



GECHS

GLOBAL ENVIRONMENTAL CHANGE
AND HUMAN SECURITY

ANNUAL REPORT 2001

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GLOBAL ENVIRONMENTAL CHANGE & HUMAN SECURITY PROJECT

ANNUAL REPORT FOR 2001

SUMMARY

During the past year GECHS has focused on consolidating existing networks and building new ones. The summary that follows highlights the key activities which have served to promote and support the GECHS agenda. The summary reviews the research program, conference and workshop activities, links with other projects, publication activities and the contribution of the IPO which are detailed in the report.

Research Program

One of the key components of all of the IHDP core projects is the development of signature and endorsed projects which seek to involve researchers from the larger community. In 2001 the GECHS Scientific Steering Committee (SSC) established a formal set of endorsement guidelines which were approved at the SSC meeting in December. A review committee will be established to assess applications, but four projects have been identified as potential signature projects:

- Vulnerability has taken on considerable importance and is now recognized as a cross-cutting theme, which GECHS is well-positioned to take the lead on. A proposal is being developed and will be submitted to ICSU by the end of February 2002.
- A draft proposal for a study on Environment and Security in Russia has been submitted, and meetings with potential funders are planned.
- A signature project in conjunction with PRIO on the role of natural resources in civil conflicts is being explored.
- GECHS will explore the potential for a signature project with IT on Water & Urbanisation.

As well, GECHS, through individual SSC members, have been involved in the development of several projects, including one on “Human Security & Ecosystem Change in Uplands Regions of Southeast Asia” which has been submitted to APN for consideration, and one on water security issues in the context of rapid urbanisation. A summary of projects involving SSC members which have been funded or are currently being reviewed by funders is provided in Appendix A.

Conferences and Workshops

The GECHS Programme Office at the University of California Irvine was responsible for coordinating several workshops. Papers were presented at this year’s SSC meeting both by University of Victoria faculty members and by SSC members. Individual SSC members presented papers and represented GECHS at a number of conferences and workshops, including the Open Science Meeting in Amsterdam in May 2001 and the Open Meeting in Rio de Janeiro in October 2001 (see Appendix B).

Links to Other Projects

GECHS SSC are involved in a variety of other activities, including contributions to related projects such as GECAFS and IHDP's Urbanisation Initiative, and individual efforts which support GECHS such as meeting with potential funders or chairing conference sessions.

Publications

GECHS has invested extensive efforts in the AVISO policy bulletin series. This publication has been an invaluable tool in promoting GECHS, particularly in terms of garnering external support. To date, eight issues of AVISO have been published with some of these followed up by briefings in Washington. Funding for a continuation of the series into 2002-03 has been received from USAID/U Michigan and IDRC. As well, the manuscript for *Water and Human Security in Southeast Asia and the Pacific* which includes papers from two workshops has been reviewed and final editing is being completed before resubmitting in 2002.

Programme Offices

During the past year the levels of activity at each of the four programme offices has varied in response to the support available from each host country/institution. Some of the highlights noted from the programme office reports include:

- The UCI office has coordinated or provided support for a number of workshops such as Environmental Change and Children at Risk.
- The Oslo office plans to continue its research on the role of natural resources in civil conflicts. This study is part of an overall proposal which PRIO has submitted a \$15 million proposal for a Centre of Excellence.
- The Australia office, through Chris Cocklin, is a partner in a one-year study on "Climate Change and Water Use in Asian-Pacific Cities" funded by APN.
- The Costa Rica office continues to have difficulty in finding adequate support.

IPO Relocation and Stabilization

The IPO will move to Carleton University in Ottawa in June/July 2002. Ongoing efforts to secure additional core funding continued throughout 2001, and a proposal will be submitted to Procter & Gamble early in January 2002. The proposal will be for the period from July 2002 to June 2004, and includes funds to support IPO staff, research assistants and AVISO.

