GLOBAL PROJECT LAUNCH

Climate Adaptation to Protect Human Health

The WHO/UNDP Global project Climate Adaptation to Protect Public Health is off and running! Since May 2010 project teams around the world have been mobilizing partners and reinvigorating ideas to begin an essential journey that will help adapt health policies and practices to the realities of climate change around the world.

What is the project?
The joint WHO/UNDP project is the first of its kind and long awaited. This novel global project seeks to identify and share solutions to address health risks unique to small-islands, arid and water stressed conditions, highland areas, and urban environments under climate stress. Over the next four years health partners in seven countries will figure out what it means to adapt to climate change, and share lessons and innovations on the best practices and priorities to prepare the health sector to be more resilient.

Who is involved?
The Ministries of Health in Barbados, Bhutan, China, Fiji, Jordan, Kenya and Uzbekistan will lead the way and be supported by WHO and UNDP to implement the project. Over the coming months this newsletter will feature project teams to help us get to know each other and build the nexus of expertise.

What to expect?
All countries will implement four objectives to develop health early warning systems, improve capacity and decision making to manage climate sensitive health risks, propose interventions which reduce climate sensitive health risks, and share with each other and the world their innovations for health protection. Information on individual project activities can be found at: http://www.who.int/globalchange/projects/en/

Next Steps
Inception workshops started in October across the world and are the key opportunity for project teams to work with partners and develop refined project plans. A Global Board Meeting between representatives of the respective Ministries, UNDP, and WHO will be convened to establish the project governance and monitoring mechanisms.
Global Design and Collaboration for Climate and Health Adaptation

The unique nature of the Global Health Adaptation to Climate Change Project rests in its design to highlight a range of climate related health risks represented across multiple similar ecological zones in different world regions. This design permits the project to learn from how countries address similar stresses such as health risks associated with water scarcity or changing vector habitats, in different ways. The approaches and learning from how these countries address key public health challenges affected by climate change will provide essential lessons and model case studies for how to improve community and health system resilience to climate change.

Between 2010-2014, all country projects will work toward the same four objectives: to enhance systems of early warning and early action; build capacity of national actors and reduce barriers to health sector adaptation; pilot specific health risk reduction interventions; and document and share lessons learned in addressing the health risks associated with climate change in their area.

### Ecological Zone & Country

- **Urban**
  - China
- **Highland**
  - Bhutan
- **Small Islands**
  - Fiji
  - Barbados
- **Arid & Water Stressed**
  - Jordan
  - Uzbekistan

### Climate Sensitive Environmental Health Risk Factors

- Air Quality Heat Islands
- Vectors Glacial Lakes Flooding
- Vectors Drought Cyclones
- Air Quality Water Quantity & Quality

### Climate Sensitive Health Outcomes

- Cardio-Pulmonary Heat Stress
- Malaria Dengue Injuries
- Dengue Nutrition Injuries
- Diarrhoea Respiratory

### Expected National Benefits

- Identification and monitoring of climate related health risks
- Improved capacity to manage and reduction in the burden of climate sensitive diseases
- Reduction of the effect of climate change on human health
- Better cross sectoral collaboration for risk management and health planning

### Expected Global Benefits:

- Improved knowledge of the links between climate, health, and adaptation options in the most vulnerable contexts
- Identification of adaptation strategies that other countries can use to protect human health from the impact of climate change

Global Project Partners:
Who’s who at WHO?
Meet the Climate and Health Team in Geneva

The Department of Public Health and the Environment at WHO in Geneva, under the direction of Dr. Maria Neira, has a dedicated unit to implement WHO’s work plan for Climate and Health. Strengthening Health Systems through adaptation projects is just part of what we do. Have a look at the activities we are involved in at [http://www.who.int/globalchange/health_policy/who_workplan/en/index.html](http://www.who.int/globalchange/health_policy/who_workplan/en/index.html)!

Meet the team in Geneva and see how each of us support the climate adaptation projects!

