Forest Road Construction Using Rubber Pieces as an Improving Infrastructure in Cold; Lead for a Mountainous Sustainable Development

Anastasia Stergiadou*, Panagiotis Eskioglou
Faculty of Forestry & Natural Evironment, Institute of Mechanical Science and Topography,
Aristotle University of Thessaloniki,
54124 Thessaloniki,Greece
nanty@for.auth.gr

Abstract:
Road construction technology in Greece is moving in low rhythms and that give us an advantage to learn from the pioneers mistakes. To use rubber pieces coming from wheel tires of big vehicles in improving infrastructure in cold, snowy regions involves various climate-related issues. The tires small pieces mixed in cold with concrete can constitute part of road surface in a mountainous road network.
The aims are: a) to develop measures against road icing and frost heave, b) to improve the durability of road surface in cold regions, c) to achieve an effective and efficient pavement design method, d) to realize scientific maintenance of road assets using a road surface management system, and e) to originate recycling technologies for re-use of industrial rubber wastes in construction. Through this research, we hope to make cold, mountainous regions in Greece safer and more pleasant in order to develop an ecotourism.
As a result of our research is to claim new trends for road surface construction; in order to upgrade the rubber wastes and give an opportunity to a sustainable and promising for the residence development in mountainous areas.

Keywords: forest road construction, mountainous sustainable development, cold mixture of tire pieces and concrete, rubber wastes, ecotourism