. U. Yapa of Department of Agriculture

Mr. A.H. Kulasiri of CIC Agribusiness Pvt. Ltd.

Ms. R. Silva of Department of Agriculture

Ms. K. Nawarathna of Department of Agriculture

National and International Contributions

- Developed a digital database by classifying soils according to USDA Soil Taxonomy (1995 to 2007). The information is used extensively for land use planning, development projects and soil conservation.
- Developed the Soil Survey Laboratory and SRICANSOL Resource Centre. This was a collaborative project between the SSSSL, Canadian Society of Soil Science and the University of Peradeniya. The Centre houses a library, soil archives, soil database and publications of SSSSL, for the use of undergraduate and graduate students, researchers and others working in the field of Soil Science.
- Conducted several training programmes, workshops and field programmes for farmers, school teachers, undergraduates, graduate students and research officers on sustainable management of soil resources.
- Conducted quiz, drawing and photographic competitions for school children to commemorate the World Soil Day 2022 and exhibited some of the best drawings and photographs at the awarding ceremony held at the Postgraduate Institute of Agriculture, Peradeniya.
- Publish the Journal of SSSSL and the SSSSL newsletter regularly. Also publish books on different topics related to soil management.
- Published four books on soils of Sri Lanka in three official languages in Sri Lanka, i.e. English, Sinhala and Tamil and a Manual on Soil Sampling and Analysis

International Collaboration - The SSSSL is a member of the International Union of Soil Science Societies (IUSS), East and Southeast Asian Federation of Soil Science Societies (ESAFS) and Global and Asian Soil Partnership (GSP and ASP) of the United Nations. The SSSSL has contributed significantly to draft the Bangkok Declaration of the ASP and Harmonized Soil Map of Sri Lanka for use in the World Resource Base. International relationships were further strengthened through the Twinning Partnership Programme (ITPP) named SRICANSOL Project which was funded by the Canadian International Development Agency (CIDA) through the Agriculture Institute of Canada (AIC). The Project continued for over a decade from 1995 to 2012.

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Under this project, detail soil maps at a scale of 1:250,000 were prepared for the wet, intermediate and dry zones of Sri Lanka and the soils were classified according to international methods. A digital database consisting of soil profile descriptions, soil physical and chemical data were also prepared for several benchmark sites. There were significant outputs and outcomes which won several national and international awards.

National and International awards won by our members

1. “National Award of Excellence in Agricultural Research” 2004 (second place). Prof. R.B.Mapa, Prof. D.Kumarasinghe, Mr. A.R. Dasanayake, Dr. S. Somasiri and Dr. H.B. Nayakekorale.
2. “International Partners Award” 2007. Agriculture Institute of Canada. Prof. R.B.Mapa.
3. “National Award of Excellence in Agricultural Research” 2011 (third place). Prof. R.B.Mapa, Prof. D.Kumarasinghe, Mr.A.R. Dasanayake, Mr.G.G.R.De Silva, Dr.H.B. Nayakekorale and Mrs.Shifaya Maraikar.
4. “International Recognition Award” 2012, Agriculture Institute of Canada. Mrs. Shifaya Maraikar.
5. “National Award of Excellence in Agricultural Research” 2014 (first place). Prof. R.B.Mapa, Mr. A.R. Dasanayake, Mr.G.G.R.De Silva, Prof. D. Kumarasinghe, Dr.S.H.S.A.De Silva, Mr.W.D.L. Gunarathne, Dr. D.M.Jinadasa, Mrs. Shifaya Maraikar and Mr. Kapila Munasinghe.

The Finnish Society of Soil Sciences (FSSS) 1971



The history of FSSS

The founding meeting of the Finnish Society of Soil Sciences (FSSS) was held in Tikkurila (Vantaa, Finland) in the meeting hall of the Agricultural Research Center (MTT) on April 16, 1971. Finnish soil scientists had indeed been involved in the activities and as members of the International Society of Soil Science (ISSS) for decades (e.g., Prof. Erkki Kivinen since 1932). Finns' membership fees (2 USD) had been paid centrally since 1965, but the national organization was only implemented at this stage at the request of the international society, so that the Finns could also elect their representatives to the institutions of ISSS, mainly the Council.

The founding meeting was opened by MTT's director general Jouko Vuorinen, who had previously worked as a professor of Soil Science at MTT. There were 11 people present, all MTT researchers. Director general Jouko Vuorinen, who had participated in several ISSS congresses, was elected Chairman of the meeting. Researcher Leila Urvas, who had already been in charge of collecting Finnish membership fees since 1965, was elected secretary. At the meeting, it was decided to establish the Finnish branch of ISSS. The club was not registered, and its own rules were not drawn up, but it was decided to obtain ISSS rules for the members. No membership fees were collected, but the club collected Finnish members' fees for the international club. Professor Mikko Sillanpää was elected as the first chairman and Finland's representative on the ISSS Council, and researcher Leila Urvas was elected as secretary. All 27 current Finnish members of ISSS, to whom the meeting invitation had been sent, were considered founding members of the society.

For the next couple of decades, the domestic activities of the club were quite small. Its task was seen mainly to represent ISSS nationally and to collect annual membership fees for the international society. Being a member was mostly about getting the ISSS Bulletin a few times a year, with a possibility to follow the events of the international club. Some seminars were organized in Tikkurila, but they gradually withered due to lack of audience. Own activities were not seen as necessary because the members of the club participated in the events of other national clubs (The Scientific Agricultural Society of Finland, Finnish Peatland Society, Association of Nordic Agricultural Scientists).

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The membership was quite agricultural, mostly from MTT and the University of Helsinki. There were usually 1-2 members from the Finnish Forest Research Institute. From the mid-1980s, Finnish soil ecologists also started to work actively in ISSS under the leadership of Professor Veikko Huhta. Every four years, a changing group of Finns participated in the ISSS World Congress.

The next annual meeting of the society was not held until March 10, 1981, and at that time it was decided to meet every four years in line with the election of the IUSS institutions. In the fall of the congress year, a new president and secretary were elected to the national society, who collected the annual ISSS membership fees. In this meeting the news of the congresses was presented, e.g. by showing photos. After Professor Siljanpää, senior researcher Jouko Sippola was elected as the chairman of the society and Finland's representative on the Council of IUSS in 1981. He later worked as a professor of Soil Science at MTT. Dr. Johan Korkman 1981-86 and Dr. Simo Kivisaari 1986-94 served as vice-chairmen.

Prof. Martti Esala was elected president of the club in 1994. Prof. Markku Yli-Halla was elected vice president and Dr. Ritva Mäkelä-Kurto as secretary. Leila Urvas was therefore left out by the club's secretary and member fee collector after 30 years of meritorious service. The new management was given the task of activating the society's activities. There were 48 members at that time. The next four years passed, but despite various discussions and ideas, the right operating model that would have gathered a sufficient number of active members for regular activities did not seem to be found. Despite this, the mandate of the same management continued in the 1998 annual meeting.

The decisions made in connection with the 1998 ISSS World Congress in Montpellier also gave wings to our domestic activities in a completely new way. At that time, it was decided to reform the international society in order to increase national activities and to bring together all the world's soil scientists better in connection with the international society. The name of the society was changed to International Union of Soil Sciences (IUSS). Membership was no longer directly in an international club, but through national clubs. This also gave us the impetus to renew our national society's activities.

The decisive factor for the activities of our society and the expansion of the base of operations was the decision to extend its activities as widely as possible to all entities conducting soil research and to invite all those interested in soil and its research to become members. The activities of the international association focus heavily on agricultural lands, of course without forgetting forest lands and other areas. Nationally, it was concluded that such an emphasis does not correspond to our domestic field of activity, and it would not gather enough critical mass to run a proper operation. That's why it was decided to approach different research bodies in the fields of agriculture, forestry, environment and soil geology equally, in research institutes, universities,

universities of applied sciences, counseling, companies and so on.

At the society's annual meeting on December 2, 1998, it was decided to initiate a change from the Finnish section of ISSS to the Finnish Society of Soil Sciences, and a board was elected for the society, which equally represented the different fields of soil research. The board was given the task of drawing up rules for the national society. The name change was implemented, and the new rules were approved at the club's annual meeting on November 30, 1999. It was decided to register the society, it became a member of The Federation of Finnish Learned Societies and a national member society of IUSS.

On the advice of the general secretary of the international society, we started receiving our membership fee share for IUSS as a grant from The Federation of Finnish Learned Societies. From there we also receive travel assistance for participating in the activities of IUSS's decision-making bodies. An important decision was also the organization of Finnish Soil Science Days every two years. The first ones were held in Viikki in the fall of 2000. When the society's activities were "up to scratch", an enhanced membership recruitment was started at the same time with e-mail messages to soil scientists' workplaces. This produced results. Before the change in the operating method, the number of members of the club had been below 50 for a long time, but now it grew rapidly to a maximum of approx. 230. The society's activities have also been activated, e.g., seminars and trips to soil sites have been organized.

The board of the society is currently elected every two years, so in the last ten years, numerous people have participated in the development of the club. Senior scientist Pekka Hänninen from Geological Survey of Finland (GTK) acted as chairman from 2009 to 2017, senior scientist Helena Soinnie from Natural Resources Institute Finland (LUKE) from 2017-2021, Professor Taina Pennanen from Natural Resources Institute Finland (LUKE) from 2021-2023 and professor Jussi Heinonsalo from University of Helsinki is the current chairman of FSSS 2023 onwards.

The historical notes originate from prof. Martti Esala's speech in FSSS 40th anniversary celebration.

FSSS today

As can be seen from the above, the activities of the International Soil Science Society have had a stimulating effect on the activities of our own national society as well. Of course, it's a good thing for us that we can bring soil people together across organizational boundaries from agriculture, forestry, environmental research and soil geology in our own company and talk about them in our own language. After all, the soil is the factor that connects us "on both sides of the ditch" in the forests and fields all the way down to the bottom sediments, on the surface of the earth and deeper. Our own national society has been fairly well represented on the IUSS field, e.g., our number

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of members is high in relation to our population, thanks to our broad industry and our high degree of “organization”.

Our membership in the international society has also opened up for us participation in the domestic scientific community through the activities of the Scientific Society’s delegation and its science academy division. Through international connections, we get an example of the activities of clubs in other countries for our own activities, e.g., sharing soil information with society. Our European membership in ECSSS gives us information on e.g., of EU programs under preparation. Through it, European soil scientists can also influence the EU’s research programs and decision-making and get soil themes into them.

In the spectrum of many scientific societies, the justification for the existence of the Finnish Society of Soil Sciences is that it brings together researchers and others interested in soil from different locations. In particular, in the activities of our international community, you can see how the field we study is centrally related to key factors in terms of the well-being of humanity and the state of the environment, including food security, biodiversity, the state of waterways, and the climate and its changes.

FSSS is currently being affiliated to IUSS and ECSSS and involved in a national Soil-Hub of European Joint Programme project. The FSSS promotes global and national research in Soil Sciences, by organizing scientific and public seminars, field excursions and free-form meetings. International activities include support for travels to the IUSS meetings. In addition to traditional Soil Sciences as soil physics and chemistry, the scientific community appreciate that FSSS brings together scientists from geology and biological sciences as plant ecology, microbiology and molecular biology. Furthermore, expertise of the members cover all the soil systems of the country from forests, peatlands and agricultural soil to arctic and acid sulphate soils.

The prominent activity of the FSSS encompasses organization of the Soil Science Days, a two-day scientific seminar is organized every second year. In addition to soil scientist, the seminar is gathering soil experts with industry, NGO’s, policy makers and students.

The historical notes originate from prof. Martti Esala’s speech in FSSS 40th anniversary celebration.



The Malaysian Society of Soil Science (MSSS) 1971



The Malaysian Society of Soil Science (MSSS) was formally established on 2nd April 1971 as platform to promote the study of science within the context of agriculture and to champion environmental stewardship. Starting off with 26 founding members, the society had grown into a formidable non-governmental organisation and full-fledged professional entity. To society is represented by soil scientists from universities, public and private research institutions, officers of the public and private sectors within Malaysia. The society over the last half century has organised various activities to meet the objectives of the society as detailed below:

- i. To promote the study of soil science and to create public awareness on the importance of soil conservation within the context of sustainable land management.
- ii. To review areas of soil study relevant for national development.
- iii. To disburse small grants to needy students and to members attending seminars.

The society over the last half of a century has been managed by a group of dedicated soil scientists from both the public and private organisations which have been actively involved in the field of soil science. Currently the society is led by Associate Professor Dr. Rosazlin Abdullah hailing from Malaysia's premiere public university "Universiti Malaya". Her team of 12 committee members represents the various public and private organisations within Malaysia.

Among the activities carried out by the society in recent times there are:

- i. Annual Malaysian Soils Science Conference (SOILS series).
- ii. Soil Correlation and Familiarisation Tours.
- iii. World Soil Day Celebrations.
- iv. 15th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS 2022).

In addition to the afore mentioned activities, MSSS also publishes annually its own technical journal "The Malaysian Journal of Soil Science" with contributors coming from every corner of the globe.

For further information, please visit MSSS website: <https://msss.com.my/>

The National Committee of Soil Science, Egypt (NCSS) 1971



The Academy of Scientific Research and Technology (ASRT) was initiated in September 1971 as a national coordinating body and funding organization for research and innovation in Egypt. It acts as the executive arm of the Egyptian Ministry of Scientific Research for the design and implementation of national programs and roadmaps. The ASRT is the national umbrella for the planning of scientific research activities in Egypt, where it includes national committees parallel to 20 International Scientific Unions and has 15 specialized councils including various branches of scientific activities. Furthermore, it communicates with the Supreme Council for Science and Technology, and decision-makers on issues related to science and technology in Egypt and conducts assessments on the state of scientific research. It also represents researchers in Egypt, both nationally and internationally, under the supervision of the Egyptian Ministry of Scientific Research.

The National Committee of Soil Sciences (NCSS) is among the several established committees of the Academy of Scientific Research and Technology in charge of communicating with international federations in their area of expertise. It also represents Egypt in the international federations' activities to bring the international federations' agenda to Egypt. The NCSS organizes scientific conferences, seminars, and workshops at local, regional, and international levels in Soil Science. The NCSS, also, publishes studies in different aspects of Soil Science addressing the public and scientific community in Egypt. It also cooperates with the Academy of Scientific Research in preparation of technical studies, as well as it provides technical advice in the field of Soil Science and related subjects.

Currently, the NCSS includes 15 members, professors, scientists, and experts, representing Universities, National and Agriculture Research Centers, and Scientific Bodies within Soil Sciences. At least 25% of the Committee members are young scientists (under 40 years), preferably at least one of them is involved in industry, national institutions or non-governmental organizations.

One of the key tasks of the NCSS is to initiate and propose activities and exchange of mutual benefits with the specialized international federations and/or the corresponding international associations, follow up their activities agenda, scientific meetings and studies. Nevertheless, that NCSS represents Egypt in the international federations. In addition, the NCSS organizes and hosts scientific conferences and symposia linking soil and the society, the environment, food security, climate issues and human wellbeing and offers recommendations to policy and decision makers.

The NCSS operates within the agenda of the ASRT where the NCSS reports annually

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to the president of the ASRT on dialogue and exchange with International Federations and recommendations on what the ASRT can adopt in relation to challenges and strategic plans on national level.

The main activities of the NCSS (2014-2022) are:

- Organizing the symposium on “The Digital Map of Egypt and its Applications in Development and Tracking the Encroachment on Agricultural Soils” on September 16, 2014, in the conference hall of the Soils, Water and Environment Research Institute (SWERI), Agricultural Research Center (ARC), Egypt, and the recommendations annex.
- Hosting the World Soil Day Conference on 4th of December 2015 entitled “The Effect of Climate Change on Land and Water Resources and Agricultural Productivity” collaborating with the Department of Soils Sci., Faculty of Agriculture, Ain Shams University.
- Addressing the President of the International Union of Soil Sciences about Egypt’s Soil Day celebrations on the 4th of December 2015, for dissemination on the Union’s website.
- Addressing the public audience with scientific articles, related to soils and water issues, published in the Science Magazine, issued by the Academy of Scientific Research and Technology (ASRT).
- On the occasion of the celebration of the International Day of Soils, the Academy of Scientific Research and Technology hosted a workshop under the supervision of the NCSS on December 6, 2020, entitled “Challenges of Sustainable Development in the Soils of the Arab Republic of Egypt”.
- On September 27, 2022, the Academy hosted a workshop under the supervision of NCSS entitled “The Effect of Climate Change on Soil Resources and Food Production: Challenges and Adaptation Mechanisms”.

