



GLOSAS/USA

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

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Synopsis of The Global Early Warning System (GEWS) and The Global University System (GUS)

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PROJECT DESCRIPTION

Development in many nations -- achieving the goal of making life happier, healthier, and more prosperous for billions of people -- calls for countless specialized efforts. Normally challenges in areas such as energy, healthcare, food security, natural resource management and sustainable economic growth are confronted individually by those best qualified in that specialty. The **GLOBAL EARLY WARNING SYSTEM (GEWS)** is a technically sophisticated, computer-based network that combines data from individual disciplines into practical strategies of intervention and progress.

GEWS is a unique research and education initiative with broad applications. Using high technology, it engages national and international stakeholders in seeking out and defining effective development interventions. Its foundation is a systems perspective that is goal-oriented.

This computer system is global. Using a vast array of data input, it searches for positive, win-win alternatives to conflict and conflict's most violent expression, war. The system helps decision makers evaluate policy options, and search for positive alternatives. The method of accomplishing this is to create models, or computer games.

The models address economic, social, and environmental issues in a given country or region. Because all users are connected globally through broadband Internet, global resources and individuals can assist national, regional, and local leaders.

All this is a two-tier system. First, it creates a global support system for leaders confronting any challenge, creating alternatives to conflict and war; second, it is an education tool for training decision makers -- students and adults -- in understanding national and world phenomena through rational analysis and critical thinking. The result is effective strategies in practical matters such as managing energy, environmental sustainability, and all aspects of national prosperity and wellbeing. GEWS also fosters the crucial importance of cooperation and collaboration. Those using it learn to negotiate, manage crises, and resolve conflicts by relying on facts and figures, rather than exclusively on insights, habits or traditions.

A related challenge is that while global simulation models of socio-economic-energy-environmental systems do currently exist, they generally disregard national boundaries. This is impractical, because nations and their peoples are unique. Local experts know their homeland, its intricacies, and how its people relate to neighboring populations.

Ignoring national identities is a violation of the basic rule of simulation. Its consequences include inaccuracies despite huge expenditures for intellectual manpower, and more money spent for computing, information and telecommunication facilities that are not effectively used.

GEWS fills the urgent need for a rational and scientific approach by current and future leaders to policy analysis and evaluation, based on the facts and figures. The essential components of its aggregated approach are:

1. Establishing a technical infrastructure of Beowulf mini-supercomputers combined with clusters of laptops, an approach which minimizes power usage and security risks;
2. Assign knowledgeable experts in the country to autonomously construct and maintaining their models, improving their accuracy;
3. Constantly insert of real-time data into the simulation models.

Simulation models of GEWS globally will be interlinked with use of GLOSAS/USA's procedure (figure 1, below). This first step is to be taken in collaboration with the Economic Community of West African States (ECOWAS) along the west coast of Africa, followed by the Nile river basin countries in east Africa, the African Union, and ultimately globally.

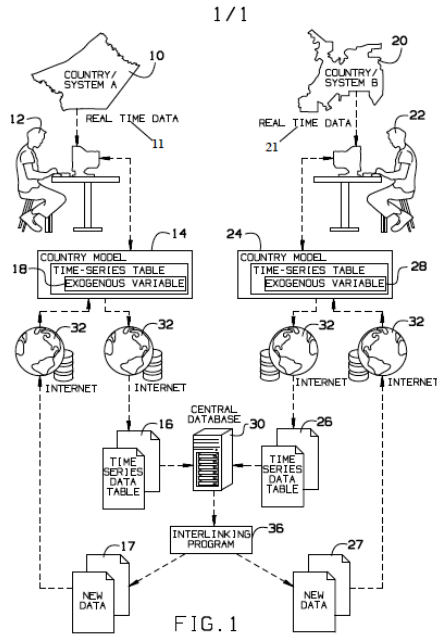


Figure 1: Inter-Linkage Mechanism For Distributed Simulation Models With Human Intervention (US Patent Pending #61/764,843) <<http://tinyurl.com/d4oj9py>>

Intellectual Merit: Most significant is its use of stakeholder-crafted models for developing sustainable development strategies, leveraging an unprecedented critical mass of global expertise for national level problem solving. The multi-disciplinary, multi-institutional project team consists of specialists in using modelling and simulation for development objectives. This is supported by the Millennium Institute and the ECOWAS. The development of a global network of models that can collect and share data on complex energy, healthcare, food security and natural resource management problems is a unique and unprecedented effort.

GEWS represents substantial paradigm shifts, including a new hands-on experiential learning apparatus (i.e., simulator/trainer) to assist current officials and educate future leaders in policy analysis, in global collaborative fashion.

The initiative will engage and serve underrepresented populations and enhance the prospects for broader societal welfare within the target countries. It also creates an unprecedented infrastructure of academics, decision-makers and practitioners who can share knowledge, expertise and data, and allow large-scale education and training.

African colleagues will form teams on many subjects planning for 5-year periods, which plans will be submitted for Japanese ODA fund.

A companion initiative, the **GLOBAL UNIVERSITY SYSTEM (GUS)**, a UNESCO program initiated with funds from the World Bank and the NSF is an alliance of major universities that will support GEWS in finding, collecting, model building, and processing data.

The GUS brings technology to global education, launching a trans-cultural, global-wide initiative advancing peace, justice, understanding, and human wisdom.

GEWS cooperates with the GLORIAD and the Africa Coast to Europe (ACE) ultra high-speed optical fiber submarine cable established by the Baharicom Development Company along the west coast of Africa. The Millennium Institute, a world-renowned think tank specializing in system dynamic modelling, provides simulation model development guidance.

COLLABORATORS: Baharicom Development Co., Ltd.; Global Ring Network for Advanced Applications Development (GLORIAD); GLObal Systems Analysis and Simulation Association in the U.S.A. (GLOSAS/USA); Columbia University/School of International and Public Affairs (SIPA); Millennium Institute; Polytechnic Institute of New York University; Stevens Institute of Technology. Schools participating in GEWS/GUS are numerous.