



**FROM THE DESK OF RATTAN LAL**  
**Viewpoint 11.2017**

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**Sub: The Solutions Under Foot**

Fellow Soil Scientists,

A critical appraisal of the state-of-the-soil sciences at the universities around the world indicates that enrollments in classes are down, accredited graduate degrees are rare, number of faculty members are 5 to 10 compared with 20 to 25 a few decades ago, no advocacy groups are knocking at the doors of administration for replacement of the retiring professors, and there are no specific budget lines for funding research under the auspices of national science foundations. Alas, these trends are in strong contrast to the global estimates of 16 deaths per minute attributed to hunger and malnutrition, increasing risks of warming climate and depleting aquifers, soil erosion by water of 36 Gt annually, and the exacerbating eutrophication and non-point source pollution of water bodies. Yet, science and profession of soil have a bright future. Soil and its sustainable management are on global political agenda (COP21, Paris; COP22, Marrakech; COP23, Bonn). We must seize the moment, avail the opportunities, bring about the paradigm shift, and prepare the future generations of soil scientists to manage soil for addressing the societal needs. To attract the best and the brightest into the soil science classes, the respect and stature of the profession must be restored. Students should feel proud of being soil scientists and eager and enthusiastic to apply their skills to enhance the wellbeing of humanity and planet Earth. Soil science curricula, at all levels from primary school to the graduate education, must prepare the next generations in theory, practice, economics and policy of soil management for effectively addressing the present and emerging global issues. In addition to understanding the basic principles, soil scientists must also communicate the knowledge to citizenry and policymakers while cooperating with other disciplines (e.g., chemistry, physics, biology climatology, geology, public health) to ensure that science and practice of soil is appropriately integrated in multi-disciplinary programs. The goal of education is to develop passion for curiosity and discovery, inculcate self-drive and respect; promote critical thinking and originality; enhance integrity and values; strengthen persistence and determination; and build capacity for innovation and new frontiers. We have the privilege of providing training to the coming generations about the truism that:

**“Soil matters, and the solutions to global issues lie under foot”.**

Sincerely,

Rattan Lal,  
President, International Union of Soil Sciences