Research Program

Project Endorsement Guidelines

Project endorsement guidelines were approved at the SSC meeting in December. Projects for consideration will be reviewed following establishment of the review committee in the first half of 2002. Projects to be considered as GECHS-endorsed or signature projects include:

Projects under Review as Signature Projects

Vulnerability

Vulnerability has taken on considerable importance at IHDP and is now recognized as a cross-cutting theme. To date, neither IHDP nor any of the core projects have taken the lead on this theme but GECHS is well placed to fill this role. A proposal at the SSC meeting was discussed. It was agreed that GECHS would pursue this project, developing the focus and objectives of the project and pursuing funding opportunities. A project proposal will be ready for submission to ICSU by the end of February 2002

Environment & Security in Russia

A draft proposal was presented at the annual meeting. The objective of this study is to examine the role of the recent economic and political changes in Russia on strategies for enhancing environmental and human security. Declines in economic production have not resulted in a proportional decline in greenhouse gas emissions, and institutional mechanisms adopted in the new Russia have not functioned as expected. The SSC reconfirmed its commitment to finalize the development of this proposal as a signature project. Funding sources have been identified and the potential for an associated workshop to be held in the fall of 2002 in conjunction with the next SSC meeting will be explored.

Environment & Cooperation

Through NPG and the PRIO, GECHS is involved in a proposed Centre of Excellence on Civil War. A proposal has been submitted and shortlisted. The SSC agreed to pursue the development of a signature project in conjunction with PRIO on the role of natural resources in civil conflicts as part of the Centre.

Water & Urban Security Project

GECHS was involved with the development of a Water & Urbanisation initiative with IT, but over the past several months GECHS has had no direct representation. Given the centrality of water scarcity issues within the GECHS research agenda, the SSC agreed that it is important to become re-engaged in this project. IT will be contacted to confirm GECHS' continued interest in this initiative and the feasibility of establishing a joint activity and potentially a signature project.

Projects Under Consideration for Endorsement

Human Security and Vulnerability to GEC in Southeast Asia

The 2000 SSC meeting included a side meeting with the Mekong River Commission and, while there was an expression of interest by the MRC in GECHS-related activities, GECHS' links in the regions were not strong enough to develop a research proposal. Subsequently, efforts to forge links have continued through Louis Lebel at the University of Chang Mai and CC & MB have assisted with developing a proposal for submission to APN in which GECHS would play a substantial role. A letter of intent for a project on "Human Security & Ecosystem Change in Uplands Regions of Southeast Asia" was submitted in mid-2001. Based on the initial response from APN, the proposal has been revised with a smaller contribution from GECHS. Regardless of the outcome of the APN proposal, a better network in SE Asia has been established.

Southeast Asia Project Funded by APN

Chris Cocklin and Richard Berke (UCLA) have received funding from APN to study water security issues given rapid population increases and climate change in 10 cities in SE Asia (see Appendix A). The cities included in the study are both affluent and nonaffluent, with and without adequate water resources, and thereby provide a basis for comparative analyses. The SSC recommended that CC & RB request this project be considered as a GECHS-endorsed project.

Individual SSC members pursue a variety of research projects which, while not specifically designated GECHS signature projects, relate to and further the objectives of the GECHS agenda. These projects are listed in Appendix A.

Conferences, Workshops, Meetings

The GECHS Programme Office at the University of California Irvine was responsible for coordinating several workshops as detailed in the Programme Office Report below. At this year's SSC meeting papers were presented by two faculty members from the University of Victoria on "Integrated Assessment of Energy Systems" and "Carbon Sequestration". Betsy Hartmann and Nils Petter Gleditsch of the SSC also presented papers on "A Critique of Homer-Dixon's Theories of Environmental Degradation and Poverty" and "Links Between Resource Competition and Armed Conflict" respectively at the annual GECHS meeting. As well, individual SSC members presented papers and represented GECHS at a number of conferences and workshops, including the Open Science Meeting in Amsterdam in May 2001 and the Open Meeting in Rio de Janeiro in October 2001, as outlined in Appendix B.