Overall, the NCSS is one of the leading national committees in Egypt, which comprises several Egyptian scientists specialized in the fields of Soil Sciences. The present NCSS committee includes the following scientists:

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The Chilean Society of Soil Sciences (SChCS) 1973



Chile is a very narrow territory at the south-western extreme of South America, with a marked latitudinal climate segmentation along 4300 km and flanked by four amazing natural barriers (the Pacific Ocean, the hyper arid Atacama Desert, Antarctic lands and the Andes mountains), where eleven (excepting Oxisols) Soil Taxonomy Orders are found. However, soil degradation due to land use change and agricultural management has been a serious environmental constraint in Chile from XIX century, exacerbated by climate change and recurrent droughts. In this complex scenario and an under-explored territory, the Chilean Society of Soil Science (SChCS, <https://www.schcs.cl>) has operated as a non-profit scientific entity, oriented to foster cohesion and collaboration among professionals and scientifics working in Soil Sciences at the country.

Briefly, the goals of SChCS are i) to promote studies, knowledges and research in Soil Sciences in order to prudently manage and protect this vital, fragile and scarce natural resource, and ii) to disseminate, from a scientific perspective, the links and interactions of soil with other natural resources within the critical zone, through the organization and support of several national (Figures 1 & 2) and international (Figure 3) events and meetings.

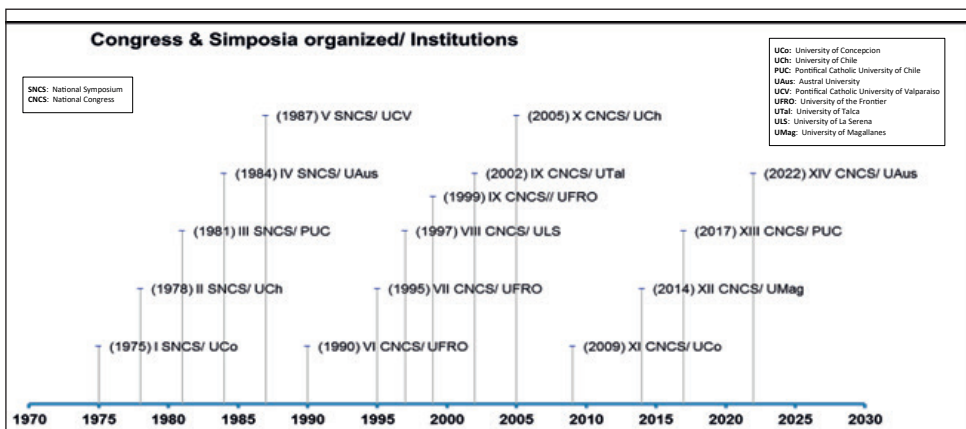


Figure 1 – National congress and symposia organized by universities and SChCS.

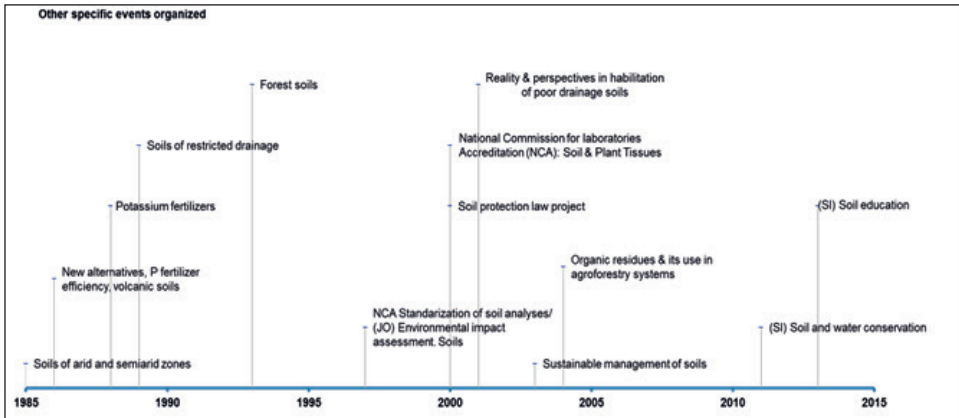


Figure 2 – Other specific national events supported by SchCS.

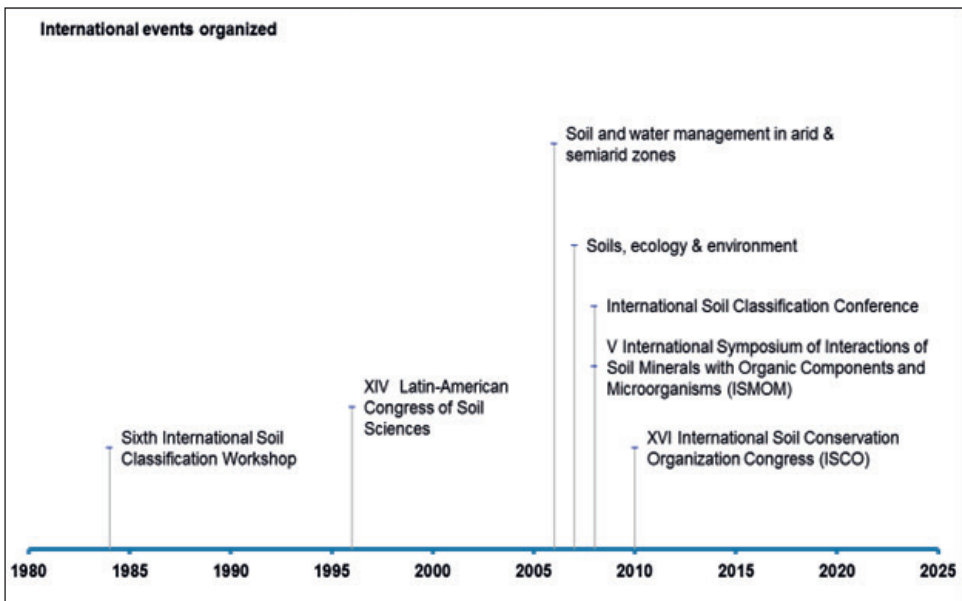


Figure 3 – International events supported by SchCS.

Although officially created in June 1978 (first President Prof. Domingo Suárez and Secretary-General Prof. Walter Luzio), the Chilean Society of Soil Science was founded in June 1973 after at least two association initiatives (Specialist in Agrology and Specialist Soil Fertility) during 60s. Since then, nine Presidents have defined clear and necessary lines of action in Soil Science, being its current President, Dr. Mónica Antilén (Figure 4).



Figure 4 – Current and past-Presidents of SChCS.

Some relevant facts

1975. First National Symposium of the SChCS. Chillán, Chile.

1978. Official recognition of the SChCS by the International Soil Science Society (ISSS). ISSS Bulletin N° 53: 13.

1981. First issue of official publication on behalf the SChCS, Bulletin of Chilean Soil Science Society. ISSN 0716-6192 (www.latindex.org/latindex/ficha/2505)

1984. Organization of VIth International Soil Classification Workshop, where Andisols were separated as a new soil Order by Soil Taxonomy. Valdivia, Chile.

1996. Organization of XIV Latin-American Congress of Soil Sciences. Temuco (Pucón), Chile.

1997. Creation of the Commission for Standardization and Accreditation of Chilean Laboratories by the SChCS. Comm. members: Renato Grez, Angélica Sadzawka, A Carrasco, Hugo Flores, María L. Mora & Carlos Rojas.

2001. First issue of official publication on behalf the SChCS, Journal of Soil Science and Plant Nutrition. ISSN 0717-635X. Dr. Achim Ellies (Ed.).

2008. Organization of 3rd International Conference on Soil Classification. Santiago, Chile.

2010. Journal of Soil Science and Plant Nutrition (ISSN 0718-9508), indexed in Science Citation Index Expanded (SciSearch®), Journal Citation Reports/Science Ed. of Thomson Reuter (ex ISI) and SciELO database, (open access: www.scielo.cl & www.jssp.n.cl). Dr. M.L. Mora (Ed.).

2016. Young Soil Scientist Meeting, 1st EJICS, Valdivia, CHILE

2017. Soil Science trajectory Prize of SChCS to Walter Luzio (MSc.).

2018. Agreement signed to manage the JSSPN by Springer Nature

2019. First edition of JSSPN by Springer Nature.

<https://www.springer.com/journal/42729/>

2020. Young Soil Scientist Meeting, 2nd EJICS, Concepción, CHILE.

2021. Soil Science trajectory Prize of SChCS to Angelica Sadzawka (Pharm. Chem.).

2022. Chilean researchers in a role of officers of the IUSS commission were elected by first time.

2022. After two years of work led by the SChCS and supported by IUSS, a General Soil Law was approved in the first stage unanimously in the Senate of the Republic of Chile. Currently, the approved proposal is being discussed.

In memoriam

Finally, the SChCS remembers – *Sergio Alcayaga C., Eduardo Besoain M., Achim Ellies S., Ricardo Honorato P., Alberto Kühne G., Patricio Lara G., Roberto Mac Donald H., Mario Peralta P., Inés Pino N., Juan L. Rouanet M., Alberto Valdés F., Angélica Aguilera* and others involuntarily omitted – who left their imprint on the soils of Chile with an enormous commitment, work, and dedication.

Future generations

As members of the SChCS our message for the future task and generations is advance in sustainable soil management and the internationalization of our Society.

Internationalization of SChCS

The SChCS has been in existence for more than 40 years, but only since 2021 three Chilean researchers were elected to be part of the commissions of the IUSS. During this time, these members had been participating actively in the tasks of each division.

One of the challenges for the internationalization is to develop a robust team that can be part in the soil judging competition, organized each 4 years at the World Soil Science congress, and for the first time in the following Latinoamerican Soil Science congress. For this challenge, our society is developing and promoting the national meetings of young researchers in Soil Sciences.

Considering the multiple activities in Soil Science, our aim in the following years should be to strengthen the alliance with FAO through a permanent participation in global soil partnership, such as World Soil Day, Global soil doctor, Glosolan, Inter-governmental Technical Panel on Soils (ITPS) and others.

Sustainability Management of Soils

Nowadays the use of soils is unconceived without a sustainable approach. In simple words, healthy soils provide ecosystem services which means human well-being. The sustainable management of our soils implies a challenge to reach an equilibrium among the soils ecological, economic, and social functions. This challenge is double due to the climatic crisis that forces us to adapt to dynamic scenarios (e.g., intensive rainfalls or extended drought).

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The design of sustainable systems based on soil, demands the knowledge of properties and how these are linked with their functions and ecosystem services (Pereira et al., 2018). Maintaining the soil's "functioning" means reducing its degradation. In this sense, promoting strategies such as soil conservation, soil carbon sequestration, and efficient use of water among others help to mitigate soil degradation and improve their quality (Lal, 2015). Today, more than ever before it is important to study the soils from an interdisciplinary approach which means opening the Soil Science to new perspectives (Brevik et al., 2015), where soil education from Kindergarten to university levels plays a key role. Communication in the classroom is one of the most effective ways to teach new generations about the importance of soils, their functions, and how essential they are to our existence.

Contributions from:

Manuel Casanova, Celerino Quezada, Felipe Zúñiga y Mónica Antilén

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The Portuguese Society of Soil Science (SPCS) 1973



Executive Committee of the SPCS for the period 2022-2026

The Portuguese Society of Soil Science (SPCS) has celebrated, in 2023, 50 years of its official constitution in 1973, but several records allow us to date its foundation to 17 years before. In fact, by proposal of J. Botelho da Costa, thirteen researchers affiliated in the International Soil Science Society (ISSS), gathered in June 15th of 1956 to organize the first section – Natural Sciences – of the Portuguese Society of Agricultural Sciences (SCAP). E. Mendes Frazão was the first President (1956-1960), and J. Botelho da Costa was the delegate to the ISSS Consultant Council. This first step towards the constitution of the SPCS was announced in the ISSS Bulletin No. 10 (National Societies section) and it should be seen as an outcome of a period of great activity and of rapid increase of the Portuguese ISSS members: from 12 in 1-08-1954 to 47 members in 1-08-1956 (ISSS, 1956).

There are also records of some notable events organized by the SPCS before 1973. It is noteworthy the first scientific excursion of the SPCS, in May 23, 1962, to the recently installed Erosion Experimental Station in Vale Formoso, Mértola (southeast of Portugal), and the international scientific excursion, in October 1966, to the Alentejo and Algarve regions, integrated in a meeting of the V Commission of the ISSS, held in Madrid, and dedicated to the Mediterranean Soils.

Almost up to the end of the 20th century, the governance structures of the SPCS (Executive Committee, Board of the General Assembly, and Fiscal Council) were formed by members of the Instituto Superior de Agronomia (ISA) and of the Estação Agronómica Nacional (EAN), the only higher education school and national research centre for agriculture and forestry in Portugal, respectively. There was even an informal agreement to alternate the presidency of the SPCS between these two institutions. With the onset of the 21st century, the Executive Committee began to include members from a wider range of institutions and geographical distribution. Based on the available records, Table 1 lists the members of the SPCS Executive Committee until present.

A brief history of the SPCS can be outlined splitting its membership evolution in four main periods. The first one, before its formal constitution (from 1956 to 1973-74), was a period of strong growth, with the number of members reaching 101 in 1968, and a peak of 120 in 1970. SPCS members were mainly agronomists and foresters, working in a few public institutions (ISA, EAN, Tropical Research Institute, and Ministry of Agriculture, especially staff of the soil mapping service). The second period, from ear-

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ly seventies to mid-nineties, showed a reverse trend, with a decrease from 114 (1974) to 63 members in 1984, followed by very small increases for more than a decade. This trend mirrored the progressive retirement of many technical staff engaged in soil mapping efforts, in Portugal mainland (at the 1:25 000 scale), in the insular territories (Azores and Madeira islands), and overseas before 1974.

Table 1 – Members of the SPCS Executive Committee since the first available records to present. Names follows the sequence: President, Secretary, Treasurer, and two extra members, since 2006.

Period	Executive Committee
1956-1960	Eduardo Mendes Frazão; Fernando da Câmara de Freitas; Luiz Brito Canhão
1960-1964	J. Botelho da Costa, J. Almeida Alves, A. Franco de Oliveira
1965-1968	J. Carvalho Cardoso; L. Rodrigues Balbino; Maria Luísa Franca
1969-1972	Rui Pinto Ricardo; Manuel Teixeira Bessa; M ^a Amélia Câncio Fragoso
1973-1978	António J. Silva Teixeira; Augusto C. Zagallo; Maria Iracema Barreto
1978-1982	Edgar C. Sousa; Mário A. Mayer Gonçalves; José E. Bailim Pissarra
1982-1986	Eugénio Menezes Sequeira; (...); (...)
1986-1990	Edgar C. Sousa; Manuel A. V. Madeira; António Sanches Furtado
1990-1994	Edgar C. Sousa; Manuel A. V. Madeira; António Sanches Furtado
1994-1998	Eugénio Menezes Sequeira; José M. A. Vieira e Silva; José Casimiro Martins
1998-2002	Manuel A. V. Madeira; Nuno Cortez; Fernando Girão Monteiro
2002-2006	Manuel A. V. Madeira; Carlos Alexandre; Fernando Girão Monteiro
2006-2010	Fernanda Cabral; Carlos Alexandre; Fernando Girão Monteiro; Henrique Ribeiro; Raquel M. S. Dias Mano
2010-2014	Carlos Alexandre; Henrique Ribeiro; Fernando Girão Monteiro; Fernanda Cabral; Raquel M. S. Dias Mano
2014-2018	Carlos Alexandre; Maria Conceição Gonçalves; Fernando Girão Monteiro; Henrique Ribeiro; Tiago Ramos
2018-2022	Carlos Alexandre; Ana Marta Paz; Nuno Cortez; Carmo Horta; Paula Alvarenga
2022-2026	Carlos Alexandre; Ana Marta Paz; Nuno Cortez; Carmo Horta; Paula Alvarenga

(Angola, Mozambique, Cape Verde, Guinee-Bissau, Timor, São Tomé). Table 2 mentions some distinct, deceased, SPCS members, mostly active in these first and second periods, and whose work, among many others, greatly contributed to the development of soil science in Portugal, and to improve the knowledge about the soils of the Mediterranean and the tropical regions.

Table 2 – Most distinctive deceased SPCS members and their main achievements.

