NF-POGO Network Meeting
Abingdon 26-28 Sept 2011

Monday 26 Sept

Introductions

In her welcome address, Shubha Sathyendranath mentioned that 12-13 countries were represented at the meeting, and many had travelled from afar. The longest journey award went to Olga Shatova who travelled from New Zealand, a journey that took 70 hours!

All the NF-POGO Alumni have received a helping hand at some point in their careers and now is the time for them to return the helping hand to others in the network and in the community at large that has the ocean’s interests at heart.

Trevor Platt then introduced some new faces, who were not present at the previous NF-POGO Meeting in London (October 2010). These included some NANO “friends”, Prof. Howard Roe (former director of Southampton Oceanography Centre) and Prof. David Checkley (Scripps Institution of Oceanography). Prof. Roe was also a former Chairman of POGO and has always been a close ally for POGO over the years. Prof. Checkley has just spent 6 months teaching in Namibia as part of a POGO capacity building programme (Visiting Professorship). There were also some younger faces: Lazare Akpetou (Ivory Coast), Yosra Khammeri (Tunisia), Shovonlal Roy (India/UK), Ravidas Naik (India), Rajdeep Roy (India) and Laura Ruffoni (POGO Administrative Assistant).

He reminded the group that since the last meeting, there has been a terrible catastrophe in Japan, the earthquake and tsunami that entailed a huge loss of life and property. The Nippon Foundation, a socially responsible organisation, has understandably and at short notice started to emphasize disaster relief as an important part of its agenda.

Therefore, discussions about budgets should bear in mind the fact that the context in Japan has undergone profound change.

He also thanked the people most actively involved in developing the network so far: Sophie Seeyave (POGO Secretariat) and helpers Lilian Krug (Brazil) and Olga Shatova (Ukraine). The idea for newsletter had come about at the London meeting and Kanthi Yapa had kindly agreed to be in charge, which has worked out very well.

Mr Kentaro Ogiue, from the Nippon Foundation, reminded the group that 300Km of Japan’s coastline had been devastated by the tsunami and instantly taken away people’s lives. Since the tragedy POGO has given them huge encouragement and support. Recovery is going to take a very long time but they are moving slowly but surely towards reconstruction and thank everyone for their support. The alumni meeting in Tokyo had to be cancelled, which is why we were holding this meeting in Abingdon today. This was called a Network Meeting because humankind has
benefited from the sea but at the same time has taken the sea for granted and exploited resources without thinking that they were limited. Now the sea is in trouble and will be even more so we continue in this way. The United Nations Convention on the Law of the Sea (UNCLOS) in 1994 recognised that management of the sea should be tackled across disciplines and borders. However, this legal framework has not been enough to protect the marine environment. Coordination is lacking, partly due to a lack of capacity building framework. Training has been segmented by country or by discipline. To be linked across borders we need to promote a comprehensive CB framework. NF has been working with leading marine institutions to promote its cross-border interdisciplinary “Capacity Building in the World of the Sea” programme. The Japanese expression “friends who eat from the same pot” characterises well the NF-POGO Centre of Excellence. The CofE now in its 4th year and this circle of friends is getting bigger. The recent NANO newsletter is a very good piece of work and important platform to build on the network. It is very important that this circle of friends becomes a true network. The NF hopes that meeting will help deepen friendships and build the network to hand over the sea to the next generation.

Dr Tony Knap expressed his thanks to the Nippon Foundation, without whom there would be no alumni and thus no network. POGO was established years ago by a few directors from institutions around the world, with the realisation that two thirds of world ocean is in the Southern hemisphere but most of the ocean observing capacity is concentrated in the Northern hemisphere. It is very gratifying to see the “pogonians” taking leadership roles in various countries around the world. BIOS is very grateful to have been chosen to host the CofE, probably because it has the longest time series in the world and has a ship that goes out regularly. He is trying hard to get other sponsors to add to the number of trainees to build a bigger network faster. The network had to arise from within and this was very true of the CofE. Each batch forms a “family” and in the end there will be a group of scientists all talking to each other, making measurements and understanding the results all over the world. A 1st year pogonian from Tunisia used the expression “the ocean is the liquid that binds us all together” and this is the essence of NANO.

