



## **GLOSAS/USA**

**The GLObal Systems Analysis and Simulation Association in the U.S.A., Inc.**

(A New York non-profit educational service organization since 1988; E.I.D.: 11-2999676)

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# **The Global Early Warning System (GEWS) with The Global University System (GUS)**

***Their Use Within ECOWAS Countries***

October 7, 2012

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Secretariat, Emerging **GLOBAL UNIVERSITY SYSTEM (GUS) CONSORTIUM**

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## PROJECT DESCRIPTION

**PURPOSE:** The **Global Early Warning System (GEWS)** is a globally distributed computer simulation system to help decision makers construct a decision-support system to search for positive sum/win-win alternatives to conflict and war. The idea involves interconnecting experts in many countries via the global Internet to collaborate in the discovering of new solutions for world crises, such as the deteriorating ecology of our globe and the rising socio-economic disparities, and to explore new alternatives for a world order capable of addressing the problems and opportunities of an interdependent globe. Women and youth participation, media and governance concerns are central to the GLOSAS/USA approach.

The GEWS will foster a rational, fact-based process for developing plans and policies. We will train young bureaucrats and decision-makers, particularly women, to better manage resources vital to co-prosperity of the participating countries. This training is for leadership skills, conflict resolution and management, negotiation around scarce resources, increasing population and climate changes.

Planning for sustainability requires an understanding of how economic, social, and environmental factors interact with and affect each other. Customized integrated planning tools are powerful means of gaining insight into the dynamics of complex systems and widespread challenges such as economic self-determination for the poor. These tools allow specialists in any area to understand how proposed policies in one area of national development would affect the whole system. For example, Gross Domestic Product (GDP) is often chosen as a key indicator of economic growth. However, social and environmental indicators such as literacy, health, and clean air and water are also important indicators that influence a country's ability to attain sustainable economic growth. Integrated tools allow planners to see how these indicators influence each other and the whole system. Working collaboratively, they can make the best decisions on combinations and sequencing of policies to attain stated goals and maintain the progress over time. The dynamic simulation tool will support comprehensive, integrated long-term national development planning. This is because it will provide comparative analysis of different policy options, and help users to identify policies that lead to a desired goal, such as Poverty Reduction Strategies.

**SYSTEM:** The GEWS is a network of mini-supercomputers for various purposes of human wellbeing. Within each country, the supercomputers constantly gather vast quantities of real-time data. A GEWS simulation model then processes the data into a form that can directly assist policy development and decision-makers, and help train others to fill these roles. The GEWS will foster rational scientific thinking and methodology for policy analysis and planning. Of equal importance is its usefulness in training young bureaucrats and aspiring decision-makers. GEWS will equip them to implement effective strategies in the various components of national prosperity. They will learn the strategic use of technologies and the importance of cooperation as they seek effective advocacy, informed policy, and concrete community development.

In each country, GEWS will have a national simulation model. All will be interlinked to form a global model in a global scale virtual supercomputer through global neural computer network – each of those distributed models and databases acting as if neuron of global brain.

**COLLABORATION:** The GEWS projects cooperate with the Global Ring Network for Advanced Applications Development (GLORIAD) and Baharicom Development Company, which is now deploying the “Africa Coast to Europe (ACE)” ultra-high-speed optical fiber submarine cable along the west coast of Africa. GEWS in participating countries will provide simulation models with the guidance from the Millennium Institute, a world-renowned think tank specialized on system dynamic methodology modeling on socio-economic-energy-environment systems. Those models will be interlinked through ACE/GLORIAD with the guidance from the GLOSAS/USA to form a global model for globally collaborative analysis of confrontation prone issues and co-prosperity among the

participating stakeholders for peace building. GLOSAS/USA has recently mediated and facilitated the MoU signed by Baharicom and GLORIAD, which is a significant step forward for all the partners and to advance towards the implementation of our mission.

The **Global University System (GUS)** (a UNESCO program initiated with funds from the World Bank and the NSF) is a companion global alliance of major universities that will support GEWS in finding, collecting, model building, and processing data. The GUS in participating countries will also provide intercultural and peacekeeping courses in addition to community development as well as public healthcare information and telemedicine courses.

The **specific socio-technical objectives** of the project will include:

- a) The development of national dynamic simulation models that address matters such as socio-economic realities, agro-economy, energy, health, and environmental matters;
- b) The creation of GEWS centers in regional hubs. This will put GEWS in proximity to key regions – for example, the Nile, Niger, and Congo River basins in Africa and along the Ganges River in Asia. The basins of major rivers must be used in coordinated fashion. The relevant countries can manage the basins sustainably by regarding them as shared regional ecosystems.