Name	Years	Main achievements
J. Botelho da Costa	1910-1965	Professor, founder of the SPCS in 1956, and delegate of the SPCS at the ISSS Consultant Council (1956-1960). Vice-President (1950-1954) and President (1954-1960) of the Soil Technology Commission of the ISSS. He was an international authority in tropical soils, author of several publications on soil physics, soil genesis and classification, and author of soil science books (Costa, 1973, 1975) used by thousands of undergraduate and graduate students in Portugal. (Ricardo, 2014)

J. Carvalho Cardoso	1923-2010	Researcher, author of the main publication on the Portuguese soil classification (Cardoso, 1965) used in soil maps of Portugal at 1:25 000 scale, mainly published between the forties and seventies of the XX century. He was also Director of the EAN, and a member of the Portuguese and of the European Parliaments. (Sequeira, 2014)
Á. Lobo de Azevedo	1921-2015	Professor, pioneer advocate and research mentor of the conservation agriculture in Portugal. He was also the first Rector of the re-established Universidade de Évora.
A. Teixeira Constantino	1926-2011	Agronomist, collaborator and coordinator of several soil maps, in Portugal and abroad, namely in the tropics and as a FAO consultant; coordinator of two soil maps at the 1:100 000 scale (Northeast, Northwest, and Central East Portugal), the third one was the first adopting the WRB soil classification. (Ricardo & Madeira, 2014)

The third period spans from the mid-nineties to around 2010, and reflects a new growing phase in the number of SPCS members, which added up to 118 by 2004, and reached an absolute peak of 173 in 2010. Most of the incoming SPCS members in this period were still from the broad field of the agricultural sciences, and its increasing number was, mainly, a consequence of the expansion of the university teaching and research staff, during the last decades of the 20th century. In this period, the SPCS was an active collaborator in the restructuration process of the ISSS into the International Union of Soil Sciences (IUSS), that was concluded in 1998. The fourth period, since 2010, repeats another recession phase, with a very significant decrease in the number of SPCS members to 126 in 2012, and 60 in 2018. Once again, this has been a period dominated by reductions and retirements in the university teaching staff, research staff, and other public technical staff. Table 3 lists some SPCS achievements, in which the third and fourth periods stands out.

Table 3 – Some of the SPCS main achievements, by chronologic order.

Year	Main achievements
1968	First scientific meeting organized by the SPCS: Symposium on mineral fertilization.
1973	Official formalization of the foundation of the SPCS.
1974	First number of the Pedon, intended as a biannual newsletter, irregularly published, and also used as publication support to the communications of three national soil science meetings, in 1986 (Pedon no. 5 and 6), 1989 (no. 8 and 9) and 1999 (no. 12).
1986	First Annual Meeting of the SPCS, though just since 1999 these meetings have being organized on a really annual basis, excepting the years 2011 and 2020, and, since 2004, in years with CICS events (see line 2004).
2000	International Symposium “Managing Forest Soils for Sustainable Productivity” organized by the SPCS, IUSS (Subcommission of Forest Soils), Portuguese Society of Forest Sciences (SPCF), Instituto Superior de Agronomia and Universidade de Trás-os-Montes e Alto Douro (UTAD), held in Vila Real, Portugal.
2001	First National Congress of Soil Science, which received the visit of the IUSS Secretary General, W.E.H. Blum.
2004	First Iberian Congress of Soil Sciences (CICS), held in the Instituto Politécnico de Bragança, Portugal; the CICS are organized in collaboration with the Spanish Society of Soil Science and held alternately in Portugal and Spain.

2004	Report of a study promoted by the General Directorate of Agriculture and Rural Development (DGA-DR), Ministry of Agriculture, to revise and update the soil classification in Portugal (SPCS, 2004). Collaboration with DGADR to found the Portuguese Soil Partnership (Parceria Portuguesa para o Solo, PPS), now gathering more than forty partners, public and private (https://parceria-ptsolo.dgadr.gov.pt/).
2015	

Very recently, since 2022, a new period might be starting to unfold, driven by new research opportunities in soil sciences, which are attracting new colleagues from other sciences, namely biology, microbiology, chemistry, among others. This opportunity to embrace colleagues from a wider range of sciences, represents also an important challenge to the SPCS, namely to evolve to a more contemporary society and to change to the Portuguese Society of Soil Sciences.

Acknowledgments

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The Soil Science Society of East Africa (SSSEA) 1974



Establishment of the Society

The Soil Science Society of East Africa (SSSEA) was formed in September 1974 at the 13th meeting of the East African Specialist Committee for Soil Fertility and Crop Nutrition held in Nairobi, Kenya, under the chairmanship of the Late Professor A.P. Uriyo of the then Faculty of Agriculture, Forestry & Veterinary Science of the University of Dar es Salaam. At its inception, the SSSEA started with 10 founder members drawn from three East African countries i.e., Kenya, Uganda and Tanzania. The SSSEA is a non-profit and non-political organization. Since its establishment, the society has observed its membership steadily growing to nearly 450 at present.

Vision and Mission of the Society

Vision: To become a center of excellence and a valued member of the global research and academic community in soil science and other related fields.

Mission: To promote soil science and related subjects and disciplines through research, training and provision of services for development to the public and private sector in East Africa in an environmentally friendly manner.

Organization of the Society

The business and activities of the SSSEA are conducted by its officers and the Executive Committee. The officers consist of the Chairperson, General Secretary, General Treasurer, three Chapter Country Chairpersons, three Chapter Country Secretaries, three Chapter Country Treasurers and two committee members from each member country; all of whom are fully paid-up ordinary members of the Society and are elected at the Ordinary Annual General Meeting by secret ballot. All the above officers hold office for three years from the date of election or assuming office but shall be eligible for re-election.

Members of the Executive Committee include the Chairperson, General Secretary and General Treasurer. The Chapter Country Chairperson, Chapter Country Secretaries, Chapter Country Treasurers and Six members of the Society that is two members from each Chapter Country elected by the Annual General Meeting of the Society. The Executive Committee members hold office for three years and are eligible for re-election for another term of three years.

Early roles of SSSEA

- i. Spearheading the earlier soil research/mapping activities before WWI and WWII during colonial times. An international breakthrough in soil mapping in the tropics was the “Provisional Soil Map of East Africa” by Geoffrey Milne (1898–1942). The map from 1937 is based on the Catena principle introduced by Milne (1935) who worked as a soil scientist in the famous Amani Institute in the E Usambara Mts., then British Tanganyika. The Amani Institute had been established in 1902 under German rule. To mention from that pre-WWI period is Paul Vageler (1882-1963) whose pioneering soil survey in the Mkatta plains (1910) yielded a precursor concept of Milne’s Catena principle.
- ii. Reactivation of soil and water conservation activities introduced during the colonial period. Soil erosion was identified as a problem by colonial administrations in East Africa. It became a priority in the British-ruled territories in the 1930s, and much soil conservation was undertaken during the decades prior to independence. In the early 1930s, the colonial government started to promote conservation, especially erosion control in the region. Several anti-erosion rules were made and enforced by the native authorities. Initially, the central government tried to promote these measures through demonstrations and education. For example, in 1943 territorial regulations were made and enforced to try to prevent uncontrolled bushfires. The desire of the central government to undertake Soil and Water Conservation (SWC) directly led to the formation of the Soil Conservation Service in 1945. The work of the service was implemented in all parts of the region mainly through different types of Land Usage Schemes. However, due to the top-down approach adopted by the colonial government, anti-conservation was part of the campaigning platform for politicians fighting for independence. As a result, very little SWC was included in government policies and programmes pursued immediately after independence. Therefore, the SSSEA was established partly to reactivate SWC established during the colonial period but in a more participatory way including the introduction of such activities in the university curricula and research.
- iii. Promoting the study, research and teaching of soil science and related subjects in East Africa.
- iv. Promoting the publication of soil science research findings relevant to East Africa and advising public and private institutions on issues concerning the conservation and development of East African land/soil resources.

Current roles of SSSEA

- i. Promoting the study, research, teaching and application of soil science and related subjects and disciplines in East Africa.
- ii. Organization of bi-annual international conferences on a rotational basis among the three East African countries, during which research papers are presented by

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members, professional soil scientists, land use planners, land water resources managers, environmentalists and invited guests.

- iii. Conduct bi-annual General Meetings of the Society during and at which members discuss matters of interest and advancement and other issues pertaining to and management of the functions and duties of the Society.
- iv. Encouragement of members of the Society to publish their research works and findings in relevant referral Country and international journals/periodicals.
- v. Compilation of summaries of bibliographies of soil science research carried out in East Africa and elsewhere that are relevant to East Africa.
- vi. Promotion of proper utilization and conservation of East African soils, land and water resources and other related resources.
- vii. Carry out collaborative research and consultancies and provide advisory services in the fields of land and water management.
- viii. Get involved and advocate to influence the development of enabling Natural Resource Management policies of East African region and or partner countries.

Evolution

Since its establishment, SSSEA experienced several ups and downs such as the collapse of the East African Community in 1977 and the war between Uganda and Tanzania in 1978. Despite all the turmoil in the region, the society remained resilient and continued to function and exist independently of the political influence. Furthermore, in terms of its scientific objectives, SSSEA continued its endeavors evolving from merely focusing on soil fertility and plant nutrition to more contemporary and cross-cutting issues. **Sustainable Land and Water Management, Climate Smart Agriculture, Innovations and Practices for Enhanced Food and Nutrition Security has been the focal point of the Society. In its bi-annual conferences, contemporary issues that have recently been the focus of the Society include:**

- i. Enhancing applications of land and water technologies, innovations and management practices for adaptation and mitigation to climate variability and change.
- ii. Enhancing the status of food and nutrition security and incomes through soil health and quality improvement and agricultural water management.
- iii. Crop-livestock integration options for sustainable intensification and diversification of farming systems.
- iv. Digital soil mapping, precision agriculture, resource inventory and land use planning for sustainable food and nutrition security.
- v. Commercialization aspects in land and water management: market access and private sector engagement.
- vi. Socioeconomics and policy options in land and water management.
- vii. Mechanization along the agricultural product value chain (APVC) for sustainable intensification in land and water management.

Partnerships and networking

The Society has so far managed to organize 29 annual conferences. The recommendations emanating from these conferences have played a key role in helping the East African farming communities and other land users by providing the appropriate advisory packages on issues of land/soil resources management. The SSSEA is well-linked with research and community-based institutions in the region and internationally. For example, the 28th bi-annual SSSEA Conference and the African meeting of the International Year of Soil Science held in Morogoro, Tanzania from 23rd to 27th November 2015 was attended by the IUSS representatives Prof. Dr. Erika Michéli (Head of IUSS Division 1, Szent István University, Hungary), Prof. Takashi Kosaki from Tokyo Metropolitan University, Japan, and the Chairperson of IUSS Division 3, Dr. Peter van Erp, Director of Soil Care Research, The Netherlands, and Prof. Soh Sugihara (Graduate School of Urban Environmental Science, Tokyo Metropolitan University, Japan). The 28th bi-annual Conference of the SSSEA was part of the celebration of the African meeting of the International Year of Soil Science. In this celebration, an expedition was organized for interested participants, which took the participants through the Ngorongoro Conservation area in Northern Tanzania and to the Olduvai Gorge fossil system associated with archaeological sites in the semiarid rift basin which is currently a World Heritage Site (Figure 1).



Figure 1 – Olduvai Gorge fossil system archaeological site, Northern Tanzania; Field exhibition during the celebration of the African meeting of the International Year of Soil Science, organised by the 28th bi-annual Conference of SSSEA in 2015; The first person from the right on the left row corner is Prof. Dr. Erika Michéli (Head of IUSS Division 1), The first person from the left on the right row corner is Prof. Dr. Didas Kimaro, Tanzania (SSSEA Chairperson), Photo by D. Kimaro.

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Notably, following the success of the 28th bi-annual Conference, the society in partnership with Mwenge Catholic University (MWECAU) organised a joint International Conference at the Catholic University (MWECAU) in July 2022 in Moshi, Kili-manjaro, Tanzania. The Conference entitled “Climate-Smart Solutions for Tropical Mountain Environments” was attended by representatives of the national soil societies of Belgium and Germany (Figures 2 and 3). Furthermore, in 2022, the German Soil Science Society (DBG) awarded Prof. Didas Kimaro (Chairperson of SSSEA) the Honorary title of a “Corresponding Member”.



Figure 2 – The 4th Mwenge Catholic University (MWECAU) International Conference organised jointly with SSSEA from 25 to 29 July 2022. From left; the first person is Prof. Dr. Didas Kimaro, Tanzania (Chairperson of SSSEA), third is Prof. Dr. Karen Vancampenhout (President of the Soil Science Society of Belgium) and fifth is Prof. Dr. Karl-Heinz Feger (President of German Soil Science Society) and sixth Prof. Sepepe Deckers (KU Leuven, Belgium). Photo by D. Kimaro.



Figure 3 – The 4th Mwenge Catholic University (MWECAU) International Conference organised jointly with SSSEA from 25 to 29 July 2022. The first row (kneeling) from left to right: Prof. Dr. Didas Kimaro (Chairperson of SSSEA), Prof. Dr. Karl-Heinz Feger (President of the German Soil Science Society), Dr. Lulu Zhang (United Nations University, FLORES Institute), and Prof. Sepepe Deckers (KU Leuven, Belgium). The tall person in front of the poster on the right side is Dr. Antony Esilaba (SSSEA Chairperson Kenya Chapter). Photo by D. Kimaro.

Despite that, the 29th bi-annual conference of SSSEA was successfully held in Naivasha, Kenya from 18th to 22nd November 2019 before the worsening of COVID-19. The focus of the conference was on Sustainable Land and Water Management and Climate Smart Agriculture Innovations and Practices for Enhanced Food and Nutrition Security. The Conference discussed in detail the integration of indigenous agroforestry systems for the restoration of the native agroforestry trees and as an innovative solution for future soil health, which is in line with the holistic vision of SSSEA.

The SSSEA has tried to develop a strong link with the agricultural industry by closely working with both large and small-scale farmers. In this regard, the conferences organised by the Society participants from the producing wing of the agricultural industry including farmers and agricultural extension staff are also invited to attend and participate in farmers' exhibitions and showcase demonstrations form part of the conference's organisational setup.

Prof. D.N. Kimaro (Chairman of SSSEA)

The Soil Science Society of Iran (SSSI) 1974



Soil Science Society of Iran (SSSI) was established in 1974 with the main aims of increasing public awareness to protect soil resources and to promote sustainable use and management of soils through strengthening Soil Science education at the universities and supporting soil conferences, technical workshops, regional and international collaboration. The Society was also mandated to promote the cutting-edge soil knowledge in the country and also to strengthen soil education linkage with the earth and other natural sciences.

SSSI from its inception has enjoyed a longstanding collaboration with ISSS and IUSS and hopes to strengthen its collaboration especially on sustainable use and management of arid and semiarid soils and the impact of climate change on properties and productivity of the soil resources.

The Society has a board of directors composed of 7 members from universities and research institutes related to Soil Science, who are elected every four years during the general assembly by the members of the Society.

Main Activities:

The Society has organized 17 National Soil Conference since 1974 in different cities with the support of the organizing universities and research institutes. The upcoming national conference will be held in winter 2023.

The Society has organized so far 15 Annual Soil Meeting every year to discuss the issues related to the policies, programs and challenges facing the soils of the country with participation and partnership of the executive's branches of the government.

Publication of 3 national research journals ("Soil research", "Soil biology" and "Soil management and sustainable production") with the partnership of the universities and the research institutes. Recently, the Society initiated to publish a journal in English titled "Soil Science Society of Iran Journal, SSSIJ" in cooperation with Isfahan University of Technology.

Technical support to the preparation of a World Soils Book Series "The Soils of Iran" published in 2018 by Springer.

Organizing other consultative, advocacy, advisory and technical meetings and workshops with the aims of promoting soil and environmental conservation for the public and students at the universities and schools.



The Soil Science Society of Switzerland (SSP) 1975



Year of foundation, organisation and development of membership

The Soil Science Society of Switzerland (Bodenkundliche Gesellschaft der Schweiz (BGS)/Société Suisse de Pédologie, Società Svizzera di Pedologia (SSP)) was founded in 1975 and thus celebrates its 50-year anniversary in 2025. The BGS/SSP is open to everyone who is concerned in private and professional life with soils. A particular feature is the very diverse background of its members, which are active in soil mapping, administration, both fundamental and applied research, and others. This diverse mixture allows for a vivid exchange at the annual congresses, field trips and other events, guaranteeing that the different aspects that Swiss soils are holding are represented.

