

### QoN number 1.

**Senator STEPHENS:** We asked the previous witnesses about the Oceans Institute. Are you involved in that at all? This is an issue that was raised with us by Professor Rumley who spoke about the need to revive Australian national tertiary focus on the Indian Ocean, social science and natural science studies and research. The University of Western Australia has established what they call a new Oceans Institute.

Dr Canterford : I have queried our research and oceanographers on that issue. I have not had a response back, but we do work very closely with the Western Australian state government in ocean activities in the Indian Ocean. I personally am not aware of that but I could find out.

**Senator STEPHENS:** Thank you, that would be helpful. Going to the issue of meteorology and the bureau's role, are you connected not in terms of the ocean itself but climate conditions and drought and what is happening in Africa? Are you participating in a network that is looking at changed weather patterns?

**QoN 1. – response:** The Bureau of Meteorology is not involved in the Oceans Institute.

### QoN Number 2:

**CHAIR:** It would be a good flag carrier, in a way, as an example of cooperation which could occur between governments through this organisation.

**Senator FAWCETT:** Was the \$21 million allocated a specific appropriation to GA and the Bureau of Meteorology or was that part of the ODA budget?

Dr Barnicoat : That was specifically the GA contribution, which was not part of the ODA funding at all. It was a specific appropriation. The bureau also received additional resources for the development of the Joint Australian Tsunami Warning Centre.

**Senator FAWCETT:** Over the forward estimates, what are you recurrent maintenance or ongoing development requirements for the system?

Dr Canterford : It was part of a new policy proposal that was jointly put up and led by the Department of Foreign Affairs and Trade at the time. Geoscience Australia and the Bureau of Meteorology worked together and received similar funding each for their respective roles in the building of the system. Both organisations did receive ongoing funding to maintain the system—obviously not to build it but to maintain it at the level of capability required.

**Senator FAWCETT:** My question though is what is the maintenance burden for current maintenance? Given your comments that buoys are being damaged by fishermen, do other nations that may have responsibility contribute to that funding? Do they have any incentive to try and prevent those damages to the system occurring?

Dr Canterford : Geoscience Australia believe they are in a similar situation. The buoys are a particularly vulnerable piece of equipment. We do have ongoing funding to replace those within our budget as part of the new policy proposal. I have not got the exact figure here but I believe it is in the order of \$10 million per year.

**Senator FAWCETT:** Could you take it on notice, come back to us and let us know in the forward estimates what that is? Also, given you have talked about the fact that this is a technological leap from where the Pacific system was at, do you have plans for future development? Is that funded? Is that funded in partnership with other nations on

the Indian Ocean Rim? I am happy for you to take all of those on notice. If you could come back to the committee with it, that would be useful.

**Dr Canterford :** We will take that on notice.

**Senator KROGER:** Following up on Senator Fawcett's point, you mentioned in your opening statement that there was something like \$4.7 million assigned to operate it. I presume that is to a certain year?

Dr Barnicoat : No, that is just in the baseline of forward estimates now. It is in our baseline funding.

**Senator KROGER:** Is that \$4.7 million in the current funding stream for this financial year?

Dr Barnicoat : Yes.

**Senator KROGER:** Is that a separate appropriation now?

Dr Barnicoat : No, it is not separate. It is rolled into the baseline funding. I would guess the situation is the same in the bureau as well, so it is part of our general appropriation.

**Senator KROGER:** Did your general appropriation increase in the current financial year to take account of that?

Dr Barnicoat : This was not something that came in this current financial year. This happened several years ago. Again, I would need to take on notice to provide details of that.

Dr Canterford : It was in 2009.

**Senator KROGER:** Okay. It would also be helpful if that increase requirement was factored into your annual appropriation. I do not have any more questions; I just wanted to follow up on that point.

**CHAIR:** Thank you very much for your evidence on the tsunami warning system. That has been very valuable, and a good example of what can be achieved in terms of cooperation around the Indian Ocean rim, so thank you very much.

## QoN 2. Response

The ongoing operational funding provided was \$7.5m in 2009, with associated depreciation funding \$3.4m. This capital replacement funds are provided through the Departmental Capital Budget.

These amounts reflect the original NPP funding for ongoing resources and have not been adjusted to reflect ongoing Efficiency Dividend and Indexation adjustments. A significant component of this funding is used to operate six Deep Ocean Tsunami Buoys around Australia in the Indian Ocean (off our NW coast), the Coral Sea and the Tasman Sea, as well as a network coastal sea level gauges.

In the Indian Ocean there is collaboration between Indian Ocean Rim countries on the operation of the warning systems so that the components work in harmony. The countries fund their own contributions (apart from funding by aid agencies from various countries) to the overall Indian Ocean Tsunami Warning and Mitigation System. This ranges from sharing seismic data, coastal sea level data and deep ocean buoy data as well as warning information, communications systems and community impacts. There are no major plans or funding for further development, but as the

science and technology moves forward, so also will the system as improvements are incorporated incrementally.