Links to Other Projects

In order to meet the objectives outlined in the GECHS Science Plan, the SSC members continue their involvement with other GEC organisations and initiatives. Some of these connections are to related projects such as GECAFS and are outlined in the first section, while contributions to other projects are briefly discussed in the second section.

Contributions to Related Projects

GECAFS

- Mike Brklacich and Karen O'Brien have both been involved in this project (see Appendix C) which is jointly sponsored by IHDP & IGBP. Mike Brklacich was appointed vice chair for a two-year period commencing July 2001.

Water

- The Global Environmental Change Water Initiative was established as a cross-cutting theme with IHDP, IGBP, and WCRP. Initially both Steve Lonergan and Chris Cocklin were involved but the project's development has been intermittent and GECHS' focus shifted elsewhere. The SSC has agreed that it is clearly related to GECHS' foci and has requested that IHDP keep the IPO informed of developments and that IHDP ensure that GECHS's interests are represented.

Urbanisation

- Chris Cocklin represents GECHS in the development of a proposal with IHDP for a three-year project to develop urbanisation as a scoping activity and possibly another core project which has been submitted to the regional government in Germany.

Other Contributions

Individual SSC members participate in other activities that contribute to and support the objectives of the project ranging from meetings with potential funders to chairing sessions at conferences and meetings. These activities are outlined in Appendix C.

Publications

Publications of the individual SSC members are reported on in Appendix D. This section reports on GECHS publications.

1. Lonergan, S.C., C. Cocklin & A. Wolf (eds.) with W. Ollis & J. Fraser. *Water and Human Security in Southeast Asia and the Pacific*. This volume includes the proceedings of two workshops (held in Australia in October 1998 and in Thailand in September 1999). The manuscript was submitted to UNU Press early in 2001 for peer review. The reviewers made several recommendations for changes. The manuscript will be revised and resubmitted, possibly to Elsevier Press early in 2002.
2. *AVISO* — USAID/Woodrow Wilson Center and CIDA funded Phase I of this policy-briefing bulletin. A total of eight issues have been published under Phase I of this project, with the final issue on *Infectious Diseases and Global Change: Threats to Human Health and*

Security published in June 2001. In January 2001 a briefing was held at the Woodrow Wilson Center in Washington on ‘Population, Development, and Human Security’, and a briefing on ‘Infectious Diseases’ will be held in Washington in January 2002. Both the bulletins and the briefings have been critical in gaining external support for the GECHS project. Partial funding for Phase II of AVISO has been secured from USAID/U Michigan and IDRC. Topics and authors for four issues have been determined with input from the Advisory Board. The topics are: Energy & Human Security, Human Rights and Human Security, Vulnerability and Human Security, and Urbanisation. Appendix D includes complete references.

3. *ENRICH AVISO* — Two articles were published as a special edition of AVISO from participants at the final ENRICH workshop. These were Environment & Security in Russia by Elena Nikitina and Environmental Stress in Northern Pakistan by Richard Matthew (see Appendix D).

Programme Offices

The programme offices were originally established with the intention of providing GECHS with more visibility, of sharing the workload, of giving some sense of ownership to the SSC, and of promoting SSC members’ position with their home institutions. The SSC has reviewed the functions and confirmed their role. During the past year the levels of activity at each of the four programme offices has varied in proportion to the support available from each host country/institution. A brief report on each of the offices follows.

Australia — Chris Cocklin heads the Australia Programme Office. In this capacity, he has received funding from the APN for a one-year study on “Climate Change and Water Use in Asian-Pacific Cities”. He also presented a paper at the Open Meeting in Rio de Janeiro held in October 2001 (see Appendices A & B). In addition, Chris Cocklin has represented GECHS in meetings and discussions around urbanisation and water initiatives (see Appendix C).

Chris Cocklin has also been involved in a publication project with the GECHS IPO as co-editor of *Water and Human Security in Southeast Asia and the Pacific*.

