

EDITORIAL

Africa: A Grand Challenge for Sustainable Development

Even 20 years ago, the Brundtland Commission was aware of the African exceptionalism that persists today. Africa had the longest index entry in the commission’s report. Today, all developing country regions have shown marked improvement except for sub-Saharan Africa. For example, between 1980 and 2000, economic growth per capita in 56 developing countries in Asia and Latin America increased 4.4 percent per year, while it declined by 0.6 percent in sub-Saharan Africa. Annual food production per capita in Asia grew by 2.3 percent and in Latin America by 0.9 percent, but it declined in tropical Africa by 0.01 percent. The number of people living on \$1 or less per day declined by 25 percent in South Asia and 50 percent in East Asia but grew by 4 percent in sub-Saharan Africa.

Scientists and policymakers suggest many causes for this African exceptionalism but offer few conclusions. The geopolitical explanation focuses on a heritage of colonialism that left little infrastructure or economic, health, or education systems in place and created conflict-laden borders and many, small, landlocked nations: perfect conditions for future problems. Added to this was the lack of effective or sufficient development aid and the failure of a globalized economy to bring benefits to Africa: U.S. and European policies still block African access to global markets.

The “poverty trap” explanation shows how Africans are locked in a vicious circle: little savings lead to low capital investment, which leads to less education and fewer skills, which leads to little savings. The governance explanation attributes African exceptionalism to a culture that counters entrepreneurship with ties of ethnicity and family, leading to conflict and maintaining high levels of corruption.

Most recently, the geography explanation blames the exceptionalism on the extensive aridity, poor soils, and endemic disease of the African continent; the scattered populations in many small landlocked nations; and the highest population growth rates in the world. My own assessment is that geopolitics, poverty, governance, and geography all contribute to African exceptionalism, although the respective importance of each varies by region, country, and locality.

The most promising efforts to address African exceptionalism within the context of sustainability science and policy deal directly with its varied causes. The New Partnership for Africa’s Development (NEPAD) is one of many pan-African initiatives for better governance. Despite the failures to end conflicts in Chad, Sudan, and Somalia and the retreat from democracy in Zimbabwe, governance has improved. Violent conflicts have virtually ended in the Congo, Ivory Coast, Liberia, and Sierra

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Leone and have been prevented in Burundi and Togo. The increasing leadership from major African nations has been inspiring, and peaceful transitions of power are slowly emerging as a norm.

Several small-scale but important experiments in escaping the poverty trap include the Millennium Village experiments planned for 12 countries and the effort to provide local capital and initiative in Nigeria through 800 community banks and links to the extensive Nigerian diaspora. Increasingly, education and science are also seen as mechanisms to escape the poverty trap, and new initiatives seek to overcome the limits of small, poor countries.

Finally, the limits of geography are being addressed (the effort against illness is spearheaded by the Gates Foundation). Population growth continues to slow with reduced births, and unfortunately, increased deaths from AIDS and tuberculosis. But the most important way of reversing agricultural decline and overcoming the limits of the land is to make fertilizer available and affordable. Farmers in other developing country regions use 8 to 15 times more fertilizer per hectare than African farmers. Until that changes, African exceptionalism will persist.

—Robert W. Kates

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ENVIRONMENT (ISSN 0013-9157) is published monthly except combined January/February and July/August issues by Heldref Publications, 1319 Eighteenth Street, NW, Washington, DC 20036-1802. Heldref Publications is the educational publishing division of the Helen Dwight Reid Educational Foundation, a nonprofit 501(c)(3) tax-exempt organization. (202) 296-6267; fax (202) 296-5149. Heldref Publications is the operational division of the foundation, which seeks to fulfill an educational and charitable mission through the publication of educational journals and magazines. Any contributions to the foundation are tax deductible and will go to support the publications.

Periodicals Postage Paid at Washington, DC, and at additional mailing offices. POSTMASTER: Send address changes to ENVIRONMENT, Heldref Publications, 1319 Eighteenth Street, NW, Washington, DC 20036-1802.

The annual individual subscription rate is \$51 for print only and \$55 for print and online. The annual institutional subscription rate is \$130 for print only, and \$156 for print and online. Single copy price is \$13.00. Add \$18.00 for subscriptions outside the United States. Allow six weeks for shipment of first copy. Foreign subscriptions must be paid in U.S. currency with checks drawn on U.S. banks. Payment also can be charged to VISA/Mastercard. Supply account number, expiration date, and signature. For subscription orders and customer service inquiries only, call 1-800-365-9753. Claims for missing issues made within six months will be serviced free of charge.

USA newsstand distribution by CMG, 155 Village Blvd., Princeton, NJ 08540.

Microform editions of ENVIRONMENT are available from Bell & Howell Information and Learning, Serials Acquisition Department, 300 North Zeeb Rd., Ann Arbor, MI 48106. For advertising, contact Sally Wright: (540) 592-3634, swright@heldref.org.