Progress since October 2010

Sophie Seeyave gave an overview of the significant progress that has been made since the last meeting in London in October 2010. This was mostly carried out by two NF-POGO fellows who worked on gathering data on the alumni’s careers via a questionnaire, and creating and maintaining a website. Thanks to Kanthi Yapa, a newsletter had recently been created.

Lilian Krug then gave a presentation on the data gathered from the alumni questionnaires and some statistical analyses. In total nearly 200 questionnaires were sent out. Out of the 8 training courses, 6 have had a good response (>50%). There is a fairly good gender distribution among those who returned the questionnaire. The majority are from India, Brazil and Vietnam (VP host countries that had a good response). In terms of education, 91 out of 108 alumni have an MSc and 34 have a PhD. The subjects were divided into 12 research areas, of which the most prominent were Biological Oceanography and Remote Sensing.
Olga Shatova then gave a presentation on the NANO website. The website is a virtual platform for communication within network and to provide info on NANO to the public. A social networking approach was adopted to include a private database of users. Wikispaces was chosen as it can easily include different types of media (maps, videos etc). The website was developed in Spring and announced in June. Everyone who returned the questionnaire has a profile page (short CV) including education, professional achievements, research interests and publications. With the aim to facilitate collaboration, research theme pages were created as well as regional pages listing the alumni by research interest and by region, respectively. A page has also been created for “NANO friends”. The Opportunities page, where alumni can post jobs, scholarships, meetings and other announcements, is one of the most visited. To date, 40% of alumni are members of Wiki. This active response indicates interest in participation in NANO projects.

Kanthi Yapa then presented the NANO newsletter. The idea for a newsletter was initiated at the Royal Society Meeting to open dialogue, develop and exchange research ideas and disseminate information to society at large. The first steps were the creation of a website and registration of the members. For the first issue, she e-mailed those who had submitted abstracts for the Tokyo meeting and the newsletter “patrons” (POGO Secretariat + Nippon Foundation). She received 12 articles by 15 July and randomly selected 6 for the first issue, keeping the rest for subsequent issues. An editorial board was nominated, and input was sought for a name and cover page ideas. The newsletter will be disseminated through the NANO and POGO mailing lists, and put on NANO, POGO and Nippon Foundation (English language) websites.

Some suggestions from the meeting attendees were to obtain more input from the alumni for announcements and other items and to include a mission statement (something about capacity building) on the front page to draw in people who don’t know anything about NANO. The public side of the website could be developed further to include societal issues. It was noted that the copyright of published articles needed to be respected when posting pdfs of articles on the website.

**NANO research proposals**

Shubha gave an overview of the guidelines for preparing research proposals to be submitted to the Nippon Foundation. These were already provided in the call for proposals sent out to the alumni.

The proposals should focus on global/regional monitoring rather than local problems. They are open to all disciplines, focussing on changes, interactions and feedbacks and on operational oceanography rather than “blue skies” research. There should be an emphasis on time-series measurements with the aim to observe locally and network local stations to obtain global vision. A global vision should eventually be achieved through combination of in situ data, satellite remote sensing and modelling.

The funding is not likely to be very substantial so we need to collaborate with existing projects and contribute to rather than compete with existing research programmes. Proposals should be written with due regard for local culture therefore engaging senior managers from the outset. Themes should include with societal benefit angles
such as coastal pollution, hazards, climate change, and management of coastal resources.

The proposal outlines submitted by the alumni were brought to Abingdon to see how they could be combined.

Lilian Krug gave an overview of the information collected in the on-line Data Survey. 29 valid replies were received (7 Africa-Europe, 12 Asia, 8 Latin America, 2 North Atlantic, 2 Remote Sensing global).

