GEOGRAPHY: A LESSON FOR DIPLOMATS

William B. Wood

This volume of *The Fletcher Forum of World Affairs*, with its focus on the "geography and the boundaries of confidence," poses intriguing questions about both the geography of international relations and varied perceptions about the future of those relations. Confidence in foreign affairs, of course, is in the eye of the beholder, with diverse opinions depending on the topic and the viewer. But if governments are to have confidence in their foreign policies, they need to work from a foundation of knowledge about the factors that will most affect their national interests. This may be obvious, but most governments today face a very difficult challenge in building such a knowledge base because the world in which they interact is undergoing rapid socioeconomic, political, cultural, demographic, technological and environmental change. With a rapid rate of change on so many fronts and with governmental influences over those trends being inconsistent and relatively modest, political leaders buffeted by domestic pressures will lack confidence in the value of a robust and forward-looking diplomacy. This essay discusses how geography can help diplomats and government policymakers better comprehend the forces of change that will shape future international relations.

A Strategic Vision

U.S. foreign affairs agencies are now reorienting their missions to achieve objectives embedded in seven national interests: national security, economic prosperity, protection of American citizens and U.S. borders, law enforcement, democracy promotion, humanitarian assistance and progress on global issues.[1] National interest and associated strategic goals offer measurable targets for U.S. leadership. This new foreign policy priority list invites bold approaches that would include:

- Frank analysis of linkages among national interests to identify which diplomatic, foreign assistance and other U.S. government efforts overseas have a productive or counterproductive multiplier effect in achieving foreign policy goals.

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- Thorough reevaluation of the ways policymakers measure progress toward realizing mission-based objectives.
- Well-argued demands for the resources and new skills that diplomats need to successfully meet strategic objectives.
- Aggressive outreach to the American public about the importance of sustained international engagement and the cost-effectiveness of U.S. international affairs investments.

A geographic perspective on this strategic plan can help identify key linkages in the requirements underlying national interest goals. Geography–the discipline with a foot in both social and earth science realms–has a long tradition of studying how people interact with their built and natural environments; it is inherently multidisciplinary, with a spatial and regional preoccupation. While it is a well-seasoned field of study, it is now being energized by powerful new analytical tools and a plethora of remote sensing data about changes to and on the earth's surface. Geographic Information Systems (GIS) software is now used by a broad range of problem solvers, from urban planners to market researchers, because it organizes disparate data by georeferenced "layers" so that relationships can be discerned and trends projected. While the most apparent GIS product is a dynamic digital map, the analytical power of the GIS comes from how it uses the data behind the map.[2] For example, GIS-based analysis could be used to look at strategic relationships among national interest indicators by country or region. Indeed, GIS tools in the State Department have been used to analyze patterns of war crimes in Bosnia, assistance for displaced persons in Kosovo, election results in Mexico, and international vulnerability to year 2000 (Y2K) computer failure.

A geography of our national interests, though, is much more than a recommendation to start crunching boring statistical tables and wordy cables into digital maps of our international objectives. It offers a different path of decision making that can help overburdened policymakers grapple with competing long-term goals while juggling numerous short-term problems at multiple scales—from global climate change to local land tenure conflicts.[3] It would parallel recommendations made at the national level for using geographic information to improve local, state and national decision making.[4] The geographic strategy suggested here would reinforce an existing shift away from an almost exclusive focus on interstate relations toward one that can more easily connect subnational and transnational concerns, work more closely with nongovernmental organizations (NGOs) and intergovernmental organizations, give more institutional weight to pre-"crisis" resource management and sustainable development programs, and incorporate new information management tools for diplomats of the next millennium. Deputy Secretary of State Strobe Talbott defines this diplomatic challenge as a new era of bipolar tensions–not between East and West, but "between the forces of stability and instability, integration and disintegration, prosperity and poverty."[5]

Safeguard Vital Interests

"Geopolitical" has a nice ring to it, particularly when used to describe the latest maneuvering among major powers. The original context for the word had a more humble definition: the competition between states within a region for strategic control over territory, such as a trade route or a military vantage point, and vital resources, such as productive land or fresh water.[6] While the "geo" element of geopolitical was downplayed in Cold War theorizing (when evil empire vs. free world apparently sufficed), it remains a central focus of local nationalists unwilling to trade land for peace.

