**Climate Information for Public Health Action (CIPHA)**

**Summer Institute**

**News from the Ground**

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***Participants to the First Malagasy Workshop on Climate Information for Public Health: 'Learning Through Doing Project', October 2009***

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This newsletter provides updates on the latest developments within the CIPHA network, including the activities of alumni and facilitators, brief meeting reports, news from the health and climate community, and opportunities for collaboration.

## *From the Editors*

We've spent a lot of time on **capacity building** this quarter. Capacity building is a challenging, long-term process, but to those of us involved in promoting the use of climate information for public health, it is part and parcel of what we do. Our goal is not just to strengthen the technical capacity of individuals and organizations to identify their data needs, but also to improve the collection, analysis, and use of data to inform health-related decision-making. Though our experience with the **Summer Institute** and in the broader **CIPHA network** has served to highlight some of the challenges associated with achieving this goal, it has also taught us about some of the unique rewards capacity building can bring.

Trainings are an important part of the capacity building portfolio of national organizations and of international institutions such as the **International Research Institute for Climate and Society** (IRI). The training of key decision-makers from the health and climate communities is an important method of information transfer; such trainings are particularly effective when they are conducted in the field and when training materials are in local languages and tailored to local needs, resources, and data. In many cases, trainings are also a means of building trust and partnerships between communities.

This is nowhere more true than in the case of the **Climate and Health Working Groups** (CHWGs). These groups, currently operating in Ethiopia, Kenya, and Madagascar, are functional entities that involve government agencies including ministries of health, meteorological services, and other relevant partners. The groups create a framework to reinforce and further collaborations between climate and health communities at the country level; to date, these collaborations have ranged from research to communications to information-feedback loops that use climate information to improve public health decision-making. The groups also organize and conduct trainings on issues at the nexus of climate and health.

One such training was recently conducted in Madagascar, where the Malagasy CHWG partnered with the IRI, the World Health Organization (WHO), and the World Meteorological Organization (WMO) to design, fund, and implement the first-ever **Malagasy Workshop on the Use of Climate Information for Public Health**. This one-week workshop, conducted in French, provided the 16 members of the CHWG with fundamental concepts on climate and on its connection to the epidemiology of climate-sensitive diseases. The workshop also helped CHWG members to identify the benefits of improved collaboration on climate and health issues and to

chart a course to achieve such collaboration. Several alumni and facilitators of the Summer Institute – including **Pietro Ceccato, Laurence Cibrelus, Remi Cousin, Gilma Mantilla, Judy Omumbo** and **Marie Clemence Rakotoarivony** – collaborated to tailor the curriculum specifically for Madagascar.

A similar training will be held in Ethiopia in the coming weeks in collaboration with **SI 08 and SI 09 alumni Yonas Asfaw**, **Daddi Jima Wayessa**, and **Adugna Woyessa**. More information on this training will be provided in the next newsletter.

Encouragingly, all three CHWGs held their first joint working session in early November at the fifth annual meeting of the **Multidisciplinary Initiative for Malaria** (MIM) in Nairobi, Kenya. One output of the session was a joint presentation on their achievements and planned activities which was delivered to the MIM Research Capacity Strengthening Symposium: "Building Capacity to Use Climate and Environmental Information for Improving Health Outcomes." Joint activities also included a meeting at the InterGovernmental Authority on Development (IGAD) Climate Prediction and Applications Centre (ICPAC) and the Kenyan Ministry of Public Health & Sanitation, Division of Malaria Control. More details about the outputs of the MIM will be provided in the subsequent CIPHA newsletter.

In other news related to training for capacity building, the IRI was pleased to welcome **Dr. Dionisio Herrera**, executive director of **Training Programs in Epidemiology and Public Health Interventions NETwork** (TEPHINET), to its Palisades campus in October. Dr. Herrera was here to discuss a possible global partnership to extend current training efforts in climate and health. Collaboration between TEPHINET and the IRI would include the addition of climate-related information to TEPHINET's current training modules. This is particularly exciting since TEPHINET, with more than 41 Field Epidemiology Training programs worldwide, is uniquely capable of spreading information quickly. Initial talks between the two organizations went well and ended with an immediate plan of action. More information on this new training opportunity will follow as negotiations continue.

