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### Author

MacDonald, Gordon

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# IGCC POLICY BRIEF

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## Environmental Security

Gordon J. MacDonald

**The United States must provide development assistance to break the chain of increased population, deforestation, and land degradation leading to social unrest and armed conflict—or face future Haitis and Somalias.** *Full recommendations, page 4.*

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**Summary:** Although over the centuries nations have often battled to secure natural resources, only relatively recently have national leaders begun to recognize the importance of environmental degradation as a politically destabilizing factor.

Even a layman's eye viewing Landsat photography can see that within two decades much of the Earth's green has disappeared as a result of deforestation. Bright areas representing deserts occupy a greater fraction of the globe. Vast urban regions have grown all over the world.

Deforestation and desertification are the results of an ever-increasing population in search of land for food and energy. The destruction of the food-generating capacity of rural areas intensifies resource competition and accelerates the movement of people to

urban centers, fueling social upheaval. Thus, environmental degradation *must* enter conventional analyses of political instability, despite the long lead time of environmental threats.

U.S. security—control of its borders, its economic welfare, its trade relations, its democratic values, its humanitarian ideals—is threatened by soil erosion, water short-ages, runaway population growth, and poverty in other countries. If we do not recognize this and fund early *environmental* intervention, we will make far more costly expenditures for late *military* intervention in impoverished countries like Somalia and Haiti. To avoid future replays, we must use security technology to monitor environmental resources, and fund international institutions to halt resource depletion. ❖

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*IGCC is a multicampus research unit of the University of California, established in 1983 to conduct original research and inform public policy debate on the means of attenuating conflict and establishing cooperation in international relations. Policy Briefs provide recommendations based on the work of UC faculty and participants in institute programs. Authors' views are their own.*

A report of the World Commission on Environment and Development (“The Brundtland Report”), sponsored by the United Nations and published in 1987, clearly notes the linkages between security and environment: “Humankind faces two great threats. The first is that of a nuclear exchange. Let us hope that it remains...a diminishing prospect for the future. The second is that of environmental ruin worldwide—and far from being a prospect for the future, it is a fact right now.”

This report was a bestseller throughout the world—with the exception of the United States. On November 8, 1989, British Prime Minister Margaret Thatcher returned to its themes in her address to the UN General Assembly, saying: “While conventional political dangers...appear to be receding, we have all recently become aware of another insidious danger...as menacing...as those more accustomed perils...It is the prospect of irretrievable damage to the atmosphere, to the oceans, to the earth itself.”

Although for the first time in UN history a national leader discussed the threat to world peace and economic stability flowing from human-imposed environmental change, her message was overlooked in the U.S. press because of events in Berlin that day. However, Thatcher’s message was later echoed by an unlikely source: Senator Sam Nunn, Chairman of the Senate Armed Forces Committee. In 1990 he stated: “There is a new and different threat to our national security emerging—the destruction of our environments. I believe that one of our key national security objectives must be to reverse the accelerating pace of environmental destruction around the globe.”

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## The Cycle of Instability

The cycle of environmental degradation which threatens global stability begins with sheer human numbers. Increasing population spawns overgrazing, fuel wood cutting, and land clearance—often aggravated by mechanized farming for cash crop production. As trees are cut down, the forest can no longer act as a sponge for rainfall and erosion strips away the topsoil. The increased silt burden in streams, reservoirs, and lakes decreases their capacity to generate hydroelectric power and endangers the drinking water supply. In tropical regions, removal of plants is followed by the steady degradation of formerly

### REGIONAL CONFLICTS WITH ENVIRONMENTAL ROOTS

- El Salvador, 1969
- The Sahel, 1973, 1985, 1991
- Ethiopia–Somalia, 1977
- Somalia, 1990s
- Haiti, 1990s
- Rwanda, 1994

arable land into desert. Declining fertility causes food shortages. Herds are killed; seeds are eaten. Impoverished peasants abandon the land; refugees congregate in border zones, relief camps, and shanty towns. Food costs spiral upward. Massive social dislocation coupled with competition for scarce resources (both for consumption and irrigation) leads to conflict. External military “aid” in the form of arms, ammunition, and infrastructure fans these conflicts into “hot” war. Refugees pour into urban areas, leading to class and ethnic conflict and general political instability. These conditions become “permanent” if their underlying causes of overpopulation and dysfunctional agriculture are not addressed.