Diarmid Campbell-Lendrum:
**Climate & Health Science and Policy**
Climate and Health Team Leader, Dr. Diarmid Campbell-Lendrum is an environmental epidemiologist and specialist in climate change and health. Diarmid has played key roles in the development of the first quantitative estimates of the overall health impacts of climate change, the 2008 World Health Assembly on “Health Protection from Climate Change”, the 2008 World Health Assembly resolution on this issue, and has developed projects and run workshops to pilot health adaptation to climate change. He is author or editor of multiple publications and policy recommendations on infectious disease transmission and control, and on the health implications of climate change.

Joy Guillemot:
**Health Adaptation Programmes & Vulnerability Assessments**
Technical Officer for Health Adaptation and Health System Strengthening in PHE, Joy provides technical and coordination support for the Regional and National Climate Adaptation project teams. Joy is an Environmental Health scientist and anthropologist, specialized in global environmental change and population health. She worked in the humanitarian NGO sector as Country Director and Manager of infectious diseases control, nutrition, and disaster risk reduction programmes in Africa, South America, and Central Asia. She has conducted field research on environmental and infectious disease dynamics, and is a Doctor of Public Health (DrPh) candidate at Johns Hopkins, USA.

Ravini Senanayake
**Climate & Health Communications**
Ravini is the Communications Officer for the Climate and Health team. Her role is to raise awareness of climate risks to health through the development of advocacy campaigns. She works with stakeholders to encourage the representation of WHO and health actors in key climate forums, which raise the prominence of health issues on the climate agenda. Ravini has a Masters in International Relations, with over 10 years of specialist expertise in crisis communications, advocacy and partnership development.

Judy Sanchez-Santana:
**Administration and Finance**
Judy has been working with the PHE Department for over 3 years providing administrative and financial support to the EPE Unit and the GEF project. Judy has experience in the private and humanitarian sector, including 7 years at the American Red Cross and the International Federation of Red Cross and Red Crescent Societies, in her home country, The Dominican Republic.

Elena Villalobos:
**Gender and UNFCCC Partnerships**
Elena is a JPO from Spain. She networks with partners and member states to advocate for WHO’s policy recommendations which can protect health from climate under the UNFCCC. She is also working on the implementation of a global framework to facilitate the reduction of the carbon footprint of WHO offices and operations globally. Elena is a Development Economist and before joining WHO worked in the field of sustainable rural development and natural disaster response, emergency operations relief & rehabilitation with IFAD, WFP and FAO.

Guy Hutton:
**Environmental Health Economics**
Guy Hutton (PhD) is an economist by training, working as a part-time consultant for WHO. His role is to integrate economic assessments into WHO’s climate change and health work plan by conducting economic studies and providing guidance to regions and countries to conduct their own economic analyses of adaptation and mitigation measures. He has over 15 years experience in health services research and systems development, health financing, and the economics of water and sanitation, air pollution and malaria control, among other health topics.

Marina Maiero:
**UNFCCC Partnerships & Friends of Public Health**
Marina is the WHO focal point for the Climate Change talks and negotiations, she networks with partners and member states to advocate for WHO’s policy recommendations which can protect health from climate under the UNFCCC. She is the gender focal in the department and coordinates the UN task team on social dimensions of climate change. Lawyer by training, she has a Master in development, humanitarian aid and migrations and another Master in gender. She has worked for more than 10 years with several NGOs and she has accumulated 7 years of field experience in South and Central America and Asia.

Coming Next... prepare your profiles!
Each issue will profile regional and country project teams in the coming months. Be ready with a nice picture!
Tools and Lessons: Dealing with the Media

As the first global pilot project for Health Adaptation to Climate Change this project is likely to attract attention from the media. A novel communications tool was developed in Kenya by Dr. Kepha Ombacho (Ministry of Health, Kenya) Dr. Solomon Nzioka (WHO-RO) and Joy Guillemot (WHO-HQ). This communications tool consists of a series of common Questions & Answers the media might ask, to help project teams and steering committee members deliver standard messages about the Health and Climate project. This tool can be easily modified for all country projects.