Temperature, salinity, dissolved oxygen and chlorophyll were the most sampled parameters in Africa and Europe. Coastal sampling is more common than open ocean (e.g. Gulf of Guinea, Tunisia).

Asian sampling includes more biological variables such as phytoplankton, in areas such as the South China Sea, Vietnam, and Philippines.

Latin America included more optical variables. Measurements were being made at Antares stations in Mexico, Brazil and Venezuela.

Sophie Seeyave presented an overview of all proposals submitted to the Secretariat, then individuals presented their own proposals if they had submitted one (see ppt on website).

Hoang Cong Tin gave an overview of the Vietnamese framework for oceanographic research. This includes 6 themes identified as focal points for Vietnamese research. One of these is a South East Asian Time Series Station.

Rajdeep Roy gave a presentation on Indian proposals to work on Harmful Algal Blooms in different locations around India. There has been an increase in HAB occurrence worldwide and in India. A lot of baseline data has already been gathered along 2 transects in the Indian Ocean. 2 species not previously reported in the area have recently been discovered. Regular monitoring of phytoplankton and toxins is required. The proposal is for toxin analyses to be carried out at Woods Hole and phytoplankton analyses in India. The project is quite well funded already. Some data are currently being collected from ships of opportunity but not using the Continuous Plankton Recorder (CPR). They also have a research vessel to provide monitoring.

Yosra Khammeri presented a Tunisian proposal based on modelling of sediment dynamics and pollutant dispersion. It builds on the Visiting Professorship in Tunisia. The aim is to identify areas of erosion and provide maps of water circulation and sediment distribution. The Tunisian research vessel R/V Hannibal is available, as well as coastal boats, technicians and modelling software. Objectives were to apply a new methodology to study sediment dynamics and dispersion; extend measurements to the Gulf of Hammamet and Gabes; and acquire additional equipment and upgrade 3D model Mike3.

Lazare Akpetou presented a West African proposal involving Ghana, Ivory Coast, Tunisia and Nigeria. In the region, a major project has been funded by GEF –GCLME
and MED-LME to protect marine resources. Problems to be addressed include heavy metal pollution, oxygen depletion, HABs and fish stocks depletion. Bio-indicators such as ostracods, foraminifers and microfossils can be used to study past and modern environmental impacts. The proposal adopts an interdisciplinary approach to monitor heavy metal pollution through a comparison of polluted and unpolluted sites. Consumables required include chemicals, sampling bags, tubes, micro slides. Equipment includes plankton net, microscope, corers and/or grabs.

Sebastian Krieger presented the 6 Latin American proposals (see ppt on website).

Generally, the proposals had rather large budgets, more targeted at the level of national funding. The questions were asked whether there was enough commonality to bring together the proposed projects and to what extent some of them should be diverted to other opportunities (PEER, IAI etc). There was also the issue of separating between research and operational projects.

Group discussion started in the afternoon after an introduction by Trevor Platt. Proposals were assembled on a regional basis. The total of budgetary requests far exceeded the amount of funding we could request, therefore some streamlining would be required following these criteria:
- We are talking about a network/set of regional networks so proposals to fund individual work would have lower priority.
- What will be gained from the NANO addition to the project?
- Which elements would give the highest return for investment?
- Need to trim elements not critical to the networking aspect.
- Need to take advantage of existing training/fellowship schemes.
- The time scale should be one year since funding from NF can only be confirmed on year to year basis.

**Tuesday 27 Sept**

**Discussion of cross-regional commonalities**

The question was asked whether we were trying to produce a single proposal. The review process has taken place during the discussions, so we will end up with a maximum of one proposal favoured for each region. The proposals need not be linked but if they are all the better. From the point of view of NF this process satisfied the requirement for “peer review”. As mentioned yesterday the projects should be open to society at large.

