

Air Quality and Health CoP

Activities/Updates

- **GEOSS ADC series workshops**
- **HE-06-03: MERIT / THORPEX**
- **HE-07-02: ICSU-SHWB proposal**
- **HE-07-02: Lubbock, TX test case**
- **HE-07-03: SDSWAS**

GEOSS ADC Series of Workshops

- **Applications in Public Health for the Indian Ocean Region (GEOSS Architecture VI) – Goa, India (26 Sep 2006)**
 - **Emphasis on drinking water quality**
 - **Emphasis on telemedicine**
- **Air Quality and Human Health (GEOSS Workshop XXI) – Beijing, China (2 Jul 2008)**
 - **Identifying Health and Dust Issues**
 - **Introducing Programs and Strategies**

MERIT (HE-06-03)

(Meningitis Environmental Risk Information Technologies)

- **Aims to extend current capabilities to more effectively combine environmental information with knowledge of epidemic meningococcal meningitis**
- **Also to initiate projects to improve the processing of real-time and historical data and the development of models relating remotely sensed, in-situ, socio-economic and epidemiological data for detecting disease trends and the provision of early warning systems**

Recent Activities:

- **Sep 07:** The Meningitis Environmental Risk Information Technologies (MERIT) project has been established to more effectively utilize current knowledge of epidemic meningococcal meningitis and its interaction with the environment to increase the effectiveness of prevention and response control strategies in Africa. The World Health Organization (WHO) and a number of other partners met at the Meningitis Environmental Risk Consultative Meeting (Geneva, 26-28 September 2007) to progress this initiative.

Proposal to ICSU-SHWB (HE-07-02)

(Mapping GeoUnions to the ICSU Framework for Sustainable Health and Wellbeing)

- **Purpose:** Develop health-oriented geoscience research questions that guide future externally funded research by national and international bodies
- **Objectives:**
 - 3-day workshop in Africa to ensure JSPT's understanding of the systems analysis approach and the requirement to address regional health policy and decision-making needs
 - Collaborative interactive writing phase for JSPT and African collaborators to adapt their models and science content to the boundary between the geophysical Earth and the living planet in context of identified science and policy needs
 - International conference aimed at vetting a draft report and advanced version of the SHWB and ESSP frameworks before it is submitted to CSPR
- **Decision for funding expected in May 2008**
- **Results due Sep 2009**

*JSPT = Joint Science Program Team

PHAIRS (HE-07-02)

(Public Health Applications in Remote Sensing)

- **Dust forecasting model (DREAM) nested within weather prediction model (NCEP/eta)**
- **Assimilates EO data to improve model output**
- **Enhances health decision support systems using open source technology and OGC standards**
- **Lubbock, TX study**
 - **1 year study to include city & Region I (counties)**
 - **Includes PHOs and veterinarians**
 - **PHOs interested in dust impacts on chronic lung disease**

WMO Sand & Dust Storm Warning & Assessment System (HE-07-03)

International Drafting Team: William A. Sprigg, Chair

- Jose M. Baldasano
- Emilio Cuevas
- Slobodan Nickovic
- Young-Sin Chun
- Ina Tegen
- Sunling Gong

Collaboration Covers the Globe

East Asian Centre (operational), China CMA

North Africa, Middle East, Europe Centre (operational)

Barcelona Supercomputing Centre

Pan-American Centre (proposed)

Participating regional research & operational systems

Linking to U.S. National Integrated Drought Information System

Australia-Asia Centre (searching)

Aims of SDSWAS

- **Deliver products useful in reducing adverse effects of sand and dust storms**
- **Integrate observations, models & user interfaces to warn (of pending storms) & inform the public of SDS characteristics & their sources**
- **Coordinate a global forecast centre network – the core of the SDSWAS**
- **Promote research & applications**

Information Access, Delivery & Dissemination

- **GEONETCast**
- **UN-SPIDER**
- **SERVIR**
- **PHAIRS**

Implementation Timeline

•2007

- Nov** - Barcelona WMO/GEO SDSWS Meeting – Review & Expert Input to Plan

•2008

- Jan** - WMO Establishes SDSWS Office
- 1st** Products: China & Spain Initiate SDSWS Regional Centres
- Strategy/Plan Presented Worldwide**
- Feb** - UN Sister Agencies Invited
- May** - WMO Strategy/Plan Approved
- Jun** - Science/Applications Steering Group: 1st Meeting

•2008

- Jul** - Penultimate Plan
- FALL**- Regional Centres Begin internal/public Data Portals Public
- Awareness Campaign, e.g. “Ten Common Questions”**
- **Pan-Am Centre Begins**

•2009

- GEONETCast Routine Links**
- Data Assimilation Methods Established**

•2010

- New Routine Surface Recognition High-Res. Monitoring**