Norway — Nils Petter Gleditsch heads the Norway Programme Office. The office was founded in Spring 1999. The office is operated as a project within the Conditions of War and Peace program at the International Peace Research Institute, Oslo.

Most recently, PRIO has submitted a \$15 million proposal for a Centre of Excellence, which incorporates a GECHS-related project on the role of natural resources in civil conflicts. Information on presentations, publications, etc. is included in the Appendices to this report.

California — Richard Matthew heads the programme office established in July 1999 at the University of California, Irvine. The office is linked with other UC entities, such as Global Peace & Conflict Studies and has in-kind support from the University. There are 6 fulltime staff plus a number of part-time research assistants. Most of the programme funding is project specific and there is little discretionary monies.

Some of the activities undertaken in 2001 were:

January 27	Organized Greening X, a one day workshop for PhD students in California working on environmental issues.
February 16	Organized workshop and event on Environmental Change and Children at Risk
May 25	Co-organized workshop on NAFTA environmental institutions

Further details about papers presented, publications and funding proposals are included in the Appendices to this report.

Costa Rica — Edgar Gutierrez-Espeleta directs the Costa Rica Programme Office. It has been difficult to develop interest in the project in the community. No report available.

Financial Report

In 2001 the core funding for GECHS totalled \$58,000 US, with \$27,500 from IHDP \$20,772 from a SSHRC and the balance of \$9,728 from the University of Victoria. However, the funding for the IPO from SSHRC and the University of Victoria does end 31 March 2002. Other funding sources are being explored (see report on IPO stabilization).

In addition to core funding, the IPO received project funding for AVISO. In 2001 expenditures for AVISO Phase I and the special ENRICH AVISO issues totaled \$16,250. Funds from USAID/U Michigan and IDRC totalling \$43,000 US were received in 2001, but Phase II will not commence until early 2002. A full financial report is available on request.

IPO Relocation and Stabilization

A year ago it was decided to leave the IPO in Victoria until the expiration of the funding and other existing arrangements with the University of Victoria in June/July 2002. The office will then move to Carleton University in Ottawa as planned. Over the past year the Chair, both separately and with Jill Jaeger, have met with several potential funders (see Appendix C for details of these meetings). Procter & Gamble expressed serious interest in exploring the possibility of supporting the IPO. In light of concerns about receiving funding from the private sector, the environmental record of P & G was reviewed before the decision was taken to submit a funding proposal. A proposal for core funding will be submitted to P & G early in January 2002. The proposal will address P & G's interest in supporting AVISO, and will provide the opportunity to expand IPO staffing to include a research associate.

GECHS SSC Members

Mike Brklacich assumed the position as Chair of the GECHS SSC effective January 1st, 2001. The GECHS IPO will continue to operate out of its offices at the University of Victoria until July, 2002. There were two vacant positions on the GECHS SSC at the beginning of the year, one of which was filled in November 2001 by Karen O'Brien. The remaining vacancy will be filled in the new year.

Scientific Steering Committee for 2001

Mike Brklacich, Chair
Department of Geography & Environmental Studies, Carleton University, Ottawa, Canada

Chris Cocklin
School of Geography and Environmental Science, Monash University, Clayton, Australia

Nils Petter Gleditsch
International Peace Research Institute, Oslo, Norway

Edgar Gutierrez-Espeleta
Development Observatory, San Jose, Costa Rica

Elizabeth Hartmann
Population and Development Program, Hampshire College, Amherst, USA

Okechukwu Ibeanu
Dept. of Political Science, University of Nigeria, Nsukka, Nigeria

Fred Langeweg
National Institute of Public Health and the Environment, Bilthoven, The Netherlands

Steve Lonergan
Department of Geography, University of Victoria, Canada

Richard Matthew
School of Social Ecology, UCI, Irvine, USA

Elena Nikitina
Institute of World Economy and International Relations, Moscow, Russia

Karen O'Brien
CICERO, University of Oslo, Oslo, Norway

Chou Meng Tarr
Phnom Penh, Cambodia

Appendix A

Research Projects

Funded Research Proposals

Brklacich, Mike. “Socio-Economic Vulnerability and Adaptability of Agriculture to Climate Change: An Eastern Ontario Case Study” is a three year study funded by SSHRC which started in 2001.