The BGS/SSP is managed by a board which aims to have representatives of all key areas relevant for Swiss soils. The BGS/SSP currently has six working groups, which are i) soil mapping, ii) soil classification and nomenclature, iii) soil of the year, iv) platform physical soil protection, v), soil 4.0 and vi) environmental education on soil. The BGS/SSP has continuously grown in membership. As of today, 42% of the BGS/SSP members are female. Six of the 25 presidents were female and five of the six working groups are led or co-led by women. The BGS/SSP currently has 463 regular members, 45 student members, 66 collective members (organisations), and 9 honorary members, which are:

- Ernst Altherr
- Luc-François Bonnard
- Franz Borer
- Peter Fitze
- Mio Josic
- Michel Gratier
- Peter Lüscher
- Stefan Müller-Altarmatt
- Moritz Müller
- Jean-Auguste Neyroud
- Franz X. Stadelmann
- Peter Germann

History, current questions and outlook on Soils in Switzerland

Switzerland can be split into three main regions with different proportions: the Alps (58 %), the Jura (11%) and the Central Plateau (31%) and houses a large diversity of soils (Figure 1). Given the dominance of a mountainous topography, the aim of increasing the primary production always was a primary goal. There is, for example, evidence of terrain modifications such as terracing in the Engadin region (Ramosch) dating back 2'000 BC. Another major example are the Jura water corrections (first in

1886), aiming to drain large areas for arable cultivation by redirecting surface acquirers. However, latest in in the 1980s there was an increasing concern on a potential degradation of soil quality due to environmental pollution. With the Environmental Protection Act in 1983 and the Regulation on Pollutants in Soil in 1986, legal frameworks on soil pollution were established. With that, the Swiss Soil Monitoring Network (NABO) maintains since 1985 a monitoring on a national scale to observe potential contaminations with heavy metals, organic pollutants or changes in soil organic carbon. Given the higher awareness on the relevance of maintaining a good soil quality, new chairs and professorships at universities and research institutes were established at these times. The protection of soil in Switzerland is mostly executed on a cantonal or municipal level. With the establishment of a “pedological construction supervision”, Switzerland was leading in the development of a framework to reduce soil damages due to construction activities as much as possible. The success of this measure was largely owed to the close connection between practitioners, administration and academia, and the quality assurance is until today one of the key tasks of the BGS/SSP. Another key achievement for Swiss pedologists was the establishment of the Competence Centre for Soil in 2019/2020. The centre is currently very much involved in developing a method for a potentially nation-wide mapping of soils in Switzerland, which will allow to use both classical and modern tools for the development of soil maps. For the future, people that have a deeper understanding on soil and soil-related processes will thus be required more than ever. This is not only for the nation-wide mapping of soil, an endeavour that should start in 2028, but also given other pressures such as potential soil sealing or remediation of sites after pollution. The BGS/SSP will be closely involved in these activities, seeing itself as a bridging organisation of pedologists with different backgrounds, expertise and motivation.



Figure 1 – Selection of soil profiles of Switzerland. Credits: Gabriela Brändle (Agroscope), Urs Zihlmann (Agroscope), Andreas Chervet (Amt für Landwirtschaft und Natur Kanton Bern, LANAT), Marco Walser (WSL).

Swiss Soil Sciences and the IUSS

Honorary members of the IUSS from Switzerland

Georg Wiegner (1883-1936) became an honorary member of the IUSS in 1935 for his contribution on soil and soil formation from a colloid-chemical viewpoint, his work on soil-climate-types, in particular in Switzerland.

IUSS Divisions presidents from Switzerland

Name	Activity	Period
Hans Hurni	Sustainable Land Management	2002-2006
Ruben Kretzschmar	Div. 2 Soil Properties and Processes	2006-2010
Emmanuel Frossard	Div. 4 The Role of Soil in Sustaining Society and the Environment	2006-2010

IUSS Bureau activities

Peter Lüscher was Treasurer of the IUSS from 1992-2002 (Figure 2).



Figure 2 – Meeting at WSL, Birmensdorf (IUSS Bureau, 1987) Hans van Baren (Debuty), Peter Lüscher (Treasurer), Alain Ruellan (President), Winfried Blum (secretary general). Credit: Peter Lüscher.

IUSS Field trip in Switzerland

Following the ISSS Congress in Hamburg in August 1985 the Austrian Society of Soil Science (ÖBG) and Swiss Society of Soil Science (BGS-SSP) organized a joint excursion ‘Through the Alps from Switzerland to Austria’ (Figure 3). The memorable event was highlighted by Karl H. Hartge, then President both of ISSS and DBG, as an excellent example of the cooperation between the three societies. The two organizers Peter Lüscher (Birmensdorf, Switzerland) and Othmar Nestroy (Vienna/Graz, Austria) are also long-standing and deserving DBG members.



Figure 3 – Picture of all participants at the Muottas Muragel taken during the field trip “Through the Alps from Switzerland to Austria”. Credit: Peter Lüscher.

Renown Swiss Pedologists

Name	Period	Field
Georg Wiegner	(1883-1936)	Colloid chemistry
Hans Burger	(1889-1973)	Water drainage in forest and pasture soils
Hans Jenny	(1899-1992)	“Factors of Soil Formation” 1941
Hans Palmann	(1903-1965)	Soil taxonomy, soil and vegetation
Felix Richard	(1915-1984)	Soil physics
Hans Deuel	(1916-1962)	Clay mineralogy, ion exchange, soil organic matter
Hans Sticher	(1934-2022)	Soil Chemistry
Peter German	(1944-2020)	Soil Hydrology

Soil Research in Switzerland

The following institutions work on aspects of soil science in Switzerland. Besides of these, there is a large number of cantonal offices, private soil surveying bureaus and other organisations that are involved and active in soil research and the BGS/SSP.

Institution	Activities (among others)
Agroscope - Swiss Confederation’s center of excellence for agricultural research	Soil quality, nutrients, biology, pollutants
EAWAG - Swiss Federal Institute of Aquatic Science and Technology	Soil hydrology and eco-toxicology

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École d'ingénieurs de Changins	Soils and viticulture
WSL - Swiss Federal Institute for Forest, Snow and Landscape Research	Forest soils, soil biogeochemistry, soil biology
EPFL Lausanne	Soil biogeochemistry
ETH Zurich	Soil chemistry, physics, biology, formation
FiBL - Research Institute of Organic Agriculture	Soil fertility and biology
HEPIA - Haute École du paysage, d'ingénierie et d'architecture de Genève	Soil quality and urban soil
HAFL - School of Agricultural, Forest and Food Sciences	Soil use and soil protection
University of Basel	Soil erosion
University of Bern	Soil pollution, sustainable land use
University of Lausanne	Soil biology
University of Neuchâtel	Soil biogeochemistry
University of Zurich	Soil biogeochemistry, soil genesis
ZHAW - Zurich University of Applied Sciences	Soil ecology

Members of the BGS/SSP Executive Committee and time period

Year	Name	Year	Name
1975-1976	Frei, Erwin	2000-2001	Schulin, Reiner
1977-1978	Sticher, Hans	2022-2023	Strehler, Catharine
1979	Pochon, Michel	2004-2005	Achermann, Mathias
1980	Sticher, Hans	2006-2007	Tobias, Silvia
1981-1982	Flühler, Hannes	2008-2009	Havlicek, Elena
1983-1984	Neyroud, Jean-August	2010-2011	Bono, Roland
1985-1986	Mosimann, Thomas	2012-2013	Meuli, Reto
1987-1988	Lüscher, Peter	2014-2015	Burgos, Stéphane
1989-1991	Häni, Heinz	2016-2017	Laustella, Matias
1992-1993	Marandaz, Evelyne	2018-2019	Campisch, Sophie
1994-1995	Germann, Peter	2020-2021	Nussbaum, Madlene
1996-1997	Gobat, Jean-Michel	2022-2023	Westermann, Stéphane
1998-1999	Borer, Franz		

BGS/SSP secretariate: L. Bonnard, Peter Fitze, Markus Egli / Editor of the BGS/SSP Bulletin: Hans Sticher, Moritz Müller, François Schnider.

Short comments from BGS/SSP members on the IUSS centennial

The contacts that I have established during my time as the treasurer of the IUSS allowed for the establishment of an excellent network of exchange. This strong network lasts until today, for which I am very glad and thankful. (Peter Lüscher, BGS/SSP president from 1987-1988 and IUSS Treasurer from 1992-2002)

From the point of view of the BGS/SSP and the national soil monitoring, the establishment of a successor organization to the European Soil Bureau Network (ESBN) would be warmly welcome. This organization was discontinued at the beginning of the 2010s for reasons of economy. Such an organization at the regional European level is missing now. The organization had previously contributed a great deal to the harmonization of monitoring programmed over the years. (Meuli Reto, BGS/SSP president from 2012-2013)

The BGS/SSP warmly congratulates the IUSS for its achievements as it demonstrates how international cooperation can contribute to understand and to protect soils. We hope these activities to further prosper in upcoming decades and to reach out beyond our inner circles of soil enthusiast. We believe that this is more needed than ever, now that many countries actively pursue soil policies to protect our valuable resource soil. We owe that to future generations. (Madlene Nussbaum, BGS/SSP president from 2020-2021 and Klaus Jarosch, current BGS/SSP vice-president)

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The website of the BGS/SSP: www.soil.ch

The Norwegian Soil Science Society 1977



The Norwegian Soil Science Society was established in 1977 with an objective to discuss issues related to soils, their management and environmental impacts and further to communicate and spread this knowledge to society members and other interested parties. Prof. Arnor Njøs, a well-known soil physicist and later (1984-1990) rector of the university, was the first president of the society. The number of members has varied ranging from thirty to over sixty over the years.

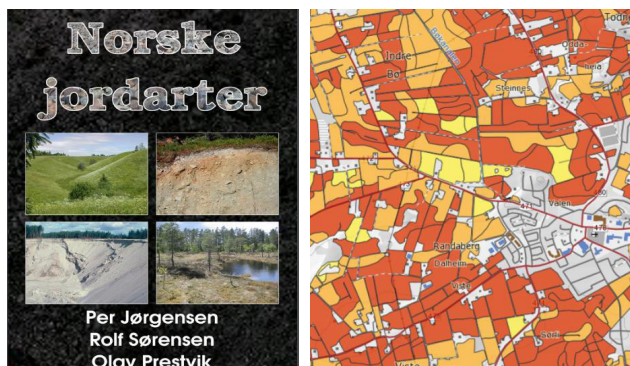
Members of the Norwegian Soil Science Society were not actively involved in the affairs of the ISSS/IUSS from the start of the society although a few of them have served as leader of working groups of IUSS from 1994 and later. Jul Låg started as leader of working group on Geo-medicine (1994) which was later taken over by Eiliv Steinnes. Similarly, Bal Ram Singh chaired the working group Land Degradation of Commission 3.5 from 2002 to 2018.

During the world congresses in Philadelphia, USA, Brisbane, Australia and Rio de Janeiro, Brazil, Bal Ram as leader of Land degradation, organized symposia on topics related to this working group, for example, enhancing soil productivity of degraded lands and mitigating climate change through carbon sequestration and restoring degraded lands through soil carbon management etc.

During the International Year of Soils (IYS) 2015, Bal Ram organized a symposium on Soil Degradation-impact on soil quality, productivity, and climate change (Land Degradation Working Group and Division 3 of IUSS) at Sustain 2015, held at the University of Kiel, Germany.

In 2013 the book “Norske jordarter” was made available on the webpage for the Norwegian Soil Science Society.

http://www.jordforeningen.no/wp-content/uploads/2018/05/Norske_jordarter.pdf



The book describes soil formation in different landscapes, soil classification, soil properties etc. It was targeted also for education at different levels and for public and society interests.

The researchers working with soil classification have made good contributions to the society activities and excursions from the beginning in 1977, both national and international visitors for excursions. Photo showing mapping of soil quality. <https://www.nibio.no/tema/jord/jordkartlegging/jordsmonnkart>

www.kilden.nibio.no



Photo. Siri Svengård, Stokke. NIBIO.

The IUSS started the Decade of the Soil Book Series (2015-2024) during the International Year of Soils (IYS) 2015, and invited Bal Ram Singh to edit a book. He along with Michael J. Mclaughlin from Australia and Eric C. Brevik from USA edited the book “The Nexus of Soils, Plants, Animals and Human Health” (www.schweizerbart.com/9783510654178), being third in this book series.

Since 2015, the members of the Norwegian Soil Science Society have played leadership roles in the IUSS. Bal Ram Singh was chair of the Division 3 Soil Use and Management and also member of the Executive Council of the IUSS from 2016 to 2022. Lillian Øygarden worked as chair of *Commission 3.2 - Soil and water conservation and was elected again as a chair of the same commission for 2022-2026 and hence continuing her role in the IUSS.*

As a part of division and commission chair’s role, Lillian Øygarden and Bal Ram Singh organized an international conference on Soil and Water Conservation under

changing climate in northern and high-altitude conditions at Ås, Norway in 2022 and it was supported by the Norwegian Society of Soil Science, IUSS, and European Society of Soil Conservation (ESSC).



Photo. Lillian Øygarden, NIBIO.

In 2022, Lillian Øygarden, participated in the IUSS Expert Panel program “Global perspectives on sustainable soil management towards food security” at the GFFA – Global Northern climatic conditions.

The Norwegian Soil Science society has focused on (seminars) soil quality and the conversion of agricultural areas to other purposes like highways, etc. and the need of better knowledge about soil quality for planning in municipalities.

With the initiative from the member of our society (Bal Ram), the Norwegian University of Life Sciences nominated the IUSS (2018) and later its past president Prof. Rattan Lal (since 2020) for the Nobel Peace Prize of the Nobel Institute, Norway.

The Norwegian Society of Soil Science has only one honorary member during the one hundred years history of the IUSS. Prof. Emeritus Bal Ram Singh was awarded the Honorary Membership during the World Congress held in Glasgow in 2022 for his contribution to the Soil Science field and service to the IUSS. Prof Bal Ram Singh is well known internationally and of course within the IUSS. Bal Ram is still actively involved in several programs and research projects and has received several awards and medals, such as research award from the university faculty and the International Soil Science Award of the Soil Science Society of America (SSSA). Very recently,

2021, he was awarded two awards i.e., Soil Science Distinguished Service Award and Soil Science Applied Research Award of SSSA.



Photo: Oscar Puschmann, NIBIO.

The Norwegian Soil Science Society congratulates the IUSS for its commendable efforts in spreading the Soil Science knowledge and for its centennial celebration in 2024. We very much look forward to continuing our active role in the IUSS activities in the future.

The Costa Rican Association of Soil Science (ACCS) 1979



The fortunate history of the Asociación Costarricense de la Ciencia del Suelo (ACCS) that will celebrate 45 years in the year of the Centennial, can be visualized in a more comprehensive way if it is divided into four stages of approximately one decade each.

From the beginning (1979-1990)

The ACCS, currently made up of 135 active members, took its first steps in 1979. By that time, there was already a wide activity in Soil Sciences in the country, which was reflected in participation in international congresses and meetings. It was at the congress of the SLCS held in Mexico in 1977, that a professor of agronomy at the UCR, offered Costa Rica as a possible venue for the next congress. That simple action, arising from the emotion of the moment, was the first fortunate act what gave birth to the ACCS.

Since the beginning of 1979 there are documents on the organization of the Latin America Congress, and the parallel emergence of the ACCS.

The first Ordinary Assembly of the ACCS was held on September 19, 1979, where a group of scientists working on soils in different institutions, elected the first ACCS Board. Those first intrepid were Dr. Alfredo Alvarado in the Presidency, Dr. Alvaro Cordero in the Vice Presidency, and Eng. Alexis Vásquez in the Secretariat.

The 7th Latin American Congress of Soil Science, and at the same time the 1st National Congress of Soils, was held in July 1980; it was a success and had the participation of relevant Latin American scientists from 17 countries. From then on, the ACCS, constituted by approximately 25 founding members, was strengthened, with logo, stationary, and an established Board.

Between 1980 and 1990, the activities developed by the ACCS, supported by the budget from the memberships, consisted of promoting conferences with visiting researchers, promoting refresher courses, and promoting the participation of soil scientists in national congresses.

At the legal level, although there are some copies of constitutive acts that seem formal, these documents never went beyond drafts that were not officially registered in the country's Register of Associations.

