it involves conflict over political power.

- Adverse or disruptive regime transitions. Major, abrupt shifts in patterns of governance, including state collapse, periods of severe elite or regime instability, and shifts away from democratic toward authoritarian rule. Some are preceded by revolutionary or ethnic wars as in Cuba 1959 and Liberia 1990. They also may precipitate internal wars and be followed by massive human rights violations. They are analytically distinct from internal wars, however, and sometimes occur with minimal open violence. Note that abrupt nonviolent transitions from autocracy to democracy are not considered "adverse" and thus are not included as failure cases.
- Genocides and politicides. Sustained policies by states or their agents-or in civil wars, by either of the contending authorities—that result in the deaths of a substantial portion of a communal or political group. In genocides the victimized groups are defined primarily in terms of their communal (ethnolinguistic or religious) characteristics. In politicides victims are defined primarily in terms of their political opposition to the regime and dominant groups.

The 233 internal wars and failures of governance are the basis of the problem set; that is, the study's dependent variable. The list is known to omit low-magnitude cases but is thought to include all serious cases of these types that began between 1955 and the end of 1996 in all states in the international system with 1996 populations greater than 500,000.³⁷

One problematic issue is that internal wars, regime crises, and gross human rights violations often co-occur. Moreover, multiple events of the same type sometimes occur sequentially in the same country. Where wars or crises overlapped or came in quick succession, they were combined. The final problem set consists of 127 *consolidated cases* that include 71 *discrete cases* plus 56 *complex cases*, such as linked sequences of events (of any kind) in which four years or less elapsed between the beginning and end of successive cases. The analyses reported here were based on 125 cases, after excluding two low-magnitude ethnic conflicts.

Appendix D: Environment

MEDIATED ENVIRONMENTAL MODEL METHODOLOGY

For the environmental model, the infant mortality rate in 1990 is assumed to be a function of its baseline in 1980, plus the effects of intervening changes—from 1980 to 1990-in ¹Esty, Daniel C. Jack Goldstone, Ted Robert Gurr, Pamela Surko, and Alan Unger. *Working Papers: State Failure Task Force Report.* McLean, VA: Science Applications International Corporation, 30 November 1995.

 $^{\rm 2}$ For a list of countries included in the study, see appendix A, table A-1 : Country List.

3

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VA: Science Applications International Corporation, 30 November 1995.

³⁵ Solingen, Etel. *Regional Orders at Century's Dawn: Global and Domestic Influences on Grand Strategy.* Princeton University Press, 1998.

³⁶ For sources and more detailed descriptions, see Esty, Daniel C., Jack Goldstone, Ted Robert Gurr, Pamela Surko, and Alan Unger. *Working Papers: State Failure Task Force Report.* McLean, VA: Science Applications International Corporation, 30 November 1995.

³⁷ Eritrea and Qatar, which have populations over 500,000, were inadvertently omitted; Luxembourg was inadvertently included, despite

falling below our population size cutoff, according to the US Census Bureau's International Data Base. These deviations from the rule do not contribute significant error because the number of countries in the study was large.

³⁸ A widely used rule of thumb constrains the number to about 10 percent of the sample size.

³⁹ "Global Assessment Of Human Induced Soil Degradation (Glasod): A Users Guide To The Global Digital Database," UNEP/ GRID, July 1, 1991.

Interested in back copies of the Environmental Change and Security Project Report or the China Environment Series? These ECSP publications or others such as *Climate Action in the United States and China*, working papers from conferences on the toxic legacy of the Cold War in the former Soviet Union, European Seas, or environmental confidence building are available upon request. CONTRACTOR OF China's Water Problems in the Context of LLS-China Relations RANGER BOOMS Е Ν Preserving Marc Machaer Groundli in Chrina with Matteriel Gas and Remeasible Energy Technologies Jaman 5. Locuse Ann Japanes Zaares v Т R \mathbf{O} Water Pollation and Human Health in China Cameranza, Macana, Casacana We. N COMPANY AND A M 10.11 Allietory of Size American Energy Corporation Resear S. Parca, Ja. N т \mathbf{S} E R Т WW/ E \mathbf{S} For single copies, please contact ecspwwic@wwic.si.edu or call (202) 691-4130.

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rural appraisal (PRA) techniques, undertaking demographic or geographic information system analysis, assisting with buffer zone management, or engaging in policy analysis and development.

MINORITY-SERVING INSTITUTIONS INITIATIVE

The Minority-Serving Institutions Initiative (MSI) aims to increase the number of students from historically Black- or Hispanic-serving institutions who pursue careers in international family planning or population and environment. To accomplish these goals, the program provides coursework and internships their host agencies in undertaking community assessments using participatory rural appraisal (PRA), in documenting the lessons of their work, and in developing program models for replication.

