



QWeCI

Quantifying Weather and Climate Impacts on Health in Developing Countries

Newsletter

July 2010 No. 1

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EDITORIAL

Dear Reader,

Welcome to the first six monthly newsletter of the QWeCI Project! We are a consortium of 13 academic and research institutes from across Europe and Africa. The project is principally supported by the EU's 7th Framework Program. It brings together experts in climate, disease dynamics and public health sciences to tackle some of the greatest public health challenges faced by society in developing countries exposed to a varying climate. QWeCI is structured in seven 'Themes' focusing on specific issues such as modeling, data collection and decision support with a large amount of cross-over activities to foster synergy. This newsletter is the first in a 3 year project and is part of a strong dissemination effort that constitutes the core of Theme 6.

We thank all those working on and associated with QWeCI and look forward to a exciting and productive collaboration!

The QWeCI management board.

Project Objectives

The QWeCI Integrated Project will pursue the following specific objectives:

- Evaluate the use of projections of atmospheric variability on time scales of weeks up to decades for quantification of health impacts.
- Develop methods to tailor output, from weather and climate forecasts and climate projections, for health impacts.
- Develop transparently produced climate and disease risk information for health impacts communities, to produce disease risk maps.
- Evaluate and implement user driven needs of post-processing of ensemble prediction and climate ensembles projection systems output to improve skill.
- Diagnose and reassess climate-disease

relationships for each targeted disease-location

- Assess, in the field, the potential and effectiveness of a new low-cost long-range two-way wireless (WiFi) technology to monitor disease incidence and epidemic outbreaks centrally.
- Define and/or refine climate-driven disease models after testing a suite of models of increasing complexity.
- Enhance the scope of the existing Liverpool National Centre for Zoonoses vector-pathogen-host database for climate related diseases impacting on human and animal health in Africa.
- Develop methods to quantify the use of climate and weather information, prediction and projection in evaluating the impacts of infectious diseases in Africa.

The April meeting

The QWeCI project started in February 2010 and was planned to have a first kick-off meeting within the first three months to launch the project into full motion. The rather unexpected occurrence of an Icelandic volcano reduced the scope of the original QWeCI kick off meeting to a smaller scale event. It proves that a proposal contingency plan can never include all circumstances!

The April meeting was nevertheless valuable with a small group of UK-based QWeCI scientists, early arrivers and others joining via teleconference able to discuss uses of atmospheric model output, bias correction and downscaling techniques and the atmospheric and health databases and data access issues during the meeting. A particular focus was made on the seamless aspects of the QWeCI systems to be developed. Administration aspects of the project were also covered, including the details of the consortium agreement, the ethical clearance procedures, and the workpackage leaders were

allocated. The selection of possible advisory board members was deferred to the June meeting.

The June meeting

The main meeting was rescheduled for June. After the project was presented, each workpackage was discussed in turn spanning the whole research scope from data, models, seamless health prediction, end-user focused information and the information systems and final dissemination of the products through the three pilot studies. Some of the decisions that varied from the QWeCI description of work (DoW) included:



June meeting participants

- *Data*: The requirements for the health and atmospheric databases were discussed, in particular with regard to obtaining national station data and the format and metadata requirements for gridded datasets.
- *Statistical health models*: more emphasis should be placed on the use of existing statistical models considering the expertise in the QWeCI consortium in using these.



Carlo Fonda (ICTP) setting up WiFi two way receiver for the Malawi pilot project.

- *Rift Valley Fever (RVF) model:* It is anticipated that the task of adapting the Liverpool malaria model (LMM) to represent the dynamics of RVF should continue as planned and that alternative models should be sought to develop a range of approaches to the prediction of RVF risk.
- *Information and decision support systems:* Considerable discussion focused on the level of complexity required for the information system. Should it merely present results or allow users to run the impact model suite with user-selected parameters? The original DoW envisaged the

latter, and it was decided to retain this aim, building on the system developed within IMPETUS by QWeCI partner University of Cologne.



Kumasi airport (GMET- station), Ghana

Each pilot project in Senegal, Ghana and Malawi was introduced in turn, allowing all QWeCI partners to gain a much improved insight to the aims and situation in each location. In particular, the partners from Malawi outlined the present method by which malaria is monitored on the local scale and how this information feeds to the regional and national health planners. The way in which the QWeCI project would enhance and supplement these existing systems was discussed.

Recent events

Part of the strength of the QWeCI proposal was the emphasis on scientific exchange and training. The program for exchanges and visits between European and African partners in the first 18 months of the project was laid out, including:

- May 2010: visits from partner University of Cologne (UoC) to Ghana to install equipment for field studies and conduct training

- July 2010: Extended visits as part of a summer school by partners UoC and ICTP to Ghana to discuss pilot project progress and plans
- July 2010: Partners from Malawi conducting extended visits of multiple months to ICTP to gain training in WiFi technology
- Oct 2010: Extended visit by project coordinator to Senegal to visit field sites and discuss plans

Future events

- Nov 2010: Extended visit, pilot kick off meeting and one week training workshop by six members of ICTP, in addition to the project coordinator to Malawi to conduct site visits, install equipment, conduct training, and conduct exchanges with end-users including government health and communication ministries and health planners at the regional and local scale
- The QWeCI annual meeting at the end of the first 12 months is scheduled for the last week of January 2011 to be hosted by the partners in Senegal. It will be held over 2 – 3 days the week of 24 January 2011.
- The first QWeCI symposium will be hosted by ICTP from September 12th to 16 th 2011.

Project Office

The QWeCI Project Office is now fully staffed:

- Tara Wambugu, project manager
(t.wambugu@liv.ac.uk)
- Andrew McCaldon, project secretary
(andrew.mccaldon@liv.ac.uk)
- John Keefe, web developer
(email address to be announced)

The QWeCI Project Office is open Tuesdays, Wednesdays and Thursday mornings. You can reach any member of the project office by phone at +44 (0)151 794 3031.

The first task for the QWeCI Project Office will be to disseminate a 6-month report template to all partners, to document status of milestones and deliverables, progress made on each work package, potential problems, etc. These will be compiled into 6-month WorkPackage reports to share with the teams.

Contacts

QWeCI is coordinated by Andy Morse at the University of Liverpool (A.P.Morse@liverpool.ac.uk) with Adrian Tompkins acting as deputy Co-ordinator at the International Centre for Theoretical Physics, Trieste (tompkins@ictp.it).

References

- Doblas-Reyes, F. J., A. Weisheimer, T. N. Palmer, J. M. Murphy, D. Smith (2010): Forecast quality assessment of the ENSEMBLES seasonal-to-decadal stream 2 hindcasts. Tech Memo 619, ECMWF, www.ecmwf.int/publications/.
- Rudolf, B., U. Schneider (2005): Calculation of gridded precipitation data for the global land-surface using in-situ gauge observations. Proceedings of the 2nd Workshop of the International Precipitation Working Group IPWG, Monterey October 2004, EUMETSAT, ISBN 92-9110-070-6, ISSN 1727-432X, 231-247.