In retrospect, Cold War-era geopolitical conflicts were the sum of two different worldviews operating at divergent scales of conflict. At the higher level were superpower involvements in various rim wars (Vietnam, Afghanistan) that were justified as part of an overarching superpower ideological rivalry, the realm of global geopolitics. At a much lower level were on-the-ground adversaries—often manipulated by their superpower backers—pitted in multigenerational struggles over territory and people, the realm of local geopolitics. While current geopolitical rivalries have a less apocalyptic sense of global urgency than they had just a few years ago, they share a basis in frustrated aspirations in which vaguely defined homelands are enshrined in a nationalistic and sometimes genocidal mythology that seem impervious to diplomatic entreaties.[7] These newer geopolitical crises, marked by local atrocities and regional instabilities, are proving both pervasive and deadly.

Regionally destabilizing conflicts in the 1990s, almost all of which have been influenced by ethnic intolerance and territorial nationalism, have already led to more refined geopolitical theorizing. This shift from international megarivalries to sub and transnational struggles among once obscure ethnic and tribal groups makes it harder to embrace a single diplomatic doctrine (such as containment) and demands a recognition of complicated root causes among foreign policy strategists contemplating intervention. A plethora of violent conflicts over autonomy and control of resources supports a softer definition of national security–championed in international forums by Canada–that includes such factors as ethnic relations, environmental scarcity, population growth and socioeconomic stability.[8] A sampler of current geopolitical dilemmas rooted in such factors would include the fiercely localized crises of Bosnia's ethnic cleansing, Chechnya's brutal autonomy struggle, Rwanda's massive genocide and Middle East inequities in access to water and land. There is not much grand ideology in these regional threats, but rather the everyday reality of territorial nationalism, resource competition and collective fear of cultural collapse.[9]

A more subnationally focused geopolitics, though, cannot by itself capture the demands of national security as the preeminent foreign policy interest. While intelligence analysis comes from a tradition of looking at how belligerent states maneuver to control a strategic resource, such as a "choke point" strait or oil, secretive intelligence sources and methods are less capable of providing insight into motivations and international implications when the semblance of

civil society is sacrificed to achieve ethnoterritorial dominance. When politically manipulated ethnic conflict replaces intergovernmental rivalry as the preeminent geopolitical catalyst, how should the international community respond, both diplomatically and, as a final resort, militarily? If atrocities against civilians become a routine part of such conflicts–as it has in such disparate places as eastern Slavonia and eastern Congo, diplomats who wish to preserve regional stability will need to be better informed about the ways political leaders fuel ethnic tensions to serve territorial aspirations, better versed in conflict mediation methods and better equipped with carrots and sticks to induce good faith power-sharing negotiations.

The other U.S. vital interest that involves much coordination among national security agencies and a large portion of defense and intelligence budgets is focused on weapons of mass destruction (WMD) and destabilizing regional arms races supported by a worldwide gray market in all types of weaponry. With notable exceptions, such as the status of START negotiations, policy debates have begun to shift away from "Star Wars" scenarios of intercontinental ballistic missiles targeted at U.S. cities to more earth-bound proliferation concerns. Of greatest concern is control over WMD technologies and components, particularly those that might contain nuclear, chemical or biological materials, which are developed and/or obtained by war-instigating regimes. Added to this threat is the more mundane production, sale and deployment of shorter-range missiles and other lethal armaments, particularly to pariah states and ill-disciplined militias. Out from the shadow of a superpower arms race, the United Nations now can see the scattered patterns of WMD diffusion and landmine distribution–the latter being perhaps the best example of a global security problem having a devastatingly local impact. U.S. diplomats in Washington, DC, and in more than 240 overseas posts, thus face a widely scattered set of national security threats, from ethnic carnage to WMD proliferation. But each threat is tied to a particular geography of stagnant economies, alienated ethnic groups, ruthless leaders, new WMD technologies and transcontinental smuggling routes.

Build Interdependent Economies

Geopolitics by definition downplays economics, thereby ignoring many of the forces that affect international relations. If we look at the world map of cleanly defined international boundaries and boldly labeled capitals, functional regions are notably omitted. But those engaged in commerce know there is a hidden map of worldwide trade and finance, with a million arrows in different directions, graphs and organizational charts and a never-ending stream of financial and monetary data. The map of international commerce acknowledges political influences, but primarily as bureaucratic obstacles and anti-free trade legislation that tends to confuse and misdirect the optimum flows of global capital and, to a lesser extent, labor. Such a map would also show the production and distribution of nonrenewable natural resources–such as oil and gas pipeline routes across war-threatened deserts and under contested seas–that nourish fossil fuel-dependent lifestyles.

