

**Economics Legislation Committee**  
ANSWERS TO QUESTIONS ON NOTICE  
Industry Portfolio  
Supplementary Budget Estimates 2014-15  
23 October 2014

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**AGENCY/DEPARTMENT:** Australian Institute of Marine Science

**TOPIC:** National Collaborative Research Infrastructure Scheme (NCRIS)

**REFERENCE:** Written Question – Senator Carr

**QUESTION No.:** SI-95

1. What would be the impact on AIMS if the funding for the National Collaborative Research Infrastructure Scheme (NCRIS) was to lapse?
2. In reference to the renewal bids for the Integrated Marine Observing System or the National Environmental Science Programme mentioned on p. 32 of the Hansard:
  - a) Please describe the renewal bid process for each project?
  - b) When is a decision expected to be made on each project?
  - c) What would be the impact on AIMS if the renewal bids for either project were not successful

**ANSWER**

1. Loss of funding for the IMOS facilities operated by AIMS. Refer SI-92 question 2 for details of impact if these facilities are decommissioned.
- 2(a) Integrated Marine Observing System (IMOS) Impact:
  - The nature and timing of the renewal bid process for IMOS will be contingent on the availability of NCRIS funding beyond the 2015-16 financial year. This is currently uncertain, pending a decision by Government on the future of the program, and expected to be informed by an evaluation of existing NCRIS projects being undertaken by the Department of Education. A decision is required by 2016 at the very latest to avoid major interruptions to IMOS/AIMS data time series.
  - Should further funding be available through NCRIS, the renewal bid process for IMOS would be led by the IMOS office which is headquartered at the University of Tasmania. AIMS is a major partner within the IMOS governance framework (Board membership, Facility management and leadership of the Queensland node of IMOS), and in this capacity provides support to the IMOS office in their dealings with the Commonwealth government to secure ongoing funding.
  - If IMOS were to be successful in a renewal bid, the IMOS Board and office would then work through an allocation process to project partners, such as AIMS, based on agreed priorities and the funding envelope available. As IMOS currently receives in the order of \$18 million p.a. from NCRIS, and has indicated that to continue the current level of effort in future it will require \$20 million p.a., the latter will be a key factor in determining the scope of IMOS/AIMS activities.
- 2(b) Integrated Marine Observing System (IMOS) Impact:
  - Refer SI-92 Question 2a
- 2(c) Integrated Marine Observing System (IMOS) Impact:

- If funding is not renewed then the majority of the IMOS infrastructure operated by AIMS would need to be decommissioned and the data would no longer be available to AIMS and other users. These facilities provide data which are used by the following AIMS programs:
  - Real time on-reef data from the sensor networks is used by the AIMS Healthy and Resilient GBR Research Program to inform about current conditions and potential for coral bleaching;
  - Real time and delayed mode data on ocean currents, temperature and salinity are used to support simulations of circulation and sediment transport within the central GBR;
  - Understanding long term trends in reef water quality utilise data and field sampling from the Yongala National Reference station;
  - Improve budgets of materials (e.g. Carbon, Nitrogen, Phosphorus) within the GBR, utilise IMOS delayed mode data to better understand the response of marine ecosystems to changing climates and changing ocean chemistry (Ocean Acidification).
- IMOS data collected by AIMS is also used by other organisations, examples are provided below (these change though time):
  - BoM – real time sensor network data is used to validate wind and weather models, including observations to the north and west of the Coral Sea that are critical to assess monsoon and tropical cyclone development and prediction;
  - University of Queensland – in-water data from Heron Island is used to set baselines for coral climate studies; in water data from reef based observation sites is used to validate satellite ocean data;
  - *eReefs* (AIMS/CSIRO/GBRF/BoM, QLD Govt) – many forms of IMOS data are integral to the current development and future operation of the *eReefs* information system. E.g. Remote sensing of ocean colour (received at AIMS via the Satellite Remote Sensing IMOS facility) is integral to the Reef Water Quality Dashboard, which in turn supports the Reef Report Card. Remote sensing and real-time in-water data streams from the Yongala National Reference station and other real time moorings provide essential data to a suite of marine water quality models;
  - The remote Kimberley region of NW Australia has emerged as a focus for tourism, mineral and resource development. This is a data sparse region and data delivered via the IMOS underpins much of the research undertaken in a major Kimberley Marine Research Program (WA Government – R&D Agency co-investment) to support the management of the Kimberley marine environments, especially the proposed state government marine parks;
  - Darwin Ports Corporation – near real-time and delayed mode data from the Darwin National reference station and Beagle Gulf mooring are used operationally to manage port operations.
- Loss of IMOS funding would also result in the loss of key technical staff associated with building and supporting the IMOS facilities.

2(a) National Environmental Science Programme (NESP) Impact:

- For NESP there has been an open call for proposals from research consortia to implement one of 6 thematically distinct hubs. Applications closed on 5 November 2014. AIMS is a core partner in two hub bids: Tropical Water Quality and Marine Biodiversity. Successful bids will be announced by the Department of the Environment in December. Specific research projects will then be negotiated between the successful consortia and the Department, in consultation with key research end-users.

2(b) National Environmental Science Programme (NESP) Impact:

- Successful NESP hub bids are expected to be announced in December. Specific projects under each hub will be negotiated with Department of Environment in the first quarter of 2015.

2(c) National Environmental Science Programme (NESP) Impact:

- In 2013/14 AIMS received approximately \$2.7m in NERP funding. This represented 16% of external revenue in that year and nearly 40% of external revenue focused on GBR research. AIMS is looking to continue this funding under both of the NESP hubs in which it is a partner.

Key GBR Research projects that might need to be significantly reduced or stopped if no NESP funding is secured include:

- Long-term monitoring of the GBRWHA
- Joint AIMS / Torres Strait Community environmental monitoring
- Work on the movements and habitats of listed shark species
- WQ and pesticide/herbicide research in near shore environments
- Development of decision support tools to assisted effective management of the GBRWHA
- Work on port activity impacts on nearshore reefs
- Research on optimal control of crown of thorns starfish at local and regional levels, including experiments to test various hypotheses on the causes and subsequent spread of COTS outbreaks.

Work in NW Australia that might need to be significantly reduced or stopped if no NESP funding is secured includes the development of predictive models of high value coral and associated communities on the reefs, banks and shoals from Dampier to the Kimberley.

Any reduction in funding under NESP would have an impact on staffing levels, and a number of positions are dependent on this significant external revenue. The number of staff lost would depend on the scale of reduction.