Strengthening (1990-2000)

In the early 90s, Dr. Cordero who was an ACCS President learnt about the existence of Canadian funds that were awarded through joint programs between the CSSS and national soil associations of other countries. He wrote a project oriented mainly to nitrogen research, which was his research line, but as the negotiations progressed it became clear that it was essential that the project had a component that strengthened the ACCS as an organization. The initial proposal was improved with some changes that implied the training of Costa Rican researchers in Canada, and in that context, somewhat confusingly, the project was approved and began to be implemented in 1991, under the coordination of Dr. Cordero for the ACCS and Dr. Paul Voroney of the University of Guelph for the CSSS.

The initial progress of the project was slow especially in relation to the training requirements in Canada, therefore, during 1992, three researchers from the CIA/UCR visited Canada. MSc. Freddy Sancho participated in an Administration course aimed at leaders of countries where Canada had projects, in Winnipeg, and perceived the urgency to execute the actions of the project in an immediate way, since the existing financing fund was at risk. For this reason, Dr. Jorge Briceño also traveled to Canada for an organic matter course in Alberta and a short visit in Guelph, and MSc. Floria Bertsch did a 3-month internship at the University of Guelph. In that time, she became widely acquainted with the operation of the project and the availability of resources that existed to strengthen the ACCS. The return of Eng. Bertsch, well informed of the lines of action of the project (that would begin to be known as CostaCan) and with many ideas in mind, also with a good shipment of books of the year (approximately 100), led to what could be called the second foundation of the ACCS.

It was necessary to convene an Ordinary Assembly to elect a new ACCS Board, resume the procedures for legal registration and begin to execute what was missing from the CostaCan Project. With Dr. Briceño as President and MSc. Bertsch as Treasurer, during 1993 and 1994 the activity was very strong. The main lines of work that governed the activity of the ACCS at that time (Library, Publications, Trainings and Complements) were established and Canadian funds were channelled to these areas. The regrouping of the members was carried out, the continuity of the process began to be sought and at least 4 more associates visited the University of Guelph. By this time, the strengthening that the funds from the CostaCan project meant for the ACCS could already be perceived. A series of activities could be carried out with them, such as publishing and selling books, organizing courses or congresses, and if some money could be recovered from these actions, it was not necessary to return the money to Canada because it was a donation.

At the end of CostaCan Project it was clear that the Canadian funds, coming from CIDA and channelled by the International Program of the AIC through the CSSS, could be accessed again if they were oriented towards this line of strengthening the

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Soils society. For this reason, and with the argument that although there had already been a first stage to initiate actions, time had not been enough to consolidate the sustainability of the group, the CostaCan 2 proposal was elaborated in great detail. Due to administrative restructuring on the Canadian side, the project was approved until 1998.

In between, from the beginning of 1995 to the end of 1997, the ACCS continued its actions with the savings that had been made during the last period of CostaCan 1, the income from the sale of books and the memberships of its growing number of associates. By the end of 1997, there were more than 80 members.

To maintain the link with Canada, the ACCS requested an extraordinary fund to carry out the III Biennial Meeting of the Latin American Network of Conservation Farming-RELACO, in Costa Rica, in December 1995, with the participation of the ACCS, MAG, FAO and the CIA/UCR and publish the official Memories of the event. The only explicit request by Dr. David Lobb, CSSS representative in AIC, fortunately for ACCS, was that an English abstract for each paper had been included. This circumstance brought another fortunate event, because Dr. Carlos Monreal, a Chilean soil scientist based in Canada who helped forcefully in the revision of the translations, and became, over time, the Canadian promoter and coordinator of the CostaCan 2 Project. In April 1998, the implementation of the project with national coordination started in the hands of MSc. Bertsch as re-elected President.

In full activity (2000-2012)

With the financial aspect consolidated, and with the support of the main ally of the ACCS that has always been the CIA/UCR, the 4 activities that dominated the operation of the ACCS until the end of the first decade of this century were carried out.

LIBRARY: A Soils specialized library was established in a large space on the first floor of CIA, open to students, associates, and general public for approximately 20 years. It purchased a number (10-30) of updated books per year, accept any donations and subscribed the main Soil Science worldwide and Latin American journals and bulletins. It became a huge project that included more than 1,500 books. This activity continued until digital options and online information queries began to gain ground. In 2016, the ACCS decided to donate the entire collection to the UCR Library, specialized in Agri-food sciences. Currently, a section documenting the soil activity carried out by Costa Rican professionals in Costa Rican soils is preserved separately and the ACCS continues with the responsibility of watching over that collection.

PUBLICATIONS: This activity strengthened the publication of textbooks that were used in soil courses offered by UCR professors that began to be used in other state universities and in other countries. In this program, 16 formal publications with more than 1000 copies printed were made under the seal of the ACCS. The costs of publi-

cation were covered with the funds of CostaCan 2, but the books were sold and that money was gradually recovered, allowing to create a support fund for the ACCS. Proceedings of Congresses and soil courses manuals and at least 25 brochures were also published.

At this time, the idea was born to get a local manufacturer of good quality augers to be used in soil sampling, and since then, the ACCS has been a supplier of this important instrument in soils activities in the country.

TRAINING: Since 1999, the National Soil Congresses began to be a priority and regular events. There have been 10 editions, which included in 2009 (30 years after the first) the XVIII Latin American Congress of Soil Science together with the VI National. During that period, the ACCS President, Dr. Carlos Henríquez, was the SLCS President, too. In 2016 and 2019, two highly successful Seminars were held, the first on Heavy Metals and the second on Urban Soils. The following years were complicated by the Covid-19 pandemic, but already in 2023, the X National Congress was held, with the inclusion of the dual (on-line and face-to-face) modality. Many courses and talks have also been sponsored over time, including always requested topics such as “The interpretation of soil and foliar analysis”, to some others as specific as “The effect of Silicon on diseases and nutrition of tropical crops”.

Considered a topic more of dissemination than of training, in this period it was possible to concretize with Canada another stage of the Project, called CostaCan 3. At this stage, a component was directed towards the compilation of information to develop soil maps, with the initial tools of GPS and Arcview that were beginning to be used, which was led by the ACCS President of the moment, MSc. Freddy Sancho, but the other strong part of this stage had to do with the dissemination of soil issues directly into farmers groups, preferably if they were organized and giving special attention to the participation of women farmers. This project was carried out from 2001 to 2006 with big successful too, contributing with more funds.

COMPLEMENTS: This topic was of the greatest relevance for the Canadian counterpart of the CostaCan project because it would strengthen the foundations of the Society. During the years of the project, 14 Costa Ricans visited Canada in order to interact with researchers from different universities and provinces. Also, Canadians came year after year. However, the money from this item was enough for much more, so complements were given to members (from \$ 200 to \$ 500) for international congresses, especially the Latin American one, for national congresses, attendance at courses, workshops, and other internships, for a grand total of more than 150 complements.

A new time, that of Alliances (2012-present)

In 2012, the GSP/FAO, emerged to give a decisive turning point to the future of soils. With its integrative, broad and organized vision, the GSP came to change in a span of 10 years the awareness of soils in the world (see website <https://www.fao.org/glob->

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al-soil-partnership/es). Thanks to the fortunate international contacts that the ACCS maintained through attendance at the Latin American congresses, it was conscious of the news and participated in the first call that the GSP made in search of all those allies who shared the principles contained in the World Soils Charter. The ACCS has accompanied the activities proposed by the GSP in different ways.

One of our ACCS members, Dr. Carlos Henríquez, participated from 2013-2015 in the ITPS, as one of the 5 Latin America Region representants, which is the group that generates the information disseminated by the GSP. However, the goal of the GSP always went beyond producing good materials. Its main purpose was to put the soil in the mouths of everyone, from children to politicians, through the whole society, and in that work the ACCS was present from the beginning making known to all Costa Ricans the relevance of the functions of soil in human life and, therefore, the importance of protecting this resource.

In another fortunate event, Eng.Agr. Tania López, the Vice Minister of MAG from 2010 to 2014 and now an honorary member of the ACCS, represented Costa Rica at the first meeting that the GSP held in the Mexico, Central America, and the Caribbean region, in Cuba in mid-2013. Upon her return, absolutely convinced of the GSP's approach to the importance of soil for life on the planet, she organized the first World Soil Day, on December 5, 2013, at the Children's Museum, to formally launch the GSP in Costa Rica, involving several of the government institutions that should be considered natural allies and the Ordinary Assembly of the ACCS. She opened the door for the ACCS to begin that fruitful dialogue with government institutions that, for the good of the country, is getting closer and closer.

On that occasion, the progress of the work on the Soil Map of the country, in a joint effort between the CIA/UCR and the INTA/MAG supported monetarily by the ACCS, was also exposed. Those same data were used in the GSP to design the map of the world soils, as part of the Latin American region.

In 2015, the country fully joined the celebration of the International Year of Soils, designated by the GSP. The ACCS organized a great number of activities that involved different social sectors of the country. The VII National Soil Congress was held, where the "Declaration of San José" (that could be considered the Costa Rican "Soils Charter") was signed among the authorities of the MAG (Dr. Luis F. Arauz), MINAE (Fernando Mora), CADETI-UNCCD representation in Costa Rica (MSc. Renato Jiménez), IUSS (Dr. Rainer Horn), SLCS (Dra. Laura Bertha Reyes Sánchez) and many others.

Meetings and a photography contest were held, posters and banners were created, a Field Day, a national lottery ticket was dedicated to the year, and even a postmark of Costa Rica Mail Service alluding to the year. The year closed by establishing the celebration of World Soil Day, every December 5, and starting the activity that has become a hallmark of the ACCS: "Manos al Suelo" (Hands on Soils). In this activi-

ty, year after year, the ACCS puts its “hands on the soils” with children, youths, and adults to do conservation practices and “play” with soils. The center of the message is always that you have to start loving the soil, because “it is what you love that you take care for”. Thus, 8 editions of *Manos al Suelo* have been carried out, each one in a different farm or park and in the years of pandemic it was carried out virtually.

The 2018 activity, held in an emblematic park of the capital San José, called La Sabana, also included the establishment of the National Soil Partnership with the participation of at least 44 governmental, autonomous, academic, NGOs, companies, which publicly endorsed the principles of the GSP and therefore their willingness to work synergistically. This edition of *Manos al Suelo* 2018 was proposed by the ACCS to compete for the World Soil Day Award 2019, and it won the prize. The greatest prize, however, has been that the words of the Minister of Environment and Energy of that time, Mr. Carlos M. Rodríguez, who said that that day “marked a before and after in the national agenda in relation to the soil resource” became true. The ACCS made an agreement that the prize won will be invested in the creation of a future Museum of Costa Rican Soils.

Fruits of the National Soil Partnership have been the development of the RECSOIL Project (Soil Recarbonization) in the country, whose national scheme was developed by the ACCS, that brought together the corresponding entities during the years of the pandemic, and which is currently being implemented in its pilot stages, linked to the FAO-CR representation, government institutions and private enterprises.

Also, during the years 2020-21 another great allied work was carried out between the ACCS and Fundecooperación para el Desarrollo Sostenible (which is the National Implementing Entity in Costa Rica of the Adaptation Fund of the UNCCC). The work consisted of a project towards an achievement by ACCS of an “Effective Communication of the importance of Soil Resources for Adaptation to Climate Change”. The successful execution of the project during the Presidential period of MSc. Esteban Loría, produced a considerable leap in the communication strategies of the ACCS that currently allow it to communicate effectively through social networks and virtually. This has given way to the active incorporation of the new generations in the ACCS Board. The new young President 2022-2024 is Eng.Agr. Hugo Montero.

Closing an important and fortunate cycle, the ACCS proposed the book by Dr. Alfredo Alvarado, called *Suelos de Centroamérica* (Central America Soils), to the contest held by the Latin American Society of Soil Science at its XXII Congress, in Florianópolis, Brazil in August 2023, and this valuable document, which will give scientific support to the following generations, obtained the First Place, allowing the ACCS to express its gratitude and pay tribute to its Founding Member.

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ACRONYMS

ACCS = Costa Rican Society of Soil Science

AIC = Agriculture Institute of Canada

CADETI = Land Degradation Advisory Commission

CIA/UCR = Agronomic Research Center of UCR

CIDA = Canadian International Development Agency

CostaCan Project = Costa Rica-Canada Project

CSSS = Canadian Society of Soil Science

FAO = Food and Agriculture Organization

GSP = Global Soil Partnership

ITPS = International Technical Panel on Soils

INTA/MAG = National Institute of Innovation and Transfer in Agricultural Technology

IUSS = International Union of Soil Sciences

MAG = Ministry of Agriculture and Livehood

MINAE = Ministry of Environment and Energy

RECSOIL = Global Soil Recarbonization Project

SLCS = Latin American Soil Science Society

UCR = University of Costa Rica

UNCCC = UN Convention of Climate Change

UNCCD = UN Convention to Combat Desertification Recovered and compiled by Floria Bertsch, ACCS

The Chinese Society of Soil and Fertilizer Sciences (Taiwan) (CSSFS) 1983

Chinese Society of Soil and Fertilizer Sciences (CSSFS)



1. Year of foundation, development of membership until today

The Chinese Society of Soil and Fertilizer Sciences (CSSFS) was founded in 1983. The objectives of CSSFS are to construct fundamentals and technology transfer of soil and fertilizer sciences in Taiwan and to exchange with global science communities such as East and Southeast Asia Federation of Soil Science Societies (ESAFS) started in 1991 and International Union of Soil Science (IUSS) started in 1998. Our society currently has approximately 200 members including active and student members, which are mainly from university, research institute, technical administrators of national and local government levels, and consultant companies. The regular and active members are about 100 in the last 20 years. Additionally, there are nearly ten group members in the society. From 1998, the CSSFS became a society member of IUSS, which has been approved in the business meeting during the World Congress of Soil Science 1998 in Montpellier, France.

2. Members of the Executive Committee and time period

The Executive Committee of CSSFS is organized by 21 board members elected from active members every two years. Furthermore, the president of CSSFS is elected among the board members. The term of the president should be two years and he (she) should be eligible for re-election once. Until 2023, 20 terms of society president have been produced since 1983. Currently, the president of CSSFS for the term in 2022-2023 is Professor Shan-Li Wang (wangsl@ntu.edu.tw) from National Taiwan University and secretary in general is Professor Cheng-Hsien Lin (ch.lin@nchu.edu.tw) from National Chung-Hsing University.

3. Outstanding activities of the society

Annual meeting

The CSSFS conducts annual meetings which are held in different cities of Taiwan. The general seasons of annual meeting are November and December. The theme of annual meeting is decided in the business meeting of executive committee. For instance, hot issues such as soil carbon and climate, sustainable soil management and smart agriculture, soil education and UN- SDGs, organic farming, and soil contami-

nation and remediation have been the themes of the annual meetings in the past five years corresponding to the global needs in Soil Science. In the one-day annual meeting, the program is scheduled by 6-7 invited speakers who are outstanding, senior, or experienced in soil and fertilizer fields. Scientific poster exhibitions and presentations are parallelly accompanied by all the program in the annual meeting.

Workshop for training farmers

Service to farmers is one of important missions in the CSSFS regularly funded by the government, two to three workshops per year are conducted for local farmers, held irregularly in different cities for representative cropping and specific requirements. However, paddy rice is the staple food in Taiwan and paddy field is close to 25% (350,000 ha) in the area of the country (Chen *et al.*, 2015). Thus, major targets in the farmer workshops are mainly paddy soil classification, water and fertilizer management strategies of paddy soil, and contamination prevention and remediation of paddy soils. Additionally, high economic vegetables and fruits are occasionally mentioned as training targets in the workshop. Sustainable soil management is always the core issue for these target crops such as soil quality evaluation, agricultural waste reuse as soil amendments, and bio-fertilizers.

Workshop of soil survey education

Our society organized the Workshop of Soil Survey Education in Taiwan (WOSSET) to educate university students for soil survey skills from 2015. The WOSSET is designed to give an opportunity to impress these students with the importance of understanding Soil Science. We need ideas of how to educate students about Soil Science in a changing world which demands specific Soil Science professionals, such as potential contestant in the International Student Soil Judging Contest of WCSS for the future (Figure 1). The Taiwan soil judging team got the Golden Personal Prize (Dr. Chien-Hui Syu) and Award of Excellence of Team of Taiwan (coach by Prof. Zueing-Sang Chen) held in 20th WCSS International Soil Judging Competition (ISJC) in Jeju, Korea in June 2014 (Figure 2).

The goals of the WOSSET are designed as: (1) to provide university teachers and students from Soil Science related departments of Taiwan with opportunities for interactions, to learn from each other and to better prepare students for a Soil Science professional career; (2) to pass the knowledge of Soil Science to a new generation of young people and to attract more people to Soil Science research and industrial application such as agricultural production, landscape conservation, and contaminated site; (3) to realize the real sense of Soil Science to apply in the field practice through observation and identify the morphological characteristics of soil profile; and (4) to stimulate participating teachers to develop new research ideas on soil security, soil function, and soil management and new teaching materials (Chen *et al.*, 2022).