The aim is to produce a draft proposal by the end of the meeting. There will then be some further work by the Secretariat to produce the final document and circulation to the meeting attendees for comments.

We want the projects to be up to international standards for data collection and analysis and to achieve something that could not have been achieved without NF and POGO. We want to be seen to have spent the money wisely. We should include in the proposals projected outcomes (what will we have to show for at the end). There should be a common agreement to make data publicly available.
It is also important to try to bring in past data because in one year it will not be possible to generate a lot of data. For external funding, there is a lot of emphasis on interdisciplinarity, therefore it might be useful to try to link the HAB and coastal pollution proposals, perhaps under the LOICZ umbrella.

**Wednesday 28 Sept**

**Report from Indian subcontinent**

The proposal is to collect samples for phytoplankton identification (light microscope + SEM) and phytotoxins (liquid chromatography) in combination with remote sensing (chlorophyll, reflectance, sea surface temperature). New algorithms will be developed to model HAB initiation. Monitoring will take place at 3 stations (E and W India + Sri Lanka).

Societal benefits include improved scientific knowledge of HABs and management of fisheries. The project would also include a capacity building element in the shape of a training workshop, and an education element aimed at the local fishing community.

7 alumni from 2 countries have initially been identified as potential participants.

**Report from Latin America**

The proposal is to carry out pigment analyses using HPLC at 5 stations within the Antares network for definition of Phytoplankton Functional Types (PFTs) to be complemented with remote sensing data. The project will make use of existing data (chlorophyll-a, SST, radiance absorption by particulate matter and coloured dissolved organic matter). The budget will cover shipping of samples for analysis every 6 months. Data will be made available on the NANO and Antares websites. The intention is to expand to other stations in the longer term.

**Report from SE Asia**

The proposal is based on existing projects in the Philippines and Vietnam. The Philippines has developed a hydro-ecological model to forecast algal bloom occurrences. Vietnam has a time-series of physico-chemical parameters, which if combined with phytoplankton data could be used to validate the Philippines model. Physical, biological and chemical variables will be collected from two test sites (Mekong Delta in Vietnam and Sorsogon Bay in the Philippines) to serve as input to the HAB-EWS model. *In situ* data collected from both sites will be combined and shared between two databases, one in Vietnam, and in an existing HABs database in the Philippines and also made public through the NANO network.

**Report from Africa**

The proposal is to develop common guidelines for monitoring of pollution in coastal areas that will include basic measurements relevant to resources available in the region. The aim is to extend geographical coverage of pollution monitoring, to
increase temporal resolution and measured variables, to extend the techniques to other 'Alumni' countries (West and South Africa) and involve more alumni in the project. The first step will be the organisation of a workshop to discuss present methods used for monitoring of sediment transport and pollution dispersal along the coast of Tunisia (and Gulf of Guinea if any) and share the 'Tunisian experience' with other alumni countries. In the longer term, the aim is to standardize the methods used for trace metal analysis.

**Action items:**

Indian subcontinent:
- Establish liaison with NIO Goa to enable NANO fellow to receive income

Latin America:
Obtain confirmation from NASA that they will do analyses.
- Contact Vivian and Eduardo regarding fellowship to be shared between Argentina and Mexico.
- Write to all Antares PIs about sharing chl etc data.

Africa:
- Review budget to include regional coordinator in addition to workshop.

General:
- Draft agreement between NANO and institutions/scientists.
- Letter from Director required as a condition of the agreement.

All groups to submit final versions of proposals by 7th October.
Meeting participants

Front row (left to right): Sophie Seeyave, Shubha Sathyendranath, Kathleen Silvano, Kanthi Yapa, Hoang Cong Tin, Ravidas Naik, Kentaro Suzuki, Kentaro Ogiue.
Not on photo: Tony Knap.
NF-POGO Alumni Network for Oceans (NANO) Meeting
Agenda

Monday 26 September

08:45 Registration

09:00 Welcome: Shubha Sathyendranath

09:10 Introduction and background to the meeting: Trevor Platt

09:20 The Nippon Foundation’s expectations for NANO research projects: Kentaro Ogiue

09:30 The role of the NF-POGO Centre of Excellence Programme in the development of NANO: Tony Knap.