Economic geography has long played a role in analyzing the spatial patterns and natural resource basis of economic activity–from the links between different types of land use and urban markets to the worldwide patterns of resource extraction, transshipment routes and retail distribution hierarchies. A foreign policy strategy that separates geographic considerations from economic potential will be woefully misguided and do little to reduce persistent poverty trends. As economist Jeffrey Sachs argues, based on research by his Harvard Institute for International Development, "global patterns of growth during 1965-90 were shown to depend on four factors: initial conditions; physical geography; government policy; and demographic change."[10] The World Bank, with its belated emphasis on incorporating natural resource measures into national statistical accounting, is coming to a similar conclusion.[11] While macroeconomic indicators of economic growth continue to be essential, other indicators of human well-being (literacy, infant mortality, nutrition, etc.) and environmental condition (soil conservation, water quality, land productivity, etc.) also are critical if more effective development assistance programs are to be implemented. These programs, in turn, should be coordinated with each other as well as with local and national governments and nongovernmental organizations (NGOs). Diplomats and those working for international financial and development institutions (the World Bank, the U.S. Agency for International Development, the U.N. Development Program, etc.) will need to work from a broader and more integrated decision-making framework–built around comparable layers of geographic information–if they are to help improve prospects for a long list of deeply impoverished countries.

In addition, the U.S. foreign policy goal of economic prosperity is dependent on opening up trade opportunities and financial stability for made-in-USA products, a responsibility shared by the departments of State and Commerce and the U.S. Trade Representative. Advocacy of national economic interests is a basic function of every government operating in an interdependent global economy. The difficult challenge for foreign affairs ministries is to demonstrate how their efforts, from trade commissions to treaty making, contribute to national prosperity. One way would be for them to portray the dynamic map of international economics to show how diplomatic achievements have chipped away at foreign government obstacles that deflect or diminish export flows. With currently available information management systems, this should be demonstrable by country, economic sector, export commodity and type of trade-restricting activity. Ideally, such a demonstration should also show which workforce groups, communities and even types of industries in the United States benefit from specific foreign affairs actions. Like a corporation's annual report, such a hypothetical export promotion spreadsheet would show taxpayers how their foreign policy investment is working for them.

Protect Americans Here and There

For many Americans, the most visible U.S. foreign policy-related effort is the "triple fence" along the U.S.-Mexico border because it is tangible and literally

close to home. Whether or not it works over the long term to keep out illegals and drug traffickers, the fence symbolizes a national concern over illegal immigration and reflects fears that U.S. borders have been inadequately protected. Immigration into the United States, though, is closely intertwined with U.S. history; public concerns have waxed and waned along with the waves of immigrants arriving from different world regions. While the U.S.-Mexico boundary is now defined more sharply and enforced more strictly with a reinforced border patrol–changes noted throughout Latin America–border patrols are only part of a haphazard international effort to control the movement of more than 100 million international migrants.[12]

The combined consular and Immigration and Naturalization Service (INS) management of migration flows into the United States, the world's most popular destination, is part of a complicated set of migration networks that influence both job seekers and refugees around the globe. The June 1997 meeting of European Union (EU) heads of state and the February 1999 meeting between President Clinton and Mexican President Ernesto Zedillo illustrate that governments on both sides of the Atlantic are caught up by the thorny problems of border controls, intraregional migrations and asylum policies. Despite its importance, though, good data on international migration is lacking and policy coordination between labor exporting and importing countries remains weak. Immigration in all regions will remain politically sensitive, both domestically and internationally, requiring diplomats–be they consular officers issuing visas or refugee officers seeking to protect those fleeing persecution–to understand causal factors, migration trends and patterns, and legal and economic implications.