Q: Was there any criteria used to select Kenya as one country for this pilot project?
A: Yes, from the 7 countries participating in this global project, Kenya was selected to participate as a country with health risks in highland environments, due to its unique location along the Great Rift-valley which runs from middle east through Kenya to Mozambique. Bhutan, in the Himalayas is the other country representing highland health risks. Small Islands are represented by Fiji and Barbados, arid countries include Jordan and Uzbekistan, and China represents urban health risks. Other criteria used to identify Kenya as a pilot country included pre-existing partnerships, experience and research on the sensitivity of malaria to changes in temperature and precipitation.

Q: How is the climate changing and expected to change in Kenya? What does that mean?
A: The Earth’s surface has warmed by more than 0.8 °C over the past century, and approximately 0.6 °C of that increase just in the past three decades. Average temperatures are expected to increase by 3.2°C. Precipitation is also expected to increase by 7%, with a 30% increase in extremely wet years. Such projected shifts in the climate will alter life in Kenya. It will influence agricultural potential and practices, extreme flooding events, and the availability, quality, and access to water and food, and air quality. The health sector will be affected, because all of these factors are fundamental pillars of population well-being and health.

Q: Can you say that health in Kenya is prone to the impacts of climate change?
A: Yes, a national scoping assessment undertaken in 2006 revealed that Kenya is at high risk of climate-sensitive health risks and will be affected by climate change. This is because many of the diseases and public health challenges in Kenya (such as malaria, Rift-Valley fever, malnutrition, diarrheal diseases) are amongst the top diseases projected globally by scientific studies to be impacted by climate change. Climate change is likely to have far bigger effects on health in developing countries, which are already burdened with other serious health concerns (such as HIV/AIDS, TB) and limited resources for preparedness. Reducing morbidity and mortality related to climate change in developing countries, including Kenya will be a big challenge in the coming decades.

Q: The potential spread of malaria to districts where malaria does not regularly occur such as the Nandi Hills and central Kenya have been a subject of concern. Will this project introduce anything new in terms of dealing with the spread of diseases resulting from climate change?
A: Yes, this project specifically addresses the concern of malaria spreading to the highlands of Kenya. The pilot project will provide training and development of tools to prepare malaria control programs to understand the influence of climate change and variability on the transmission risks of malaria. Analysis of data collected during the scoping exercise in 2006 in six malaria epidemic prone districts at various altitudes showed that there is evidence that climate change and variability influences the occurrence and spread of malaria in the highland zones. A model for predicting highland malaria was developed, theoretically validated with previously observed malaria epidemics and it indicated very high utility in predicting malaria epidemics three months in advance at areas higher than 1800 m. This project aims to take the model to the next step by operationally validating it and developing better tools for malaria forecasting to support decision-making on public health interventions that help prevent epidemics. Without such advance warning, dealing with surprise epidemics are expected to be costly, even unaffordable, and an unsustainable situation for the health system to cope with.
Dealing with the Media Continued…

Q: Please explain how the spread of disease is being affected by climate change?
A: Diseases and health risks that are influenced by seasonal and extreme changes in temperature and rainfall, are called "climate sensitive diseases" (CSD). These CSDs include vector-borne diseases such as malaria, leishmaniasis and dengue fever; diarrhoeal diseases like cholera; viral diseases like Rift-valley fever, malnutrition and food-borne infections and negative health conditions related to air pollution and extreme temperatures. Some of these diseases in Kenya already show changes in their epidemiological patterns (ie when and where people get sick), that are associated with observed changes in temperature and rainfall conditions in Kenya. Extreme weather events are also part of climate change. Events like heatwaves, droughts, and heavy rainfall and floods directly cause injury and illness in people. Responding to the health consequences of extreme events take significant attention and resources of the health sector to attend to, and experience shows emergencies very often disrupt and take resources away from core health services.