Importantly, the critical role of training as a means to build capacity was also acknowledged at the **Third Technical Meeting of the Meningitis Environmental Risk Information Technologies** (MERIT) initiative, which was held in Niamey, Niger, in early November. This meeting, organized by the African Centre of Meteorological Application for Development (ACMAD) and the Centre de Recherche Médicale et Sanitaire (CERMES), and carried off with the strong support of the Niger office of WHO and the Nigerien Ministry of Health, convened local and international partners working on climate and public health issues. A full report on this meeting will follow in the next bulletin; in the meantime, please check the Health and Climate Foundation website for updates.

While we've tried to highlight some key activities in this letter, it's impossible to capture all the exciting work going on within the CIPHA network in such a small space. We're excited to share with you all the news that follows in the body of the newsletter and urge you to keep in touch with your friends and colleagues by submitting your own news.

## ***Updates***

**Alumni**



**SI 08 alumna Wendy Thomas** works to informing the WMO's Permanent Representatives of the hydromet applications for public health. In partnership with the U.S. National Weather Service (NWS), she is forming a week-long meeting series to intellectually engage leaders of National Hydro Meteorological Services (NHMS) to think about ways for cooperating and partnering with their public health peers, at the national levels, in order to extend the public benefit of hydromet science and applications. The NWS is funding this event at the 90th Annual Meeting of the American Meteorological Society (AMS) in Atlanta, GA (January 16 - 21, 2010). Madeleine Thomson, Amy Luers (Google.org), Dia Eldin-Elnaiem (National Institute of Health, NIH), and several other leaders at the climate and health interface, will present on how they see these connections, and how the connections might work better as NHMS evolve beyond issuing static weather forecasts to also include issuing a of range hydromet impacts, including public health, for the public they serve.



**SI 08 alumna Viviana Ceron**, a NIH bacteriologist, is working as a malaria consultant in the National Integrated Dengue and Malaria Surveillance and Control System in Colombia. In September Viviana presented a paper entitled "Epidemiology and first approach to estimate vulnerability to malaria outbreaks: Steps to implement a malaria early warning system (MEWS) as an

adaptation measure for climate change in Colombia" at the 6th European Congress on Tropical Medicine and International Health, conference held in Verona (Italy). She is also working on the development of a health plan for the indigenous communities of San Jose del Guaviare, one of the pilot areas of the National Integrated Dengue and Malaria Surveillance and Control System in Colombia. More information on this will be provided in next newsletter.

**Facilitators**



**SI 08 and SI 09 coordinator and facilitator Gilma Mantilla** has worked to develop an IRI-AFENET (African Field Epidemiology Network) partnership to include climate information in the training of African field epidemiologists. Such training would improve surveillance, prevention and response to communicable diseases in Africa, in addition to strengthening countries' capacity building. AFENET, a non-profit organization created in 2005, "partners with Ministries of Health, non-government organizations, international agencies, private sector, and other public health agencies to enhance or develop African nations' applied epidemiology capacity." For more details on the IRI-AFENET partnership, see: http://www.afenet.net/



**SI 08 and SI 09 facilitator Judy Omumbo** was a key speaker at the **third World Climate Conference (WCC-3) "Better Climate Information for a Better Future"** Panel on Health and Climate held in Geneva in September. Her presentation was on the needs for the development of climate risk management and information services for the health sector. In Omumbo's scheme, such services would serve research, education and operational needs of ministries of health and other organizations that support broader public health service provision and respond to epidemics and emergencies. More information about Judy's WCC3 presentation is available at: http://www.wcc3.org/sessions.php?session_list=WS-1

## *Interview*

Dr. **Daddi Jima Wayessa** (DJ), alumnus of SI 09, is the deputy director general of the Ethiopian Health & Nutrition Research Institute (EHNRI). As the chairman of the CHWG for Ethiopia, he is also a key organizer of the training course 'Climate Information for Public Health' that will be held in Addis-Ababa in December (for more information, please see "From the Editor," above). Dr. Daddi Jima Wayessa was interviewed by Francesco Fiondella (FF), communications officer at the IRI, during the most recent Summer Institute.



