Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry, Innovation, Science, Research and Tertiary Education Portfolio
Supplementary Budget Estimates Hearing 2012-13
17 October 2012

AGENCY/DEPARTMENT: INDUSTRY, INNOVATION, SCIENCE, RESEARCH AND TERTIARY EDUCATION

TOPIC: Office of the Chief Scientist - uncertainty

REFERENCE: Written Question – Senator Colbeck

QUESTION No.: SI-63

1. In general terms, is uncertainty something scientists deal with as part of their work?
2. From a scientific point of view, what is an acceptable level of uncertainty?
3. What is the Chief Scientist's opinion on the need to know everything about an entire biological system before commencing utilisation of natural resource?
4. How is scientific uncertainty usually managed, particularly in biological systems?
5. Did Minister Bourke discuss his concerns regarding "uncertainty about the environmental impacts" of the vessel with the Chief Scientist?
6. Did the Chief Scientist offer Minister Bourke any advice regarding the level of "uncertainty about the environmental impacts" of the vessel?
7. In the opinion of the Chief Scientist, how does the size of a vessel impact on the certainty or otherwise of its environmental impact?
8. In the opinion of the Chief Scientist, how does the ability of a vessel to process fish on board impact on the certainty or otherwise of its environmental impact?
9. In the opinion of the Chief Scientist, how does the freezer storage capacity of a vessel impact on the certainty or otherwise of its environmental impact?
10. In the opinion of the Chief Scientist, what is the most important factor in determining the certainty or otherwise of a vessel's environmental impact?

ANSWER

1. Yes.
2. There is no single "acceptable level of uncertainty." Scientists work to reduce uncertainty through accumulating evidence.
3. The Chief Scientist's 'opinions' are based on his understanding that the more we know the better will be the understanding. But as a Report from the Royal Society of London once remarked (in paraphrase) sometimes potential impacts are sufficiently serious that policy choices have to be made in the absence of perfect knowledge.
4. By constantly pursuing evidence and testing hypotheses.
5. No.
6. No.

7, 8, 9 and 10 all ask for an 'opinion' from the Chief Scientist. It would be more useful to ask experts who are involved in the subject matter.