Health and Climate Partnership for Africa

(Using meteorological information to mitigate health epidemics)

1. Introduction

1.1. Participants at a workshop of health and meteorological experts hosted by the World Meteorological Organization (WMO) in Geneva between April 3rd and 7th 2006, agreed to form the ***Health and Climate Partnership for Africa*** to enhance the use of meteorological information to mitigate health impacts. It was also agreed that the health community would lead the Partnership with support from meteorological services, research organizations and non-governmental organizations. It was further agreed that the World Health Organization Multi-disease Surveillance Centre, based in Ouagadougou, Burkina Faso would be responsible for the overall coordination of the Partnership and the health component with the International Research Institute for Climate and Society (IRI) facilitating the Partnership, and the WMO coordinating meteorological activities through the African Centre of Meteorological Applications for Development (ACMAD), AGRHYMET Regional Centre and national meteorological and hydrological services in West Africa.

1.2. Critical to the success of the Partnership is the participation of international health and climate research and operational organizations, including the International Federation of Red Cross and Red Crescent Societies (IFRC), Centre de Recherche Médicale et Sanitaire (CERMES), Institut Pasteur de Madagascar, Liverpool School of Tropical Medicine, Medias-France, Institut de Recherche Pour le Développment (IRD), Météo France, National Oceanic and Atmospheric Administration (NOAA), European Centre for Medium Range Weather Forecasting (ECMWF), University of Liverpool, , and University of Bonn. The Partnership is an open arrangement and the participation of other organizations will be welcome in the effort to mitigate the adverse impact of climate and weather sensitive diseases in West Africa.

1.3. It was recognized that this Partnership would strengthen the cooperation between health and meteorological services at both the national and international levels as recommended at the November 2005 Niamey Workshop on Regional Climate and Health.

1.4. The workshop participants agreed to the following planned activities and specific actions. These activities are based in part on the workshop deliberations and the project document "Towards a Multi-Hazard Early Warning and Response System in West Africa: A Multi-Hazard Approach to Forecasting Adverse Health Impacts in Africa", which was presented at the UN International Strategy for Disaster Reduction Early Warning Conference III in Bonn, Germany.

2. Organizational and Operational Activities

2.1. It was agreed to convene in the first year of the Partnership, a formal start up meeting of project stakeholders from the operational and research health, weather and climate communities.

ACTION: This meeting will take place in the autumn of 2006 in West Africa organized by WHO/MDSC and ACMAD with the participation of the workshop participants and other invited and contributing experts.

Responsible organizations: WHO/MDSC, WMO and IRI

2.2. The Partnership will designate a project team, including representatives of national and district stakeholders, who will be responsible for developing an implementation plan for the Partnership.

ACTION: A draft implementation plan will be developed by correspondence prior to the autumn 2006 meeting. The plan will include both operational and research components. To be completed by August 2006 for review by participants.

Responsible organizations: WHO/MDSC and WMO will secure inputs from participants to the draft plan

2.3. An initial task will be to review the existing health- weather/climate relationships that have been established using data from West Africa. This task will also consider the social impact of providing more timely warnings of epidemics. This activity will involve researchers from the medical and scientific communities including the IRI, MDSC, CERMES, LSTM, University of Liverpool, IRD, and Medias-France, amongst others. This activity also satisfies recommendation 2 of the Niamey Climate-Health Workshop 2005.

ACTION: This activity will be outlined in detail for the implementation plan and will build on existing activities.

Responsible organizations: The IRI will lead this action with the help of WHO/MDSC, CERMES, LSTM, IRD, Medias-France and University of Liverpool

2.4. The Partnership confirmed that education and training is of paramount importance to increase the opportunities for interaction between the health and meteorological communities. It was agreed that training activities for meteorological and medical communities in the West African region would be organized. These training activities will help identify the needs of the operational public health community in West Africa for weather and climate information. These activities will also be used to establish a health requirements process. The training will focus on providing specific health related training for meteorologists and appropriate meteorological training for health workers. This follows recommendations 2, 4, & 5 from the Niamey Climate-Health Workshop. It will be modelled on existing activities of agricultural-meteorological community; training materials developed by the IRI; and by others.