Daddi Jima Wayessa at the IRI. Photo David Gottlieb

**FF:** Can you state who you are and what you do?

**DJ:** […] I am a medical doctor and public health specialist working for Ministry of Health of Ethiopia, also deputy director-general of Ethiopian Health and Nutrition Research Institute, mainly heading the Ethiopian Public Health Emergency Management Center, and also the chairperson for the Climate and Health Working Group in Ethiopia.

**FF:** What are the biggest challenges in health that Ethiopia currently faces?

**DJ:** [There are many challenges but] the priority challenge in Ethiopia in terms of health is the [important] occurrence of communicable diseases […], [which is greater] than expected. Most of these communicable diseases are mainly related to [resource-poor] communities, where there is not good awareness and poor accessibility to health infrastructure. And most of the population lives in rural area where health facilities are

not well-organized. […] The second challenge is the low health budget. This is basically in relation to the economy of the country. So that inhibits the expansion of the health system, procurement of drugs and basic supplies for the health system […].

**FF:** Have you seen a shift in what was the greatest health burden maybe 10-20 years ago versus what it is now? Has there been a predominant increase in one over the other?

**DJ:** Yes. I think this is mainly related to the government's health policy. I can say for the last 18 years the health policy was changed from previously existing health policy [to] decentralization at the lower level, where there are a lot of beneficiaries, […] in an integrated manner, with a focus given to communicable and preventable diseases so that a great impact will be brought if an intervention is focusing on those easily preventable diseases. This policy […] has brought significant change. For example, if you take the expansion of the health infrastructure, all villages in Ethiopia now have, at least, a health post. So the number of health posts has grown from zero to up to 12,000 today! […].The burden of health problems is also decreasing these days. One of the examples is in malaria. At least for the last five years, there is a significant change in admissions, mortality due to malaria, especially in children under 5, and the patients coming to the health facility [have] significantly decreased. This is witnessed by a study done by the WHO and again the number of epidemics that are happening every year has significantly decreased. […]. So this means that there is significant change in the trends of diseases.

**FF:** In terms of trying to bring together the communities of climate and health as the chair of the CHWG in Ethiopia, can you talk about lessons you've learned and how you see climate information potentially being incorporated into your work and the work of your colleagues in the health community?

**DJ**: Our previous experience […] in relation to utilizing climate information for health issues, was not very good, mostly because [of communication issues]: health people did not communicate enough with met people, and met people did not communicate with the health people; as a result we were running our programs in parallel. There were very few initiatives where the Ministry of Health would give some money to the Ethiopian Meteorological Agency to potentiate their meteorological stations in order to give us the information that we need – mainly temperature, humidity and rainfall […]. These variables are important for malaria. These are the climate conditions favorable for malaria transmission. Our [initial] focus was on malaria, so if you get this information you can easily forecast or predict the occurrence of malaria […].But at last the health and climate people came together and discussed, and we decided to establish a sort of Climate and Health Working Group in February 2008. However, it is not only health and the climate [communities] that are the key players in these issues. Some other players are also important to be involved, like the Environmental Protection Authority, partners who are going to fund this, researchers, universities, and all are important for this, and we incorporated these institutions into the Working Group. After that, we produced our own terms of reference […] for the next five years, so we have a five-year strategy plan. It's very important to have this working group, because it facilitates the relationship between different sectors […]. But in the future, this working group has to be strengthened and, if possible, institutionalized, so that it will have the mandate of managing even more research works and handing over that research work to the implementers, mainly the Ministry of Health if we are talking of health issues.

**FF:** Out of these discussions, are there specific gaps in climate information that if the met folks could provide you, you would see benefit? You mentioned getting information regarding temperature and rainfall. Are there any major, urgent ones you feel that if you had access to your community could take advantage of?

**DJ:** The biggest gap in this aspect is the lack of capacity in both communities […].So the first thing to fill the gaps is to train professionals from the met side as well as from the health side, so that they can have an idea on how to link those two data to get a meaning out of it. The second thing is to […] continue research activities; so here the importance of involving universities and research institutions is really critical. And the third thing is related to the gap of getting enough information, like for instance the information based on satellite data. In our situation, we don't have that capacity. So you need to purchase that information if you need to have it, so [there is also] a financial gap.

**FF:** The Summer Institute tries to bring together the two communities. Are there things you can take away from the two weeks that you've spent here?