Cocklin, Chris – “Climate Change and Water Use in Asian-Pacific Cities” is a one year study which started in 2000 and is funded by APN.

Matthew, Richard – Grants totaling \$38,000 to support GECHS activities from the Center for Global Peace and Conflict Studies, Center for Study of Democracy, Institute on Global Conflict and Cooperation.

O’Brien, Karen – “Climate Change Vulnerability in Norway: Socio-economic Perspectives on Policies and Impacts” (Received funding of NOK 3,281,000 (USD 364,000) for 3 years from the Norwegian Research Council).

O’Brien, Karen – “Climate change in Norway: Analysis of economic and social impacts and adaptation” (Received funding of NOK 6 million (USD 665,000) for 3 years from the Norwegian Research Council).

O’Brien, Karen – Environmental Vulnerability and Economic Changes in Cuba: Implications for Sustainable Development (Received NOK 195,000 (USD 22,000) from the Norwegian Foreign Ministry in 2001 to develop a larger proposal).

Tarr, Chou Meng – “Sustainable Use of the Beng Tyro Wetlands, Cambodia” is a 1 year study funded by the MRC which started in 2000 and the final report is now being prepared.

Tarr, Chou Meng – “Globalization and Poverty: Social Challenges for the Greater Mekong Region” is a 6 month study which started in 2001 and is funded by the Rockefeller Foundation.

Appendix B

Conference and Workshop Presentations

Brklacich, Mike, 2001 'Climate Change, Food Security and Vulnerability: Opportunities for Collaboration between GECHS & CGIAR', paper presented to the Consultative Group on International Agricultural Research (CGIAR) Inter-Center Working Group on Climatic Change (ICWG-CC), Washington DC, 28 October.

Brklacich, Mike and Steve Lonergan, 2001. 'Vulnerability in Human Security Studies.' Paper presented to International Workshop on Vulnerability and Global Environmental Change, Stockholm Environment Institute, 17-19 May.

Cocklin, C. and Berk, R., 2001, Urbanisation, water resources and human security in Southeast Asia. Plenary presentation to the Global Change and Sustainable Development in Southeast Asia Conference (a SARCS Regional Science-Policy conference), Chiang Mai, Thailand.

Cocklin, C., 2001, Islands in the midst: Environmental change, vulnerability and security in the Pacific. Paper presented to the Global Change Open Science Conference – Challenges of a Changing Earth, Amsterdam, Netherlands.

Berk, R. and **Cocklin, C.**, 2001, Climate change and water resources in Asia Pacific cities. Paper (poster) presented to the Global Change Open Science Conference – Challenges of a Changing Earth, Amsterdam, Netherlands, July.

Cocklin, C., 2001 Urbanisation, global environmental change and human security. Paper presented to the Open Meeting of the Human Dimensions of Global Environmental Change Research Community, Rio de Janeiro, Brazil, October.

GECHS-UCI researchers presented work on environmental change and human security to the ISA Annual Meeting , 20-24 February and at the Scripps Institute and UCSD on 26 May.

Gleditsch, Nils Petter & Jesse Hamner, 2001. 'Shared Rivers, Conflict, and Cooperation', paper presented at the 42nd Annual Convention of the International Studies Association, Chicago, IL, 21–24 February, at the International Water History Association Conference, Bergen, August, and at the Fourth Pan-European International Relations Conference, Canterbury, 8–10 September.

Hartmann, Betsy, 2001. 'The Politics of Population Policy,' invited lecture, Center for Public Policy, University of Massachusetts, 16 November.

Hartmann, Betsy, 2001. "Ghosts of Malthus: Population, Environment and Reproductive Wrongs," invited lecture, Series on "Boundary Work in Science and the Environment," Sarah Lawrence College, 2 November.