Representing a country with almost 10 percent of its population foreign born, U.S. consular officers must see to it that several million American citizens living and traveling overseas are adequately served. The business and leisure activities of Americans overseas, perhaps even more than any painstakingly negotiated treaty, influence international relations on a daily basis, particularly between the United States and those countries from which generations of U.S. immigrants can trace their familial roots. But embassy responsibilities to serve them well have been traditionally slighted by a Foreign Service that favored political representations over mundane consular duties. If U.S. embassies are to improve services to their overseas citizen-clients, they will need to know who needs help most and where best to provide it. A more customer-focused mission will need a global business plan that spells out essential services, projected customer needs and optimum retail locations and staff size. The latter exercise is important now with the scaling back of overseas posts, with some long-standing sites shut down entirely. Budgetary retrenchment has already forced a global redistribution of dwindling foreign affairs assets, and post-Nairobi bombing fears have led to increased spending on embassy security. Both diplomatic services and security require tough locational decisions about where a diplomatic presence must be maintained and how to best safeguard embassies and, even more challenging, the long-term interests of Americans abroad.

Fight Outlaws

International outlaws come in many forms: "rogue states" intent on sowing trouble regionally and internationally, war criminals responsible for massacres of defenseless villagers, narcotraffickers who profit from drug addiction and terrorists who seek to frighten governments into capitulating to their demands. Such outlaws prey on globalized economic flows by manipulating financial networks and corrupting business transactions, as well as directly threatening U.S. citizens, here and abroad. Outlaws carry with them a "mental map" of the world, but theirs looks very different from the familiar one carried in the heads of diplomats. The narcotrafficker's map, for example, might be of porous borders, smuggling routes, remote areas where coca and poppy are harvested and the street corners where cocaine and heroin are sold. The National Drug Intelligence Center is using such information to build a GIS-based mapping system that can track the flow of illegal drugs from where they are produced through various ports and airports to the neighborhoods in which they are finally sold. The terrorist's mental map would be altogether different, emphasizing a longed-for homeland not contained within existing international boundaries, of secretive training and resupply locations and potential target areas. In light of recent terrorist attacks against U.S. diplomats, a GIS might help assess both patterns and trends in terrorist activities as well as embassy vulnerabilities. What all such outlaw worldviews represent is a determination to undermine national and international laws and hence they point to future threats to the security and work of diplomats, whether in Nairobi or Lima.

Support for outlaws, such as narcotraffickers and terrorists, occurs on several circuits. At the bottom circuit are impoverished peasants who share frustrated dreams of ever owning their own land or even earning a reasonable income from legal crops. At the top circuit are lucrative international channels for laundered money and diversified investments that help make the selling of narcotics so profitable and terrorist activities so lethal. In the middle are corrupt officials, lax public security and increasingly sophisticated marketing networks.[13] Thus, a geography of modern outlaws may be less about narcotics producers and consumers or specific terrorist groups and their intended victims than it is about the interconnected circuits in which they thrive. For future diplomats to be in a position to reduce the threat from these outlaws, they will need to be part of a better organized and more comprehensive multilateral approach that includes offers of area-specific economic development carrots as well as international law enforcement sticks. The geography lesson here may be easy to grasp but has proven very difficult to put into practice.

Promote Human Rights and Democracy

The previous four national interests are concerns shared by many governments; the last three belong to a more selective club of governments who embrace an

activist role in making the world a better place. Human rights as a key aspect of foreign policy was reinforced recently with President Clinton's speech commemorating the 50th anniversary of the Universal Declaration on Human Rights in which he pledged the U.S. government to take a more aggressive approach in preventing future genocides. While massive crimes against humanity are uncommon and tend toward widespread condemnation (and, in the cases of Rwanda and Bosnia, the creation of war crime tribunals), more mundane human rights abuses are frequent and all too often ignored. Once such abuses become accepted practices, governments lose legitimacy and tend toward a downward spiral of increased civil unrest and repression, with spillover implications for neighboring countries. Diplomats and those working for U.N. and NGO human rights agencies are often called upon to document such abuses, but they are usually after-the-fact accounts.[14] The next challenge for diplomats and other human rights monitors is to establish multilateral mechanisms to track indicators of systematic abuse and bring to bear timely political and economic pressure on repressive regimes. GIS tools, with their capability to overlay human rights incidents with demographic data and political and military jurisdictions, could be used to help in such atrocity-tracking efforts, as they have done already in analyzing ethnic cleansing in Bosnia.[15]