The WOSSET has been held in different cities in 2015, 2016, 2017, and 2019, re-

spectively. The themes covered podzolic soils in the subalpine forests, alluvial soils, aged river terrace soils, and montane soils. The interactions among these students during the WOSSET provide a strong peer learning and potential cooperation network leading them to become the best “seed-spreaders” between scientists and public by translation and popularization of Soil Science expertise.



Figure 1 – Students visiting a soil profile explained by a senior member of the Chinese Society of Soil and Fertilizer Sciences during the workshop of soil survey education in Taiwan.



Figure 2 – Taiwan soil judging team got the Golden Personal Prize (Dr. Chien-Hui Syu) and Award of Excellence for the Team of Taiwan (coached by Prof. Zueng-Sang Chen).

The CSSFS hosted International Conferences of ESAFS

ESAFS is the federation of Soil Science societies in East and Southeast Asian regions and aims at promoting the effective participation of member societies and of individual soil scientist of the region in the work of IUSS. The CSSFS is one of the founder member societies in ESAFS and has hosted International Conferences of ESAFS twice, in Taipei, 2003 and 2019. The theme of ESAFS 2003 was “Soil management technology on low-productivity and degraded soils” chaired by Professor Zueng-Sang Chen (soilchen@ntu.edu.tw) from National Taiwan University (Figure 3). The theme of ESAFS 2019 was “Smart soil management for sustainable agriculture” chaired by Professor Zeng-Yei Hseu (zyhseu@ntu.edu.tw) from National Taiwan University (Figure 4). The ESAFS is dedicated to the exchange of recent advances in Soil Science in the East and Southeast Asian regions, providing the better understanding of the attributes of soil quality and the way of improving soil and associated environmental quality for sustainable food security and healthy life of East and Southeast Asia as well as the world population. Hence, the CSSFS offered an integrated platform for interaction among scientists, consultants, and policy makers, who were responsible for the research and technology transfer of Soil Science, fertilizer management, and plant nutrition in order to cope with the rapid industrial development globally. Regarding the numbers of participants and papers, ESAFS 2019 has broken the history record in the past thirteen ESAFS conferences.



Figure 3 – A group photo in the field trip of ESAFS 2003 including Hari Eswaran (Former senior specialist of USDA-NRCS), Kazutake Kyuma (ESAFS founder), Zueng-Sang Chen (President of ESAFS 2003), Horng-Yuh Guo (former senior soil specialist of Taiwan Agricultural WCSS International Soil Judging Competition (ISJC) in Jeju, Korea on June 2014).



Figure 4 – Chairman address in the opening ceremony for ESAFS 2019 by Zeng-Yei Hseu.

Three presidents of IUSS visited CSSFS

The IUSS is a member of the International Council for Science (ICSU), the 32nd ICSU General Assembly was held in Taipei, Taiwan (21-27 Oct. 2017). Three presidents of IUSS, Rainer Horn (2014-2016), Ratan Lal (2017-2018), and Takashi Kosaki (2019-2020), came to Taipei for the ICSU meeting and visited CSSFS during the period. The president of CSSFS, Professor Zeng-Yei Hseu (2016-2019) coordinated a seminar in National Taiwan University on 22 Oct. 2017 for the IUSS president presentations (Figure 5). Their presentation titles were “Advances in soil research tasks and requirements for a better understanding of a sustainable environment” by Horn, “Managing Soils During the Anthropocene” by Lal, and “Soil education: A challenge in International Decade of Soils (IDS) for advancing Sustainable Development Goals (SDGs)” by Kosaki, respectively. Approximate 20 members of CSSFS including presidents, board members, and young generations, joined this seminar and closely exchanged with the presidents of IUSS. Historically, this is the only one record of three presidents of IUSS appeared together in Taiwan.

4. Further topics

Because of the complex environments and highly diverse vegetation types and land use types in Taiwan, very wide soil types were developed on the land surfaces through all Taiwan. Taiwan is highly industrialized and the CSSFS faces many challenges such as limited soil resources, crop production, climate change, and other environmental stress. Therefore, food security, soil and water conservation, soil quality, and net zero of carbon emission should be our hot topics in next decades.

Due to the high-technology industries by using trace or rare elements as their raw

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materials, the burgeoning utilization of these emerging elements potentially accompanying the rising impacts on environmental quality and food safety through soil-plant systems have gradually received attention. Hence, this topic is one of our research needs for the future.



Figure 5 – A group photo in the seminar by IUSS president presentations including the CSSFS president Zeng-Yei Hseu, Takashi Kosaki, Rattan Lal, Rainer Horn from left to right in the front line, and the CSSFS members.

To support the goal of net zero of carbon emission (NZCE) 2050 globally, the Climate Change Response Act in Taiwan was approved on 15 Feb. 2023. Taiwan Government proposes twelve strategies of NZCE including soil carbon sequestration, thus the CSSFS plays a crucial role to pay much attention to research, technology transfer, education, and awareness of Soil Science for the worldwide goal.

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The Cuban Society of Soil Science (CSSS) 1985



History

The Cuban Soil Science Society, CSSS (Sociedad Cubana de la Ciencia del Suelo, SCCS, in Spanish) was founded in 1985, so in 2025 it will be 40 years old. It is an NGO recognized by the Ministry of Justice of the Republic of Cuba and a member of the Cuban Association of the United Nations (ACNUR in Spanish), which is the Cuban organization related to NGOs. It is also attended by the Cuban Academy of Sciences.

According to its Statutes, the SCCS main objective is: to promote in all its aspects the development of Soil Science and its applications in Cuba, particularly in agricultural practice.

The SCCS brings together the community of professionals and technicians dedicated to all those tasks related to the soil as natural resource. These tasks not only cover the field of science, but also extend to other no less important actions such as: technical assistance, services, teaching, etc.

Since its foundation, the SCCS has held 9 National Congresses and 2 Latin Americans (CLACS XI, 1990 and CLACS XV, 2001), as well as participated in the organization of the Pre and Post Congress tours of the WCSS Mexico 1994. Regarding the participation of Cubans in these events, although it has been very good in the National Congresses (between 150 and 250 participants from all over the country per event), it has been poor in the Latin American Congresses (CLACS) and very poor or non-existent in the World Congresses (WCSS), due to the economic difficulties. However, two Cuban works have been winners of the SLCS Andrés Aguilar Santelices Award: at CLACS XVII (2007), the work of Dr. Alberto Hernández Jiménez from the National Institute of Agricultural Sciences (INCA) and at CLACS XVIII (2009), the work of the Dr. Lisbet Font Vila, from the Institute of Soils.

Generally, the National Congresses coincide with the Affiliate Assemblies, where the corresponding National Executives are elected by secret ballot of the participating members, as established in the Society's Statutes, made up of a President, two Vice Presidents and 8 members and characterized by their representativeness in terms of scientific institutions, universities and others. In the 1st National Congress in 1985, Eng. Abilio Cárdenas García, at that time Director of the Institute of Soils, was elected President. In 1990, at its Second National Congress, Dr. Rafael Villegas Delgado, from the National Sugar Cane Institute (INICA), became President of the Society. Dr. Villegas also chaired the Organizing Committees of the XI CLACS, held in Havana in 1990, and the XV CLACS held in Varadero, 120 km from Havana, in 2001. Both were very successful and had wide participation from Cubans and foreigners. That same

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year, 2001, in the National Congress, Dr. Ramón Rivera of the INCA, was elected as President of the SCCS. Subsequently, at the VI Congress held in 2005, Dr. Olegario Muñiz Ugarte of the Soil Institute was elected and reelected until 2015, when during the VIII Congress, Dr Luis Gómez Jorrín, Director of the Soil Institute, was elected. Dr Gómez Jorrín is currently President.

The Bolivian Society of Soil Science 1990



Towards the end of the 1990s, a group of colleagues and friends moved by a passion for the soil resource agreed on the need to create the Bolivian Society of Soil Science. This group was formed by Dr. Vladimir Orság, Dr. Ivo López, Dr. Diego Sanchez de Lozada, M.Sc. Marco Flores, Engineer Oscar Siles (†), Engineer Gabriel Bustillos, among others. Some of the most important reasons for meeting this need were the following:

- Neglect and deterioration of the soil resource without intervention policies by the Bolivian State for a better management (lack of technical assistance, lack of credit, ignorance of the importance of the resource, etc.). This neglect was revealed by the disappearance of the Soil Directorate that operated in the Ministry of Agriculture until the early 1980s and the withdrawal of rural extension programs.
- The lack of a space for discussion and analysis on the soil resource that brings together specialists, scholars, entities, and people who work on the subject.
- Promote a space at the National level that generates debate, opinion and technical incidence in the competent organizations that work with the soil resource.

Thus, throughout 1998, countless coordinations and debate meetings were held where it was decided to promote the organization of the FIRST BOLIVIAN CONGRESS OF SOIL SCIENCE and the creation of the Bolivian Soil Science Society. For this purpose, different commissions were formed in charge of seeking financing, preparing a proposal for statutes, disseminating the Congress, and reviewing scientific papers. The support of the students of the agronomy career of the Universidad Mayor de San Andrés-UMSA of La Paz was decided.

Thanks to the financial support of international organizations such as the IRD of France, DFID Germany, SDC Switzerland, we organized the FIRST BOLIVIAN CONGRESS OF SOIL SCIENCE that took place in the city of La Paz, Bolivia, between July 28 and 31, 1999 under the title of “SOIL RESOURCE IN THE THIRD MILLENNIUM, ITS KNOWLEDGE AND SUSTAINABLE MANAGEMENT IN BOLIVIA”. In the Plenary of Congress, statutes were approved, and the Bolivian Soil Science Society was created. An Act of Creation was drawn up and the first Board of Directors was formed with a two-year mandate, after which the next congress should be held and the board of directors renewed.

The Bolivian Soil Science Society was born with almost 50 members who registered in the respective books and contributed financially for a while with symbolic fees.

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The main challenges at present are i) Reorganize and consolidate as the Bolivian Society of Soil Science; ii) Generate debate and opinion in civil society about the soil resource; iii) Organize the next National Congress and aim in the future at organizing a Latin American Congress. In almost 24 years of existence, nine National Congresses were held in different departments of the country.

The active members of the SBCS work in different areas of expertise and research: soil degradation/LDN, soil conservation, planning, salinity, soil chemistry, among others. The current SBCS Board of Directors is made up by:

Marco Flores Maldonado – President
marcoamaru@hotmail.com

Mary Selva Viera – Vice President
msvierav@gmail.com

Roberto Miranda – Secretary
robertomicasa@gmail.com

Miguel Lopez – Treasurer
nik_mi@hotmail.com

The Vietnam Society of Soil Science (VSSS) 1991



Vietnam Society of Soil Science (VSSS) was established under the Decision of the Vietnam Council of Ministers No. 181-CT dated June 8, 1991 (now the Government of the Socialist Republic of Vietnam). Over 30 years of establishment and development, the Society has constantly strived and operated under its Charter to gather and unite people doing scientific and technical work in the field of soil sciences, soil plant relationship, participating in social consultancy and criticism for the State authorities in the field of expertise, disseminate knowledge, transfer agricultural technical advances, organize domestic and international seminars. Participate in training in specialized fields, land classification investigation, land assessment, land use planning... Publish information, magazines and other publications related to the activities of the Society. Up to now, VSSS has grown strongly with the number of 24 branches and more than 500 members across the country, with mainly undergraduate and postgraduate qualifications, including scientists, retired and working staff. In addition, the VSSS has established 5 non-profits units for operating according to the functions of the Society.



Figure 1 – Committee members of the Vietnam Society of Soil Science at the Foundation Congress (1991).

The Society and its branches, members have actively contributed to the work of consulting, criticizing and assessing society for a number of important programs, projects, topics and works of the State and government, typically: Suggesting amendments to the Land Law; Cooperative Law; formulate and giving advises in different

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land management programs such as anti-desertification and desertification programs; projects to develop national parks; hydroelectric power projects, resettlement projects; programs on agricultural, rural development and new rural construction; decrees and circulars on land assessment survey, land use price, resettlement support, sustainable land use management. Successfully organized many national and international seminars in the field of soil science and related fields.



Figure 2 – Committee members of the Vietnam Society of Soil Science at the 7th Congress (2022).

VSSS is a member of international organizations: International Union of Soil Science (IUSS); East and Southeast Asian Soil Science Association (ESAFS); World Association for Soil and Water Conservation (WASWC); International Soil Conservation Organization (ISCO). The Society and its affiliated units maintain cooperative relations with several relevant scientific organizations in the region and around the world. The association maintains regular cooperative relations with many research institutes, universities, localities and a number of friends in the field of soil science and related fields.

Since 1991, VSSS publishes periodically 4 number per year, Vietnam Soil Science Journal with full paper in Vietnamese and abstract in English, <https://tapchikhoahoc-dat.vn/>.

VSSS is now in the collaboration with Thai Nguyen University will host the ESAFS 16.

ESAFS is the federation of soil science societies in East and Southeast Asian region. The ESAFS 16 will be held at the Convention Centre, Thai Nguyen University, Thai Nguyen, Vietnam, 23-29 March 2024. Details of the program is found at <https://esafs2024.tnu.edu.vn/>

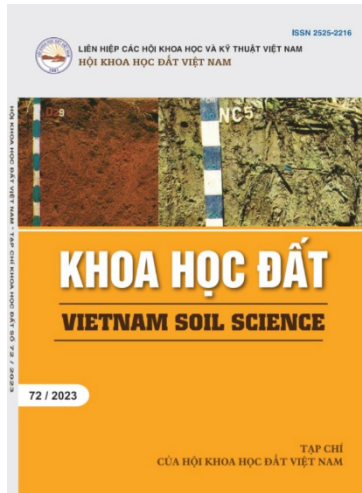


Figure 3 – Cover of the Vietnam Soil Science Journal (N.72/2023).

Every five years, VSSS organizes its Congress to elect the members of the committee of the society and nominates its President as well as to revise the activity of the term and formulate the mission of the period coming. Actually, the President of Vietnam Society of Soil Science is Prof. VU NANG DZUNG with the detail contact as below:

Vietnam Society of Soil Science (VSSS)
61 Hang Chuoi, Hanoi, Vietnam
Tel: 84.24.38210374, mobile: 0904159915
Email: hoikhoahocdatvn@yahoo.com

The Nepalese Society of Soil Science (NSSS) 1991



1. Introduction

The Nepalese Society of Soil Science (NSSS) or “NS cubed” was founded in 1991 by a number of soil science professionals especially those working for National Agriculture Research Council (NARC) in Kathmandu. They were only a small number of soil scientists who prepared a by-law for the society and received approval from Chief District Office of the government. The society worked very well (as we hear now) for some years until many of them left for higher study or transfer to other parts of Nepal. It was formed with the aims to institutionalize research and publication efforts and to advance the knowledge of soil science in the country. After a decade of active deliberation, the society remained passive until recently when a national gathering of soil scientists revived it in 2015. New members came in from the university system, private sectors and government line agencies with soils background. Within a short span of time after 2015, more than 50 individuals joined the society, and the number kept increasing from both Nepal and abroad. To keep abreast with the new developments and address frontiers in soil science research more effectively, the initial bylaw has been amended by an assembly of the society’s general body. In the face of growing unsustainable human practices of natural resources, and deteriorating land productivity, we understand that this society in Nepal should be in the leading edge of efforts to place value on soil for its role on sustainable food production and environmental stewardship. From the above, it is clear that NSSS bears relatively younger history in comparison with the counterparts in the region. And, after its introduction in 1991, the society faced ups-and-down until it was restored in 2015. But even after that, COVID disturbed unexpectedly nearly for three years.

2. Objectives

The NSSS aims to put consolidated efforts to:

- Continued professional growth of scientists engaged in soil science.
- Promote its knowledge and expand to include broader ecosystem functions and services to make it a subject of societal relevance.
- Support farming communities and government line ministries for sustainable use of soil resources, food safety and energy security.
- Develop research cooperation and exchange programs with national, regional and international academic, research and development institutions.
- Conduct research and disseminate knowledge and its applications through work-

shops, seminars and original publications.

- Promote soils quality education through a number of initiatives aimed at schools, colleges and universities.
- Make soil science as attractive and respectful profession.

