

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 CO₂ emissions from oil consumption in transport sector increased from 51 million tons of CO₂ in 2008 to about 63 million tons of CO₂ 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?

i) Case A externality exist, Positive Production only for producer not positive for a near by village. Because factory make an air pollution by reaking the Q_m . The problem is factory make to much air pollution on the living area.

Case B externality exist, negative consumption because the CO_2 that emission will effect all over the atmosphere in Thailand and there are no profit for doing that at all.

ii) Case A: Yes, if the Coase theorem applied the problem will get smaller if factory and village near by agree with the rule that they agree with.

Case B: No, Because in this case there are to big to solve because of there are too many people and company that want to gain profit so it hard to solve.

iii) Case B: Government need to limit company or factory to emission CO_2 from oil consumption in transport.

Q 2

i) WTP, The wind farm needed to improve the wind farm project to reduce the sound.

wind farm have right \rightarrow WTA but the good will decrease
WTP will increase good

ii) I think they should build by comparing with profit and the problem they can't compare with it.