

A COMPARATIVE STUDY ON THE ENVIRONMENTAL POLICIES OF ROAD MANAGEMENT AGENCIES

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I Background & Purpose

The rise of ESG and global consensus on climate neutrality led many organizations to strengthen their environmental policy. Companies or agencies, in charge of road construction and maintenance, have also been required to focus on preserving the environment such as CO₂ emission reduction. In this context, this study will carry out case study to find out factors of environmental policy for tackling environmental challenges.

II Case study

1. U.S.A. (FHWA, Federal Highway Administration)

- Environmental Justice (EJ) / - National Environmental Policy Act (NEPA)
- Federal Highway Administration Environmental Justice Reference Guide (April, 2015)
- Environmental policy consists of resilience, sustainability, and energy and emission.
- Infrastructure Voluntary Evaluation Sustainability Tool (INVEST): FHWA's self-assessment tool on sustainable Highways

2. U.K. (Highways England)

- Department of environmental sustainability was established responsible for the net-zero policy.
- Highways England developed the long-term strategy of 'Net zero Highways: our 2030/2040/2050 plan.'
- Net zero of corporate emissions (2030), maintenance & construction emissions (2040), road user emissions (2050)
- Environmental performance indicators are shown in the 「Annual Assessment of Highways England's Performance April 2020 to March 2021」: noise mitigation, biodiversity, air quality mitigation, CO₂ emission, supply chain carbon, condition of cultural heritage, water quality, litter

3. Japan

- Six highway corporations: NEXCO Group(3), Metropolitan, Hanshin, JB Honshi
- Sustainable Development Goals (SDGs) + Corporate Social Responsibility (CSR)
- NEXCO EAST: CO₂ Emissions Reduction, Improvement of the Expressway Environment, Circulation and recycling of energy and resources used in business activities
- Metropolitan Expressway: realization of a carbon-free society, realization of a symbiotic society, improvement of roadside environment, and a circular society

4. South Korea (Korea Expressway Corporation)

- Social Value Indicators: Infrastructure for environmentally friendly vehicles (hydrogen cars, EVs), Green Product Purchase, Reducing designated waste, Reducing water-polluting substance discharge, Tree planting to reduce CO₂ emissions, Use of arboretum facilities, Supporting local economy by recycling resources, Greenhouse gas emissions reduction, Reduction of highway noise/roadkill on highways/fine dust generation, nonpoint pollution sources, Use of renewable energy
- ESG Promotion strategy / UN Global Compact Activity Reports / Carbon Neutrality Promotion System and Strategy (Proposal)

III Conclusion

This study shows that organizations in charge of expressway (highway) emphasize the importance of environmental preservation. We also found that these organizations have reflected environmental effects on implementing highway projects. They have evaluated environmental indicators with an emphasis on sustainability such as CO₂ emission reduction, air quality mitigation, energy use, recycling etc.