

# Government intervention

## Government intervention 1

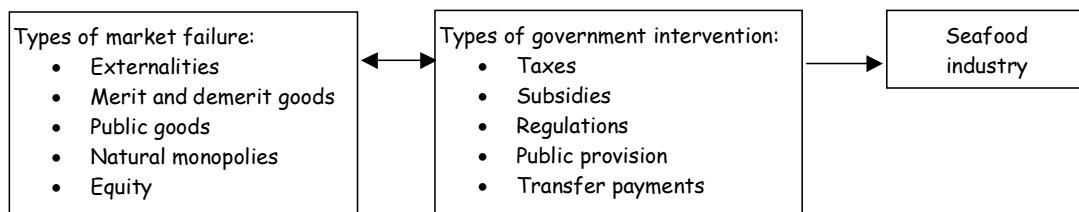
Curriculum and assessment links: Level 3 Economics:

Achievement standard 3.3 Describe and illustrate resource allocation via the public sector

This achievement standard involves describing market failure and appropriate methods government can use to compensate for market failure.

Market failure occurs when the market does not give efficient or equitable outcomes, and there is a justification of government intervention in the economy. The methods that the government can use to compensate for market failure include subsidies, taxation, regulations, public provision and transfer payments. Each of these can be seen in the New Zealand seafood industry.

### Government intervention in the seafood industry



Identify the type of market failure and the likely government intervention in each of the following situations:

Market failure in the seafood industry	Type of market failure	Likely intervention
1. Need for extreme weather warnings		
2. Some seafood industry workers unable to work when a fishery is closed for biosecurity reasons		
3. Bycatch depletes fish stocks		
4. Search and rescue services		
5. Maori treaty rights to fisheries lost		
6. Industry training of seafood workers		
7. Government considers it important for all fishing vessels to have adequate safety gear to reduce accident fatalities		
8. Government discourages drug or alcohol consumption aboard fishing vessels		
9. Depletion of fish stocks leads to introduction of QMS in 1986		
10. Roading required to transport goods from wharf		
11. Telecommunications system essential to communicate with customers		
12. Fisheries inspectors enforce QMS		

## Government intervention 2



New Zealand's highest estimated male rates of work-related fatal injuries, 1985-1994

Occupational group	Number of fatalities	Rate per 100,000 workers
Helicopter Pilots	15	1055
Agricultural Pilots	10	868
Fishery Workers	62	216
Aeroplane Pilot and Flight Crew	15	136
Ships' Deck Officers and Pilots	4	48
Labourers	38	13

Source: Fishing Industry Safety and Health Advisory Group report 2003

The problems faced by owners and skippers (of vessels of any size) in trying to get their fishing crews to wear safety gear (e.g. life jackets) while working on deck are probably very similar to those experienced by legislators in years gone by in getting motorists to wear seatbelts.

Enforcement was one component of the process, awareness creation through the "proving" of benefits was another, while the comfort of the wearer was also targeted. As with the seatbelt issue, knowing the facts and the resultant benefits of using safety equipment is not synonymous with accepting the need to use that safety equipment.

There are a number of innovations that would assist in locating a victim in the water, such as personal EPIRBs, etc. Again, however, the fact that these devices are available does not guarantee its use. There normally has to be either a legislative requirement to use equipment or a really effective promotions program, or more often, a combination of the two.

Several countries have determined that it was cheaper to supply safety equipment than to pay for costs such as search and rescue, hospitalisation, rehabilitation, family support and other community services that are often borne by the government as the result of accidents.

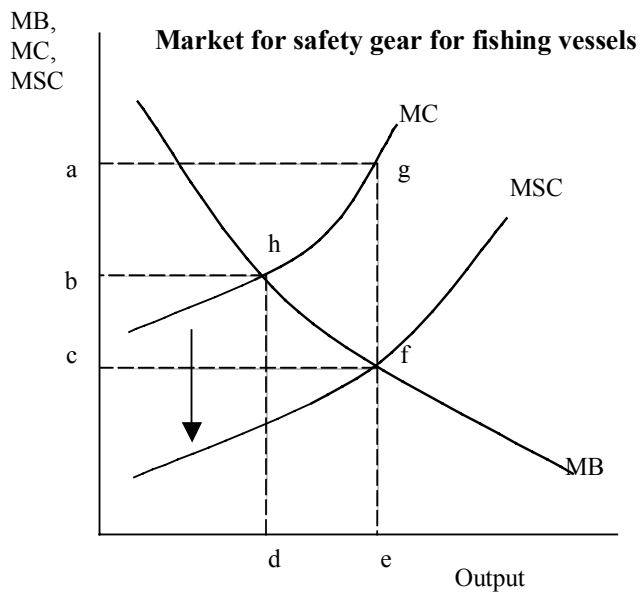
The causes of accidents tend to be similar; a vessel is lost and so is the crew, or a crew member themselves accidentally is lost from the vessel.

A wide range of measures have been implemented in an attempt to improve high fatality rates, in addition to already accepted international standards for construction and equipment. Among these are publicity, training, subsidies and codes of practice. The most common approach is to use a variety of methods to target the causes of fatalities, in an attempt to ensure the environment for fishing is safe, and the people doing the fishing are doing so in a safe manner.