Developing Population-Environment Linkage Frameworks

The experimental and innovative nature of the PEFP has

earned the program an important position in the P-E arena. Recognizing the need to pilot test the feasibility of linking population and environment at the field level, the program seeks to complement theoretical knowledge with practical experience to determine whether it makes sense to address population and environment together or separately. There are three primary means by which fellows have linked population and

The Population, Environmental Change, and Security Fellowship



The Population, Environmental Change, and Security (PECS) Fellowships are two-year professional assignments for individuals with advanced degrees in PECS-related areas. The fellowships aim to:

1) develop a cadre of future leaders with expertise in these areas;

2) provide technical assistance to organizations addressing security from an interdisciplinary perspective;

3) facilitate research, dialogue, and analysis of long-term security issues at the nexus of population and environmental change.

Providing Unique Interdisciplinary Expertise to Diplomatic, Security, and Development Organizations

The Population Fellows Program, administered by the University of Michigan's Center for Population Planning and funded by the U.S. Agency for International Development (USAID), has recently developed a new type of fellowship with support from the Woodrow Wilson Center's Environmental Change and Security Project. The Population, Environmental Change, and Security Fellowship combines the strengths of both programs in addressing critical aspects of evolving international security concerns. The fellowship draws on the Population Fellows Program's 15 years of experience arranging fellowships with organizations working on population and population-environment issues in the developing world. It also draws on the tremendous policy-level expertise of the Woodrow Wilson Center in the area of environmental change and international security.

The PECS Fellowship will provide a rich professional development opportunity for an early-career professional with graduate training and expertise in the linkages among population, environment, and security issues. The fellow will be placed for two years with an organization exploring these linkages through research, inter-institutional dialogue, case study preparation, and policy analysis.

Fellows as Innovators

Because the PECS Fellowship is a new initiative, we will work closely with diplomatic, security, and development organizations interested in hosting a fellow to formulate a scope of work that will challenge the fellow and have a meaningful impact on each organization's mission.

If past fellowships are any guide, we expect our PECS Fellows to serve as important catalysts for innovation within their organizations. Our traditional Population and Population-Environment Fellows have served a variety of organizations in this capacity – from local Ministries of Health and nongovernmental organizations to larger organizations such as CARE, Save the Children, USAID, the U.S. Department of State, World Wildlife Federation, The Nature Conservancy, United Nations Population Fund, the Centers for Disease Control, and the World Health Organization. These fellows have spearheaded such projects as institutionalizing reproductive health care for refugees and initiating community land-use planning processes to mitigate the environmental impact of rural migration.

Applying for a Fellowship

Candidates wishing to apply for a PECS Fellowship must meet the program's minimum qualifications:

- · U.S. citizenship or permanent resident status; and
- a graduate degree in a relevant area, plus expertise in the linkages among population, environment, and security issues.

Furthermore, candidates must be early-career professionals (with no more than five years of post-master's experience); possess appropriate technical skills and knowledge; and show evidence of a commitment to a PECS-related career. To demonstrate this, candidates are asked to submit the following:

• an official program application form;

- a resume;
- a statement of purpose;
- academic transcripts;
- Graduate Record Examination scores;
- three letters of recommendation;
- a recent writing sample; and
- an official foreign language evaluation (optional).

If you are interested in applying for a PECS Fellowship, please contact Jane MacKie-Mason at the number on the following page. We will happy to review your credentials and discuss the application process with you. (continued on following page)

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environment in the field: inter-institutional partnerships, programmatic integration, and joint applied research. The salient features of these approaches are discussed below.

Inter-Institutional Partnerships: Due to the traditional disciplinary nature of organizations and the challenges posed by venturing into interdisciplinary areas like population and

environment, many fellows have found inter-institutional partnerships a sound approach to linking population and environment at the intervention level. "Partnership" is viewed as a collaborative relationship formed between two distinct institutions or programs to provide multiple services or information to a specified target population. A clear example

Host Agency Responsibilities

Because fellows bring so much to the organizations they serve, we ask potential host agencies to consider carefully the type of experience they could provide for a fellow.

Are you an appropriate host organization?

We ask that potential host agencies be able to identify a meaningful PECS-related project a fellow could accomplish in our customary two-year placement period. Furthermore, because this is a development program for early-career professionals, the organization must be able to offer an experienced, committed mentor who will collaborate closely with the fellow and help advance his/her expertise.

Can you provide for some of the fellowship costs?

We attempt to be as cost-effective as possible in structuring our fellowships while providing sufficient support for fellows' professional and living expenses. In general, a fellowship provides the following:

- a modest professional stipend;
- health and emergency evacuation insurance;

- travel to and from the placement site;
- limited shipping expenses; and
- assistance with housing and cost-of-living adjustments, where applicable.

