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Management of Soil Organic Matter for Multiple Benefits; Abstract; Introduction; Land-use Change Pathways and Soil Carbon Transition Stages; Local and global benefits and critical soil services
Soil carbon transition stages Diversity of soils and land use; The Soil Carbon Transition Curve in Various Parts of the World; Stage I: Decline in soil productivity and carbon; Stage II: Low or collapsing soil productivity; Stage III: On the road to recovery; Local versus global effects of land use; Turning Trade-offs into Synergies at Local and Global Scales; Connecting the stages of the soil carbon transition curve; Good agricultural practices for strategic areas of high carbon sequestration potential; 'Subsidizing carbon' and closing the resource loop; Sustainably closing the yield gap
Critical thresholds? Conclusions; References; 4 From Potential to Implementation: An Innovation Framework to Realize the Benefits of Soil Carbon; Abstract; Introduction; A Short History of the Soil Carbon Concept; What Ought to be Done? A Summary of Best Practices; What are the Bottlenecks to Implementation?; Which Innovations are Needed?; Conclusions; References; 5 A Strategy for Taking Soil Carbon in to the Policy Arena; Abstract; Introduction; Policy; Policy imperative; Introduction; Sustainable production and increasing productivity/fertilization at the local level
Enabling policy environment to promote sustainable land-use management at the national level Sustainable development at the international level; Policy profile and discourse; Local scale: adapt to local socio/cultural context; National scale: value of soil and SOC - regional patterns; International scale: the inclusion of SOC in sustainable development (mainstreaming); Policy rationale; Local scale; National scale; International scale; Policy support; Tools and programmes; Local; National; International; Actors; Advocates and institutions; Local scale; National scale; International scale
Governance

Sommario/riassunto

This book brings together the essential evidence and policy opportunities regarding the global importance of soil carbon for sustaining Earth's life support system for humanity. Covering the science and policy background for this important natural resource, it describes land management options that improve soil carbon status and therefore increase the benefits that humans derive from the environment. Written by renowned global experts, it is the principal output from a SCOPE rapid assessment process project.