U.S. promotion of democracy stems from a recognition that democracy fosters respect for human rights and regional stability. It has paid off, with most governments now committed to building democratic institutions. However, while many world leaders proclaim their commitment to a democratic vision, fewer have been willing to make the substantial and long-term investments needed to build truly civil societies from the rubble of repressive regimes. Diplomats from democracy-sponsoring countries must be the vanguard of democratic transitions, charged with helping to put them on track, and, once there, keeping them from backsliding. This latter task may prove the more difficult because fledgling democracies are too easily taken for granted after a pro forma declaration of free and fair elections; to succeed, they must be nurtured through often difficult economic conditions, guided by committed political leaders, and supported through long-term Rule of Law assistance programs.[16]

In addition to analysis of voting patterns, political geography can provide insight into how voters are spatially organized into representative districts–the backbone of a democracy that sets the stage for both fair elections and the legitimacy of elected officials.[17] Gerrymandering, for example, entails the redrawing of electoral district boundaries to benefit one political group over another, a born-in-Boston term now practiced in many other countries. Gerrymandering in the United States has a disturbingly racist history but with largely nonviolent results and some recent corrective measures thanks to an independent judiciary. Elsewhere, such as in the Balkans, it has a more violent cast that could, if unchecked, smother democratic values under a nationalist blanket. When gerrymandering is at its most cynical it becomes a blueprint for territorial partition drawn by "democratically elected" leaders intent on disenfranchising undesired communities.[18]

While diplomats recently have been active in election monitoring, an equally important job for them is to scrutinize behind-the-scenes manipulations that result in a gerrymandered democracy. Future multidisciplinary diplomats will need to wield both quantitative data (such as voter registration) and personal human rights observations to aggressively protect local democracy against repressive forces. Their vigilance is not just democratic altruism; subnational patterns of anti-democratic forces likely overlap with other patterns showing territorial nationalism and economic polarization. On our ever-evolving diplomatic map, failed democracies will be the world's trouble spots and likely triggers for regional instability. The stakes are high because they will require future diplomats to lead intensive conflict mediation efforts and perhaps even to target sanctions and military strikes against repressive regimes to avoid a recurrence of atrocities, humanitarian crises and refugee outflows, such as in Kosovo.

Save Lives

Humanitarian crises arise from overlapping factors. On one extreme is the natural disaster that affects an otherwise secure population. Natural disaster relief has become, with some caveats, increasingly effective. Almost all developed countries have established the zoning restrictions, building codes and emergency response systems that help decrease the number of fatalities from earthquakes and floods. Developing countries, with far fewer resources, are much less prepared, but even they are beginning to cope better with natural disasters that threaten growing populations in congested, high-risk areas. The discipline of geography has played a central role in improving our scientific understanding of societal perceptions and risks from natural disasters and in helping communities devise appropriate protection strategies.[19] The 1997 hurricane in Bangladesh, for example, killed far fewer people than expected (especially in comparison to the hundreds of thousands killed in the early 1970s), thanks in large part to better early warning and emergency provisions. Similarly, despite severe resource and logistical constraints that Central American governments have had in coping with widespread floods and landslides resulting from Hurricane Mitch in the fall of 1998, their responses–aided by foreign assistance but also by remote sensing imagery and GIS tools–have been significant.[20]

A very different type of humanitarian crisis is the war-induced calamity in which already suffering groups are pushed over the edge into starvation and exile. For millions of war victims, daily existence is often mired in a spiraling nexus of collapsing political, economic and ecological systems. Increasingly, the international community's relief efforts are aimed at desperate groups located in areas where ethnic intolerance and poverty have become endemic. Relief agencies have thrown lifelines of food, shelter and even protection, but these are frequently fouled by militias who steal food supplies and threaten relief workers and by repressive regimes who manipulate U.N. and NGO relief agencies to suit political and military purposes.[21] Diplomats are often called on

to help pave the way for relief operations, but they lack resources, armed backup and training to deal with hardened belligerents who benefit from a geography of chaos.

The dangerous business of refugee and relief agencies has become subsumed within the broader and much more ambitious agenda of humanitarian intervention.[22] This kind of intervention explicitly acknowledges that basic needs and human rights are, at least in cases such as Iraq, more important than claims of inviolable national sovereignty. Against the backdrop of universal human rights are the shadows of inadequate protection for relief workers, human rights monitors and war crime investigators and declining political commitments among some U.N. members to stand on principle against repressive regimes. Donor governments claim intervention "fatigue" with little to show for their pains and complain that such costly and never-ending efforts siphon funds and political interest away from already strapped development programs that are essential to break the cycle of conflict-induced crises.

