

István SZABOLCS

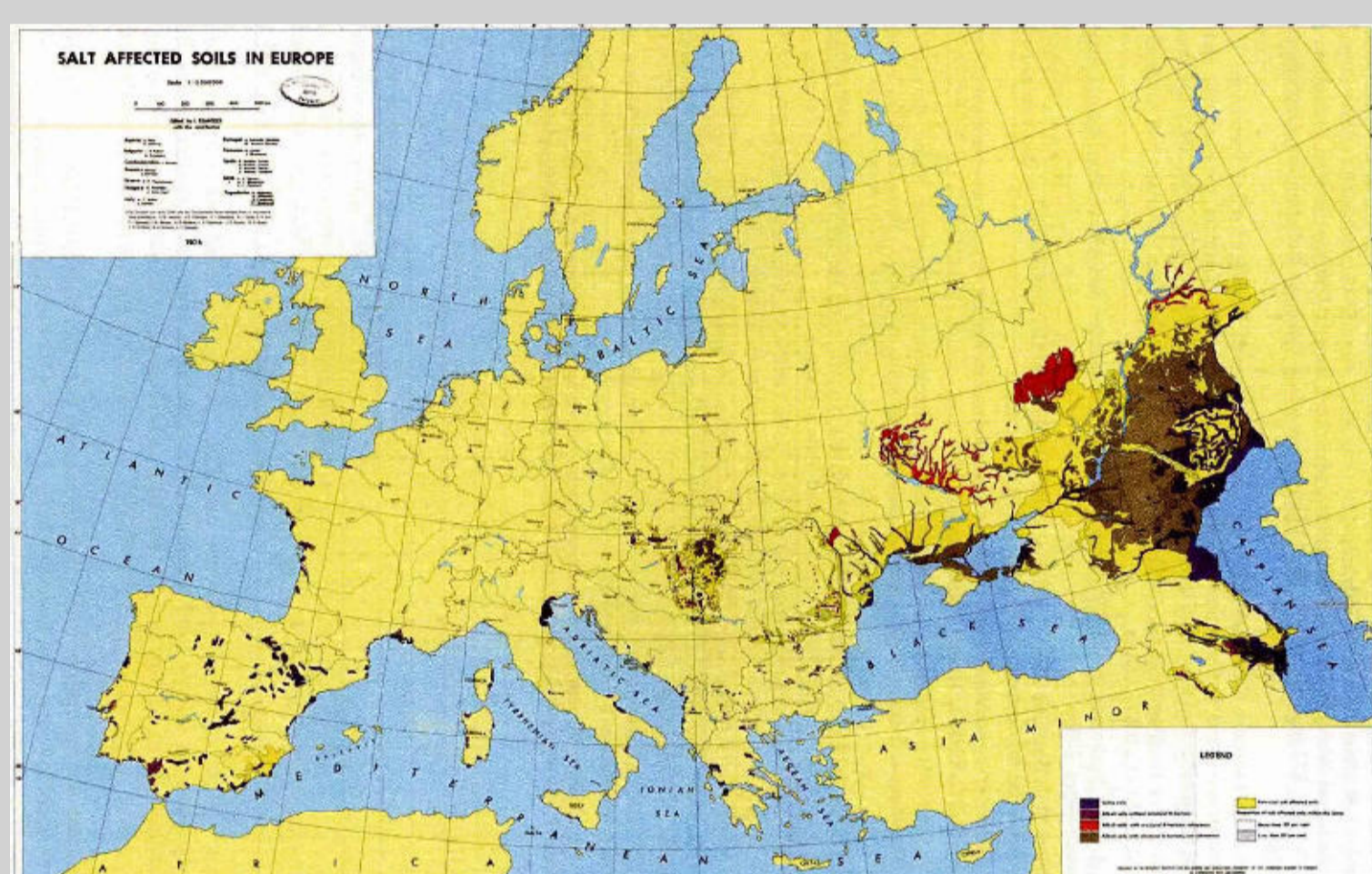
(1924–1997)

Prof. Szabolcs was well-known all over the World among pedologists, agrochemists, agroecologists and related scientists of his broad and continuously updated knowledge, brilliant memory and logical thinking, creativity, and unbelievable enthusiasm for his subject and for research. During his career he brought an almost missionary zeal to his work in soil science and especially in the field of salt affected soils.



István Szabolcs was born in Túrkeve, Hungary, in 1924. He graduated from the Debrecen University of Sciences with a PhD in Chemistry in 1948. He obtained the CSc (Candidate of Science) degree in Moscow, USSR and DSc (Doctor of Science) degree in Budapest in 1968 based upon his monographies „Salt-affected soils in the Hortobágy region (Hungary)” and „The influence of water regularities and irrigation on the soil processes in the Transtisza region”, respectively.

Following two years' service as deputy director at the Research Institute of Irrigation (Szarvas) (1953–1954) he was appointed deputy director (1954–1959) and director (1959–1981) of the Research Institute for Soil Science and Agricultural Chemistry of the Hungarian Academy of Sciences, Budapest. After his 21-year directorship he remained scientific adviser of the Institute until his death. He was appointed professor of soil science at the Budapest Eötvös University in 1968.



