

Florence, Judee, Ashley², Sam,

Here are useful references for our work.
Cliff

From the UN Millenium Project Report
A chapter on Africa:

http://unmp.forumone.com/eng_full_report/MainReportChapter10-lowres.pdf

<http://www.unmillenniumproject.org/goals/index.htm>

Framing the Fundamental Issues of Sustainable Development in Sub-Saharan Africa.

[Mabogunje, Akin L. 2004. CID Working Paper No. 104. Cambridge, MA: Sustainable Development Program, Center for International Development, Harvard University; also published as TWAS Working Paper 1. Trieste, Italy: Third World Academy of Sciences. <http://www.cid.harvard.edu/cidwp/104.htm>](http://www.cid.harvard.edu/cidwp/104.htm)

This paper frames the fundamental issues of sustainable development in sub-Saharan Africa. It begins by considering the general problems of development in sub-Saharan Africa and then frames the issues as the maintenance or enhancement of the region's capital stocks. The author describes the integration of the region into the global capitalist economy and considers how to integrate science and technology into the development culture of the region through greater concern with social learning. A concluding section reflects on the imperative of a new value and cultural orientation if sub-Saharan Africa is to meet the [Millennium Development Goals of the United Nations and those of the New Partnership for Africa's Development \(NEPAD\)](#) articulated by African governments themselves.

Report of the Scientific and Technological Community to the World Summit on Sustainable Development.

[International Council for Science. 2002. ICSU Series on Science for Sustainable Development, No. 1. Paris: ICSU.](http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/61_DD_FILE_Vol1.pdf)

http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/61_DD_FILE_Vol1.pdf

Originally posted as World Summit on Sustainable Development. 2002. "Role and Contributions of the Scientific and Technological Community (S&TC) to Sustainable Development." Secretary-General's Note for the Multi-Stake Holder Dialogue Segment of the Second Preparatory Committee. Addendum No. 8: Dialogue Paper by Scientific and Technological Communities. United Nations Economic and Social Council E/CN.17/2002/PC.2/6.Add.8. Advance Copy, 28 January. Prepared by the International Council for Science (ICSU) and the World Federation of Engineering Organizations (WFEO).

The transition to sustainable development is inconceivable without science, engineering

and technology. The Scientific and Technological Community (S&TC) is committed to devising new strategies to meet the challenges that lie ahead. Focusing on Chapter 31 of Agenda 21, this United Nations Report reviews progress achieved by the S&TC since the 1992 United Nations Conference on the Environment and Development, and identifies future S&T priorities and commitments for sustainable development. The Report examines past successes and failures and future challenges relating to science and sustainable development by highlighting six key themes: poverty and inequity; integrated assessments; changing patterns of consumption and production; capacity building and education; information and communications technology; and ethics and society. The Report focuses on the two priority objectives in Chapter 31: improving communication and cooperation among the S&TC, decision makers and the public, as well as promoting codes of practice and guidelines.

Sustainability for Africa http://sustsci.harvard.edu/events/africa-sustsci0111_obasi.pdf

Millennial Perspective on Science, Technology and Development in Africa and its Possible Directions for the Twenty-first Century.

Fifth General Conference of the African Academy of Sciences. Tunis Declaration. 23-27 April 1999, Hammamet, Tunisia.

1. http://www.unesco.org/science/wes/meetings/afr_hammamet_99.htm

This declaration by the Fifth General Conference of the African Academy of Sciences recognizes the importance of and concerns about the availability and use of science and technology. The Declaration then presents an agenda for action to governments, the private sector, and international partners. The agenda includes provisions on science for sustainable development, use of the natural resource base, science and the community, and funding. A vision for the twenty-first century emphasizes education and the need for the androgynization of science and for the ethical use of science and technology.

Science for Sustainable Development.

Funtowicz, Sylvio, and Martin O'Connor, eds. 1999. *International Journal of Sustainable Development (Special Issue) 2 (3)*.

1. [http://193.51.42.100/interjournals/ijsdcatal+contents/ijsdvol2/vol2\(3\)abs.htm](http://193.51.42.100/interjournals/ijsdcatal+contents/ijsdvol2/vol2(3)abs.htm)

This special issue of the *International Journal of Sustainable Development* focuses on the need for advances in science and technology to promote a transition toward sustainability, and explores the challenges and opportunities for realizing such advances. The issue includes a retrospective on science for sustainability in the decade since the Rio Conference, discussions of the role of science in development planning and decision making, and a special focus on the integration of informal and socially embedded knowledge in global knowledge systems. Recommendations from a panel discussion round out the issue.

