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India's Efforts towards Land Degradation and Desertification

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Abstract: Natural resources of the country like land, water and forests are threatened due to demographic pressure, developmental activities and impacts of climate change. Intensive agriculture, particularly on fragile dryland ecosystems, may further aggravate land degradation. An unprecedented magnitude of degraded and waste lands in the country (120.72 Mha) is a cause of concern. It is broadly understood that about 50% of these lands can easily be afforested, while only one-third can be reclaimed and brought under cultivation with adoption of soil and water conservation measures.

Key words: Desertification, land degradation and drought (DLDD), sustainable land management (SLM), ecosystem management.

Large number of programs and schemes were launched in area of land management by the Govt. of India. Some of the important programs are: Drought Prone Area Development Program, Desert Development Program, Integrated Watershed Management Program, National Afforestation Program, River Valley Projects, Flood Prone Area Program, National Watershed Development Project for Rainfed Areas, Shifting Cultivation and, foreign aided projects. Eight National Missions, of which six deal with land issues, signify importance of sustainable land management in larger interest of the country and to fulfill global commitments

Since Rhio Convention 1994, to which India is a signatory, United Nations Convention to Combating Desertification (UNCCD) has been making frantic efforts for sustainable land management. UNCCD strategies zero net land degradation by 2020. Besides, United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biodiversity (CBD) are other mega conventions dealing with climate change impacts and biodiversity. An integration and synergy is required between these conventions to attain national as well as global objectives. Various acts and policies are in existence in India in the field of forestry, which have helped forest conservation to some extent. Such policies are also required in the area of land and water use to arrest/revert the process of degradation. Policies are required to cover entire spectrum of sustainable land and ecosystem management. Efficient coordination and governance is critical for synergistic outputs.

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Background

India supports about 16.8% of the world's population, 11% livestock merely on 2.3% of land and 4.2% global fresh water resources. Since independence the population of the country has increased from 363 to 1210 million and is likely to become 1475 million by 2030. Natural resources of the country like land, water, forests, biodiversity, mineral deposits, rivers, wetlands, surface water bodies as well as ground water reserves are threatened due to demographic pressure, developmental activities, industrialization and impacts of climate change. A quantum jump in food production from 51 to 245 Mt, on account of irrigation, green revolution and associated agricultural developments in the country, may still befall insufficient to feed the population of 1.48 billion by 2030 needing at least 350 Mt of food grains from an unchanging 141 Mha net cultivated area. Even at the current nutritional level, 100 Mt of additional food grains are needed by 2020 for food security in the country. On the other hand the per capita agricultural land has decreased from 0.48 ha in 1951 to 0.13 ha and is likely to shrink to 0.07 ha 2030. More than 50% of the Indian farm families comprising of 4-6 members cultivate less than one hectare land, making a reasonable livelihood difficult, despite 51% of the geographical area under cultivation as