

Advanced Institute on Global Environmental Change and Water in the Context of the Millennium Development Goals

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1. Introduction

Among the fast-track activities supported by the Scientific Steering Committee of the Global Water System Project is the Advanced Institute on Global Environmental Change and Water in the Context of the Millennium Development Goals: Vulnerability of Water Resources to Global Environmental Change. This initiative is an ambitious cooperative venture promoted by START and supported by the projects – Institutional Dimensions of Global Environmental Change (IDGEC) and Industrial Transformation (IT) of the International Human Dimensions Programme (IHDP). It will be jointly hosted by the Institute for Environmental Studies, Vrije Universiteit Amsterdam and the UNESCO-IHE Institute for Water Education, Delft.

2. Background

Ensuring sustained quantities of usable water to meet the growing needs of the global population and the earth's ecosystem is likely to be a primary challenge of the 21st century and is recognized in the goals formulated in the Millennium Development Goals. A common concern regarding the possible impacts of climate change is that such impacts could significantly alter precipitation patterns and the flow of water in glacier fed rivers and thus affect the availability of water. Ensuring water sustainability requires a comprehensive understanding of the current factors affecting water supply and demand as well as those affecting global environmental change, the major institutions and infrastructure for water distribution, management and use and those that influence global environmental change, based on an advanced understanding of the water cycle, the climatic system, ecosystems and the behaviour of social, economic and engineered systems. It also calls for developing alternative development pathways and designing compatible institutions. While there is significant amounts of research undertaken on the global system and there is considerable focus on the regional aspects in the developed countries, there is as yet much less regionally focused research in the developing countries. This is the primary justification for undertaking an Advanced Institute Global Environmental Change and Water in the Context of the Millennium Development Goals.

3. The goals of the Institute

The goals of the Institute are essentially focused on the START activity of capacity building. At the same time, since the Institute is a cooperative venture of four Global Change Projects, it also aims to integrate the focus, conceptual, theoretical and methodological framework of these projects in order to provide the necessary skills to look at global change problems in an integrated manner, while still providing scope for in-depth research with qualified mentoring.

Thus, the Institute is expected to foster the development of a research network among the young scholars selected from the developing countries for longer-term collaboration. These participants will be provided training in interactive sessions and will be helped to develop project proposals on the theme of the Institute in the context of issues and challenges in their respective regions. These proposals will be peer reviewed and will be provided modest funding and mentorship for a follow-up period of up-to 18 months. At the end of the research period there will be a synthesis workshop to discuss the results, share experiences and encourage the publication of these papers in peer-reviewed journals. The participants will be assisted to develop teaching materials so that they can further conduct such teaching within their own organizations and countries. For this purpose and to support future Institutes, the teaching materials will be taped so that they can be used as I-learning teaching materials in the future.

There are three unique elements of the proposal. The first is that like past START Advanced Institutes, this programme aims to not only provide training, but also some time for research and mentorship followed by a synthesis process. This long-term process aims to ensure commitment to undertaking research in a specific region for a period of time and the establishment of an interdisciplinary network of young scholars to work on this issue. It is thus a process of sustained capacity utilisation. Second, among the design elements being considered is the idea to select participants in pairs, each pair coming from a single organization. The concept behind this idea is that this helps to create some critical mass and ensures that researchers are not working entirely in isolation. If such pairs come from two different disciplinary backgrounds, this would be all the better. The third unique element is that unlike many such workshops where the social science component is added on as an after-thought to the process, this Institute is designed from a social science perspective. It focuses on the Millennium Development Goals, then elaborates on how environmental and water related problems can be attributed to institutions and how institutional design and design of alternative development pathways can contribute to problem solving. It then zooms into an understanding of the bio-geo-chemical complexities of the global change system and its relationship with water, before returning to examine the kinds of knowledge needed to help solve problems. The framing of the problem is thus more in socio-political terms rather than in technical terms. This provides the background within which research problems are identified, methods are developed and research proposals are designed.

4. Cooperation among the Global Change programmes

The cooperation between the projects of the Global Change Programmes will ensure better understanding of the links between global environmental change issues and the water system. The concepts, theories and methods for analysing the problems of global change and water will be derived not only from the natural sciences but also from the social sciences using both the institutional framework and the industrial transformation framework. This, in itself, is a challenging task and will call for close collaboration between the organizations in the preparatory phases of the design of the teaching materials. The cooperation between the four programmes will ensure that we have the best experts from all the different scientific fields as well as in terms of delivery of this knowledge to the

participants in the process, building on the experience of past Advanced Institutes organized by START.

5. Implementation

The draft project proposal has been approved by the Scientific Steering Committees of START, GWSP and IDGEC and IT will also be supporting this project. We are presently at the stage of finalising the text of the proposal before we begin the fund raising activities for this project in the second half of 2005. The project is complex in design and we need to ensure conceptual clarity and commitment from the partners and hosts in order to ensure that the project will be successful.

6. Get involved

If you are interested in this Institute, either in terms of its interdisciplinary design, or its content, or in participating in the Institute, please contact Joyeeta Gupta (see contact information below)

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