Sustainability Science.

1. Kates, Robert W., [William C. Clark](#), [Robert Corell](#), J. Michael Hall, Carlo C. Jaeger, Ian Lowe, [James J. McCarthy](#), [Hans Joachim Schellnhuber](#), Bert Bolin, [Nancy M. Dickson](#), Sylvie Faucheux, [Gilberto C. Gallopín](#), Arnulf Gruebler, Brian Huntley, [Jill Jäger](#), [Narpat S. Jodha](#), Roger E. Kasperson, [Akin Mabogunje](#), [Pamela Matson](#), Harold Mooney, Berrien Moore III, [Timothy O’Riordan](#), and Uno Svedin. 2001. *Science* 292: 641-2.
<http://www.sciencemag.org/cgi/content/full/292/5517/641?ijkey=MUU8kNHodD.22&keytype=ref&siteid=sci>

Note: A longer version of the paper with full citations is available at <http://sustainabilityscience.org/keydocs/fulltext/2000-33.pdf>

Meeting fundamental human needs while preserving earth's life support systems will require an accelerated transition toward sustainability. A new field of sustainability science is evolving that seeks to understand the fundamental character of interactions between nature and society and to encourage those interactions along more sustainable trajectories. Such an integrated, place-based science will require new research strategies and institutional innovations to enable them especially in developing countries still separated by deepening divides from mainstream science. Sustainability science needs to be widely discussed in the scientific community, reconnected to the political agenda for sustainable development, and become a major focus for research.

Knowledge Partnerships for a Sustainable, Equitable, and Stable Society.

1. ~~Malone, Thomas F.~~, and Gary W. Yohe. 2002. *Journal of Knowledge Management* 6(4): 368-378.
<http://sustainabilityscience.org/keydocs/fulltext/knowl-partnerships.pdf>

Continued exponential and asymmetrical growth in both population and individual economic productivity would propel world society along a path that is environmentally unsustainable, economically inequitable, and hence socially unstable. Terrorist activity in September 2001 may be vivid evidence of that instability. Revolutionary developments in communications technologies can, however, enable partnerships among scholarly disciplines and among societal institutions to harness rapidly expanding human knowledge (broadly construed) to pursue goals in both population and individual economic productivity that would lead to a sustainable, equitable, and stable world society. Such a knowledge-based strategy could enable us to pursue the vision of a global society in which *all* of the basic human needs and *an equitable share* of human wants can be met by successive generations while maintaining a healthy, physically attractive, and biologically productive environment. Several scenarios are presented to illustrate the promise of cooperative efforts to pursue this vision, and to highlight some obstacles to that pursuit.

The Future of Conservation.

[Sanderson, Steven.](#) 2002.

1. ~~Foreign Affairs~~ 81(5): 162-173 (Sep/Oct).
http://sustainabilityscience.org/keydocs/fulltext/sanderson_fa02.pdf

This essay discusses the inadequacies of global conservation efforts over the last 3

decades, due to the fact that the official conservation agenda is shaped by international institutions concerned more with politics and economics than with sustainability, while private nonprofit organizations -- which generate much of the innovation, human capital, and advocacy on behalf of global conservation -- lack political traction and adequate funding to be accepted as full participants in this global debate. The author argues that in order to influence the future of global public policy, conservationists must show that it is possible to connect short-term human betterment with conservation for long-term sustainability. The conservation community needs to take the challenge and promise of global civil society seriously and propose its own agenda, convergent with but not dependent on the international system of governance, development assistance, and economic growth. NGOs must forge novel pragmatic alliances among themselves and with the corporate sector. The new conservation agenda will be private, scientific, and locally focused on addressing the conservation and poverty alleviation needs of specific places

Policy Forum

Sustaining Natural and Human Capital: Villagers and Scientists

Wayne M. Getz *et al.*

Science **283**, 1855 (1999)

1. [\[Summary\]](#) [\[Full Text\]](#)

How community-based natural resource management has contributed to the well-being of human communities and the conservation of threatened species in southern Africa

Review

Revisiting the Commons: Local Lessons, Global Challenges

Elinor Ostrom, Joanna Burger, Christopher B. Field, Richard B. Norgaard, David Policansky

Science **284**, 278 (1999)

1. [\[Abstract\]](#) [\[Full Text\]](#)

[In a reassessment of Garrett Hardin's classic 1968 *Science* paper *The Tragedy of the Commons* \[PDF, 2.0 MB\], Ostrom *et al.* explore the nature of common-pool resources and the prospects for their sustainable management.](#)