3. Organizational structure

The NSSS is composed of a nine-member executive committee, viz., President -1, Vice-president – 1, Member secretary – 1, Secretary – 1, Treasurer – 1, and General members – 4. Serving for 4-year term, all individuals in the committee are elected/nominated by democratic process and work on honorary capacity. General body and executive committee meetings are held two and four times a year, respectively. In order to achieve the cherished aims mentioned above, provisions are made for two patrons and three advisors expecting incessant inspiration, guardianship and feedbacks. Foreign nationals are also eligible for the membership wishing to contribute to the NSSS motto. The bylaw stipulates the provision for four kinds of membership:

1. General membership.
2. Life membership.
3. Associate membership.
4. Honorary membership.

Number of general members is over 125 and soil science students from universities and colleges also form a significant number of associate members. Life members is over 30.

4. Executive committee

Chief patron: Former Dean of IAAS/TU and Professor Dr. Tej Bahadur K.C.

Patron: Former Executive Director of NARC/Govt. of Nepal Dhruva Joshy

Advisors: Dr. Krishna B. Karki, Dr. Yagya G. Khadka & Dr. Rama N. Yadav, and Dr. Roshan Man Bajracharya

President: Keshav Raj Adhikari, PhD

Vice-president: Durga Prasad Dawadi

Member secretary: Shree Prasad Vista, PhD

Secretary: Balaram Rijal

Treasurer: Ms Sabina Devkota, PhD

Members: Umesh Mandal, Baburam Khanal, Jharana Panthi, & Prakash Paudel

5. Statutory committees

The general body empowers the executive committee to constitute different statutory standing committees as per need to meet the society's objectives such as policy and bylaw committee, research and extension committee, editorial and science committee, technical committee, and budget and finance committee.

6. Provision of a resource center

A pool of chief of all statutory committees along with president and member secretary will form a seven-member governing body (Board of Directors) of the resource center. Responsibility of the BoD is to advance inter-disciplinary research projects in a coordinated way as per decision of NSSS annual convention. To support sustainability of NSSS, this center will generate resources from research projects and also strengthen the professional growth of associated members. This capacity could then be used in analyzing and better understanding soils role, among others, in addressing the global challenges of food insecurity and climate change. NSSS assures utmost environment to encourage its members for out-sourcing research projects (individual or joint) and implement those in the center. A separate compendium provides guidelines on operational procedures of the resource center to facilitate the implementation of research projects.

7. Website and networking

The NSSS growth depends on its capacity to utilize expertise and resources from its members scattered worldwide. Website is therefore developed to effectively communicate and exchange experiences useful for mutual benefits. This feature is key to the NSSS development which is difficult without networking. The society is currently at an early stage of development. Therefore, users of our official website will have to wait for some time to gain access to full feature of society's activities.

8. Financing the society

We are committed to the study of soil in its widest aspects. So, the society is nurtured by professionals of diverse fields of soil and related environmental sciences. This will contribute positively to society's income from membership, subscriptions and publications, short-term training and expert consultation. Some resources may be collected from bona-fide members conducting research projects utilizing NSSS resource center. We also welcome donors to help strengthen the institutional and research capacity of the society.

9. Boundary rules for a membership

Individuals with Master degree (major in soil science), agricultural officers working for government in the capacity of soil scientists, school and university teachers of soil science; other engaged in soil science including students, farmers, entrepreneurs or industrialists. Pay only NRs 100 (US\$1) and be a NSSS member as per the bylaw.

10. Events in different years

Revival of NSSS by-law

Membership drive

Website development

Celebrating International Year of Soil

Jointly organize national conventions in different years

Joining and participation in the regional network of soil science (ESAFS)

Intensive GIS and Remote Sensing training for NSSS members

Conducted conferences in collaboration with Indian Universities in Kathmandu.

Soil testing and making fertilizer recommendation using mobile van in rural areas

Quiz contest for school boys and girls about soil resource.

Soil Profile description competition for university students

Some members of the society also contributed significantly for coming up with digital soil map of Nepal.

11. Attending conferences and presentation

Since NSSS became member of East and South Asia Federation of Soil Scientists (ESAFS) 2014, we have regularly presented the country papers. ESAFS was held in Nanjing of China in 2015, Thailand in 2017, Taipei in 2019, and Malaysia in 2022. These gatherings in every two-year in the region have promoted mutual cooperation in many aspects including technology transfer, soils education, soil conservation, irrigation, organic farming for soil quality and many more.

Mailing address

Nepalese Society of Soil Science (NSSS)

C/o National Soil Science Research Center, NARC, Khumaltar, Lalitpur, Nepal

Phone: 977 56591331, mobile: 977 9855081616

E-Mail: nsssnepal1991@gmail.com

Website: <http://www.nsss.org.np>

Summary

The society has been very instrumental for uniting all Nepalese soil scientists both in the country and abroad as seen by the figures above. Although students' enrolment in the university is decreasing significantly over the years, those studying have shown great passion with the society. Hopefully, we will be able to do the soil test and plant clinic at larger scale in the future and take technologies to the farmers, educate them, and learn from their experiences.

Photo Gallery



A representative Mollisol in far-western district (Kanchanpur) of Nepal. NSSS president (Prof. Keshav Raj Adhikari, PhD) is describing the soil for Nepal Land Utilization and Mapping project of the government.

WORLD SOIL DAY



**Tribhuvan
University**

Jointly organized by
Faculty of Soil Sci. & Agri. Engg.
Rampur, Chitwan, Nepal



**Agri. & Forestry
University**

December 5, 2014

Glimpses of the World Soil Day Celebration.



The first WSD celebration in Rampur, Chitwan, Nepal, 2014.



Nepalese society of Soil Science organizes conferences in different years. In the photo above, scientists representing NSSS, Soil Science Division of the Government and Soil Management Directorate are holding banner.



Explaining the farmers how plants respond to variation in soil acidity. Photo above taken from World Soil Day celebration of 2021 in Kathmandu.

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NSSS organizes WSD in different parts of the country. In the photo above, NSSS president in green-colored shirt celebrating WSD in 2023 with the help of university students of Nepal Polytechnic Institute, Bharatpur, Chitwan, Nepal.



Play-cards used in WSD- 2023 at Nepal Polytechnic Institute, Bharatpur, Chitwan Nepali (Dev nagari script) and Sanskrit languages are used in the play cards.

Geographic Information Systems and Remote Sensing Training Course

Organized by

Nepalese Society of Soil Science

in cooperation with IAAS, NARC and DOA

Khumaltar, Kathmandu

April 15-20, 2015



The banner above shows the GIS and RS training conducted jointly in 2015. It was mainly for university students, government research institution (NARC) and for extension specialists.

The Czech Society of Soil Science (ČPS) 1994



In the Czech Republic, as in other European countries, the science studying soil has been significantly developing since about the 18th century. The first written evidence of any professional level of agriculture and Soil Science was a kind of summary of regulations, advice and instructions given by estate owners and their administrators to their subordinate farm workers. Land-use information in the 18th century was to some extent based on land registers, in which a tax was determined according to production relating to the quality of the land. Universities in Europe were beginning to establish academic chairs relating to farming. This was also the case at the University in Prague, where such a post was established by the decree of Queen Maria Theresa.

In the 19th century, theoretical knowledge in the field of Soil Science developed considerably, not only thanks to scientists, but also thanks to the valuable advice of practitioners and farm owners. There is documentary evidence of a number of names of experts and findings from as early as the 18th and 19th centuries which influenced the development of Soil Science and agriculture as a whole.

At the end of the 19th century, the need for soil surveys was also linked to land reclamation projects. In this period, and then in the early 20th century, a number of experts specialising in soil research, but also secondary school teachers and practitioners, contributed to the development of Soil Science.

In the inter-war period, after the establishment of the Czechoslovak Republic in 1918, Soil Science began to develop in two main directions, in terms of agricultural research and water management research. At that time, the tasks set out related to research into the physical, chemical, and biological properties of soils, and special emphasis was also placed on soil cartography. Issues relating to soil formation and changes in soil properties were also investigated.

Forest Soil Science was an important area at that time as well. A great deal of emphasis was also placed on international cooperation, with an effort to maintain the reputation of the discipline. This involved, besides the investigation of soils, a high standard of Soil Science lectures at universities. This is evident in the fact that the International Soil Science Society based its proposals on the teaching system in Czechoslovakia.

After World War II, there was an urgent need throughout Europe to increase food production. For this reason, research of soils and its practical application focused on the possibilities of increasing soil fertility. In this period, Czech Soil Science covered almost the entire range of this science.

Post-war political changes and the collectivisation of agriculture took place. This created a need to know the quality of the soil on consolidated land for planning agricultural production. In this context, it was decided to carry out an extensive project, in the territory of the present-day Czech Republic and Slovakia, referred to as a “Comprehensive Soil Survey”.

This soil survey was carried out over the entire area of agricultural land, i.e., 7.5 million hectares, and was accompanied by agrochemical soil testing. The survey became the starting point for the subsequent mapping and rating of the agricultural soil stock. After the survey was completed, Czech and Slovak experts worked on a common classification of agricultural and forest soils, and in the 1980s a new Morphogenetic Soil Classification System was published. The soil survey was followed by a great expansion in Soil Science at universities and research institutes and covered both agricultural and forest soils, addressing both scientific questions published in scientific journals and practical problems relating to, for example, soil quality and soil conservation.

In recent decades, even after the division of Czechoslovakia, Soil Science has been further developed, with the field increasingly using the knowledge of other disciplines and studying soil not only from the perspective of production but also from the perspective of the non-productive functions it provides in the landscape. The scope of the problems addressed in the Czech Republic is evident in the range of departments dealing with soil, as follows:

- university departments in the faculties of agriculture, forestry, natural sciences and civil engineering;
- institutes of the Czech Academy of Sciences, such as the Institute of Soil Biology and Biogeochemistry, the Institute of Microbiology, the Institute of Geology, CzechGlobe – Global Change Research Institute;
- departmental research institutes such as the Research Institute for Soil and Water Conservation, the Crop Research Institute and a number of other agricultural research institutes focusing on agricultural soils, while research on forest soils is dominated by the Forestry and Game Management Research Institute;
- specialist departmental institutes, including the Central Institute for Supervising and Testing in Agriculture, the State Land Office, the Forest Management Institute, and the Czech Geological Survey.

The remarkable level of Soil Science is evident in the number of well-known names, that would make a long list over the last two centuries. At this point we will mention only four soil scientists who have become honorary members of the IUSS:

- Professor J. Kopecký, who was a professor of Soil Science, climatology and meteorology at the Prague University of Technology and director of the state research institute dealing with Soil Science. He made an outstanding contribution to the development of this science. At the end of the 19th century, he developed an instrument for texture analysis of soils, which was also used abroad because of its

simplicity and accuracy. His methods for determining the physical characteristics of soils, particularly porosity, water, and air capacity, found widespread use, and his stainless-steel cylinders are well known and used throughout the world. He also achieved considerable results in soil cartography and was the author of the method of soil rating for the purpose of land consolidation. He was appointed as honorary member of the IUSS in 1924.

- Professor J. Stoklasa was an important representative of Czech agricultural science at the turn of the 19th and 20th centuries and a scientist of European importance. He was one of the founders of Czech agrochemistry and an organiser of agricultural research. The focus of his research was to elucidate the processes of geological weathering, the influence of carbon dioxide on microbial processes, etc. He became an honorary member of the IUSS in 1935.
- Professor M. Kutílek worked as a hydropedologist at the Czech Technical University in Prague, where he achieved significant scientific results in solving the problems of water vapour adsorption and non-linear water flow in soil. He dealt with bi-modal and n-modal distribution of soil pores and consequences in unsaturated flow. He is internationally acclaimed in the scientific community and was bestowed honorary membership of the IUSS in 1998.
- Professor J. Kozák is a professor at the Czech University of Life Sciences Prague, where he has also held important academic positions, was head of the Department of Soil Science and Soil Protection and chairman of the Czech Society of Soil Science. He is an expert in soil chemistry, advanced Soil Science, amelioration of soil regimes, and soil protection. He also deals with databases of soil properties. He participated in the creation of the Soil Map of Europe and the Soil Atlas of the Czech Republic. He is the chairman of the editorial board of the Soil and Water Research journal. He is an honorary member of IUSS since 2016.

The involvement of experts in professional and scientific societies is very important. Of note is the Czech Academy of Agricultural Sciences, which was founded in 1924 and associates agricultural research, development, and education personnel as well as practitioners. The Academy has 11 departments, one of which is the Department of Soil Science.

In the field of Soil Science and related disciplines, **the Czech Society of Soil Science (ČPS)** was founded in 1994 and currently brings together about 130 experts from research institutions, universities, and practice. The ČPS has much to build on, as the results of Czech Soil Science historically had a significant impact abroad. The ČPS, as a collective member of the International Union of Soil Sciences (IUSS) and the European Confederation of Soil Science Societies (ECSSS), seeks to continue this work.

The Societas pedologica slovacica remains the closest foreign collaborator, as Czech and Slovak Soil Science has developed together over the past 100+ years and many events are organised together. In addition to lecturing and organising professional events, the ČPS is also involved in cooperation between organisations on various re-

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search topics, specialist activities, representing members and Soil Science institutes at national and international level, and has an input to the legislative process.

The ČPS is headed by an elected committee with a chairman (Prof. J. Kulhavý 1994-1998, 2003-2010; Prof. J. Kozák 1999-2002. 2011-2014; Prof. B. Šarapatka since 2015). Further information about the ČPS is available on the website: <https://pedologie.czu.cz/>, its history can be found in the publication by Sobocká, J., Šarapatka, B. *et al.* (2018): 100 years of the joint history of Czech and Slovak Soil Science. https://pedologie.czu.cz/dokumenty/100_let_%C4%8Desk%C3%A9_a_slovensk%C3%A9_pedologie.pdf (in Czech).

In conclusion, on behalf of the Czech Society of Soil Science, on the occasion of the 100th anniversary of the International Union of Soil Sciences, I would like to wish all soil scientists great personal and professional success and wish IUSS many more successful years in bringing together the worldwide community of soil scientists. At the same time, I would like to congratulate the Czech Academy of Agricultural Sciences on their 100th anniversary and the Czech Society of Soil Science on their 30th anniversary and wish them all the best for the years to come.

Bořivoj Šarapatka

President of the Czech Society of Soil Science

The Soil Science Society of Burkina Faso (SSSBF) 2006



The Soil Science Society of Burkina Faso (SSSBF) was founded on November 8, 2006. It is a non-political, scientific, and non-profit organization. It aims at being a network for meetings and exchanges of information between soil scientists and experts in Burkina Faso.

More specifically, SSSBF aims at:

- collecting and disseminating relevant soil-related knowledge, information and ideas through discussions and publications;
- promoting research and the interests of all Soil Science actors;
- encouraging training and capacity building in Soil Science;
- raising awareness among decision-makers and the public on the importance of soil as natural resource;
- creating and strengthening relations with other organizations with common or similar interests and objectives in Burkina Faso and elsewhere;
- performing any other function of interest to Soil Science.

The SSSBF has around 100 members and is governed by an Executive Board, an Executive Committee and Scientific Committees. The executive committee is made up of a president, a general secretary, a deputy general secretary, a general treasurer, and a deputy general treasurer.

SSSBF is now on its third executive bureau since its creation. It has been led by Elisée Ouédraogo (2006-2014), Traoré Mamadou (2014-2017) and Delwendé Innocent Kiba (2017 to date).

SSSBF has helped to lead several debates on soil protection at national and international level. Some examples are:

- organization of the 7th International Conference of the Africa Soil Science Society. This conference was attended by over 200 Soil Science specialists from 18 countries in Africa, America, Europe, and Asia;
- regular organization of conferences at universities and high schools;
- regular co-organization of the international scientific symposium on sustainable land management in collaboration;
- regular celebration of the World Soil Day.

The expertise within SSSBF has contributed to the production of important docu-

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ments on soil in Burkina Faso. Some of those documents are:

- economics of land degradation;
- national strategy for soil restoration, conservation, and rehabilitation;
- national strategy on agroecology;
- law on soil management (being drafted).

Finally, as a member of the International Union of Soil Science, SSSBF fulfills its obligations and participates regularly in meetings organized by the Union.



A soil profile description session at the 7th International Conference of the African Society of Soil Science organized by SSSBF in 2016.



Group photo after the opening ceremony of the 3rd International Scientific Symposium on Sustainable Land Management in Burkina Faso, co-organized by SSSBF in 2021.

