

## Pavement Failures and Its Maintenance

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**Abstract :** This paper summarizes the ongoing researches about the defects in both flexible and rigid pavement and the maintenance in both flexible and rigid pavements. Various defects in pavements have been identified since the existence of both flexible and rigid pavement. Flexible Pavement failure is defined in terms of decreasing serviceability caused by the development of cracks, ruts, potholes etc. Flexible Pavement structure can be destroyed in a single season due to water penetration. Defects in flexible pavements is a problem of multiple dimensions, phenomenal growth of vehicular traffic (in terms of no. of axle loading of commercial vehicles), the rapid expansion in the road network, non-availability of suitable technology, material, equipment, skilled labor and poor funds allocation have all added complexities to the problem of flexible pavements. In rigid pavements due to different type of distress the failure like joint spalling, faulting, shrinkage cracking, punch out, corner break etc. Application of correction in the existing surface will enhance the life of maintenance works as well as that of strengthening layer. Maintenance of a road network involves a variety of operations, i.e., identification of deficiencies and planning, programming and scheduling for actual implementation in the field and monitoring. The essential objective should be to keep the road surface and appurtenances in good condition and to extend the life of the road assets to its design life. The paper describes lessons learnt from pavement failures and problems experienced during the last few years on a number of projects in India. Broadly, the activities include identification of defects and the possible cause there off, determination of appropriate remedial measures; implement these in the field and monitoring of the results.

**Keywords :** Flexible Pavements, Rigid Pavements, Defects, Maintenance

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