The Soils of Tomorrow—Soils Changing in a Changing World


This massive volume is made up of an editorial, a resolution, and a selection of 51 peer-reviewed papers from the fifth International Congress of the European Society for Soil Conservation, held in Palermo, Italy, June 25–30, 2007. The focus of this meeting was on the present and future impacts of humans on all aspects of soils and their functioning. It attracted approximately 400 participants from 35 different countries, representing international and national soil science societies, scientific research organizations, universities, government bodies, nongovernmental agencies, and businesses. Given the breadth of the subject matter and the range of interests involved, it is not surprising that the contents of this volume are extremely diverse.

The main objectives and achievements of the Congress are briefly summarized in the editorial and resolution, which occupy the first four pages. The rest of the book is devoted to the individual papers. These are arranged into eight topical areas: (i) soil and society, (ii) soil erosion, (iii) soil organic matter, (iv) soil degradation and desertification, (v) soil pollution and contamination, (vi) soil conservation and soil quality, (vii) policies for environmental conservation in a global society, and (viii) new approaches and technologies for soil assessment. Each section begins with a high quality keynote paper. The quality of the other papers is quite variable. Because no index is provided and significant overlap exists among the sections, finding all of the material relating to a particular subject can be quite challenging. A more discriminating selection of just the best papers would have helped.

I searched for research of interest to vadose zone hydrologists. Only one paper had the word “water” in its title. No papers had titles containing any of the following words: “flow,” “hydraulic,” “hydrology,” “transport,” “solute,” or “vadose.” Delving more deeply into the contents of this book, I found that approximately 40% of the papers included at least some material related to soil water. These papers were spread out among the different sections and included topics such as drought mitigation, irrigation water, wind and water erosion, organic matter effects, soil respiration, soil quality and degradation, tillage impacts, sorption of herbicides, soil structure and leachability, geotextiles, engineering properties, and conservation practices. In most of these papers, however, only a passing mention was made of soil hydrology or soil moisture measurements, usually as related to general site characterization. I found only a handful of papers in which soil hydrology was a major focus of the research reported, and none of these appeared to contain any particularly novel analyses or new results.

In conclusion, while this publication contains a broad range of research relating to anthropogenic effects on soil form and function, very little of it is focused on soil water. A major limitation is the lack of an index for finding particular items of interest among the diversity of topics presented. Because the chapters are mostly reviews or research reports, perhaps a better outlet for the proceedings of this congress would have been a special issue of a peer-reviewed journal. Such an outlet would have likely resulted in fewer papers, but broader exposure for the best work. Given the environmental changes caused by humans around the globe, the idea behind this project is both significant and timely. Unfortunately, the format chosen for getting the message out is less than optimal. As a result, the research papers contained within this volume are unlikely to be cited in the broader scientific literature.