Hartmann, Betsy, 2001. 'Governance and Resource Equity as a Norm,' 2001 Summer Faculty Institute on World Security Affairs, Five College Program in Peace and World Security Studies, Amherst, MA, 15 June.

Hartmann, Betsy, 2001. 'Environmental Conflict: Wrong Turns on the Causal Pathway,' invited lecture at the Symposium on Environment and Security, Center for the Study of Democracy, University of Westminster, London, 15 March.

O'Brien, Karen, 2001. "The Dynamics of Rural Vulnerability in Southern Africa," Paper presented at the Annual Meeting of the Association of American Geographers, New York City, 2-8 March.

Appendix C

Links to Other Projects

Contributions to Related Projects

GECAFS

- Brklacich, Mike and Karen O'Brien participated in SE Asia workshop, 13-17 February 2001
- Brklacich, Mike participated in Washington DC planning meetings 22-25 April 2001
- MBrk appointed vice-chair July 2001-June 2003.

Urbanisation

- Cocklin, Chris collaborating with group working on a Scoping Report on the issue "Urbanisation and the Transition to Sustainability".

Other Contributions

Brklacich, Mike chaired session on "Integrated Food Systems Research within the GEC Community" at Open Meeting in Rio de Janeiro, October 2001

Brklacich, Mike, Chair "Can Technology Spare the Planet" Plenary Session, Challenges of a Changing Earth, Global Change Open Science Conference, Amsterdam, 10-13 July 2001.

Brklacich, M, J. Jaeger & A. Whyte. Meetings in Ottawa with Canadian federal government agencies (IDRC, CIDA, Environment Canada, Policy Research Institute, SSHRC, NSERC) to promote IHDP & GECHS. 9-10 April 2001

Brklacich, M & J. Jaeger. Meetings with Munich Reinsurance in Toronto to promote IHDP & GECHS. 11 April 2001

Brklacich, M. Meeting with Geoff Dabelko in Washington to discuss GECHS-WWC linkages, 29 October 2001

Brklacich, M. Meetings with Proctor and Gamble (Canada) to explore a GECHS-P&G-Carleton University partnership, Ottawa, Canada, 13 December 2001.

GECHS-UCI submission to UNEP on water development and conflict on 26 September

Appendix D Publications

Berk, Richard and **Chris Cocklin**. 2001. *Climate Change and Water Resources in Asia Pacific Cities*. **IHDP Update**, 1/01: 11.

Brklacich, Michael and J. Oucho. 2001. *Water, Human Health & Well-being*. In J. Gash, E. Odada, L. Oyebande & R. Schulze (eds.), **Freshwater Resources in Africa**. Proceedings of a Workshop, Nairobi Kenya, October 1999. Potsdam: BAHC International Project Office, 43-48.

Diehl, Paul F. & **Nils Petter Gleditsch**, (eds). 2001. **Environmental Conflict**. Boulder, CO: Westview.

Diehl, Paul F. & **Nils Petter Gleditsch**. 2001. *Controversies and Questions*. In Paul F. Diehl & Nils Petter Gleditsch (eds.), **Environmental Conflict**. Boulder, CO: Westview, 1-9.

GECAFS Planning Group (J. Artzen, **M. Brklacich**, G. Fischer, P. Gregory, J. Ingram, D. Whelpdale) 2001 **GECAFS Science Framework & Implementation Strategy** Global Environmental Change and Food Systems (GECAFS) International Project Office.

Gleditsch, Nils Petter. 2001a. *Armed Conflict and the Environment: A Critique of the Literature*. In Paul Diehl & Nils Petter Gleditsch (eds.), **Environmental Conflict**. Boulder, CO: Westview, 251-272. [Revised version of an article originally published in *Journal of Peace Research* in 1998.]

Gleditsch, Nils Petter. 2001b. *Environmental Change, Security, and Conflict*. In Chester Crocker, Fen Osler Hampson & Pamela Aall (eds.), **Managing Global Chaos II**. Washington, DC: United States Institute of Peace Press, 53-68.

