

3. Discuss the concept of ecological footprint, explaining its calculation, major components, global trends and significance for sustainability.
4. Critically examine the Gaia theory and its relevance to environmental science, and explain the Environmental Kuznets Curve (EKC) hypothesis, highlighting its implications for sustainable development.
5. Discuss soil as a natural resource with reference to its formation, types, functions, major threats and approaches for conservation and sustainable management.
6. Explain the concept of natural resources and distinguish between resources and reserves. Discuss their classification and importance in environmental management.
7. Explain the processes of mass and energy transfer within the geosphere, highlighting their role in shaping the Earth's structure and dynamics.
8. Discuss the concept, components and functioning of ecosystems, and explain how energy is fixed and transferred through food chains and food webs.

9. Examine the influence of environmental factors on organisms, explaining with examples how adaptations enable them to survive under different conditions.

10. Analyze the anthropogenic impacts on the biosphere and its life-support systems, highlighting major consequences for ecological balance.

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