Q: Do Kenya’s health programmes currently take climate change into consideration?
A: Yes and no, public health programmes work across the country everyday to keep people from getting sick. What is new is the recognition and global call for deeper understanding of the effects of climate change on health systems, health investments and the resulting effects to people's health. Following this research, climate adaptation and climate risk management which help us take into consideration how temperature, precipitation, and weather extremes affect the health conditions and the resources we need to continue to keep people healthy - are new approaches for the health sector. Additionally, Kenya has developed tools such as a Malaria Early Warning System that looks at rainfall patterns, vegetation, and temperature conditions to help predict epidemics, but it hasn’t been an effective disease outbreak prediction/forecast tool adopted for National use. Previous projects have worked to develop malaria epidemic thresholds (ie trigger points when an outbreak can happen), but they are at very preliminary stage of being able to predict when and where an epidemic might happen. We need to keep working to develop, validate and deploy appropriate tools - that is what this project is about.

Q: What will this project entail, in terms of preparing the country’s health programmes to climate change?
A: The rationale behind this project is that we know the climate of Kenya is getting warmer, and we know that warmer temperatures at higher altitudes in the highlands create favourable conditions for mosquitoes to transmit malaria in districts historically too cold or dry for mosquitoes. To prevent increased cases that will burden an already over-stretched health system, specific preparations are needed. This project will help the MoH, Meteorological services, and other partners better prepare for health problems, particularly malaria, through the following objectives: An early warning and response system with timely information on likely incidence of climate-sensitive health risks established Institutional and technical capacity to manage climate change health risks based on early warning information built Disease prevention measures piloted in areas of heightened health risk due to climate change and lessons learnt disseminated.

Q: In what capacity will WHO and UNDP be working with the Dept of Environmental Health (DEH)?
A: DEH will be working with WHO under the usual bilateral relationship of technical support to the Ministry of Health. DEH is the principal implementing agent/responsible party of the project on behalf of MOPHS. WHO and UNDP jointly support this project, which is funded by the Global Environment Facility (GEF) and are guided by a collaborative agreement which outlines UNDP as the GEF Implementing Agency (IA) and WHO as the Executing Agency (EA). WHO supports United Nation member states to protect population health from climate change through a variety of programs, to fulfil its commitment to implement resolution on Climate change and health (WHA.61.19) at the 61st World Health Assembly in 2008.

Q: Who else is part of this project in Kenya?
A: Informing health actors of the trends and impacts of weather and climate, involve a large number of partners. A Steering Committee is comprised Ministry of Public Health and Sanitation, UNDP, WHO, Kenya Meteorological Department, Kenya Medical Research Institute (KEMRI), Office of the President, and others.
Fiji Holds First Inception Workshop

Now that the Health and Climate Adaptation Pilot Projects are up and running, each country will have it’s project inception workshop to kick start the project and develop critical documents like the project work plan. Congratulations to Fiji team for being the first of the pilot countries to hold it’s Inception Workshop, where over 70 participants gathered in Suva in October 2010.

The objectives of the workshop were to ensure stakeholders have a clear understanding of what the project seeks to achieve, review project objectives and priorities and develop a detailed annual work plan.

The workshop was opened by Dr Ken Chen and Dr Salanieta Saketa, Permanent Secretary on behalf of the Minister of Health and a presentation on climate change and health by Simon Hales a consultant to the World Health Organization, from University of Otago, New Zealand.

This was followed by presentations designed to cover the current baseline situation of observed and expected climate impacts in Fiji, as well as presentations on the project objectives to spark discussion on the relevance of the project plan and identify any new issues which need to be addressed.

These background presentations provided the basis for day one discussions which looked at the following:

1) The highest priorities amongst the proposed objectives
2) Which people or institutions are best able to participate and contribute?
3) What resources are required?
4) What are the barriers to successful implementation and how can these be overcome?
5) What is feasible in the next three years?

A significant outcome of these discussions was the realisation that many policy issues have progressed since 2004 when the initial baseline analysis was conducted. Thus baseline descriptions need to be updated before other project actions and indicators can be identified.

The second day of the workshop brought more discussions on prioritizing health issues and and identification of activities in possible pilot areas. Three health issues were identified. 1) Provision of safe water and food security along with hygiene and sanitation promotion 2) Enhancing Early Warning Systems for four identified CSDs (Leptospirosis, Dengue Fever, Typhoid and Diarrhoea) and 3) Health Sector Mobilisation.

From all accounts the workshop was a success and health partners across the Government, NGO’s and civil society are ready and motivated to start the real action.