**DJ:** Definitely. There is a lot information that we learned here, most of it is applicable and can be used, I mean can be directly interpreted into implementation through exploiting the data that already exists. The next step is that similar trainings are conducted at the country level; so we are now trying to adapt the curriculum we received here to our situation.

## Upcoming Training Courses

**Climate Information for Public Health,** Ethiopia, December, 2009.

Following SI 09, a similar course on Climate Information for Public Health will be held in English in Ethiopia in December. This training is conducted by the local CHWG in collaboration with the IRI, using materials adapted from the SI 09.

**Predicting the Climate of the Coming Decades,** Miami, USA, January 11-15, 2010.

This workshop is organized by the Climate Variability and Predictability World Climate Programme (CLIVAR); it will be held at the Rosenstiel School of Marine and Atmospheric Sciences. The goal of this workshop is to bring together people from different communities who have shared interests in predicting the climate of the coming decades. Discussions will focus on bridging the gap between what is feasible from a technical and scientific perspective and the realities of what kind of information users need. Further details will be forthcoming on http://www.clivar.org.

**Summer Institute 2010 Training Course on Climate Information for Public Health,** New York, USA, May 2010.

The IRI, in partnership with the Center for International Earth Science Information Network (CIESIN) and the Mailman School of Public Health, is pleased to announce the Summer Institute 2010 training course on Climate Information for Public Health. The training course will offer public health decision makers and their partners the opportunity to learn practical methods for integrating climate knowledge into decision making processes through expert lectures, special seminars, focused discussions and practical exercises. Previous training courses have been extremely successful and we look forward to the next one (see 'Recent Publications' below). Applications will be open soon, to be completed by the end of January 2010. Further details will be forthcoming at: http://tinyurl.com/yzsctbp.

## Upcoming Events

**United Nations Climate Change Conference 2009**, Copenhagen, Denmark, 7-15 December 2009.

The conference includes the 15th Conference of the Parties (COP 15) to the United Nations Framework Convention on Climate Change and the 5th Meeting of the Parties (COP/MOP 5) to the Kyoto Protocol. According to the Bali roadmap, a framework for climate change mitigation beyond 2012 is to be agreed there. More information can be found at http://en.cop15.dk/.

**International Conference on Climate Change and Developing Countries**, Kottayam, India, 19-22 February, 2010.

This conference is organized by the Centre for Environment Education and Technology (CEET), in association with the School of Environmental Sciences, Mahatma Gandhi University, and the Centre for Rural Management. This will be the first major international conference on climate change in the southern part of India and is mainly aimed at popularizing various concerns related to climate change. The conference may provide an avenue for a detailed discussion on the post Copenhagen Climate Change Conference in December 2009 (see above). It focuses on advances in scientific research, low carbon technologies, atmospheric phenomena which are relevant in developing countries, impacts (on land, sea, and air) and mitigation, socio-economic impacts in developing countries, and climate change policies. Further details can be found at http://ceetindia.org/ccdc/ .

## Recent Publications

**World Development Report 2010: Development and Climate Change.** World Bank, November 2009.




"Act Now, Act Together, Act Differently" is the subtitle of the recently released World Bank report on development. Climate change seriously challenges development efforts in developing countries, and requires attention and resources. This report details the changes needed in public policy to better handle this situation, mostly regarding land and water management and energy systems. More information on the

World Development Report is found here: http://tinyurl.com/yc7cb3e

**Keeping Prediction in Perspective.** Mike Hulme, Roger Pielke, Jr & Suraje Dessai. *Nature Reports Climate Change,* October 2009.

This report shows how models as exploratory tools can help identify physically implausible outcomes and illuminate the boundaries where uncertain knowledge meets fundamental ignorance. Importantly, it also shows the ways in which using models in this way will require significantly rethinking the role of predictive climate science in decision-making. More information on this publication is available from: http://tinyurl.com/ygqjhj2

**A Comprehensive Approach to Risk Assessment and Surveillance Guiding Public Health Interventions.** Jens Aagaard-Hansen, Birte Holm Sørensen and Claire-Lise Chaignat. *Tropical Medicine and International Health* .Vol 14 no 9 pp 1034–1039, September 2009.

