

Investigation of drainage works on forest roads

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Abstract: Forest roads are indispensable infrastructures for carrying out forestry operations sustainably, effectively and economically. However, they encounter some problems such as erosion, when they are not constructed in required engineering standards. Doubtless, forest roads should not be routed over where drainage problems are common. Nevertheless, forest roads need mandatorily to be planned over such areas. Accordingly, water-runoff over the road platform cause degradation in their stability. That's why, surface and subsurface water flow over the road platforms need to be avoided by drainage works. Drainage should carefully be taken into account during whole road construction. In the present study, drainage problems and related works on forest roads were investigated in Gölyaka Forest District. For this aim, the effectiveness of application of open top wooden culverts for mitigation of water runoff-induced problems on forest roads were studied. Because, application costs of these structures are comparable with other complex drainage structures. Wooden culverts can be used as simple, cheaper structures in drainage regulation of forest roads.

Keywords: Drainage, Erosion, Forest road, Wooden culverts