

Sustainable Resource Use as a Means of Preserving the Integrity of the Eco-System and Environment

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Abstract : Sustainable food and fiber production is emerging as an irresistible option in agrarian planning. Although one should not underestimate the successes of the Green Revolution in enhancing crop production, its adverse environmental and ecosystem consequences have also been remarkable. The aim of this paper is to identify ways of improving crop production to ensure agricultural sustainability and environmental integrity. Systematic observations are used for data collection on intensive farming, deforestation and the environmental implications of industrial pollutants on agricultural sustainability at national and international levels. These were achieved within a comparative analytical model of data interpretation. Results show that while multiple factors enhance yield, they have a simultaneous effect in undermining the ecosystem and environmental integrity. Results show that application of excessive agrichemical have been one of the major cause of polluting the surface and underground water bodies as well as soil layers in affected croplands. Results consider rapid deforestation in the tropical regions has been the underlying cause of impairing the integrity of biodiversity and oxygen-generation regime. These, coupled with production of greenhouse gasses, have contributed to global warming and hydrological irregularities. Continuous production of pollutants and effluents has affected marine and land biodiversity arising from acid rains generated by modern farming and deforestation. Continuous production of greenhouse gases has also been instrumental in affecting climatic behavior manifested in recurring draughts and contraction of lakes and ponds as well as emergence of potential flooding of waterways and floodplains in the future.

Keywords : agricultural sustainability, environmental integrity, pollution, eco-system

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