



National Centre for
Earth Observation
NATURAL ENVIRONMENT RESEARCH COUNCIL

Scoping Meeting

Earth Observations for water-associated diseases

Date: 30-31 August, 2018;

Venue and accommodation: The Cosener's House, Abbey Close, Abingdon, Oxfordshire OX14 3JD, United Kingdom. Full-board accommodation is provided on-site to all participants.

BACKGROUND

Several million cases of water-associated disease are reported globally each year from water-borne or vector-borne pathogens. A large number of cases could be avoided through improved access to clean water and good sanitation, and more could be saved by improving prediction of disease outbreaks and health risks, using an integrated approach involving in situ observations, laboratory experiments, remote sensing and modelling. We are proposing a new Working Group¹ to identify benefits, best practices and feasibility of incorporating Earth observation (EO) measurements into early-warning systems for water-associated diseases. It would provide a forum to exchange useful information, share data and coordinate activities where feasible, to maximise benefits to society in the domains of public health surveillance, food security, water resources management, aquatic biodiversity and ecosystem sustainability, and climate impacts. The Working Group aims to engage with specialists in the fields of ecology, epidemiology, bioinformatics, genetics, remote-sensing, modelling, climate, limnology and oceanography, and link with end-users, including local communities, governments, health services, intergovernmental organisations, and policy makers. This new initiative has been recognised as an important GEO Blue Planet activity associated with Theme #2 "Healthy Ecosystems and Food Security", and further adding value to the GEO health Community of Practice and Implementation Plan of the AquaWatch initiative.

¹ Working Group on Earth Observations for ecology and epidemiology of water-associated diseases. GEO Blue Planet initiative, April 2018
https://geoblueplanet.org/who-we-are/working-groups/wg_eo_water-associated_diseases/

OBJECTIVES

The aim of the Scoping Group Meeting is to initiate discussions and bring together relevant parties with a view to establishing a longer-term Working Group. Specifically, the Scoping Group Meeting will enable us to design a roadmap of activities for the next five years, that will support innovation and development of EO applications for human health and will be incorporated into the global ocean observing system to provide products such as water-borne or vector-borne disease outbreak risk-maps, which will help protect and save human lives.

PARTICIPANTS

Title	First name	Last name	Institution
Dr	Anas	Abdulaziz	CSIR-National Institute of Oceanography, India
Dr	Craig	Baker-Austin	Cefas, UK
Prof	Rita	Colwell	University of Maryland, USA
Miss	Elizabeth	Goult	Plymouth Marine Laboratory, UK
Miss	Kim	Hockley	Plymouth Marine Laboratory, UK
Dr	Tak	Ikeda	JAMSTEC Yokohama, Japan
Dr	Antarpreet	Jutla	West Virginia University, USA
Dr	Milton	Kampel	National Institute for Space Research – INPE, Brazil
Dr	Nandini	Menon	Nansen Environmental Research Centre, India
Dr	Elise	Myers	Columbia University & Lamont Doherty Earth Observatory, USA
Prof	Trevor	Platt	Plymouth Marine Laboratory, UK
Dr	Marie-Fanny	Racault	Plymouth Marine Laboratory, UK
Prof	Shubha	Sathyendranath	Plymouth Marine Laboratory, UK
Prof	Nick	Thomson	Wellcome Sanger Institute and London School of Hygiene & Tropical Medicine, UK



**National Centre for
Earth Observation**
NATURAL ENVIRONMENT RESEARCH COUNCIL

Dr	Maria Inés	Trucco	National Institute for Fisheries Research and Development, Argentina
Dr	Caradee	Wright	South African Medical Research Council, South Africa
Prof	Yosuke	Yamashiki	Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University, Japan

AGENDA

Wednesday, 29 August 2018

Check-in and meeting registration available from 15:00 in Reception lobby.

Ice-breaker from 18:00 in Garden Room. Dinner at 19:00.

SCOPING MEETING

Check-in and meeting registration available from 08:30 in Reception lobby.

