

## 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?

## Question 1

- i since it will create air pollution to the villagers so, its not good for the villagers  
the air pollution might get worse until it can fix. and that will extremely affect to Dreamland  
the villagers did not get benefits at all, since they will face air pollution without the compensation from the factory. the villagers might get sick and affect health because of it. So, the Dreamland only get negative effects
- ii
- iii

## Question 2

- i) the compensation amount for people living in Dreamland to approve the wind-farm construction should be as much as the damaged that the people in Dreamland will get and that is WTA (willing to accept) and it have to be reasonable amount to pay for compensation from the construction. People who living in Dreamland will suffer from noise that created from wind farm. In contrast, they will get a electricity to use such as give electricity free use to the villager
- ii) the villager might get too much noise pollution.  
the welfare for local will get worse if they do not get benefits from this project  
the welfare for owner should be consider if construction cost will be expensive when compared to the benefit in the future