If there is any way out of this "more crises equals less development" morass, it lies in a twin push for sustainable development and respect for human rights–requiring intensive and bold diplomatic efforts to institute sound economic, legal and political systems. With tight foreign affairs budgets, those governments still willing to invest in crisis prevention will be demanding a better accounting of relief, human rights and development programs. Diplomats and those relief workers who administer interventionist programs will need to be prepared to show the real beneficiaries of their work; complementarity between relief and development activities (such as an irrigation project or human rights protection) going on in the same area; underlying political, demographic and economic conditions and how are they changing; and, perhaps of most immediate concern, logistical and security constraints on relief lifelines. The life and death geography of human suffering from man-made and natural causes allows little room for well-intentioned amateurs. Diplomats must be trained to recognize early crisis symptoms, and if they cannot devise cures, they must at least have the wisdom to do no harm.

Sustain the Planet

The most inherently geographic of the seven national interests is the last, focusing on the global issues of a liveable environment, a stabilized population and a world less plagued by disease. For too many who exist barely above poverty lines, scarcity of basic resources defines daily survival. In densely populated regions–particularly along coasts and major river valleys where most of humanity resides–fresh water and crop lands are being degraded (declining in quality) and depleted (declining in quantity) at rapid rates.[23] The historical option of pulling up stakes and moving to a new resource frontier is not there for the 90 million additional persons each year who need food, water and clean air, as well as jobs, housing, education and health care.

The least controversial global strategic interest is elimination of remaining major communicable diseases, particularly those that kill millions of

children each year. There are already vaccine success stories in small pox and polio and even progress on extending the lives of AIDS victims, at least for those who can afford expensive medicines. For the vast majority who live in poor countries and for many who live in developed countries, though, rapidly spreading epidemics are a growing, not a decreasing, threat because they live in environments that foster communicable diseases and in an interconnected world that facilitates transnational transmission.[24] Medical geography combines epidemiology with environmental science to study how disease vectors work within particular ecosystems, as has been done for river blindness and elephantiasis; such research is essential if effective disease monitoring and prevention strategies are to be designed. A successful international public health effort, though, needs to go beyond the laboratory by bringing prevention and treatment to those who are most vulnerable to infection, have the least access to basic health care and cannot pay for food, let alone medicine. Such a broad epidemiological and public health effort to address new and old infectious disease threats will require creative use of GIS tools to help analyze both how these diseases are spreading and where governments and international organizations, with diplomatic assistance, should best target their programs.[25]

The second global strategic goal was once the most controversial–stabilize population growth. With luck and much work, the world's population could plateau at about 9 billion; 3 billion more than now but still manageable in terms of global provision of basic needs. While such a goal was once hotly debated between the neo-Malthusians and the neo-Marxists, the 1994 Cairo Conference on Population and Development—reiterated at the February 1999 Hague Forum—showed how little dispute there now is on the importance of voluntary family planning, contraceptive availability, rural health care and education for girls to adequately manage population growth. Family planning is arguably the best dollar for dollar investment by donor governments concerned about the world's future, and yet it continues to be shortchanged. Even with more funding, though,key aspects of a globally coordinated plan to significantly reduce greenhouse gas emissions. While the atmosphere is the most obvious global concern, the socioeconomic consequences of climate change, such as those caused by more extreme El Niño/La Niña events, manifest themselves very differently depending on where you reside on the planet.

Recent domestic and international debates over reducing greenhouse gas emissions underscore the need for integrative analyses of multiple polluting sources within an area so that various levels of government and the private sector would optimally determine (such as through trading pollution permits) how to reduce overall emission levels. Implementing such a geographic approach, though, requires building an accurate and well-organized set of emissions-related data, some of which would be based on multi-spectral imagery. Region-specific pollution models will need to encompass all participating jurisdictions if an aggressive international emissions reduction regime is to succeed.