Ethiopia is a case in point. For centuries, it was an island of relative stability in the stormy sea of Africa. In the 1960s, as a result of deforestation aided by improper agricultural practices and population increase, there was widespread soil erosion in the country’s highlands—resulting in a decline in farmland fertility, a falloff in agriculture, food shortages, and spiraling prices culminating in urban riots. Similar problems faced neighboring Somalia, and throngs of impoverished peasants from both countries streamed toward the Ogadan lowlands straddling the border. Most of Somalia’s rivers rise in Ethiopia, and Somalis worried that Ethiopian migrants might divert water for irrigation. In 1977 the two countries went to war. From the superpower perspective, at stake was not water and farmland, but oil tanker lanes passing the Horn of Africa. Though the war ended in 1979, both the U.S. and USSR poured armaments into the region until well into the 1980s—but nothing was done to reverse the appalling agricultural conditions. By the early 1990s, Somalia was caught up in the grip of chaotic, vicious civil strife, driven by the influx of young peasants into urban areas. Subsequent U.S. military involvement is well known. In retrospect, it is tempting to think what the hundreds of millions of dollars spent over the decades on military assistance could have done to reverse the underlying environmental destruction.

Sadly, the case of Ethiopia—Somalia is not unique. Similar processes were at work in the Sahel, a once arable belt separating the deserts of North Africa from the tropics; in Haiti, where recent events illustrate how environmental degradation involves U.S. forces in life-threatening situations (in 1978 the President’s Council on Environmental Quality warned that in Haiti deforestation was almost complete and that resulting firewood shortages and cultivation of marginal soil would promote social disruption and instability); and in El Salvador, a country that has endured more political upheaval, widespread violence—and environmental impoverishment—than any other in the region. With forests a matter of history, soils and water supplies depleted, and a population density *six times* that of neighboring Honduras, El Salvador’s political future is not bright.

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## The U.S. Response

The National Security Council’s *National Security Strategy* (NSS), reflects U.S. interests

## PREDICTING FUTURE INSTABILITY: THE PHILIPPINES

Primarily for environmental reasons, the Philippine economic outlook is unpromising. The agriculture, forestry, and fishery sectors employ over 70 percent of the labor force, contributing a large proportion of GNP and export revenues. But the natural resource base used by the bulk of the population, subsistence peasants on the fringes of the main economy, has been widely depleted through deforestation, soil erosion, watershed abuse, over fishing, and coral reef destruction.

Nationwide, an average family of six must try to sustain itself on less than five acres of arable land. To cope with *current* population growth, the country must achieve a four percent annual increase in agricultural output, but for the past decade the rate has slumped to less than two percent.

Further, half the country is mountainous, with friable volcanic soils and heavy tropical downpours, aggravated by deforestation, making farmlands without stringent soil safeguards unusually vulnerable to soil erosion. While the Philippines was once an unending sea of trees, forests now cover a mere one-fifth of national territory, mainly in the uplands, with the most productive old-growth stands reduced to mere patches. Whereas in 1967 timber amounted to one-third of all exports, the Philippines seems set to become a timber importer within a few years.

Anti-government rebels such as the New People's Army take advantage of these declining conditions. As population growth reduces per-capita agricultural production, the insurgents build strength. They currently control about one-fifth of the country, periodically penetrating downtown areas. Government attempts at hearts-and-minds campaigns make little headway with rural communities disenchanted with the degradation of the environmental basis of their livelihood. Environmental rundown, and especially deforestation, fosters continuing political instability.

and objectives and strategic concepts for achieving them. Since 1991, the NSS has recognized environmental impact on U.S. political, economic, and social power, then listing as a primary U.S. objective "to achieve cooperative international solutions to key environmental challenges." By 1993, it stated that "environmental issues have a major impact on economics and health, and are increasingly seen as a threat to development and political stability." By expanding the definition of national security, the NSS suggests, "traditional national security strategies should expand their focus to include environmental objectives. The military is thus included."

The U.S. Congress has also recognized the links between environment and security. In 1990, it established the Strategic Environmental Research

and Development Program (SERDP), a joint effort of DOE/DOD/EPA structured to research and develop demonstration programs in the areas of cleanup, compliance, conservation, pollution prevention, global change, and energy conservation/renewable resources.