09:40 Progress in NANO development since October 2010
Chair: Howard Roe
- Introduction: Sophie Seeyave
- Information from alumni questionnaires: Lilian Krug
- NANO website: Olga Shatova
- NANO newsletter: Kanthi Yapa
Group discussion of ways to enhance the use of the website and newsletter.

10:30 Coffee

11:00 NANO research proposals
Chair: David Checkley
11:00 Concept and guidelines for proposals to be submitted to NF: Shubha Sathyendranath
11:10 Current data collection in NANO regions: Lilian Krug
11:20 Summary of proposals submitted by the alumni: Sophie Seeyave
11:30 Vietnamese proposal(s): Hoang Cong Tin
11:40 Indian proposal(s): Rajdeep Roy
11:50 Tunisian proposal: Yosra Khammeri
12:00 West African proposal(s): Lazare Akpetou
12:10 Latin American proposal(s): Sebastian Krieger

12:30 Lunch

13:30 Break-out session: Regional discussions of possible joint projects to be carried out by NANO, including mechanisms for regional networking (introduction Trevor Platt)

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<th>Africa</th>
<th>Indian subcontinent</th>
<th>East Asia</th>
<th>Latin America</th>
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<td>Chair: M. Kyewalyanga</td>
<td>Chair: K. Yapa</td>
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<td>D. Checkley</td>
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15:30 Coffee

16:00 Break-out session (cont’d)

17:30 End of Day 1
19:00 Group dinner
Tuesday 27 September

09:00 Reports from break-out session: Regional discussions of possible joint projects to be carried out by NANO  
Chair: Trevor Platt

10:30 Coffee

11:00 Plenary discussion of common elements across regional proposals.  
Chair: Shubha Sathyendranath

12:30 Lunch

13:30 Working groups to start writing proposals

15:30 Excursion to Oxford

19:00 Group dinner

Wednesday 28 September

09:00 Reports on written proposals from previous day  
Chair: Sophie Seeyave

10:30 Coffee

11:00 Working groups to continue drafting proposals

12:30 Lunch

13:30 Working groups to finish drafting proposals

14:30 Final reports to plenary  
Chair: Trevor Platt

15:30 Meeting wrap-up: Shubha Sathyendranath  
Draw up list of Action Items.  
Closing remarks: Trevor Platt.

16:00 Coffee and end of meeting
NF-POGO Alumni Network Meeting  
Abingdon, 26-28 September 2011  
Statement of expenditure

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<tr>
<td>Participants' travel -19 participants</td>
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<td>Meeting rooms, meals, refreshments and accommodation -22 participants</td>
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<td>Excursion (walking tour of Oxford colleges) -15 participants</td>
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<td><strong>TOTAL</strong></td>
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**Participants:**

**Alumni**
- Mr Sebastian Krieger
- Ms Lilian Krug
- Dr Rajdeep Roy
- Dr Ravidas Naik
- Dr Lazare Akpetou
- Mr Kentaro Suzuki
- Ms Kathleen Silvano
- Dr Kanthi Yapa
- Ms Olga Shatova
- Ms Yosra Khammeri
- Mr Hoang Cong Tin
- Dr Shovonlal Roy

**NANO friends**
- Dr Tony Knap
- Dr Milton Kampel
- Prof Howard Roe
- Prof David Checkley

**POGO Secretariat**
- Prof Trevor Platt
- Dr Shubha Sathyendranath
- Dr Sophie Seeyave
- Ms Laura Ruffoni

**Nippon Foundation**
- Mr Kentaro Ogiue
- Mr Keiko Shinozaki