SUMMARY

Study on Impact Analysis between Rise of Green Vehicle and Transportation Funding and Its Policy Implication

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The purpose of this study is twofold. The first is to review how much transportation funding will decrease until 2050 according to the increase of green vehicle, and the second is analyze how policy solution derived from US case study will be suited for responding to the transportation funding shortage in Korea.

This study applied to scenario 1 (past trend) and scenario 2 (government increasing target plus economic model). In terms of scenario 1 from 2030 to 2050, tax revenue decreasing from green vehicle will reach on 48.4 trillion won. Meanwhile, national tax will decrease in 22.5 trillion won and local tax will decrease in 25.8 trillion won. In terms of scenario 2, tax revenue decreasing from green vehicle will reach on 85.1 trillion won. Meanwhile, national tax will decrease in 39.8 trillion won and local tax will decrease in 45.3 trillion won.

After analyzing US case study, this study briefly concludes that unit tax prices for electric vehicle and fuel cell vehicle will be as follows. For operation

process (Transportation tax, Education tax, and local tax), the unit tax price of electric vehicle will be suited in 21.8~23.1 won/km and fuel cell vehicle's will be suited in 21.7~21.8 won/km for the next 30 years. For operation process (Transportation tax, Education tax, and local tax) and holding process (Vehicle tax and local education tax), the unit tax price of electric vehicle will be suited in 38.6~39.5 won/km and fuel cell vehicle's will be suited in 37.7~38.1 won/km for the next 30 years.

This study result will be referred for establishing National Midterm Fiscal Policy and improving national transportation investment and maintenance policies. Also it will be helpful for preparing official legal plans as well as long-term road maps in fiscal area. Hence, we will need to prepare a policy solution for improving to understand from the people when we try to introduce a new tax system in the future.