

Question 1

- 1) The externality does exist in both cases,
 for case A, it would cause negative externalities if it is overproduced at level Q_m , it would release air pollution and hence create a negative impact to those who are not involved in any aspect of the production but they are negatively impacted by air pollution. But if the plastic factory produces at level lower than Q_m , then it would not cause any impact to the society.
 for case B, it is negative externality as the emission of CO_2 from oil consumption in transport may also cause the air pollution or negative impacts to the other health risks as well e.g. by inhaling CO_2 emission.
- 2) Yes, if the property right is assigned to the plastic factory, the cost will be borne by the nearby house village, ask for the willingness to pay for damage cost + payment to reduce the level of damage if the cost is borne by the plastic factory, then must ask for WTA willingness to accept or compensate for all damage costs
- 3) Government can do the followings:
- putting a cap - reducing the plastic production
 - imposing tax on plastic or pollution

Question 2

- 1) WTA, measured the maximum WTA to forgo or lose environmental quality (loss)
 e.g. the level of compensation a person would accept to lose something

Cost-benefit analysis \rightarrow process of deciding whether to pursue a project

by comparing the costs and benefits associated with the project

\rightarrow assessing the impacts of several projects and environmental policies

- contingent valuation method (CVM) ask the respondents directly on the willingness to pay questions
- Revealed preference approach (RP) market-based used to estimate the value of environmental goods and services based on people's actual behavior such as Hedonic pricing method (HPM)

- 2) Economic value in CBA depends on individual's preference, WTP, budget constraints
 if benefits $>$ cost = accept, if costs $>$ benefits = reject / rethink
 improve human well-being decrease human well-being