



Global Environmental Change
and Human Security Project



International Human Dimensions Program
on Global Environmental Change



A Primer on
Global Environmental Change
and Human Security

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A Primer on Global Environmental Change and Human Security

Why study the links between global environmental change and security?

Three of the key issues facing humankind as we prepare to enter the 21st century are environmental degradation, impoverishment and the insecurities caused by both of these. Environmental change at the local, national, regional and global levels, much of it due to human activities, is rapidly altering the balance that sustains life on the planet. Coincidentally, there has been an acceptance that our traditional conception of security must be reconfigured to include non-military threats such as human rights abuses, outbreaks of disease, resource scarcity and environmental degradation. There is increasing recognition that environmental stress caused by global environmental change may be a contributor to – or possibly a cause of – conflict and insecurity. There is now a cogent need for an international, interdisciplinary organisation that can assist in the co-ordination and facilitation of a research programme based on the question of how environmental change affects security. This new programme should be characterised by improved methodological approaches, more empirically-based and participatory research, and better collaboration amongst scholars from interdisciplinary perspectives from both the North and the South.

Why is the project title Global Environmental Change and Human Security?

Initially, human security was interpreted in relation to threats to the physical security of the person. The Universal Declaration of Human Rights adopted by the UN in 1948 states that “everyone has the right to life, liberty and the security of person...” However, the concept now encompasses economic, health, and environmental concerns as well. The Global Environmental Change and Human Security project (GECHS) has accepted as a working definition that human security means providing for options in the face of external threats (such as hunger, disease and environmental degradation) and ensuring the freedom to exercise these options. Ultimately, it is less a precise measure of a specific state or quality than it is a new way of thinking which incorporates principles of participatory development along with the protection of human, environmental and social rights. Environmental change and human security, therefore, focuses on improving the quality of the environment and the society, and the institutions that govern these, to ensure that human beings are adequately protected from environmental degradation and environmental hazards. Accordingly, the GECHS project will address issues of how environmental change affects both the threats to human well-being as well as the ability of people to make choices safely and freely.

What are the key research questions that need to be addressed?

The overall research question addressed by the GECHS project is simply, what is the relationship between global environmental change and human security? However, this simple question belies the complexity of the processes involved. Issues of perception, adaptation, vulnerability, interaction, response and thresholds all play a prominent role in identifying this relationship. From this general question, additional research questions have been identified in past workshops and discussions. They can be placed into three categories: problem identification; responses; and analysis. These questions form the basis for the research foci presented in the next chapter.

CATEGORY	KEY QUESTIONS
CONTEXT	<ul style="list-style-type: none"> • What is the present extent of insecurity? • How does environmental change threaten human security (and what types of environmental change threaten human security)? • Which regions are the most insecure? • Why are some regions more vulnerable to specific environmental changes than others? • Can we predict future insecurities?
RESPONSE OPTIONS	<ul style="list-style-type: none"> • What strategies are potentially available to cope with the insecurities caused by environmental change?
ANALYSIS	<ul style="list-style-type: none"> • Why are some strategies selected? Why are some effective?

Is there a need for an IHDP Science Project on Global Environmental Change and Human Security?

The GECHS project is an appropriate science project for the IHDP for three reasons. First, there is need for an international project to facilitate networking among researchers, policy-makers, and NGOs involved in environment and security work. Second, there is a need to better understand the relationship between global environmental change and human security. And last, the interdisciplinary nature of GECHS provides an excellent opportunity for the global change community to link directly to policy makers and NGOs. In addition, there are important links between GECHS and other IGBP and IHDP science projects. Not only is GECHS an important research endeavour for the IHDP, but it offers necessary links to the policy community and to researchers from countries in transition and from the South. The GECHS project has already demonstrated its viability by acquiring support for workshops, publications and research projects, as outlined in Appendix I.

What are the objectives of GECHS?

The objectives of the GECHS project are, as follows:

1. to promote research activities in the area of global environmental change and human security;
2. to encourage the collaboration of scholars internationally; and
3. to facilitate improved communication (and cooperation) between the policy community/user groups and the research community.

What is the appropriate spatial level of analysis for GECHS projects?