Through the years, the Population Fellows Program has arranged for various cost-allocation arrangements with host agencies. In some cases, the host agency has paid for a significant portion of a fellow's expenses; in others, the Fellows Program has provided the bulk of financial support. Most common is some form of costsharing in which the host organization provides several of the following:

- work-related travel expenses;
- housing and/or cost-of-living adjustments;
- necessary office equipment (computer, typewriter, etc.) and supplies; and
- · access to support staff.

We should note that the more support provided by a prospective host organization, the more likely it is that a fellowship will receive program approval.

Requesting a Fellow

If you believe your organization could provide valuable experience for an early-career professional while better achieving your own organizational objectives, we encourage you to contact us. A phone conversation is often the best way to determine whether your organization is a good "fit" with our program. If it is, we will ask you to complete a Letter of Intent/Scope of Work formally requesting a fellow. This should include the following:

Contact information

How to reach your organization, whom to contact, and who will supervise the fellow (contact information and credentials).

Organizational information

What you do, where your projects are located, why you are requesting a fellow, and any other information that would help us identify an appropriate candidate for you.

Potential support

The level of support (financial, material, and/or staff support)

your organization would be able to provide for a fellow as well as the cost of living in your area.

Scope of work

The 2- to 3-page scope of work identifies:

- the projects on which the fellow would work and the role s/he would play in them;
- the level of independent responsibility expected;
- the qualifications required (including languages);
- a flexible timeline for placing the fellow (fellowships can take several months to arrange).

Before preparing these documents, please contact us to discuss how we might structure a placement that will help your organization explore the critical links among population, environmental change, and security.

For more information, please contact: Jane MacKie-Mason • Associate Director University of Michigan Population Fellows Programs 109 Observatory, SPH II • Ann Arbor, MI 48109-2029 Phone: 734-763-9456 • Fax: 734-647-0643 E-Mail: pop.fellows@umich.edu Internet: http://www.sph.umich.edu/pfps/

For more information on population, environmental change and security issues, see the Woodrow Wilson Center's Environmental Change and Security Project's Web site at: http://ecsp.si.edu.

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critical, immediate needs, organizations are able to alleviate some of the short-term concerns which prohibit populations from devoting time and resources to longer-term issues, such as resource conservation and protection. Quick and effective antidotes, such as health care provision, typically take precedence over interventions necessitating long-investments, such as sustainable agriculture and livestock management techniques. By addressing immediate concerns of a population, the local people, presumably, will have additional time and heightened interest to identify and address longer-term issues.

Increased Empowerment and Involvement of Marginalized Groups

Fellows, host agencies and development officials, in general, have come to recognize the importance of women and other marginalized groups (such as indigenous peoples) in issues relating to both health and the environment. With respect to women, they recognize that women exercise minimal power in the household and the marketplace, yet they are the primary decision-makers with respect to family health and nutrition. Moreover, they often play an important role in resource management. Consequently, they need to acquire the information and ability to influence others. Local people, likewise, represent an important target group, as they possess generations of knowledge regarding location-specific land management practices and herbal medicine uses. Interventions that involve close coordination with these groups are more likely to be culturally appropriate and, consequently, better received and sustained. The following are some ways in which fellows have worked to empower women and marginalized groups to assert their influence in positive ways within the population and environment arena.

Specialized Training: Providing the training necessary for members of marginalized groups to become agricultural extension agents or family planning or health promoters can engender a strong sense of empowerment. As community members take up positions of responsibility within their community and develop specialized skills and knowledge, their self-esteem rises and they are motivated to build their own capacity as well as that of their broader community.

Participatory Methods: Participatory development approaches can also be highly empowering for communities. Through research methodologies like PRA, communities can become engaged in the interaction of important issues like fertility, health status, and environmental well-being. As their awareness and knowledge are raised, these communities are empowered to participate in informed decision-making and can guide intervention design and implementation.

Engagement of All Groups: Finally, organizations have found that the way in which they implement their activities can be as important as the intervention itself in terms of empowering marginalized segments of a community. Meetings and activities can be designed deliberately to encourage participation from all sectors of society - making no distinction by gender or age group. In one project, trainers worked in mixed-gender pairs to set the example for target groups that men and women should work together and that each makes a vital contribution to any activity.

Broadening Perspectives

A comprehensive approach, at the very least, helps development specialists in all sectors understand and consider intervening factors that influence people's attitudes and behaviors. Through linked approaches, both office and field staff come into contact with people from various disciplines, offering them an opportunity to widen their thinking and to work in a mutually cooperative fashion to achieve institutional goals and objectives.

