**SYLLABUS REFERENCE 2.4[1]: 2 things that may help your evaluation of externalities**

Diagram 1: Resource Allocation applying the concept of welfare economics: A solution to Market Failure using Social Costs + Benefits; the Short Run versus the Long Run

1

solving externalities should not result in lower levels of growth in the long run

Price /cost

MSB 1   MSC 2

MPC

= Welfare Loss

0

quantity

Q1-short run   Q2 –long run
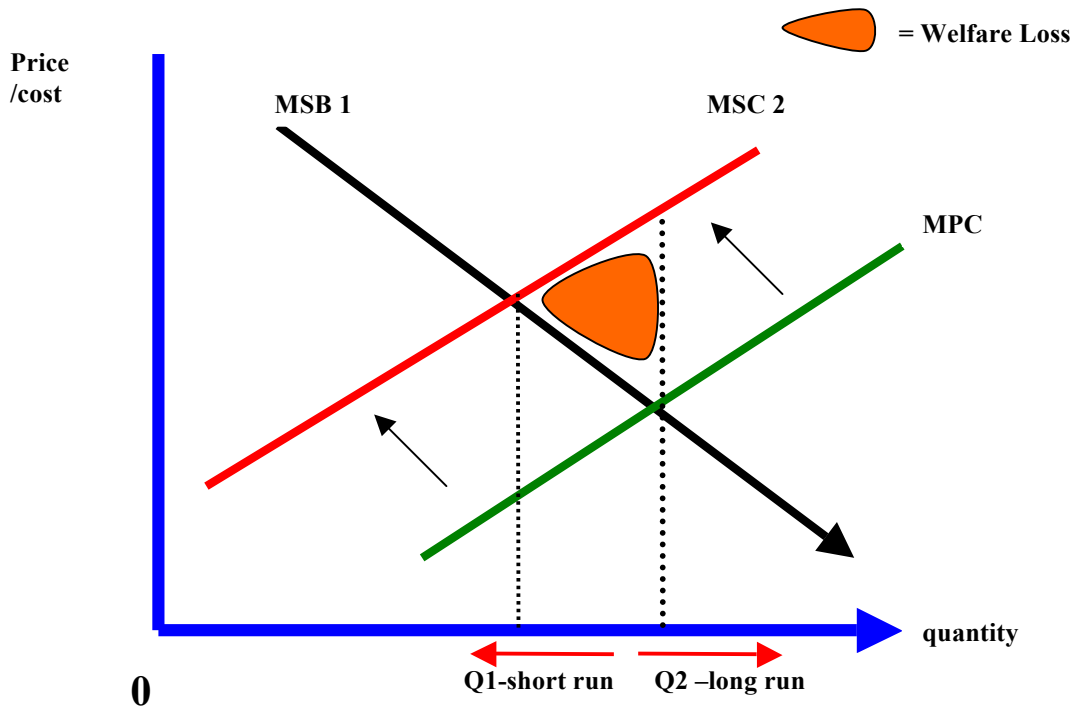
Examine DIAGRAM 1 carefully

- **What is the problem with securing a solution for negative externalities of production at Q1?**
- **Tip: Consider the various stakeholders here. Government-consumers-firms-workers**
- **In the long run government/regulator must try to move markets in the long run toward q2 and beyond**
- **In y our writing then be aware of this theme: reducing pollution through regulation affects stakeholders significantly:**

Short run

Cleaner environment
Lower output
Msb=msc
Stakeholder lose (e.g. profits through smaller markets, jobs, higher prices

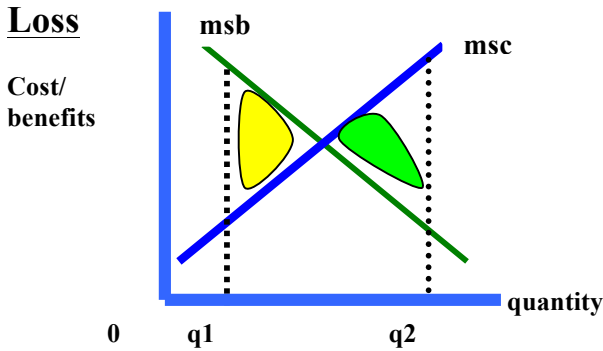- **and reducing production in the short run must not be a long term objective**

Long run

cleaner technology /cleaner output
higher output
msb =msc
prices may be higher but economies of scale (webnote 209) may be significant here

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[1] **See Stanlake page 219 for more on Welfare gain and loss**

use concept of welfare loss to explain the perspective from society

Welfare loss

Diag 2: msb + msc to show Welfare Loss

Cost/benefits

msb

msc

quantity

0   q1   q2

Welfare loss =
a non optimal allocation of resources where MsB is not equal to MsC. This results in over/under consumption /production.

Or   = welfare loss

What is welfare loss?

❖ Where msb is not equal to msc a welfare loss occurs either because of over or under production
❖ Where the loss occurs because of negative externalities of production then cleaner technology can help to increase output in the long run where msb = msc at higher output levels

How do we know that reducing output is not desirable in the long run? We can use consumer and producer surplus to show this:

Diag 3: supply + demand to show consumer and producer surplus(society surplus = consumer+producer surplus)

price

S2

S1

S3

= optimal resource allocation

0

quantity