

## **2.6 NIPPON FOUNDATION PROGRAMMES**

### **2.6.1 Nippon Foundation - GEBCO Overview**

GEBCO has had a relationship with The Nippon Foundation (NF) since 2004 when the GEBCO-NF Ocean Mapping training program began at the University of New Hampshire (UNH). NF fully funded the Monaco Forum on the Future of Seafloor Mapping held in June 2016. That led to the establishment of the Seabed 2030 project. NF fully funded the NF-GEBCO Alumni team participation in the Shell Ocean Discovery XPRIZE competition in 2017 and 2018. The team won the \$4M first prize; and all that money has gone back into Seabed 2030 and alumni activities. In 2022 NF supported investigations of the volcano that erupted in Tonga in February. In 2023 NF hosted a meeting of alumni and invited experts for a three day meeting in Tokyo.

The total contribution by NF to GEBCO related activity since 2004 is approximately USD \$40M. The longstanding partnership with The Nippon Foundation is fundamental to much of GEBCO's work.

### **2.6.2 Seabed 2030**

Establishment of the joint NF-GEBCO Seabed 2030 project has been a major milestone for GEBCO. This is reported in a separate report and covered elsewhere in the agenda.

### **2.6.3 UNH training program**

The GEBCO-Nippon Foundation Ocean Mapping training program at UNH is in its 20<sup>th</sup> year. In addition to seven students currently at UNH, 112 scholars, from 45 countries have been through the course. Full details of the programme are provided in a separate report and covered elsewhere in the agenda.

In August 2023 a meeting hosted by The Nippon Foundation was held in Tokyo to which all 112 alumni were invited and 82 were able to be present. In addition 20 invited experts were participants. A series of keynote speeches and panel discussions took place. A full report of the meeting is presented in a separate report.

A review of the training program at UNH is currently underway to ensure that it will meet future needs. Alumni have submitted their ideas of potential change and/or additions to the program. Others involved in the program are also providing input. Several new components are being considered, including the possibility of extending the length of the program by some weeks. The review will be completed in time to introduce any changes for the 21<sup>st</sup> year of the program starting in September 2024

### **2.6.4 Tonga volcanic eruption response**

In January 2022 Tonga was severely impacted by a tsunami and ash fall from the Hunga Tonga – Hunga Ha'apai, HTHH, volcanic eruption. In February 2022 a proposal was

presented to The Nippon Foundation by NIWA of New Zealand with the support of Seabed 2030. There were two parts. Firstly funding to NIWA for Seabed 2030 survey work and additional research. Secondly deployment of an unmanned surface vessel to go close to the volcano where it was too risky for RV Tangaroa to go.

SEA-KIT Ltd of UK provided the USV Maxlimer, the 12m vessel they had designed and built for the XPRIZE competition. The USV was freighted to Tonga and operated for 30 days completely controlled by SEA-KIT from their premises in the UK. MBES bathymetry was obtained of all of the HTHH crater and some of the surrounding area. Alumni of the GEBCO-NF UHN training program lead the Maxlimer program planning and remotely processed the MBES data from six locations around the world. In addition a winch lowered NOAA sourced oceanographic sensors to 300m depth. Deployments were directed in real-time by NOAA PMEL in Seattle and GNS in Wellington through SEA-KIT in UK.

The RV Tangaroa 2022 Seabed 2030 activities and the RV Maxlimer deployment was funded by The Nippon Foundation for a total of approximately US \$1.8M. Research using the data obtained in 2022 continues. So too does media coverage of the volcanic event and the NF funded program. The project is an outstanding example of the technical and human resource capability The Nippon Foundation - GEBCO partnership has developed over the last 19 years.

#### **2.6.5 NF Project Management Committee status**

The NF Project Management Committee has oversight, on behalf of the GGC, of the training program at UNH and other NF funded projects; not including Seabed 2030. Current members are Robin Falconer (chair), Shin Tani, Martin Jakobsson, Hugo Montoro, Taisei Morishita, Dave Monahan and Rochelle Wigley. The advent of Seabed 2030 has changed the financial and organizational interactions between GEBCO and NF. This means that the Management Committee should be restructured. The proposal to establish a GEBCO Subcommittee on Education and Training (SCET) may affect decisions. The GEBCO governance review is also potentially relevant. We await developments on both these before acting.

#### **2.6.6 Recognition**

The GGC, on behalf of the IOC-IHO GEBCO Project, recognizes with great gratitude The Nippon Foundation for its range of partnerships with the GEBCO Project over the past 19 years. GEBCO looks forward to a continuing relationship, especially with the GEBCO-NF UNH alumni and the Nippon Foundation – GEBCO Seabed 2030 project.

#### **2.11.7 Action**

The GGC is requested to:

- a. Note the contents of this report
- b. Note that interaction with the GGC and SCET is required on the future status of the

NF Project Management Subcommittee.

- c. Note that the total contribution of The Nippon Foundation to GEBCO related activity since 2004 is approximately USD \$40M. The longstanding partnership with The Nippon Foundation is fundamental to much of GEBCO's work.
- d. Express to The Nippon Foundation the gratitude of the GGC for the Nippon Foundation's continued support of the GEBCO Project, in particular of the UNH Training Course, and of the Nippon Foundation – GEBCO Seabed 2030 project; and
- e. Take any other action deemed appropriate.