Even more difficult than planned greenhouse gas reductions is implementation of effective resource protection regimes over the next few decades. Successful resource conservation programs must include a financial incentive

that makes sense to the communities living in and around the degraded or depleted resource–be it a forest, a coral reef or a farm. The geographic principle of ecosystem-specific analysis–along with the GIS tools and remote sensing data that can turn scientific concepts into practical information–will help a new generation of farmers, foresters and fishermen better manage dwindling land and maritime resources resulting from "global" challenges and thus could help avert projected food shortages.[26] The stakes are high. As a recent study in Mexico demonstrates, degradation of land and water resources directly affects rural poverty and helps push migrants into already congested cities and across international borders; such geographic linkages, while less well documented, are occurring in other impoverished countries.[27]

What have such public health, demographic and environmental scarcity concerns to do with future diplomacy? Very little if diplomats are content to remain in a passive and marginal role as volatile changes take place around them, and very much if they are to help ease some of the regional insecurities resulting from those changes. Effective diplomats will be those who get out of capital cities and learn firsthand how local society-environment bonds are threatened and which local solutions look the most promising for outside assistance. Such experiences will lead observant diplomats to demand larger foreign aid investments in environmental security programs and improved early warning mechanisms for future natural disasters. They know that if they fail in such advocacy, they will be scrambling to arrange costly food shipments to the latest famine and/or civil war victims.[28]

Even the best of diplomatic intentions, though, pales against current realities that squeeze peasants under low yield crops, less-than-subsistence incomes, chronic malnutrition and seriously degraded natural resources. New partnerships linking diplomats, bankers, private companies and resource managers will need to be forged if they collectively are to overcome the huge obstacle of poverty that so often obstructs well-intended sustainable development programs. Finally, diplomats will need to convey these harsh geographic realities–and what they are doing about them, if anything–back to the citizens who are expected to cover the costs of sustained assistance.

Mapping our National Interests

If integrated strategies that combine objectives among the seven national interests are to work, diplomats and their new allies from the NGO, intergovernmental and private sector worlds will need to focus on the subnational context of natural resource, socioeconomic and political problems and their transnational implications. Diplomats in high-risk countries cannot be universal problem solvers for all these myriad national interests. But if they are to serve as international affairs leaders, they should have enough knowledge about local and regional causal factors to serve as catalysts for outside assistance, if needed, and as in-country coordinators for those specialists from other national and international agencies who do have requisite problem-solving skills. For U.S. diplomats to effectively serve our national interests, they will need to study the geographic

elements that shape each set of issues and become more familiar with data-sharing networks that can facilitate interagency and intergovernmental collaboration. Much easier said than done, but useful analytical tools do exist and relevant data are often out there somewhere that can help diplomats at far flung posts. To use these new problem-solving data sources and tools properly, U.S. diplomats at the National Foreign Affairs Training Center will need to become part of a national commitment to improved geographic literacy.[29]

The national interests discussed in brief here are part of a new policy framework that demands forward-leaning diplomatic action. Each one is very complicated in and of itself, but U.S. diplomats are being challenged to incorporate them as a set of linked objectives. This cross-cutting aspect of the U.S. Strategic Plan for International Affairs demands a decision support structure that can match objectives with resources and options at local, national, regional and global scales. While difficult to build, a worldwide geographic information backbone–from which international affairs agencies could finally begin to assess their collective readiness to meet strategic priorities–should be integral to future mission-based planning.[30]

Diplomats work in countries that face starkly different living conditions. As their careers progress, conditions at overseas posts will become even more divergent between those with populations who can expect some level of future security and those who cannot. Some of these problems are evident from statistical data on vulnerable populations, but additional insight into destabilizing trends will come from satellite images of the earth surface. Frightening projections of highly destructive weather fluctuations on one hand and commercialization of space on the other are changing the view that remote sensing technology is good only for spying, daily weather maps and deceptively tranquil planet earth snapshots.[31] Over the next few years, remote sensing-based documentation of earth surface changes–much of it satellite-collected, digitally stored and Internet-sold–should become a fundamental part of all serious international efforts to improve living conditions.

While such imagery is becoming ubiquitous with higher resolution, broader coverage and lower costs, international agencies, and specifically diplomats, still do not systematically use this type of information to manage strategic nonmilitary programs, such as environmentally sound development projects. The technology is here. Scientists are working on more refined measurements of earth surface change. Private industry will actively develop global imagery markets. But knowledgeable diplomats are still needed to develop a multilateral strategy for using earth observation data–along with other sources of georeferenced information–to help address myriad dilemmas that blur the lines between local and global crises.[32]

GIS tools are now widely used because they assist decision makers in analyzing linkages among otherwise disparate information layers (economic, political, ethnic, environmental, infrastructure, etc.), for any defined place or area. Thus, they are of fundamental importance for effective international affairs strategic planning. Such GIS-based analytical tools are now used extensively in the private sector and increasingly by local, state and federal agencies and foreign governments. The World Bank, United Nations Development Program