(Table and text source: Fishing Industry Safety and Health Advisory Group report 2003)

Read the resource material above and answer the following:

1. How do work-related fatal injuries compare for workers in the fishing industry and labourers?
2. Identify the causes of accidents leading to fatalities in the fishing industry.
3. The difficulty of getting some fishing crews to wear life jackets while working on deck is compared people to use which other safety device?
4. Identify some of the ways government can encourage the use of safety gear to reduce these fatalities.
5. List the costs on others resulting from accidents.
6. Indicate the type of externality resulting from accidents.



Refer to the diagram above when answering the following questions:

7. Classify the type of externality resulting from the use of safety gear for fishing vessels .
8. From the diagram identify points that indicate:
  - a. market equilibrium price and quantity
  - b. social equilibrium price and quantity
9. From the diagram identify the point that indicates:
  - a. private preferences
  - b. social preferences .
10. Using the following terms (under /over) complete the following statement: at market equilibrium safety gear is \*\*\*\* priced \*\*\*\*consumed.
11. Explain why externalities result in market failure.
12. State the per unit subsidy required to internalize this externality.
13. Identify the total quantity this intervention would cost.
14. Explain why some governments may supply safety equipment free of charge to fishers.
15. Distinguish between private costs and social costs.
16. Explain why the MSC curve is below the MC curve.
17. Write a paragraph to distinguish between private and mixed goods.

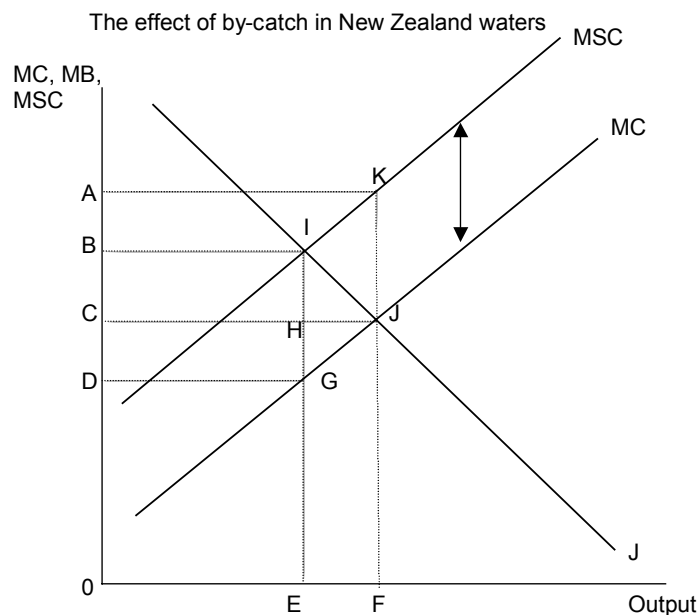
## Government intervention 3

### Bycatch in the tuna longline fishery

Bycatch, or the incidental catch of non-marketable, unwanted species taken as a result of fishing operations has become a key issue in a number of fisheries worldwide. The bycatch of large seabirds, especially albatross, marine turtles and other species in the tuna longline fishery, even though it does not constitute a problem in all fisheries, is clearly an issue of concern in some fisheries.

<http://www.spc.org.nc/coastfish/Reports/RTMF28/E-HOF2-WP5.pdf>

By-catch imposes costs on others depleting marine resources and degrading the marine environment. Regulations as well as education campaigns are used to reduce bycatch in the New Zealand fishery.



2 a) Complete the table

Indicate whether the following are true or false. Tick the correct column.	True	False
i) The market output is OF		
ii) The externality is shown as KJ		
iii) Social equilibrium is at J		
iv) This diagram could be showing the effect of by-catch by New Zealand fishers		
v) The suitable title is 'Negative externality of consumption'		
vi) This activity is under produced and over priced		
vii) A subsidy could lead to a socially desirable output		
viii) The arrow above represents spill-over costs		
ix) The area of deadweight loss at market output is IKJ		

x)	JK represents the costs to the third party at social equilibrium output		
xi)	The externality could be internalised with regulations		
xii)	If a tax was imposed revenue to government would be AKJC		
xiii)	All externalities can be internalised by establishing clear property rights		
xiv)	Resource allocation via the market always achieves allocatively efficient and equitable outcomes		
xv)	Production will always produce a difference between private and social costs		

b) Correct each of the statements that you identified as false in the table above.

### Government intervention 4

Government fulfills a number of important roles in the economy and these are its allocative, distributive, stabilisation and regulatory roles.

As we have seen in the activities above there are numerous examples of government intervention in the seafood industry. For each of the following examples of government interventions classify the role of government which is most likely to apply.

Examples of government interventions in the seafood industry	Role of government
1. Quota management system (QMS)	
2. Safety equipment requirements for commercial fishing vessels	
3. Registration of fishing vessels	
4. Treaty settlement setting up Maori Fishery	
5. Subsidy provided for SITO	
6. ACC provided for fishery industry accident victims	
7. Fisheries officers surveillance of vessels in the offshore fishery	
8. Recognition of customary fishing rights of Maori	
9. The Maritime Safety Authority lighthouses and beacons used by fishers	
10. Ministry of Fisheries funds research on sustainability of NZ fishery	
11. Income support given to some in the fisheries workers	