**ACTIVITY AREAS:** A primary focus is the Economic Community Of West African States (ECOWAS) countries around the Niger Delta in Africa. GEWS will assist collaborative research and capacity building for climate change adaptation in this region. We are also working to establish a GEWS hub in Kigali, Rwanda, the Democratic Republic of Congo (DRC) and Dhaka, Bangladesh. Spanish colleagues and other contacts in Europe, Russia, and Japan have been made.

**INTELLECTUAL MERIT:** GEWS represents substantial paradigm shifts, including:

- 1) Gaming and simulation based on facts and figures rather than exclusively upon insights, habits or traditions, transforming adversaries into collaborators for confrontation prone problems in globally collaborative education and training;
- 2) The development of global “virtual” supercomputer capacity with globally distributed simulation models, which would become a single global model linked through Internet;
- 3) A hands-on experiential learning apparatus (i.e., simulator/trainer) for people who hold leading positions and those training for similar roles.

**BROADER IMPACTS:** We intend that ultimately, GEWS will be a part of the United Nations University. African colleagues will form teams on many subjects planning for 5-year periods. These plans will be submitted for Japanese ODA fund. Their GEWS study will advocate that optical fiber should be laid along new highways in Africa, which are now being constructed with the fund pledged by the Japanese government. The GEWS will be especially suited for fostering camaraderie around the globe, leading to the next stage of human development as fostering global collaborative creativity.

## **COLLABORATORS:**

**Baharicom Development Co. (BDC), Ltd.** (the company that is charged with the development of Uhurunet; the submarine segment of the NEPAD Network) has achieved a significant milestone in the development of the Uhurunet submarine cable by joining the “Africa Coast to Europe (ACE)” consortium. This jointly developed submarine cable will form a part of the *Uhurunet* submarine cable ring that will circumscribe the African continent and make provision for connecting all African coastal countries as well as the islands around the continent. The ACE will now be extended all the way to South Africa, and will ensure that every country on the West African coast is connected to the cable. It will include state-of-the-art submarine cable technology with a minimum

capacity of 1.92 Tera bit/s capable of providing the network connectivity required to meet the needs of African countries.

The current 18 members of the ACE Consortium are: *Baharicom Development Company, Benin Telecoms, Côte d'Ivoire Telecom, Companhia Santomense de Telecomunicacoes, Expresso Telecom Group, France Telecom, Gamtel, Getesa, Globalink, Mauritano-Tunisienne des Télécommunications, Office Congolais de Poste et Télécommunication, Orange Cameroun, Orange Côte d'Ivoire, Orange Guinée, Orange Mali, Orange Niger, Sierratel, Sonatel.*

The **Global Ring Network for Advanced Applications Development (GLORIAD)** is an advanced science Internet promoting new opportunities for collaboration and cooperation among scientists, educators and students. GLORIAD is constructed from a fiber-optic ring encircling the northern hemisphere — connecting universities and national laboratories with individual network circuits providing up to 10 Gbps. The network topology expanded in 2006 to provide several ring redundancies; it now represents a true “ring of rings” around the earth – providing richer bandwidth and redundant network paths for improved reliability.

Scientists and engineers cooperatively use this infrastructure to collaborate and conduct research in ways unimagined only a few years ago. The bandwidth is sufficient to transmit entire libraries of information in seconds – or permit thousands of simultaneous video-conferences for distance learning or shared seminars – or enable the sharing of expensive scientific instrumentation. But the real value of GLORIAD is in how it enables literally millions of scientists, educators, policy makers, artists, students to better work together and share resources, data and experiences. GLORIAD will develop and support NRENs (National Research Educational Network) in the 22 Countries that are part of ACE. This cable will be connected in the Canary Islands with Caribbean and Latin American networks that will benefit from access to GLORIAD services.

The **Global Systems Analysis and Simulation Association in the U.S.A. (GLOSAS/USA)** is a publicly supported, non-profit, educational service organization and is a consortium of organizations dedicated to the use of evolving telecommunications and information technologies to further advance world peace through global communications. GLOSAS fosters science and technology based economic development to improve the quality of life, **stressing two important principles - sharing and collaboration.**

The **Millennium Institute (MI)** thinks that it is recognized internationally that planning for sustainability requires an understanding of how economic, social, and environmental factors interact with and affect each other. Some years ago, computerized planning tools to meet this need did not seem possible. Such tools have now been created and field-tested with success.

