EE375 Applied Economics for Natural Resources and Environment
Semester 1/2021 (August 9 - November 27, 2021)
Instructor: Dr. Supawan Saelim

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 Qm, 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 Qm, it will create no significant impact for people living in the Dreamland village.

Case B: In Thailand, the CO_2 emissions from oil consumption in transport sector increased from 51 million tons of CO_2 in 2008 to about 63 million tons of CO_2 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?

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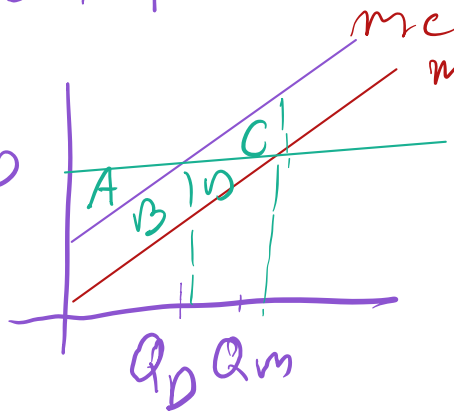
i) case A ∵ is a negative impact, for the benefit the can increase the quantity but the cost is the air pollution, higher cost

case B ∵ is a negative imact, for the benefit is the transpost that can more and for the cost is the air pollut

ii)



∵ So we use the property right

∴ if the property right is assignet to k chemical can be negotiated to pay compentate to get A-C and the cost is borne by K chemical

iii) the goverment can Putting Restrict the producto to Q_D backed up with sufficient punisment

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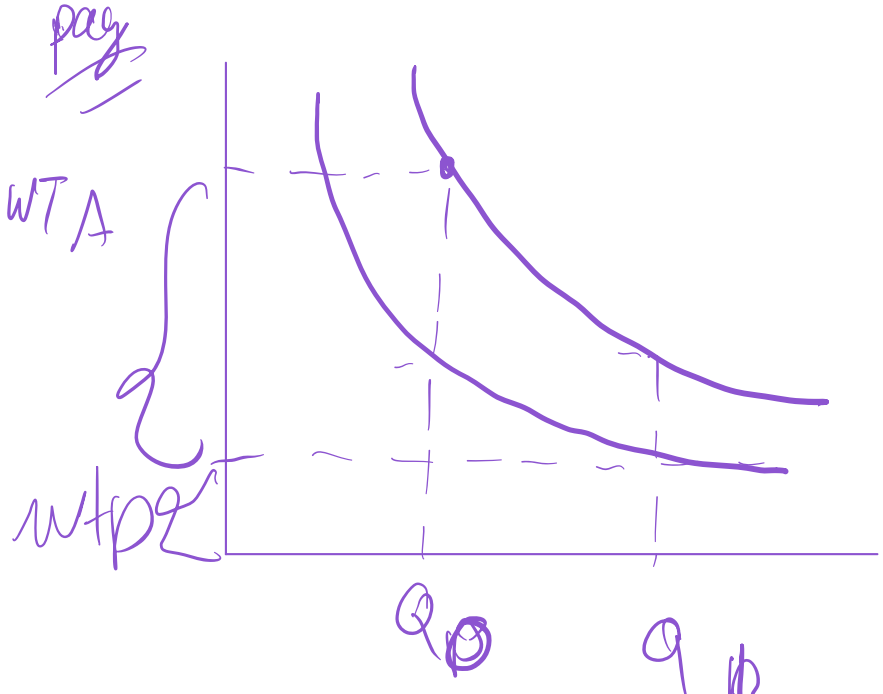

The Dream land will to sacrifice the to is have to High for the Dream land people willing to Accept

(ii) indicate the impact that will come Ex. the compensate that have to pay to the Dreamland, the maintance, and have to focus the welfare heal and cwor