

ISSUE: 02. COSTS AND BENEFITS OF WINTER SERVICE IN A CONSTRAINED BUDGETARY CONTEXT

SUB-ISSUE: Cost benefit analysis

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Room: D

MR. JEJIN PARK

Organisation:

Korea Expressway Corporation

Country:



South Korea

e-mail:

jjpark@ex.co.kr

Presentation title:

A STUDY ON THE DEVELOPMENT OF THE EXPRESSWAY TRAFFIC ACCIDENT DAMAGE MODEL IN THE WINTER SEASON

Other Authors

Seo, Imki, Korea Expressway Corporation, South Korea, seoimki79@ex.co.kr

Summary:

The social cost of traffic accidents in Korea grew to KRW 13 trillion in 2011, almost 6.4% of the annual government budget and a 10.0% increase from the previous year. Aside from human and material losses, the high traffic accident rate in Korea also portrays the country as unsafe. Accidents on highways make up 1.2% of all traffic accidents reported in this country, but the fatality rate of highway accidents is significantly higher, standing at 5.1%. The average mortality rate of highway traffic accidents over the last three years (2009-2011) was as high as 11.9%. Highways tend to be even, better-paved, and more linear than national or regional routes, consequently contributing to the higher levels of severity observed in highway accidents. Korea experiences extreme change in weather conditions from season to season. The dramatic change in weather conditions and the consequent change in road conditions contribute to the wide variety of types and forms of accidents on roads. The average mortality rate of highway accidents during the winter amounts to 12.1%, which is 0.3% higher than the average rate for other seasons (11.8%). The heavy snowfalls and frost over highway surfaces exert greater burdens on cars and drivers, decreasing drivers' control over their cars and thereby elevating the level of severity of highway accidents during the winter. The cumulative human cost of wintertime highway accidents over the last three years amounts to approximately KRW 97.1 billion, almost twenty times greater than the material cost of KRW 4.8 billion.



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