STP510(A): National Innovation System

Research Prospectus Draft

Why government-led projects facilitate private sectors to satisfy the national policy?

In case of eco-friendly ships in Korean context

Contents

- Background Information
- Research Question
- Research Method
- Comments

- The Paris Agreement (UN Climate Change Conference, 2015)
 - to move towards carbon neutrality by the second half of the 21st century to mitigate the effects of climate change
- Declaration of 2050 Carbon Neutrality Strategy (Oct 2021)
 - to reach when the same amount of CO2 is released into the atmosphere as is removed by various means, leaving a zero balance, also known as a zero carbon footprint (EU Parliament, 2020)

- Establishment of 2050 Carbon Neutrality Strategy in Maritime and Fisheries Sector (Oct 2021)
 - to reduce 70% of GHG emission by 2050 (307,000ton), compared to 2008 (1,019,000ton) in maritime sector



- lifespan: 25 30 years
- still in the beginning stage of developing green technologies and relevant policies

• Policy Briefing by the Minister (16 Dec 2021)



- "currently at this stage, complete carbon neutrality in the maritime sector would take longer time for realization, due to ship's long lifespan and other technical, policy issues"
- "However, Korean government reaffirm our commitment to conduct relevant R&D and public services in order to combat climate change in maritime sector"

- 2021-2030 Greenship-K Strategy (Dec 2020)
 - Five-year (기본계획) and annual plan (시행계획) has been established in order to implement the national target goal
 - Several policies / services have been stated for the implementation of national target goal
 - R&D on development of innovative technologies throughout the life cycle of greenship (친환경선박 전주기 혁신기술개발사업)
 - Certifying and providing government subsidy to private sector when constructing greenship (민간사업자 친환경선박 인증 및 보조금 지원)

- R&D on development of innovative technologies throughout the life cycle of greenship (친환경선박 전주기 혁신기술개발사업)
 - Ministry concerned: Ministry of Oceans and Fisheries
 - Implementing organization: Korea Maritime Transportation Safety Authority
 - Objective: development of new technologies in greenship-K for promotion and dissemination of greenship in Korea
 - Duration: 2022-2031 (10 years period)
 - Budget: KRW 18,700,000,000 in total

- Certifying and providing government subsidy to private sector when constructing greenship (민간사업자 친환경선박 인증 및 보조금 지원)
 - Ministry concerned: Ministry of Oceans and Fisheries
 - Implementing organization: Korea Maritime Transportation Safety Authority
 - Objective: dissemination of greenship in Korea
 - Duration: 2021-2030 (10 years period)
 - Budget: KRW 110,000,000 annual

- Can we say this projects are the part of an "innovation"?
 - Most innovation involves new combinations of existing elements, bodies of knowledge or technology (M Edwards-Schachter, 2018)
 - 温故知新 (reviewing the old and learning the new; carrying the knowledge gained into new fields)
 - Innovation usually involves collaboration between two or more parties.

- Can we say this projects are the part of an "innovation"?
 - Innovation can take many forms, including adaptations of products and incremental improvements to processes
 - Innovation is thus the result of a complex interaction between various actors and institutions.
 - Technical change does not occur in a perfectly linear sequence, but through feedback loops within this system (OECD, 1997)

- Can we say this projects are the part of an "innovation"?
 - The projects include various actors (quasi-government organization, research institution, shipowners, universities)
 - The project includes assembling of the pre-existing environmentally friendly equipment to the ships and make a track record in order to prove its suitability (not 100% novel in themselves, but novel in combination)

Research Question

Why government-led projects facilitate private sectors to satisfy the national policy? In case
of eco-friendly ships in Korean context (qualitative)

Research Method

- Considering of time remained and limited data due to the continuing progress of the projects, research will be conducted as follows
 - one-on-one interview and survey with stakeholders involved in the project
 - (public) government officer in charge of the project
 - (private) ship owners (planning to build / not to build greenship)
 - Data collection of policy document and regulations

Research Method

- Case study of different country
 - Country with its best practices in disseminating greenship by government-led projects (e.g., Norway, Finland that have a persistent leadership in the relevant field)
 - → (introduced by Lee, Malerba, 2017)

Comments

If you have any questions or comments,

I would be happy to answer and accommodate your feedbacks!

Thank you for listening!