The answer to this question will vary by research focus and by the specific activities within each research area. However, it is important to note that the most appropriate level of analysis is not, necessarily, the national level. In many cases, the community or eco-region will be the focus of research. In others, international, regional and even global levels will be the most appropriate. For example, water tensions generally manifest themselves across international boundaries; food security may be a regional problem; and modelling will likely be focused on eco-regions within a given country. Issues of space are therefore crucial to the entire project.

How does GECHS contribute to the needs of the global change community?

The GECHS project not only presents a different way of looking at the human dimensions of global change, but also incorporates a number of innovative advancements in global change research that will provide significant value added to the IHDP and the global change community in general. The following six advancements are indicative of the potential impacts of this project.

1. Methodological Advancement – particularly in terms of incorporating qualitative knowledge in assessments of global environmental change and human security;
2. Analytical Development – through the development of early warning systems and integrated assessment;
3. Data Development – linking ecological, economic, social and institutional data into an integrated database;
4. Monitoring – developing indicators of human insecurity and conflict, using factors such as ecological change, degree of democratisation and social mobility;
5. Links to Policy-Community – a component in all aspects of the GECHS project; and
6. Direct Involvement of Researchers from Transition Economies and the South – a significant factor since GECHS research will be directed towards these regions and funding will likely originate from development assistance agencies.

What are the key foci of the GECHS project?

FOCUS AREA	TITLE
Focus 1	Conceptual and Theoretical Issues in Environment and Human Security
Focus 2	Environmental Change, Resource Use and Human Security <ul style="list-style-type: none"> • Water and Security • Food Security • Energy Security • Atmospheric Change and Security • Land Use Change and Security (linkage project with LUCC) • Environment and Conflict
Focus 3	Population, Environment and Human Security <ul style="list-style-type: none"> • Environment, Migration and Security • Population, Impoverishment and Security • Health and Security • Women, Environment and Human Security
Focus 4	Modeling Regions of Environmental Stress and Human Vulnerability <ul style="list-style-type: none"> • Developing Indicators of Environmental Change and Human Security • Modeling Environmental Stress and Human Vulnerability • Critical Zones (linkage project with the IGU)
Focus 5	Institutions and Policy Development in Environmental Security <ul style="list-style-type: none"> • The Framework of Global Governance (linkage project with IDGC) • Environment, Conflict and Democracy • Environmental Change, Adaptation and Human Security • Private vs. Public Investment and Human Security
Activity 1	Data, and Methodological Issues in Environment and Human Security
Activity 2	Communications, Education and Training for GECHS

What types of partnerships will GECHS be involved in?

One of the primary reasons for adopting a broad perspective on environmental change and human security is the potential it allows for GECHS researchers to link with other projects and institutions. Three levels of links are envisaged (and many have already been undertaken):

1. **Links and partnerships with other IHDP and IGBP projects, and other national HDP programmes.** The GECHS project is presently a co-sponsor, with the HDP-Australia, of a workshop on Water and Human

Security in Asia. With funding from the APN and START, the workshop will be held in Australia in late 1998. Plans are also underway for a joint GECHS/GCTE/LUCC workshop on food security (to be held in southern Africa in 1999).

2. **Partnerships with other institutes.** GECHS currently has joint projects with the Woodrow Wilson Center in the U.S., the International Peace Research Institute of Oslo, Norway, RIVM in the Netherlands, and the All Russian Nature Foundation.
3. **Partnerships with research networks and international organisations.** The GECHS project is a partner in a proposal to establish a European Network on Environment and Security and a similar Canadian Network on Environment and Security. GECHS was also the lead organisation on a NATO Advanced Research Workshop.

These are just a few examples of the many linkages and partnerships GECHS has developed and will develop over the coming years.

Last, how can researchers get involved in GECHS?

The GECHS project is structured to allow maximum and open participation from the research and policy communities. Both active and passive participation are possible. Mechanisms for participation include the following:

- Passive:**
- Up-to-date Web Site on GECHS activities (and publications);
 - Detailed research reports;
 - Policy briefing documents;
 - Policy briefings by GECHS researchers;
 - Workshops and training activities.
- Active:**
- Direct involvement in workshops and conferences;
 - Authoring research reports and briefing documents (commissioned);
 - Leading or participating in research projects;
 - Active focus group offices and regional representatives.

The GECHS web site can be found at, <http://steve.geog.uvic.ca/gechs/index.html>