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# Economic Assessment of Soil Erosion Damage on Smallholder Farms in Marginal Lands of Mahi Ravines in Gujarat

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**Abstract**

Economic damage due to soil erosion has been assessed for a scenario representing the agricultural practice followed on a typical smallholder farm adjacent to ravines. Using on-farm trial data from a research farm in the Mahi ravines, yield-erosion relationship has been estimated and erosion damage function has been developed with local output and input prices realized by smallholder farmers. Pearl millet + pigeon pea being the most prominent cropping systems on smallholder farms in the Mahi ravines, has been taken for study. Farmers' existing erosive practice has been compared with a conservation practice, viz. ridge and furrow technique (RFT). According to the study, a decline in yield to the extent of 50 per cent and 75 per cent will take much longer period in the case of conservative practice than in erosive practice. The paper has also studied farmer's decision on switching over to conservation practice from the existing erosive practice. The analysis has revealed the switching over decision year to be insensitive to discount rate, and little sensitive to output price, suggesting thereby that these policy variables would have little effect. The paper has suggested that favourable input-output price scenario and initial support of the state would help in incentivizing the farmers to switching over to conservative practice.