The Uzbek branch of the Dokuchaev Soil Science Society 2008



In 2008, the Uzbek branch of the Dokuchaev Soil Science Society was founded. It is a scientific and public community of specialists in the field of rational use and protection of land and soil resources.

The Uzbek branch of the Dokuchaev Soil Science Society aims are:

- to develop and implement scientific issues of Soil Science and related fields;
- to popularize and disseminate knowledge in these spheres;
- to integrate education-science-production in these spheres;
- to work with young scientists;
- to support the international cooperation in the field of Soil Science and education.

The Uzbek branch of the Dokuchaev Soil Science Society includes employees of universities, industry and academic research institutes, production and design organizations. Currently, it unites 78 members, including 2 academicians, 15 doctors of sciences (DSc), 30 candidates of sciences (PhD), researchers, graduate students, and students from various regions of Uzbekistan.

For 15 years, from 2008 to 2023, the Uzbek branch of the Dokuchaev Soil Science Society has been headed by Lazizakhon Gafurova, a prominent Uzbek scientist in the field of Soil Science, Foreign Member of the Russian Academy of Sciences (RAN), Doctor of Biological Sciences (DSc), Professor of the National University of Uzbekistan named after Mirzo Ulugbek, honored mentor to the youth of Uzbekistan.

Her deputy is Zafar Jabbarov – Doctor of Biological Sciences (DSc), Professor, Head of the Department of Soil Science.

The scientific secretary is Olima Ergasheva, Doctor of Biological Sciences (PhD), Associate Professor.

Among the members of the Uzbek branch there are such well-known outstanding scientists as D.Sattarov – Academician of the Uzbek Academy of Sciences, Honored Worker of Agriculture, Sh. Bobomurodov - Doctor of Biological Sciences (DSc), Professor, Director of the Institute of Soil Science and Agrochemistry, R. Turaev - Director of the Uzgiprozem Institute, T. Abdrakhmanov - Dean of the Faculty of Biology, Professor, B. Mambetnazarov – Doctor of Agricultural Sciences, Academician, Honored Scientist of Uzbekistan, D. Kadyrova – Doctor of Biological Sciences (DSc), Professor, Head of the Department of Soil Science and Agrochemistry, M. Saidova – Doctor of Biological Sciences (DSc), Professor, G. Djalilova – Doctor of Biological Sciences (DSc), Professor, G. Nabieva Doctor of Biological Sciences (DSc), Asso-

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ciate Professor, N. Abdrakhmonov – Doctor of Biological Sciences (DSc), Deputy Director of the Institute of Soil Science and Agrochemistry, G. Parpiev Doctor of Biological Sciences (DSc), Deputy Director of the Uzgiprozem Institute, G. Yuldoshev - Doctor of Biological Sciences (DSc), Professor, Kh. Karimov – Doctor of Biological Sciences (DSc), Professor, Kh. Artikova – Doctor of Biological Sciences (DSc), Professor, Dean of the Faculty, S. Sidikov – Doctor of Biological Sciences (DSc), Professor, Yu. Shirokova – Doctor of Agricultural Sciences, Head of the Laboratory of Soil and Reclamation Processes, B. Sherimbetov – Doctor of Biological Sciences, Head of the Department of Ecology.

Directions of scientific research:

- studying the patterns of soil formation and soil change processes and the current state of the soil cover;
- monitoring and assessing soil reclamation and ecological state of arid soils and agrochemical examination of agricultural lands;
- developing scientific bases for the reproduction of soil fertility and rational use and protection of land;
- developing and implementing innovative technologies and approaches to increase soil fertility and crop productivity;
- assisting in training highly qualified personnel in the field of rational use of soil and land resources.

Scientific achievements:

- adaptation technologies for sustainable use of semi-desert pastures in conditions of climate change;
- development of an information and analytical system for agrochemical survey and monitoring of soil fertility using GIS technologies;
- environmentally friendly agro-biotechnologies to increase the productivity of saline soils in the Aral Sea region;
- scientific basis for increasing the fertility of rainfed degraded typical gray soils;
- biological basis for restoring and increasing the fertility of difficult-to-reclaim saline soils;
- new highly effective preparations for increasing the fertility of degraded irrigated soils;
- technology, conservation, and increase of organic carbon in arid degraded soils;
- biodiagnostics and features of the spread of nematodes on saline gray-meadow soils and ways to optimize them;
- technologies and effective ways to combat soil pollution with oil and oil products, soil pollution with heavy metals, fluorides and agrochemicals;
- technologies for optimizing nutrition of a certain variety of each agricultural crop, development of a new system for applying mineral fertilizers in relation to a new system for adapting the agro-sphere to climate change.

Scientific and practical seminars, exhibitions, workshops, “field days”, “farmer days”, “pasture breeder days” are held on a regular basis, as well as training for specialists from agrochemical laboratories, soil services, and design organizations. Advisory assistance is provided on the use of fertilizers, on issues of organic farming, precision farming, carbon farming, the use of biological products and bioorganic fertilizers, resource-saving and innovative technologies to improve degraded soils of the desert zone, soils of the sierozem belt, foothills, and low mountains of Uzbekistan.

Members of the society actively participate in training farmers in resource-saving, environmentally friendly technologies for increasing and reproducing soil fertility, improving their ecological condition, demonstrating the dissemination of experience in best practices for the sustainable use of land resources. In implementing the tasks of the Uzbek Branch, great importance is given to the publication of the results of soil research – monographs, brochures, scientific articles, atlases, recommendations for production, etc.

Members of the Uzbek branch of the Dokuchaev Soil Science Society maintain close scientific and business contacts with soil scientists and agrochemists from many countries around the world on issues of genesis, classification, evolution, and transformation of soils, soil productivity, rational use of fertilizers, increasing the yield and quality of crops, as well as in the field of education and science, systems for ensuring the quality of education, deepening scientific and technical ties. Close contacts were established with the International Union of Soil Sciences (IUSS), as well as with international agricultural research centers and foundations on the problem of sustainable use of soil resources – UNDP, FAO, GSP, INSAS, ICBA, ICARDA, etc. In recent years, in cooperation and support of IUSS and its President – Laura Berta Reyes Sanchez, the Global Forum on Saline Soils, International Soil Day – December 5 and World Earth Day – April 22 were held, within the framework of which competitions for young scientists, scientific expeditions, exhibitions were organized. According to the initiative “We are going to school”, activities were conducted with schools in Tashkent and other regions. Field Day and Farmer’s Day were held on innovative technologies and approaches to increasing the fertility of degraded soils, as well as summer schools for specialists and students on food security, increase in fertility, modern technologies in Soil Science and agrochemistry, and precision agriculture.

Conclusion

The Uzbek branch of the Dokuchaev Soil Science Society brings together scientists, teachers, production specialists, and young scientists to solve current problems of arid soil formation, exchanging experience on modern trends in the field of rational use of land and soil resources, popularization of knowledge and scientific information in the sustainable reproduction of fertility of irrigated, rainfed, pasture soils and achieving “neutral degradation of soils”, increasing the role of soil in ensuring food security.

Gafurova Lazizakhan

She has the honorary title of “Honored Youth Coach in the Republic of Uzbekistan”, the Commemorative badge “20 years of Independence of the Republic of Uzbekistan”, Commemorative badge “25 years to the Constitution of Uzbekistan”, Gold medal named after K. Timiryazev (Russia), Commemorative badge “30 years to the Constitution of Uzbekistan”, Badge “Reputable Woman”, Commemorative badge “Pride of the University”.

Sattarov Jurakul

He was awarded the honorary title of the Agricultural Worker who served Uzbekistan, the Gold medal named after K. Timiryazev (Russia), Commemorative badge “Pride of the University”.

Toxtasin Abdrakhmanov

He was awarded the Commemorative badge “29 years to the Constitution of Uzbekistan” and the Commemorative badge “Pride of the University”.

Zafar Jabbarov

He was awarded the high title “O’zbekiston belgisi” – an Award of the Republic of Uzbekistan.



The Honduran Association of Soil Science (ASOHCSUELO) 2013



The Honduran Association of Soil Science (ASOHCSUELO) was founded in July 2013 with the following objectives: to promote the knowledge of Soil Science at all levels of society (academia, government, farmers, ranchers large and small) and the soils of Honduras, to create consciousness of the need of soil conservation throughout the country and the better use of the soil resource.

The founding members were: Soil Science Professionals Gloria Arévalo, Marco Trejo, Jeremías Martínez, Nectaly Rivas, José Martín Reyes, José Moisés Sánchez, Julissa Guillén and Senior students of Agronomy in Zamorano University: Miriam Gutierrez, César Escobar Lobo y Julio Daniel Gonzalez Velasquez, who recognized the importance of integrating the professionals and all interested persons and organizations in the development of Soil Sciences in Honduras.

All this, under vision stated in Mar del Plata, Argentina in the Latin- American Congress in 2012 in accordance with the vision and under the advice of the Latin American Secretary at the time: Dr. Laura Bertha Reyes Sanchez and Dr. Alvaro García from Colombia. Dr. Gloria Arévalo foresaw the necessity and opportunity of founding the Association of Soil Scientists in Honduras.

The Association is currently under the process of formalizing its constitution before the government of Honduras. Its Board of Directors (BoD) is constituted by 8 members:

President. Dr. Gloria Arévalo, Vice- president: Dr. Carlos Gauggel, Secretary: M.Sc. in Soil Melsen Espinal, Treasurer: agronomist José Ayala, and Vocals; Agronomist Anabel Gallardo, M.Sc. in Soil Science Juan Rafael López and agronomist Marco Trejo and the fiscal body M. Sc. Samantha García, agronomist Gloria Mencía and Skarleth Chinchilla.

The main objective of ASOHCSUELO is to promote the study, knowledge, research, and protection of the soil and to strengthen the practical and scientific application of Soil Science and to seek to be recognized as the leader of reference in this field, to ensure the correct use of practices for the sustainable management of soil as a natural common good in perpetuity. Since its foundation, the BoD has promoted, together with the countries which are members of LSSS and the IUSS, the consolidation of the largest number of events in the yearly celebration of the World Soil Day since 2014.

ASOHCSUELO has been a promoter and disseminator of the importance of soil care.

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Their members had participated in the Latin American congresses of Peru (2014), Ecuador (2016), Rio de Janeiro, Brazil World Congress (2018) and Uruguay (2019) and will be participating in the next Congress in Florianopolis, Brazil, August 2023.

The Association has received occasional support from the Honduran Government and from universities, for special events such as the yearly celebration of The World Soil Day and to represent Honduras in international conferences presenting the state of the knowledge and use of the soils of Honduras. The Association is mainly sustained by the yearly dues of its members. Current permanent active members are eight, and we hope to enhance the number of members when the Government authorizes officially recognizes the Association. The active membership varies from year to year due to traveling of some of its members to study abroad, mainly to the United States.

Major events coordinated by the Association in the past and present are:

At national level, (ASOHCSUELO) has held events every year since 2014, to celebrate The World Soil Day, with the participation of the seven universities of agriculture, forestry, and environment of the country, in addition with government agencies, farmers' associations and professionals with a wide diffusion in the media. In this way, it supports and participates in the worldwide celebration, promoted by UISS, FAO and LSSS. In 2015, the "First Soil Week" was celebrated in Honduras, in which about 250 people participated, in addition to Honduras, from neighboring countries such as Nicaragua and El Salvador participated. On that occasion they were represented by world-wide and regionally recognized scientist such as Prof. Dr h.c.mult. Rainer Horn, President of IUSS, Dr. Thomas Reinsch, National Leader World Soil Resources Soil Science Division Natural Resources Conservation Service United States Department of Agriculture, Dr. Jaume Porta, President of the Spanish Society of Soil Science and Professor Emeritus at the University of Lleida in Spain Dr. Gonzalo Farias Signorelli, President of the Brazilian Society of Soil Science, Soil Scientist Floria Bertsch, President of the Costa Rican Society of Soil Science, Dr. José Luis Colocho (R.I.P.), President of the Salvadoran Society of Soil Science, Colombian speakers, and Soil scientists from Honduras such as ASOHCSUELO President Gloria Arévalo, Vice President Dr. Carlos Gauggel, From Catholic Relief Organization M.Sc. in Soil Science Luis Alvarez Welches (R.I.P.), members of the Government Dr. Elizabeth Santacreo and Agronomist Milton Toledo, universities and institutions as well IICA, becoming a model for the Region. In addition, the proposal was consolidated to participate and develop activities in the world soil database and world map, digital mapping. The identification of the quality soil of some areas in Honduras and the design of strategies for their improvement and conservation methodologies applicable worldwide were done. In addition, the task was undertaken to promote training of human capital (university students) in Honduras and Latin America, who will become pillars for the protection, management, and sustainability of the soil resource. Also, in 2015 one of the university students from Honduras won the photography contest promoted by FAO worldwide.

In 2020 during the COVID Pandemic, the association held several virtual events around Honduras celebrating the World Soil Day with activities for children and educational projects throughout the country, as well as symposiums, lectures, and press conferences.

Actual important activities being conducted by the Association are to help in the effort to face the actual fertilizer world-wide crises, an effort being conducted by USADID and the Honduran Government, and the Soil Fertility Map of Honduras also being conducted by the same agencies. The Association is also promoting the urgent need for a nation-wide program in soil rehabilitation and conservation and a national plan for land use. In this effort, the Association has sought the involvement of all users of the soil resource, from the government to farmers and landowners' associations, large and small. A major effort is being done to prevent the use of prime agricultural soils for urban development.

The Association holds yearly conferences on the International Day of The Soil where conferences are delivered on Soil Science related issues of importance, and issues related to the soil of Honduras. In these events, the academia is also involved.

The association has contributed to research and presentation, nationwide on the impact of mayor hurricanes and tropical storms in the soils of Honduras in the aftermath of hurricanes ETA and IOTA in November 2020 that severely affected the country of Honduras amidst the COVID-19 pandemic.

The Association constantly seeks opportunities in international universities for young Honduran graduates to pursue advanced degrees in Soil Science to strengthen the knowledge and practices of Soil Science in Honduras.

This year (2023), Honduras has received several projects to improve and increase knowledge about the fertility of the soils of Honduras, promote and increase soil studies and digital mapping, increase, and order the efficiency in the use of fertilizers in view of the increase in their costs. The government and different institutions such as FAO, USAID trust ASOHCSUELO as the governing organization for soils, that can achieve the integration of efforts on this issue.

On an international level, ASOHCSUELO and its President on its behalf, has participated in the Assembly of Presidents of National Societies that formed the Latin American Soil Science Society during the Latin-American Congress. The Association has also participated in all international calls from IUSS casting their vote each two years for President, and all UISS Secretariat mandatories, council and events demanding the Presidents and members action from the IUSS. At Regional Level, the Association has promoted and has participated in three National Conferences promoted by the Costa Rican Soil Science Society and visited countries such as El Salvador and Guatemala to promote the integration of these countries to support our regional work.

On more than one occasion, the Association promoted the Foundation of the Nicara-

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guan Soil Science Society, but so far this goal has not been achieved. Also, with the El Salvador's Soil Science Society's President, Dr. Jose Luis Colocho who passed away in 2020. The Honduras Association (ASOHCSUELO) has supported this country to find the way to maintain and expand this Society with its President Dr. Felipe Cerón.

Additionally, the Association has had the honor of working with Dr. Laura Bertha Reyes as President of IUSS, supporting the hard and enthusiastic work carried out during her tenure, as well as that of the current President and Secretary of the SLCS: Dr. Elisângela Benedet da Silva and Dr. Maria Selva Viera.

It is the desire of our Soil Science Association to continue our work for the understanding and protection of the soils of Honduras and to support the work carried out by the IUSS.

Written by Dr. Gloria Arévalo as President and Dr. Carlos Gauggel as Vice-President of The Honduran Soil Scientist Association (ASOHCSUELO) on 24th April 2023.


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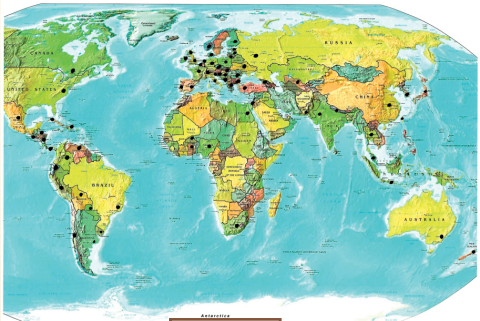
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Kiel, Vienna, and Mexico City, 15th December 2023.



Group photo with people attending the 4th International Conference of Pedology, during the Formation of the IUSS in Rome, May 1924

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National Soil Science Societies in IUSS in 2023

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