MI's planning tools support integrated analysis such as required for addressing complex national development issues, and useful for preparing [poverty reduction strategies](#) and plans to meet the [Millennium Development Goals](#).

**Other collaborators;**

Columbia University/School of International and Public Affairs (SIPA),

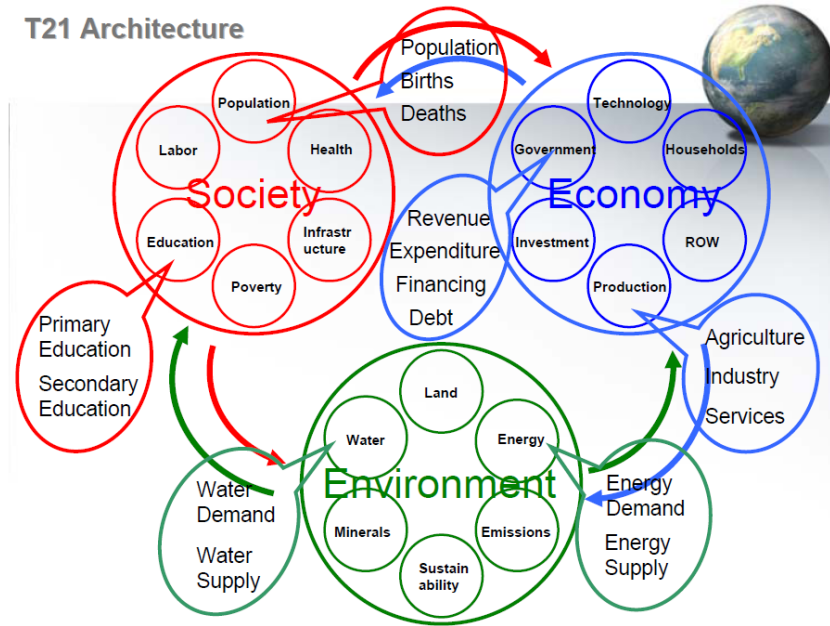
Polytechnic Institute of New York University,

Stevens Institute of Technology.

Schools participating in GEWS/GUS are numerous.

**Lord Perry Award for the Excellence in Distance Education:** Thanks to the efforts in initiating globalization of Internet, promotion and enabling of emails and distance education using the Internet and also for initiating the movement of global e-learning since early 1980s, Dr. Utsumi of GLOSAS/USA received the prestigious Lord Perry Award for the Excellence in Distance Education in the fall of 1994 from Lord Perry, the founder of the U.K. Open University. The two-year senior recipient of the same award was Sir Arthur C. Clark, the inventor of satellites.

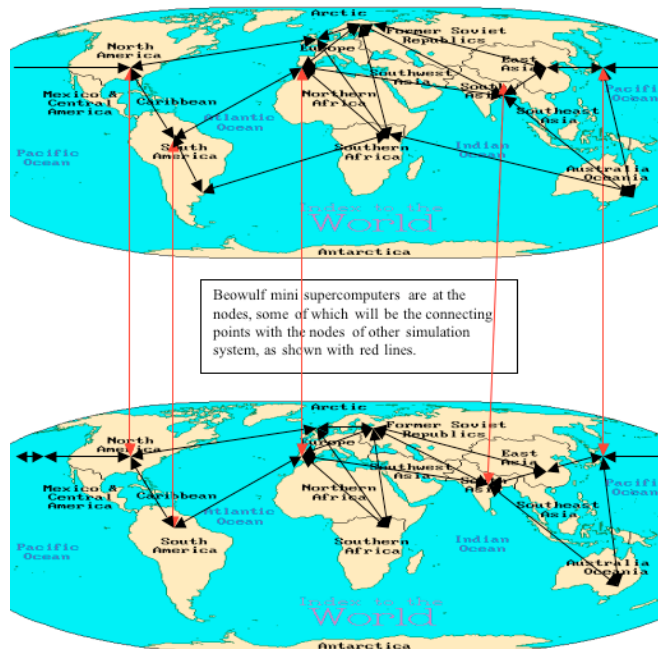
## T21 Architecture



T21 Architecture <[http://www.millenniuminstitute.net/integrated\\_planning/tools/T21](http://www.millenniuminstitute.net/integrated_planning/tools/T21)>

## Globally Collaborative Environmental Peace Gaming (GCEPG)/ Global Early Warning System (GEWS)

### Globally Distributed Climate Simulation System



### Globally Distributed Socio-Economic-Environmental Simulation System