



Photo 4.16 Fishfarms in the are of Dagupan City experienced large damage and economic losses, mostly due to liquefaction of soil settlement and lateral spreading and failure of dikes and canals.

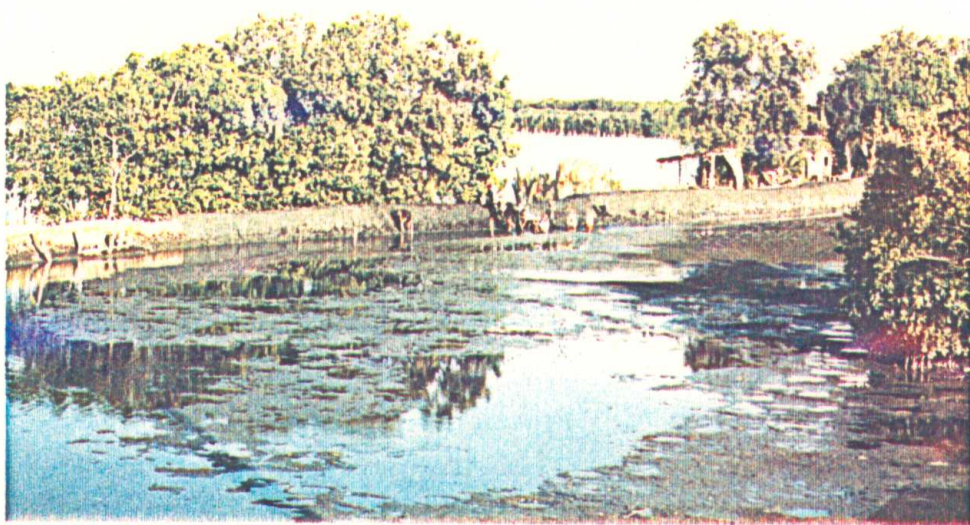


Photo 4.17 Repair work of collapsed and settled section of the dikes in the area of Dagupan City.





Photo 4.18 Failure of Carmen Bridge on the road Manila-Baguion, out of 12 spans, 6 collapsed or experienced large deformation due to liquefaction causing intensive settlements and tilting of piers. Sandboils due to liquefaction observed in the vicinity of the bridge.

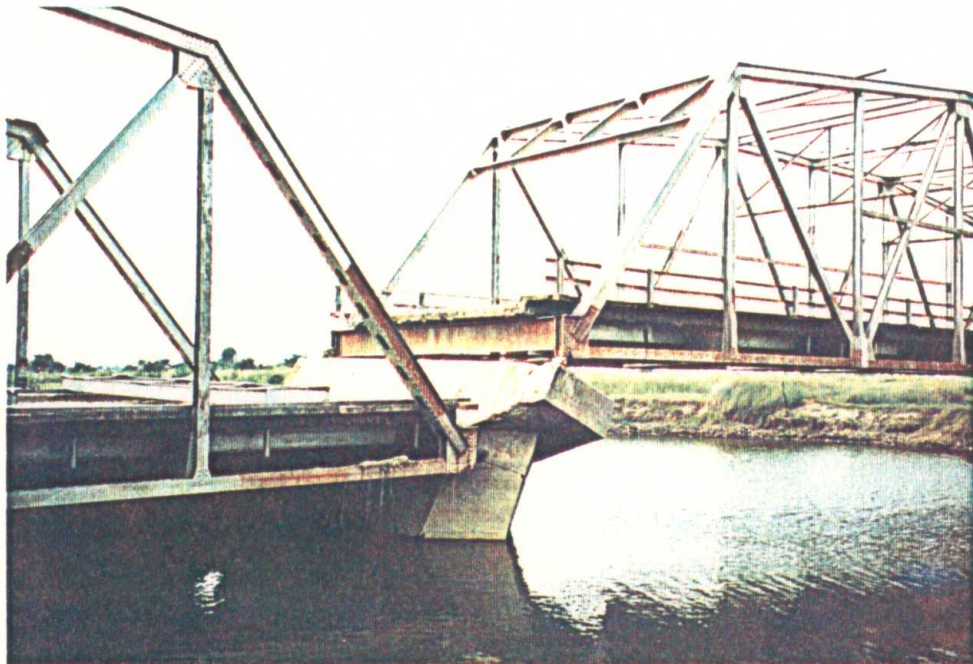


Photo 4.19 Failure mode of Carmen Bridge, intensive settlement and tilting of pier due to liquefaction.





Photo 4.20 Failure of the bridge over Pantal River in the central business district of Dagupan City, due to liquefaction causing failure of piers and abutments. Left temporary walkway and failed bridge deck, right temporary Bailey Bridge.



Photo 4.21 General view on Pantal river bridge in Dagupan City and tilted buildings on the river banks.