

A STUDY ON SECTORAL APPROACHES TO CLIMATE CHANGE MITIGATION FOR UPSTREAM OIL AND GAS INDUSTRY IN THAILAND

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ABSTRACT

The upstream oil and gas industry, those who explores and produces petroleum, is one of the most powerful and global actors; especially multinational oil and gas corporations which have operations across countries. As a result, understanding corporate responses to climate change and what factors can be influential to trigger the change of their climate change strategies is crucial for policy-makers at national and international level.

At the very beginning, climate change mitigation, which represents efforts to reduce man-made greenhouse gases, was considered as a threat to the oil and gas industry since its products were a direct cause of climate change. After the adoption of Kyoto Protocol, the disparity of oil and gas industry began to start due to some European-based multinational oil and gas corporations changed their climate strategies to be more friendly to global climate change mitigation; while their US-based counterparts still acted against the effort. However, as the issue has matured, the recent trend in the literatures is reflecting an increasing convergence of corporate responses in the positive manner in which they respond to climate change mitigation.

Although many have studied the increasing proactive climate strategies of the oil and gas industry, those efforts are still at the individual company level and focused on the headquarters of major European and US-based multinational oil and gas corporations. As a result, the study aims to fill in the gaps in existing literatures by shedding light on the sectoral approaches which are a collective action to mitigate GHG emissions among companies in the given industry.

Sectoral approaches activities include an elaboration and intensification of individual climate change mitigation efforts. If well-established, they have potentials in addressing competitiveness distortion as well as carbon leakages, which are resulted from uneven GHG emission reduction responsibility of developed and developing countries under Kyoto Protocol. Also they could enhance global climate change mitigation efforts by targeting the potential sectors which have large GHG emissions and high concentration of companies in the sector.

The upstream oil and gas industry is the focus of this study, because it has released relatively higher GHG emissions than the midstream and downstream industry. Moreover, it had a 6.3% share in the global greenhouse gas emission which is more than other emission-intensive industries such as cement (3.8%), iron and steel (3.2%), and aluminum (1.4%). The cement, iron and steel, and aluminum industry have long established sectoral approaches, but not yet the upstream oil and gas industry. Thailand is chosen as a case study since there are a number of multinational and national oil and gas companies operating in upstream industry. Thus it offers the examination of climate change strategies of local branches of major multinational oil and gas companies with a comparison to Thailand national company. As non-Annex I party to Kyoto Protocol, Thailand also offers a specific political and social context in the study of climate change mitigation.

Due to the sectoral approach is an unprecedented activity in the upstream oil and gas industry, the research set two main questions and three sub questions to study its establishment possibility. For the main questions, the research aims at finding out 1) what factors have an influence on upstream oil and gas companies towards setting up the sectoral approach to climate change mitigation in Thailand and 2) what is the content of sectoral approach that the companies are willing to conduct. These main research questions are followed by three sub questions aiming

to examine 1) the potential type of sectoral approach that is likely to be established, 2) the activities of sectoral approach that the companies are willing to participate, and 3) the suitable role of Thai government in the sectoral approach.

The study applied an analytical framework comprising of three models to investigate factors that can encourage or influence the upstream oil and gas industry to set up sectoral approaches in Thailand. Three models, offering a different set of factors, are 1) Corporate Actor model, 2) Domestic Politics model and 3) International Relations model. The first model purposes that the company specific features determine the behavior of corporate. The government policy supply and social demand from civil society are determining factors according to the second model. And the third model considers international association of industry and other companies in the industry has normative power to influence the corporate behavior. Online questionnaire and semi-structured interviews are main research approaches applied to collect data from stakeholders which in this study are categorized into two groups: company group which is the upstream oil and gas companies and non-company group consisting of government authorities, NGOs and scholars.

The findings from online questionnaire and semi-structured interviews with company and non-company respondents concluded that Thai government is the most influential actor and should take an initiative in establishing sectoral approaches in the upstream oil and gas industry. Company respondents pointed out that they were willing to comply with the government policy and preferred to a sectoral agreement with Thai government. The study has drawn several policy suggestions to the Thai government. First of all, the government should include the sectors which have potential in GHG reduction into the state climate change mitigation policy; rather than strictly focusing on high-GHG emissions sectors. Secondly, because companies answered the

online questionnaire stating that they were concerned of free riders, the study thus suggests the Thai government consider implementing sectoral approaches as a legally-binding regulation so that all companies have to participate. Lastly, the government should provide the common guideline for measuring and reporting GHG emissions which suits the unique operational requirements of this sector, as well as assist in Measurement, Reporting and Verification system (MRV) in order to develop industry GHG database, which is the fundamental requirement of sectoral approaches.

Nevertheless, there are some rooms for further investigation on sectoral approaches to climate change mitigation in the upstream oil and gas industry. The study suggests several issues for future research. The expansion of number of company respondents as well as the data collection from their headquarters are recommended for future research in order to re-examine the current findings especially on the factors in International Relations model, which has not been much raised. Changing an area of study from Thailand to other developing countries is another potential research direction. Whether or not the governments of other developing countries are considered as a main determinant for upstream oil and gas companies are worth examining. Lastly the transnational sectoral approaches among companies across countries such as in Southeast Asian region could be an attractive research topic. Due to the fact that the region is going to establish ASEAN Economic Community (AEC) in 2015, transnational sectoral approaches establishment could be more likely to take place.

Key words: climate change mitigation, sectoral approaches, upstream oil and gas industry, Thailand