9th Asian Soil Partnership Meeting

National updates on soil: <u>BHUTAN</u>

Tashi Wangdi

National Soil Services Centre

Department of Agriculture

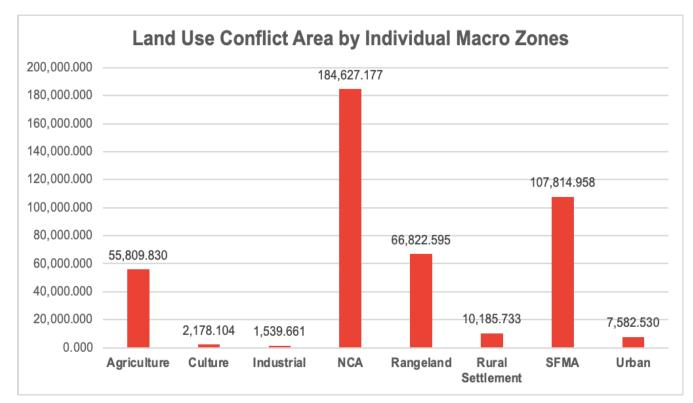
Ministry of Agriculture & Livestock

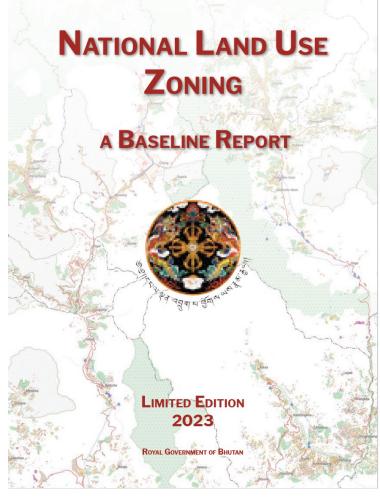




Pillar 1: Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity

 National Land Use Zoning Baseline Report 2023 (NLUZ 2023) Produced

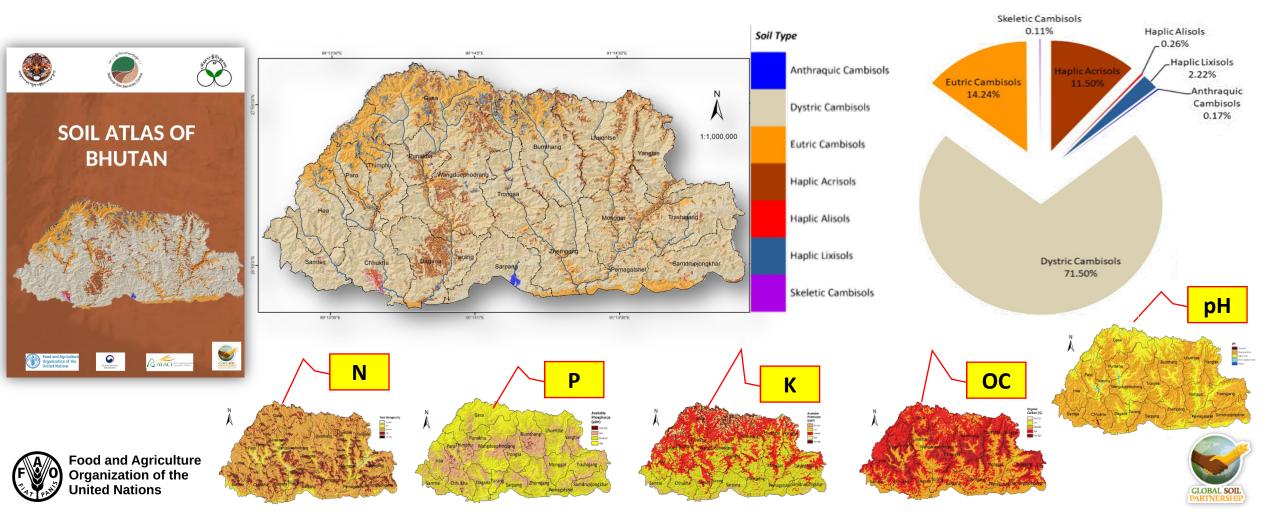






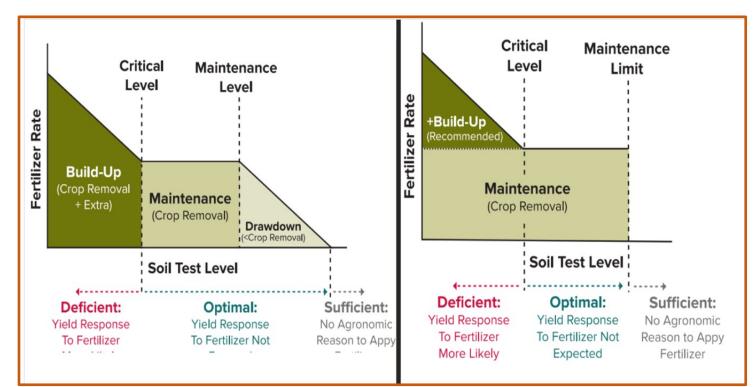
Food and Agriculture Organization of the United Nations Pillar 1: Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity

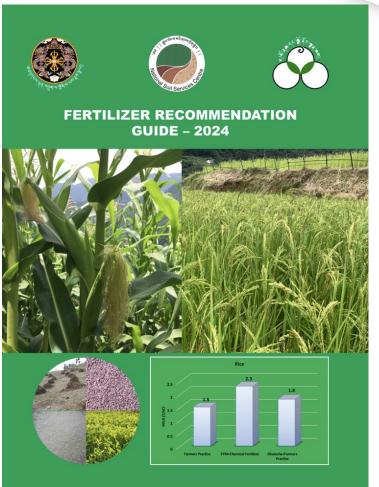
• First ever Soil Atlas of Bhutan 2024 Launched



Pillar 1: Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity

Fertilizer Recommendation Guide 2024
launched





NATIONAL SOIL SERVICES CENTRE



Food and Agriculture Organization of the United Nations



Pillar 1: Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity

Scaling out of Sustainable Land Management interventions



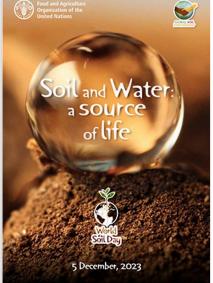




Pillar 2: Encourage investment, technical cooperation, policy, education, awareness and extension in soil

- Training to Agriuclture Extension Supervisors on Sustainable Soil and Land Management
- Celebrated World Soil Day 2023





Bhutan ioins the global community in celebrating the WORLD SOIL DAY "Soil and Water: A Source of Life"

Our planet's survival depends on the precious link between soil and water. Over 95 percent of our food originates from these two fundamental resources. Water in soils, vital for nutrient absorption by plants, binds our ecosystems together. This symbiotic relationship is the foundation of our agricultural

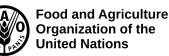
However, in the face of climate change and human activity, our soils are being degraded, putting excessive pressure on our water resources. Erosion disrupts the natural balance, reducing water infiltration and availability for all forms of life. Sustainable soil management practices, such as minimum tillage, crop rotation, organic matter addition, and cover cropping, improve soil health, reduce erosion and pollution, and enhance water infiltration and storage. These practices also preserve soil biodiversity, improve fertility, and contribute to carbon sequestration, playing a crucial role in the fight against climate change.

The World Soil Day 2023 and its campaign aim to raise awareness on the importance and relationship between soil and water in achieving sustainable and resilient agrifood systems. WSD is a unique global platform that not only celebrates soils but also empowers and engages citizens around the world o improve soil health (FAO, 2003)





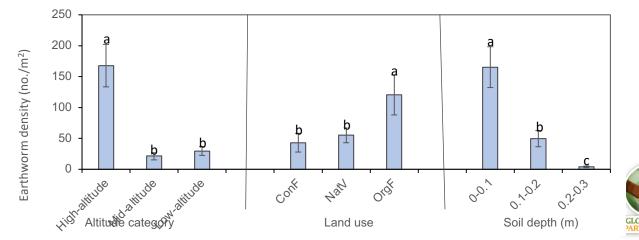




Pillar 3: Promote targeted soil research and development focusing on identified gaps, priorities and synergies with related productive, environmental and social development actions

- Soil Microbiology Laboratory established
- Laboratory-based hands-on training on Soil Microbiology
- Earthworm profiling in different land use and altitude
- Efficacy trial of Smart fertilizer (Nano urea) in maize
- Efficicay comparison between EM, Bhutan Agri-Microbial Solution (BAMS), Biofertilizer on the decomposition rate and nutrient quality of compost and FYM









Pillar 4: Information and Data

- Implementation of 2nd phase of AFACI Project
- Initiative on taking soil testing services closer to farmers through:
 - Rapid Soil Testing Kits
 - Mobile Soil Testing equipment/mini-Laboratory Van
 - Sensor-based Soil Testing
- Initiate identification, isolation and culturing of soil microbes





Pillar 5: Harmonization of methods, measurements and indicator for the sustainable management and protection of soil resources



- Active participation in GLOSOLAN and SEALNET
- Active participation as a committee member of SEALNET
- Continued strengthening of regional soil laboratory facilities and capacity
- International Proficiency Testing of Soil with WEPAL in the Netherlands (achievement 94.1%)





Thank You for Your Kind Attention!