Thursday, 30 August 2018

Time	Topic
Session 1: Opening and stage setting	
Chair: M-F Racault	
9:00 – 09:20	<i>Opening Remarks</i> <ul style="list-style-type: none"> Marie-Fanny Racault
9:20 – 09:45	<i>Participant introductions</i> <ul style="list-style-type: none"> All participants
Session 2 : Modelling	
Chair: M Kampell	
09:45 – 10:45	<i>Presentations (15min each), followed by 15min Q&A</i> <ul style="list-style-type: none"> Shovonal Roy (Reading University, UK) (status: YES) Yosuke Yamashiki (GSAIS, Japan) (status: YES)
10:45 – 11:15	<i>Tea/Coffee</i>
Session 3 : Microbiology	
Chair: C Baker-Austin	
11:15 – 12:30	<i>Presentations (15min each), followed by 30min Q&A</i> <ul style="list-style-type: none"> Inés Maria Trucco (INIDEP, Argentina) (status: YES) Anas Abdulaziz (NIO, India) (status: REMOTE) Rita Colwell (University of Maryland, USA) (status: REMOTE)
12:30 – 13:30	<i>Lunch</i>
Session 4 : Earth Observations	
Chair: S Roy	
13:30 – 15:00	<i>Presentations (15min each), followed by 30min Q&A</i> <ul style="list-style-type: none"> Shubha Sathyendranath (PML, UK) (status: YES) Milton Kampel (INEP, Brazil) (status: YES) Antar Jutla (West Virginia University, USA) (status: REMOTE) Elise Myers (Lamont/Columbia, USA) (status: REMOTE)
Session 5 : Scoping Meeting outcomes and further opportunities	
Chair: N Thomson	
15:00 – 15:30	<i>Discussion</i>

	<i>Gap analysis / Opportunities</i> <i>Potential measures of success of the scoping meeting</i>
15:30 – 16:00	<i>Tea/Coffee break</i>
Session 6 : Working Group roadmap of activities Day 1	
	Chair: M-F Racault
16:00 - 17:00	<i>Discussion</i> <i>WG long-term objectives & work plan:</i> <i>List of recommendations and actions</i>
17:00	<i>Adjourn</i>

Drinks from 18:00 in Garden Room. Dinner at 19:00.

Friday, 31 August 2018

Time	Topic
Session 7 : Climate	
	Chair: Y Yamashiki
09:00 – 10:15	<i>Presentations (15min each), followed by 30min Q&A</i> <ul style="list-style-type: none"> • Tak Ikeda (JAMSTEC, Japan) (status: REMOTE) • Caradee Wright (SAMRC, South Africa) (status: REMOTE) • Craig Baker-Austin (Cefas, UK) (status: YES)
Session 8 : User engagement and Policy	
	Chair: S Sathyendranath
10:15 – 10:45	<i>Presentation (15min), followed by 15min Q&A</i> <ul style="list-style-type: none"> • Nandini Menon (NERCI, India) (status: REMOTE)
10:45 – 11:15	<i>Tea/Coffee</i>
Session 9 : Genomics, bioinformatics and epidemiology	
	Chair: I Trucco
11:15 – 12:30	<i>Presentations (15min each), followed by 30min Q&A</i> <ul style="list-style-type: none"> • Nick Thomson (WSI & LSHTD, UK) (status: YES) • Mike Allen/ Susan Kimmance (PML, UK) (status: MFR on behalf of M Allen) • Trevor Platt/ Libbie Goult (PML, UK) (status: YES) • Marie-Fanny Racault (PML, UK) (status: YES)
12:30 – 13:30	<i>Lunch</i>
Session 10 : Working Group roadmap of activities Day 2	
	Chair: T Platt
13:30 - 14:30	<i>Discussion</i> <i>WG long-term objectives & work plan:</i> <i>List of recommendations and actions</i>



National Centre for
Earth Observation
NATURAL ENVIRONMENT RESEARCH COUNCIL

Session 11 : Working Group Terms of Reference		Chair: S Sathyendranath
14:30 – 15:30	<i>Discussion</i> <i>WG Terms of reference</i>	
Session 12 : Closing		Chair: M-F Racault
15:30 – 15:45	<i>Closing Remarks</i>	
15:45	<i>Meeting closure and Tea/Coffee, Cake</i>	

PLANNING TEAM

SCIENTIFIC COMMITTEE

Marie-Fanny Racault
Shubha Sathyendranath
Trevor Platt

GEO BLUE PLANET, POGO and PML SECRETARIATS

Sophie Seeyave, Partnership for Observation of the Global Oceans (POGO) Executive Director & Co-Chair of the GEO Blue Planet Initiative
Kim Hockley, PML Science Support
Fiona Beckman, POGO Communications Officer