Summary tools are required to identify "multi-endemic" population segments in order to benefit the most vulnerable people and make public health interventions more cost-effective. The article suggests a comprehensive risk assessment and surveillance-system approach based on a combination of epidemiological, environmental and social determinants. A full-text version of this is available from: http://tinyurl.com/ykg986x

**Caution Is Required When Using Health Facility-Based Data to Evaluate the Health Impact of Malaria Control Efforts in Africa.** Alexander K. Rowe, S. Patrick Kachur, Steven S. Yoon, Matthew Lynch, Laurence Slutsker and Richard W. Steketee. *Malaria Journal* 2009, 8:209, September 2009.

This is a timely commentary paper in which the authors successfully outline potential limitations in using health facility data to evaluate malaria control efforts. Such debate is critical in current malaria monitoring and evaluation. The article is available from: http://tinyurl.com/lhb4qo.

**The Role of Simple Mathematical Models in Malaria Elimination Strategy Design,** Lisa J White, Richard J Maude, Wirichada Pongtavornpinyo, Sompob Saralamba, Ricardo Aguas, Thierry Van Effelterre, Nicholas PJ Day, Nicholas J White. *Malaria Journal* 2009, 8:212, September 2009.

Mathematical models of various levels of complexity have been produced to consider the control and elimination of malaria infection. If available, detailed data on malaria transmission (such as the vector life cycle and behavior, human population behavior, the acquisition and decay of immunity, heterogeneities in transmission intensity, age profiles of clinical and subclinical infection) can be used to populate complex transmission models that can then be used to design control strategy. However, in many malaria countries reliable data are not available and policy must be formed based on information like an estimate of the average parasite prevalence. The article is available from: http://www.malariajournal.com/content/8/1/212

**Exchange as a Tool for Science-Humanitarian Dialogue: Learning from a Series of Pilot Exchanges between Climate Scientists and Humanitarian Policy Makers.** Humanitarian Futures Programme, Kings' College, September 2009.




Drawing on new learning created through a series of pilot exchanges between climate scientists and humanitarian policy makers undertaken from March to June 2009, this briefing note is intended for humanitarian policy makers, scientists engaged in disciplines which impact on future vulnerability and those seeking to strengthen science-policy dialogue. The full-text report is available:

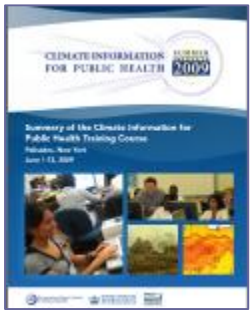
http://tinyurl.com/yl4pl6e

**Climate and Society. Climate as a Resource, Climate as a Risk**. Nico Stehr and Hans von Storch, August 2009.




*Climate and Society* presents climate and its changes, impact, and perception from a transdisciplinary view. One of the messages of this book is that the scientific subject matter "climate" should not only be located within the domain of natural sciences, but also within the realm of the social sciences and humanities. This is even more valid when the public and policy-makers have to be advised how to deal with suggestions and warnings prompted by scientific climate research. For more information, consult: http://www.worldscibooks.com/environsci/7391.html

**Summary of the Climate Information for Public Health Training Course, Palisades, New York, June 1-12, 2009.** L. Cibrelus and G. Mantilla, IRI, June 2009.




The second Summer Institute on Climate Information for Public Health was held at Columbia University's Lamont-Doherty Campus, Palisades, New York, in June 2009. It was designed to engage professionals who play a key role in the operational decision-making for climate-sensitive diseases in identifying and evaluating appropriate use of climate information. This report describes the content and the evaluation of the course with summaries of each training module. It also introduces the participants – organizers, trainees, lecturers, facilitators, sponsors and support staff – who contributed to the success of SI 09. The full report is available from the IRI's website here: http://iri.columbia.edu/publications/id=909

## Related Links

http://mimalaria.org/pamc/

http://www.tephinet.org/

http://www.afenet.net/

http://www.wmo.int/wcc3/page_en.php

http://iri.columbia.edu/education/summerinstitute09

## Contact Information

Please contact cipha@iri.columbia.edu to send your comments or materials to be included in the next CIPHA newsletter. **The deadline for documents to be included in the next issue is January 20th, 2010.**

If you have questions about IRI activities, please visit our Home Page: http://portal.iri.columbia.edu/portal/server.pt

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