Gleditsch, Nils Petter & Bjørn Otto Sverdrup. *Democracy and the Environment*. In Edward Page & Michael Redclift (eds.), **Human Security and the Environment: International Comparisons**. London: Edward Elgar. (In press.)

Hartmann, Betsy. 2001. *Will the Circle Be Unbroken? A Critique of the Project on Environment, Population and Security*. In Nancy Lee Peluso and Michael Watts (eds.), **Violent Environments**. Ithaca, N.Y.: Cornell University Press.

Ibeanu, Okechukwu. 2001. *Environment, Human Security and Governance in Nigeria*. **IHDP Update**, 3/01: 8-9.

Langeweg, Fred and Edgar E. Gutierrez-Espeleta. 2001. *Human Security and Vulnerability in a Scenario Context: Challenges for UNEP's Global Environmental Outlook*. **IHDP Update**, 2/01, 11-12.

Loneragan, S.C. 2001. *Water and Conflict: Rhetoric and Reality*. In N.-P. Gleditsch and P. Diehl (eds.), **Democracy, Conflict and the Environment**. Boulder, CO: Westview.

Loneragan, S.C. 2001. *The Use of Economic Instruments for Water Management in the Middle East*. In E. Feitelson and M. Haddad (eds.) **Management of Shared Groundwater Resources**. Amsterdam: Kluwer, 82-95.

Loneragan, S.C. 2001. *Environment and Security*. **International Encyclopedia of Global Change**. Oxford: Oxford Univ. Press

Loneragan, S.C. and A. Wolf. 2001. *Moving Water to People: The Toshka Project in Egypt*. **Water International**, 26(4): 1 - 25.

Matthew, Richard. 2001. *Environmental Stress and Human Security in Northern Pakistan*. **Environmental Change & Security Project Report**, Summer, Issue No. 7: 17-31.

Matthew, Richard. 2001. *Conflict or Cooperation? The Social and Political Impacts of Resource Scarcity on Small Island States*. **Global Environmental Politics**, May.

Nikitina, E.N. 2001. *Russia: A Decade of Innovations in Environmental Governance*. **IHDP Update**, 3/01: 11

O'Brien, Karen and Robin Leichenko. 2001. The Dynamics of Vulnerability to Global Change. **IHDP Update**, 2/01: 12-13.

Tarr, Chou Meng. 2001. Institutional Management of the Mekong River. **IHDP Update**, 1/01: 12

Papers Submitted & Under Review

Leichenko, R.M. and **O'Brien, K.L.** (2001), The Dynamics of Rural Vulnerability to Global Change: The Case of Southern Africa. Accepted for publication in *Mitigation and Adaptation Strategies for Global Change*.

O'Brien, K.L. and Leichenko, R.M. (2001), "Winners and Losers in the Context of Global Change," Submitted to the *Annals of the Association of American Geographers*.

AVISO

Issues published in 2001

Eyles, John and Ranu Sharma. 2001. *Infectious Diseases and Global Change: Threats to Human Health and Security*. **AVISO**, No. 8. Global environmental Change and Human Security Project, University of Victoria, June, 8 pp.

Nikitina, Elena. 2001. *Russia: New Dimensions of Environmental Insecurity*. **AVISO**, No. 9 Special ENRICH Issue. Global Environmental Change and Human Security Project, University of Victoria, June, 8 pp. (published in English & Russian)

Matthew, Richard. 2001. *Environmental Stress and Human Security in Northern Pakistan*. **AVISO**, No. 10 Special ENRICH Issue. Global Environmental Change and Human Security Project, University of Victoria, July, 8 pp.

Briefings

Hartmann, Betsy and Alex de Sherbinin AVISO Briefing on 'Population, Development, and Human Security' at Woodrow Wilson Center on January 30th.

Phase II Funding

Lonergan, Steve – AVISO II, a policy briefing bulletin published through the GECHS International Project Office. Funding of \$43,000 for Phase II of this project received from USAID/U Michigan and IDRC.