## The UN Response: Rio and Cairo

Following the UN Conference on Environment and Development, held in Rio de Janeiro in June, 1992, governments have reached a number of agreements that deal with security issues and efforts to slow environmental degradation. The international community, keenly aware of political instability as a consequence of misuse of the environment, identified population growth as the underlying cause of environmental problems. The 1994 UN International Conference on Population and Environment held in Cairo broke the tradition of earlier meetings on population with an agenda far broader than just family planning or contraceptive provision. While the media focused attention on the abortion issue, the Cairo action program emphasized the overall role of women in society and the need for their increased participation in decision-making; stressed the importance of education; and developed a long-term implementation plan for recommendations which can go a long way toward slowing population growth.

Also adopted in 1994, the Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification calls for long-term national action plans integrating physical, biological, economic, and

## ENVIRONMENTAL SECURITY: RELATED ACTIONS

- 1977 UN Conference on Desertification
- 1987 World Commission on Environment and Development (Brundtland) Report
- 1989 British Prime Minister Thatcher addresses UN General Assembly
- 1990 U.S. Congress establishes Strategic Environmental Research Development Program
- 1991-1993 U.S. NSC *National Security Strategy*.
- 1992 CIA Environmental Task Force (ETF) established; succeeded by MEDEA
- 1991 Secretary General Manfred Woerner's "Global Security: a Challenge to NATO"
- 1992 Conference on Environment and Development (Rio de Janeiro)
- 1993 DOD establishes Deputy Undersecretary of Defense for Environmental Security
- 1994 UN International Conference on Population and Development (Cairo)
- 1994 UN *Convention to Combat Desertification*

## WHAT HAPPENS AT UN CONFERENCES

It is easy to be cynical about UN conferences—rooms filled with hot air. What actually happens is that over time involved language and normative structures set out by the conference get translated into increasingly specific international, national, and local priorities—that get developed, funded, and enacted.

social factors. It also calls for assistance from developed countries.

## Conclusion

Natural changes develop over decades or centuries. Exponentially increasing population accelerates man-made changes into years or decades. Social instability flowing from environmental degradation is likely to persist in many parts of the world, unless we recognize the root causes of instability, appreciate the impacts of environmental degradation, and halt the alarming trend of the developed world to turn away from providing overseas development assistance. We must break the chain of increased population, deforestation, and land degradation leading to social unrest and

armed conflict, or future Somalias and Haitis are inevitable. ❖

Geophysicist **Gordon J. MacDonald** is the IGCC Research Director for International Environmental Policy, and a Professor of International Relations and Pacific Studies at the University of California, San Diego. He has held professorships and administrative posts at other UC campuses, MIT, and Dartmouth; served on the first Council on Environmental Quality; and has worked with the nation's National Security Agencies in various capacities for more than thirty years.

*For complete references or a copy of the full paper, contact the Publications Coordinator or view at:*

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# How to create environmental security:

1. Consider environmental degradation in conventional political instability analyses. Environmental degradation is the root cause of many regional conflagrations.
2. Use existing national security monitoring systems to monitor and manage environmental resources. We must count trees—or we will be forced to count tanks.

## USING SECURITY SYSTEMS FOR ENVIRONMENTAL MANAGEMENT

- Imaging systems can monitor deforestation, land clearance, and desertification
- Missile launch detection systems can spot volcanic eruptions threatening arable land.
- Naval sound arrays and submarine tracking systems can track marine resources, thus helping to avoid conflict over their depletion.

3. Achieve cooperative international solutions to key environmental challenges. “Intervene” environmentally—not militarily.
4. Don’t cut development assistance. Currently, less than one percent of the U.S. federal budget is spent on *all* forms of foreign aid. Cutting the minuscule portion earmarked for development aid would be self-defeating.
5. Fund implementation of the 1994 UN International Conference on Population and Development (Cairo) action plan. Fund assistance outlined in the 1994 Convention to Combat Desertification—or political stability will continue to deteriorate.
6. Don’t let security activities aggravate environmental decline. Include damage prevention, cleanup, and restoration of environmental integrity, as well as weapons systems retirement and destruction, in designing and assessing the costs of military activities.

## ENVIRONMENTAL COSTS OF SECURITY ACTIVITIES: EXAMPLES

- Defense facilities cleanup.
- Land and coastal mines removal.
- Chemical weapons disposal.

University of California  
Institute on Global Conflict and Cooperation  
9500 Gilman Drive  
La Jolla, CA 92093-0518 U.S.A.  
Phone: (858) 534-3352 FAX: (858) 534-7655 E-MAIL: [igcc-cp@ucsd.edu](mailto:igcc-cp@ucsd.edu)