

Quarterly Viewpoint

FROM THE DESK OF RATTAN LAL

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Sparing Land for Nature

The term “land” encompasses all natural resources between the bedrock and the stratosphere, including the atmosphere, vegetation, water bodies, mineral deposits, and all biodiversity. Furthermore, stock of these resources is fixed (finite), non-renewable on a human time scale, and prone to depletion and degradation by natural and anthropogenic factors. In conjunction with capital and labor, land is an important factor of production for goods and services or ecosystem services. With the rapid increase in population and its affluence, humanity has already appropriated 40% of Earth’s land resources and converted natural to managed ecosystems. Humanity’s insatiable demand for land has dire consequences to other inhabitants of the planet (biodiversity) and to environmental quality. Examples of environmental degradation caused by anthropogenic land use include global warming, eutrophication, and scarcity of water resources, accelerated soil erosion and sedimentation, degradation of coastal ecosystems, loss of biodiversity, and, of course, growing interaction between human and wildlife with adverse impacts on humanity (e.g., the COVID-19 Pandemic).

Rather than appropriating more land by conversion of natural to managed ecosystems, humanity must enhance use efficiency, reduce wastage, rethink its values and demands, restore degraded land, protect natural ecosystems, and return some land back to nature. Returning agriculturally marginal lands (e.g., land which is steep, with shallow soil, too dry or too wet, and land withing ecologically sensitive ecoregions) back to nature is a win-win option.

Of the 5 billion hectares of agricultural land (1.5 Bha under cropland and 3.5 Bha under grazing/rangeland), it is important to return between one to two Bha of land back to nature. In addition to sequestration of C in the soil and biomass, sparing land for nature would also strengthen biodiversity, improve quality and renewability of water, reduce soil erosion and sedimentation, and restore coastal ecosystems.

Homo sapiens (in Latin: wise man) must be wise and prudent in sharing natural resources with the other 8.7 million co-inhabitants of the Planet Earth. Returning some land back to nature would be a strong indication of the “wisdom of Homo sapiens.”

Sincerely,



Rattan Lal
Distinguished University Professor of Soil Science, SENR
Director, CFAES Dr. Rattan Lal Carbon Management and Sequestration Center (C-MASC)
IICA Chair in Soil Science & Goodwill Ambassador for Sustainable Development Issues
Adjunct Professor at the University of Iceland and the Indian Agricultural Research Institute (IARI)