Map of Salt-Affected Soils in Europe

His main field of interest was the development, regime, classification, mapping, utilization and amelioration of salt-affected soils. He defined, described, characterized and quantified the primary and secondary salt accumulation processes; the mechanisms of phase interactions under saline and/or alkali conditions, the formation of „solonchetes” and „solods”; the human-induced changes in salinization/alkalization/sodification processes. He introduced such important terms as: secondary salinization; critical depth of groundwater table; potential salt affected soils. With his team he elaborated a comprehensive soil survey–analysis–mapping–monitoring system for the prediction and prevention of salinization/alkalization processes which was efficiently used not only in the Hungarian Lowland and the Carpathian Basin, but in many other countries with similar natural conditions as well. He developed a new classification system for salt-affected soils and prepared their maps for Hungary (1:500 000) and for Europe (1:5 M). He coordinated the project „World Map of Salt-Affected Soils”.

In the early sixties he was the main promoter of large-scale genetic soil mapping in Hungary and edited the Hungarian handbook for this programme. He took an active part in the Desertification Assessment UNEP Programme; collaborated with IAEA (International Atomic Energy Agency) for five years in isotope tracer applications in soil science and agrochemistry; and in recent years in the various „post-Rio” international projects of soil resilience and sustainable land use.

Prof. Szabolcs published 17 books and more than 630 papers in scientific journals in Hungary and abroad. His monographies on salt-affected soils („European Solonetz Soils and their Reclamation”, Akadémiai Kiadó, Budapest, 1971; „Salt Affected Soils in Europe”, Martinus Nijhoff, The Hague - RISSAC, Budapest, 1974; „Modelling of Soil Salinization and Alkalization”, Agrokémia és Talajtan, Tom. 28. Suppl., 1979; „Review of Research on Salt-Affected Soils”, UNESCO, Paris, 1979; „Salt-Affected Soils” CRC Press, Inc., Boca Raton, USA, 1989) are well-known all over the World.

In 1964 he organized the International Symposium on Sodic Soils in Hungary. This meeting, with the participation of top-experts on salinity/alkalinity from all continents, was a real breakthrough on the „iron curtain” and – after a long time – gave opportunity for direct dialogues and discussions between the various scientific schools on salt-affected soils.



Book of Review of Research on Salt-Affected Soils

The success of the Symposium was one of the reasons of the re-establishment of the Alkali Subcommittee of ISSS during the 8th Congress of ISSS (Bucharest, 1964). Prof. SZABOLCS was appointed Chairman of the reactivated Subcommittee on Salt Affected Soils of the ISSS and he fulfilled this task until 1982. During (and after) this time he initiated and organized numerous symposiums and scientific meetings (Budapest, Yerevan, Cairo, Novi Sad, Osijek etc.) and the Subcommittee was one of the most active groups of ISSS. In 1974 (10th ISSS Congress, Moscow) he was elected Deputy Secretary General of ISSS. He was re-elected for this position at the 11th (Edmonton, Canada, 1978), 12th (New Delhi, India, 1982) and 13th (Hamburg, Germany, 1986) ISSS Congresses. At the 11th Congress (Kyoto, Japan, 1990) he was elected Honorary Member of ISSS. Dr. Szabolcs participated in all ISSS Congresses from 1956 and became a decisive personality of ISSS. He played important roles in other international organizations (UNESCO, UNEP, CICRA, CIEC etc.) as well. He was the Director of the International Post-graduate Course on Salinity and Alkalinity (Budapest, 1973); promoter of the Indo-Hungarian Seminars on the Management of Salt Affected Soils (Karnal, India, 1977; Budapest, Hungary, 1981); FAO consultant at the Chambal Project (Rajasthan, India, 1969), IIASA consultant in Laxenburg (1982); UNEP consultant in the 1985 Planning Commission Meeting; and invited lecturer in many countries (Ghana and Nigeria, 1969; Tunisia, Kenya, Tanzania, Ethiopia and Sudan, 1974; Iraq, 1979; Tunisia, 1980, 1982).

Prof. Szabolcs was President of the Hungarian Soil Science Society between 1970 and 1990, and after his two decades' efficient service he was elected Honorary President. He was honorary member of the Indian, Soviet, Russian, Bulgarian and Rumanian soil science societies.

From 1960 he was editor-in-chief of the journal „Agrokémia és Talajtan” and he was member of the editorial boards Acta Agronomica Hungarica; Agrochimica, Geoderma, International Journal of Tropical Agriculture, Soil Survey and Land Evaluation. For his achievements Prof. Szabolcs received two Governmental Awards, the „Tessedik Gold Medal”, the „Treitz Medal”. In 1996 he was awarded the „Dokuchaev Gold Medal”, the highest award of the Russian Soil Science Society.



Board meeting of the Subcommittee on Salt-Affected Soils, Budapest, 1967

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