

## Quiz 1

(5 points)

Time: 10 September 2021 at 15:00-15:30 (30 minutes)

There are 2 questions. You need to answer all questions. Please **submit** your answers in a PDF file with a file name “**Quiz1\_StudentID\_Name**” via BE Moodle class before **15:40**.

### Question 1 (3 points)

**Case A:** The production of a plastic factory ‘K Chemical’ is located nearby a house village ‘Dreamland’. If the production of the plastic factory reaches a certain level at  $Q_m$ , it will release air pollutions to the level that destroy clean air around the Dreamland village. However, if the production of the plastic factory does not exceed  $Q_m$ , it will create no significant impact for people living in the Dreamland village.

**Case B:** In Thailand, the CO<sub>2</sub> emissions from oil consumption in transport sector increased from 51 million tons of CO<sub>2</sub> in 2008 to about 63 million tons of CO<sub>2</sub> in 2018.

Please answer the following questions for both Case A and Case B above

- i. Does an externality exist? If so, classify the externality type (e.g., positive vs. negative, costs vs. benefits) and explain how inefficiency problems could arise in this case.
- ii. If an externality exists, could the Coase Theorem be applied to solve market inefficiencies in this case? Please explain your answer (Hint: is it possible to use property right rules and solve the problem?)
- iii. If the Coase Theorem does not apply, what the government could do to solve the problem?

### Question 2 (2 points)

Suppose an investor is considering a wind farm project to produce electricity. The wind farm will create noises that affect people living in a house village Dreamland.

- i. How could you estimate the compensation amount for people living in the Dreamland to approve the wind-farm construction? (Hint: Choose WTP vs. WTA question, methods to estimate WTP and WTA).
- ii. What should be considered in the cost-benefit analysis to decide if the wind farm project should be built or not?

①

1.) It is external. Externalities lead to market failure because a product or service's price equilibrium does not accurately reflect true cost and benefits of product and services. Negative externalities usually come at cost of individuals. Negative external are the producer doesnot bear the cost.

② This cannot apply with Coase Theorem.

Coase theorem relies on the combination of changing costs that have no specific wealth effect, relating with text above → cause of pollution.

③ Government should solve by asking willingness of people may be by rights rules

①  
2.) They might approve the project to produce electricity for their village. According with WTP, measure in terms of sacrifice that people who lived in there village are willing to make to have it. In addition, WTA, compensation of person to accept to something up ex. produce electricity.

② they still should built this project even if this related with cost and benefits analysis. Even, the noise will interrupt people who lived there which is cost for this cause, but they will have better electric which refer to benefit.