That institutional perspectives can be broadened by exposure to programs like the PEFP is clear in the case of The Nature Conservancy (TNC). TNC has traditionally adhered to a relatively strict approach to conservation. By hosting several Population-Environment Fellows, however, TNC has become much more committed to addressing a broader array of social issues when working on resource management. This recognition has filtered up through the organization, altering a variety of organizational policies and practices.

Fellows, host agencies, partners and USAID Mission staff interviewed for the purpose of evaluating the PEFP all concurred that organizations cannot address ecosystem pressures from a purely conservationist perspective.³ They stressed that local populations play a pivotal role in conservation and to ignore them would be damaging to long-term conservation goals. This consensus was built, in part, through the consciousness-raising efforts of the PEFP and the early results of linked interventions facilitated by fellows.

Comprehensive Approaches Incorporate Attention to Areas Beyond Population-Environment

While addressing population-environment linkages may be an important facet of development work, fellows also have the opportunity to address several other areas as well, including income generation, gender inequities, and citizen participation. For example, in Ecuador, TNC Fellows designed projects to engage local communities more actively in resource management. In the process, they enriched individual and institutional capacity for problem identification and resolution. Such capacity-building activities contribute not only to health and environmental well-being but also lay the groundwork for a more informed and active civil society.

TESTING THE ASSUMPTIONS OF LINKED INTERVENTIONS

It should be noted that underlying all the approaches to and benefits of integration, is a fundamental assumption of Population-Environment work: that local peoples' quality of life can be improved while simultaneously reducing demand on natural resources. Restoring a sustainable balance between people and their environment is a compelling argument for linked interventions, however, fellows and host agencies have found that if intentions are not clear, this idea can be politically charged. If the linkages among population pressures, environmental degradation, and health and economic costs are not identified by communities themselves through participatory research and consciousness-raising activities, Population-Environment interventions may raise concerns of "population control to promote animal and forest conservation." As a result, the PEFP remains committed to participatory work that explores the interconnectedness of humans and their environment, and is averse to prioritizing conservation over community needs.

Despite this sensitivity, it is important to recognize that linked activities can contribute meaningfully to declining demands on resources. Whether or not they are more effective and cost-efficient than sectoral approaches is being tested by the PEFP through an assessment project being conducted in select sites around the world. The results of these evaluations will go a long way toward justifying the program's continued commitment to intersectoral development work.

FOCUS ON MICHIGAN FELLOWS

Brief case studies of a few Michigan Fellows show the wide range of activities that fellows undertake, as well as the diversity of their professional skills and development. Fellowships highlighting work that includes population, environment, and security issues have been selected in an effort to focus on this relatively new area for the Population Fellows Programs.

Julia Cohen was a University of Michigan Population Fellow who was placed with the Bureau for Population, Refugees, and Migration at the U.S. Department of State. Julia became the government point person on the issue of refugee reproductive heal2hua lal DJmittedhators iaespite tthe ist pougee

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Lessons Learned

Lorelei's work helped improve the health status of refugees and displaced persons, especially of women, in diverse populations around the globe-from Pakistan and Tanzania to Azerbaijan and Cambodia. The key lessons learned during her placement include the following:

- Tremendous diversity exists in terms of refugee men and women's reproductive health needs around the globe. The importance of conducting an assessment of needs that incorporates attention to reproductive health issues, beginning within the first days of an emergency, is critical to assuring that adequate and appropriate services are provided.
- Currently, many reproductive health needs of refugees are not addressed at all. Assessments carried out in the field revealed a high incidence of sexual assaults, a need for family planning services among refugee women, a need for comprehensive STD prevention and treatment services—especially in areas where HIV and AIDS are endemic-and improved attention to emergency obstetric concerns for pregnant refugees.
- Sustainability of services mandates that both IRC medical staff and local providers receive training in reproductive health issues. Planning for the time when IRC staff will no longer be providing services, projects must incorporate training of local medical providers, as well as training of lay health persons—such as traditional birth attendants.
- Finally, political controversy may result when reproductive health issues are introduced into existing programs. Further research documenting the need for such programs, as well as their health—and life—saving benefits, is essential to ensuring their continued survival.

Shannon England ·

necessary for all organizations working internationally. Environmentally displaced persons are a concern for those interested in protecting resources, as well as those interested in assuring the security of the state.

CONCLUSION

University of Michigan Population Fellows work in a variety of settings and perform a range of tasks. All Fellows, however, gain the opportunity to develop a network of professional contacts, the chance to master new skills in the field of international development, and the opportunity to transfer important perspectives and competencies to the organizations with which they work. Perhaps most importantly, the Fellows Program has helped to raise consciousness within organizations and local communities about the relationship of population to other aspects of development.

 $^{^{1}}$ For more on the particulars of the three case studies, see Stem, 24-66.

² Stem, 76.