ACTION: Develop training materials using the experience in the agricultural community and elsewhere. Aim to start this activity within 12 months. There are many organizations contributing to training. The Partnership will determine what training is required and seek contributing partners

Responsible organizations: MDSC, ACMAD, AGRHYMET, IRI, WMO, AMMA, NOAA, CLIVAR, ECMWF, IFRC

2.5. The Partnership will determine the adequacy of the current institutional mechanisms to deliver health-climate information to decision-makers, to deliver information to the public (including public education and information), and to share information between the climate and health communities. This task will also consider how the activities proposed in this Partnership will assist other ongoing regional projects. The implementation of this task will satisfy recommendations 3 & 6 of the Niamey Climate-Health Workshop. It was agreed that there is a need to test how information flows through the system and to understand the dependencies on other “actors” in the communication chain and how to utilize new communication channels within national networks operated by WHO national offices, national entities of the IFRC, and national meteorological and hydrological services.

ACTION: Provide initial input to implementation plan on what institutional changes would be needed to improve operational support to health sector. This must also consider the issue of the

availability of meteorological data and the development of a communication plan

Responsible organizations: IRI, CERMES, AGRHYMET, ACMAD, MDSC, WMO, NMHSs, IFRC, IRD, Medias-France, WCO

2.6. The Partnership will review the adequacy of current early warning system for food security and investigate opportunities for synergy between this system and a health early warning system.

ACTION: Provide input to the implementation plan outlining how the food security early warning system can work in synergy with the health system. Identify key inputs to the health sector and possible ways to use existing infrastructure to support the health early warning system. Input from FEWSNET will be requested

Responsible organizations: AGRHYMET, ACMAD, MDSC, AMMA, WMO

3. Research and development activities

3.1. An expert working group to be established by the Partnership will provide oversight of research and development activities. The initial focus will be on those of immediate benefit to West Africa expanding to the whole continent eventually.

ACTION: Establish joint working group terms of reference for this task. Identify key participants

Responsible organizations: MDSC (lead), Inst Pasteur, CERMES, LSTM, IRI, IRD, Medias-France, ACMAD, AMMA, THORPEX, WCRP, NMHSs in West Africa, Météo France

3.2. The workshop participants identified the top level health and climate issues for consideration and implementation by the working group

3.2.1. Health research issues:

3.2.1.1. The workshop reaffirmed the need to focus on Malaria, Meningitis and other climate sensitive diseases (Cholera). It was agreed that the emphasis should be on detection and prevention with research focused on a better understanding of the relationship between near real-time observed environmental parameters and health outcomes. The research would lead to the development of models of the relationship between observations and health outcomes that incorporated non-climate variables, such as immunity.

3.2.1.2. Observations of several key basic meteorological parameters are critical for health applications and to generate better health products. The representativeness of observations is important. In many places observations are limited to agricultural areas with many regions inadequately observed. The Sahel, for example, is very poorly observed from both in situ and space. The capacity to sustain the existing networks is also very limited. The AMMA project is making a useful contribution through data denial studies to understand the limitations of the current observations; however, these must be done mindful of the specific applications for which they will be used. GCOS is also playing an essential role in helping to reactivate currently silent observing networks. The Partnership will pay particular attention to observing system requirements for health and test the usefulness of the techniques used elsewhere to generate gridded parameters from irregular and incomplete data. These techniques can

be used to synthetically collocate environmental and health information. There is also a need for data rescue activities to ensure the completeness of the records needed to generate useful parameters from the historical databases.

3.2.2. Climate research issues:

3.2.2.1. The Workshop recognized that much of the climate research applicable to health is being undertaken elsewhere as part of investigations into climate impacts. The focus of the Partnership would therefore be on the link between these research and development activities and specific health applications.

3.2.2.2. Downscaling seasonal forecasts to a geographical region relevant to health outcomes is of primary importance. NOAA currently supports training on the use of a climate prediction tool developed by the IRI. There remains a need to exploit fully probabilistic forecasts, where existing emphasis has been on mid- rather than low latitudes. Inter-seasonal variability is relatively poorly understood and the Partnership will need to rely on the activities of the WCRP to address this problem. Opportunities to build on the DEMETER project and the ongoing ENSEMBLES will be explored by the working group.

4. Funding

4.1. While many of the activities discussed during the workshop are part of ongoing activities with funds provided by various sources, it was recognized that the organization of a sustained relationship between the health and climate community focused on Africa would need additional resources from donors.

4.2. In the first instance funds will be sought to develop the implementation plan for the Health and Climate Partnership for Africa and to conduction the tasks listed in Section 2, which will increase the operational effectiveness of the Partnership.

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