

THE VETIVER SYSTEM FOR RURAL ROADS



Low maintenance, sustainable (lasts 100 years) and can involve local population



Culvert bridge in a flood zone. Annually the stream shifts its course



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Same bridge one year later. Road bed & stream bank are stabilized with vetiver.



After 4 years, the bridge survived 2 cyclones

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Sustainable protection of small concrete works in dry and wet seasons



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Insures low maintenance of side drains – mimimum sediment.



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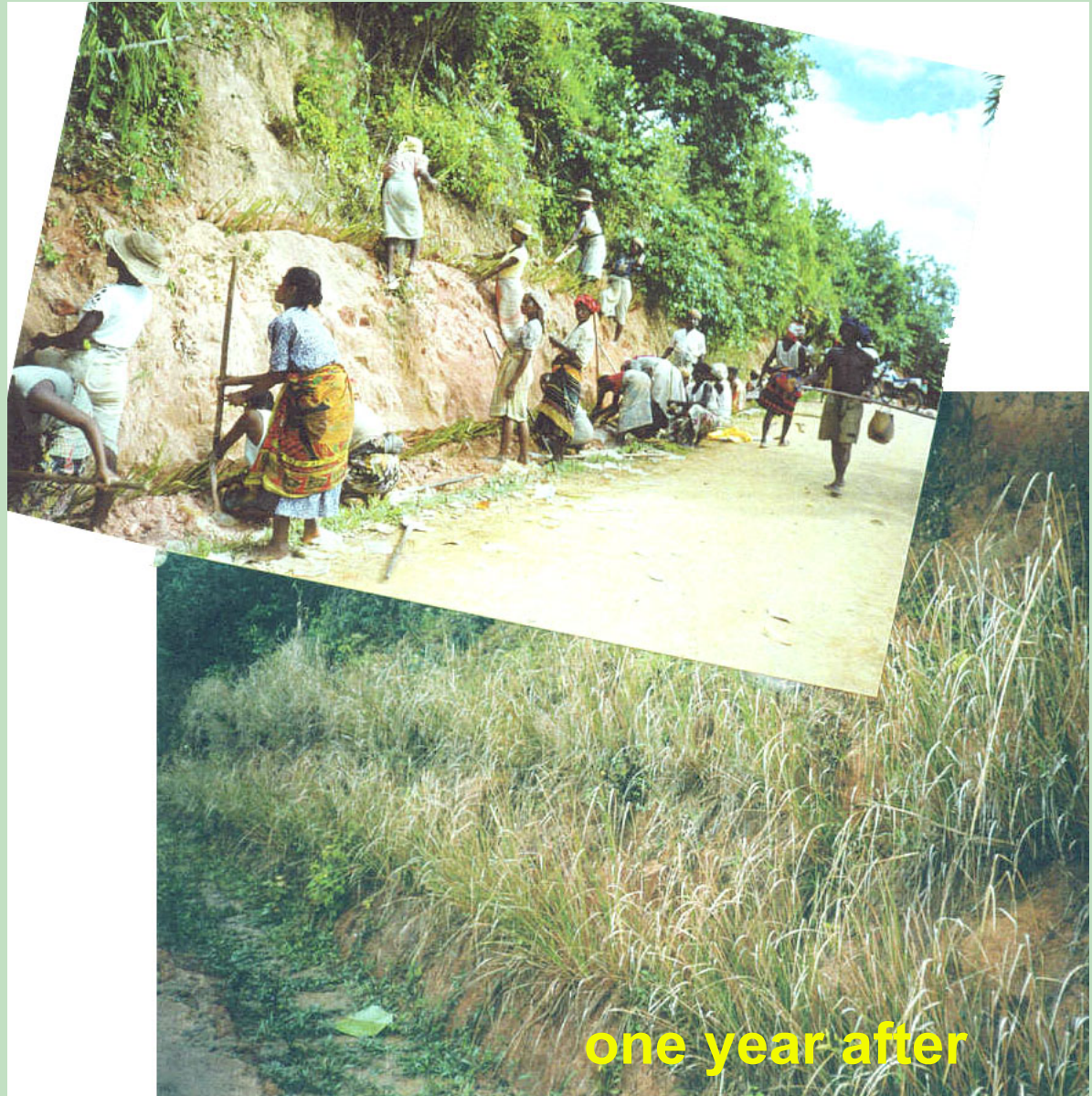
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In high flow areas, gabions are stabilized with vetiver hedges



Community planting of vetiver along steep road side



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Vetiver hedgerows protecting roadbed leading to submersible bridge



Assuring year-round roadway and bridge will remain aligned during flash floods



The rural farm-to-market road was washed out annually until a row of vetiver was planted upslope of the road.



Rural road

Water force reduced & spread



Eliminating gullying at elbow of rural road (Malaysia)



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