(UNDP) and USAID all use GIS tools for specific projects, but they have not incorporated the methodology behind GIS as part of an enterprise-wide information management structure.[33] If foreign assistance on a broad range of humanitarian and economic development concerns is to be advocated in a future of tight government budgets, simplistic measures (i.e., X aid dollars to country Y for problem Z) need to be replaced with GIS-integrated measures that ensure systematic evaluation and transparent accountability of programs. U.S. diplomats may not need to master specific GIS programs but may need to oversee systematic efforts to collect, organize, analyze, display and share relevant geographic information if the State Department and its embassies are to fulfill their role as centers for international affairs strategic planning and implementation.

This not such a far-fetched idea. The U.S. government has already taken a giant step toward achieving a geographic information foundation with its National Spatial Data Infrastructure (NSDI).[34] Every major federal agency that collects and/or distributes spatial data (nearly all of them, from NASA to the Census Bureau) is represented on the Federal Geographic Data Committee, which is mandated to develop NSDI standards and a data-sharing clearinghouse. The National Imagery and Mapping Agency has an explicit mandate to support military and civilian agencies in creating a worldwide "geospatial information infrastructure." The same strategic goal could be adopted by the international diplomatic community as an essential step for cooperation on common international interest, such as improved preparedness for natural disasters. Future diplomats might even negotiate a global spatial data infrastructure that would foster efficient collection and dissemination of core information deemed essential for sustainable development.[35]

Even without such a global framework, U.S. national interests alone justify development of a geographic information network among all U.S. foreign affairs agencies. A well-organized and accessible information base would help keep future diplomats from being inundated by superfluous data (already in abundance) and for the first time allow them to truly cross-check their strategic goals against a matrix of real world challenges and to more rigorously evaluate mission performance. Relevant geographic information would also help senior foreign policy decision makers explain to the American public their priorities, strategies and effectiveness in solving transnational problems that threaten the United States. If we fail to invest in such an interactive and dynamic world map of our national interests, and if we neglect to teach future diplomats the basic principles of geography that permeate our international affairs concerns, they will be left to chart future foreign policies with only a well-worn map of our wishful thinking. ■

Notes

[1] The U.S. Department of State, "United States Strategic Plan for International Affairs, First Revision," February 1999. The plan can be read on the State Department Web site: [http://www.state.gov].

[2] Mark Monmonier, "Raster Data for the Layman—Just What is GIS?" *Mercator's World* 1, no. 1 (1996): 48-51. See also, David Martin, *Geographic Information Systems—Socioeconomic Applications* (Routledge: London, 1996).

[3] See the essays in George J. Demko and William B. Wood, eds., *Reordering the World, Geopolitical Perspectives on the 21st Century*, 2nd edition (Boulder, CO: Westview Press, 1999).

[4] National Academy of Public Administration, *Geographic Information for the 21st Century: Building a Strategy for the Nation* (January 1998).

[5] Strobe Talbott, "Globalization and Diplomacy: A Practitioner's Perspective," *Foreign Policy* 108 (Fall 1997): 83.

[6] The German geographer Friedrich Ratzel is acknowledged as the originator a century ago of the geopolitical concept of competing "organic states." The British political geographer and parliamentarian Sir Halford Mackinder gave this competition a global perspective with his maritime vs. land-based powers and heartland theses. Finally, another German geographer, General Karl Haushofer gave a sinister twist to "geopolitical" as an element of Nazi ideology.

[7] Chester A. Crocker and Fen O. Hampson with Pamela Aall, *Managing Global Chaos–Sources of and Responses to International Conflict* (Washington, DC: United States Institute of Peace Press, 1996).

[8] For essays on environmental security concerns, see issues 1-3 (1995-1997) of the *Woodrow Wilson Environmental Change and Security Project Report*, Woodrow Wilson Center, Washington DC.

[9] A good introduction to ethnic conflict is Ted R. Gurr and Barbara Harff, *Ethnic Conflict in World Politics*, "Dilemmas in World Politics" series (Boulder, CO: Westview Press, 1994). Also see David A. Lake and Donald Rothchild, "Containing Fear–The Origins and Management of Ethnic Conflict," *International Security* 2, no.2 (1996): 41-75.

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