ENVIRONMENT is indexed, abstracted, or scanned by *Abridged Reader's Guide*; *AGRICOLA*; *A Matter of Fact*; *Academic Abstracts*; *Applied Science & Technology Index*; *Biological and Agricultural Index*; *Book Review Index*; *Current Contents/Agriculture, Biology & Environmental Sciences*; *Ecological Abstracts*; *EH & S Digest*; *Energy Data Base*; *Environment Abstracts*; *Environmental Periodicals Bibliography*; *ERIC Clearinghouse for Science, Mathematics, and Environmental Education*; *Excerpta Medica*; *Future Survey*; *General Science Index*; *GEODATA*; *Geographical Abstracts: Human Geography*; *Graphic Arts Abstracts*; *Guide to Social Science & Religion in Periodical Literature*; *Health Source*; *Institute of Scientific Information*; *International Bibliography of Book Reviews of Scholarly Literature on the Humanities and Social Sciences*; *International Bibliography of Periodical Literature on the Humanities and Social Sciences*; *International Development Abstracts*; *Leisure, Recreation, and Tourism Abstracts*; *Magazine Article Summaries*; *Meteorological and Geostrophysical Abstracts*; *NIOSHITIC*; *Olsen's Agribusiness Report*; *Pollution Abstracts*; *Primary Source*; *Readers' Guide Abstracts*; *Readers' Guide to Periodical Literature*; *Research Alert*; *Reference Update*; *Science Citation Index*; *SciSearch*; *Urban Studies Abstracts*; *Waterlit Database*; *Wilson Applied Science & Technology Abstracts*; and *Wilson General Science Abstracts*.

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Printed in U.S.A.

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Exploring Environmental Archives

BY GEORGE E. CLARK

Environmental research is increasingly historical research, and the history of environment as a policy issue goes back further than one might think. The U.S. Environmental Protection Agency was founded almost four decades ago (<http://www.epa.gov/history>). Rachel Carson published *Silent Spring*, her exposé on the negative effects of pesticide use, in 1962 (see <http://webtext.library.yale.edu/xml2html/beinecke.CARSON.nav.html> for a guide to her papers at Yale University's Beinecke Library). Much further back, near the end of the U.S. Civil War, George Perkins Marsh (<http://bailey2.uvm.edu/specialcollections/gpmorc.html>) published *Man and Nature*, an examination of human impacts on the natural world. Recently, the inherent use of time series data in the study of climate change (<http://cdiac.ornl.gov/trends/trends.htm>) should make us realize how earlier thought, action, technology, and policy form the context of today's environmental dilemmas. Historical archives, then, should play an increasingly important role in environmental research and reassessment.

Unlike libraries, archives by definition house unique materials and therefore present unique research challenges. There is no Dewey Decimal System for archives, and the specialized terminology used by archivists can make it difficult to get started (<http://www.archivists.org/glossary/list.asp>). Furthermore, there are thousands of archival repositories around the world (<http://www.uidaho.edu/special-collections/Other.Repositories.html>), so how does one find materials of interest? A good place to start is the National Union Catalog of Manuscript Collections (<http://www.loc.gov/coll/nucmc>). This is a searchable, general—but by no means exhaustive—listing of manuscript collections. Search results point to local collection guides, known as “finding aids,” which usually describe the contents of boxes, cartons, folders, or even individual documents. Sometimes digital images are available on the holding institution's Web site, but in most cases users must travel to explore a collection further.

The Library of Congress has been particularly good at making the cream of archival collections available digitally. Its *American Memory* site (<http://memory.loc.gov/ammem/index.html>) features collections including “Environmental Photographs,” “American Landscape and Architectural Design,” “Mapping the National Parks,” and “Evolution of the Conservation Movement.” While the Library of Congress owns historical documents from many points of origin, the National Archives (<http://www.archives.gov/research/tools/index>

[.html](#)) preserves the ongoing records of U.S. environmental agencies and presidential administrations. For international materials, the United Nations Educational, Scientific and Cultural Organization (http://www.unesco.org/cgi-bin/webworld/portal_archives/cgi/page.cgi?d=1) is a good starting point.

For a more environmentally focused, multi-institution search, try the Forest History Society's databases (<http://www.foresthistory.org/Research/databases.html>). These include a guide to environmental archival collections in North America,

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U.S. Forest Service history collections, and a searchable 35,000-entry bibliography of environmental history titles.

Other archives of note include the Denver Public Library Conservation Collection (<http://history.denverlibrary.org/collections/conservation.html>), a nationally known repository of environmental materials, and Harvard College Library's Environmental Science and Public Policy Archives (<http://hcl.harvard.edu/libraries/littauer/collections/esppa.html>), which has strong collections relating to global environmental conferences and ozone diplomacy. The U.S. Army Corps of Engineers offers an impressive set of water resources and other historical materials (<http://www.usace.army.mil/publications/eng-pamphlets/ceho.htm>), including a long oral history interview with natural hazards pioneer Gilbert F. White. The Water Resources Center Archives at the University of California at Berkeley (<http://www.lib.berkeley.edu/WRCA>) is another good source for water management history.

For those interested in preserving their own materials, the Web guide at Harvard's Weissman Preservation Center (<http://preserve.harvard.edu/bibliographies/personalcollections.html>) offers helpful information, although it may save work to donate the materials (<http://www.archivists.org/publications/donating-familyrecs.asp>) to an environmental repository such as those mentioned above; a regional, state, or local historical society; or an academic or public library special collection.

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