

ชื่อเรื่อง

**Environmental Considerations in Erosion Control : Use of Vetiver Grass in Soil Moisture Conservation Programme in Sardar Sarovar (Narmada River) Catchment in INDIA**

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**Abstract**

Soil and land form an integral part of the fragile life supporting system basic to men's existence. However excessive soil erosion with consequent high rate of sedimentation in the man made water bodies and decreased land fertility have become serious environmental problems with disastrous socio economic consequences. For reversing the trend, there is an urgent need for adapting economically viable techniques of soil moisture conservation. Quick method of erosion control through construction of engineering structures have neither significantly stopped erosion nor have significantly increased yields of crops through improved moisture conservation. They also do not work in the long run. While vegetative systems in conjunction with appropriate cultivation practices were in most cases found suitable.

The present paper discusses the use of Vetiver as an economically viable method in erosion control of arable lands and its usage in catchment area treatment programme in Narmada river basin in India where 175,000 ha area is being treated with erosion control measures. Socio-economic problems associated with planting of vetiver on large scale in Narmada river basin are analysed. Based on the experiences drawn, planting, of vetiver as an integral component of interactive subwatershed planning, is recommended for low cost erosion control in extensive areas of a river basin to mitigate the stresses on the local environment.