

Standards and sustainability



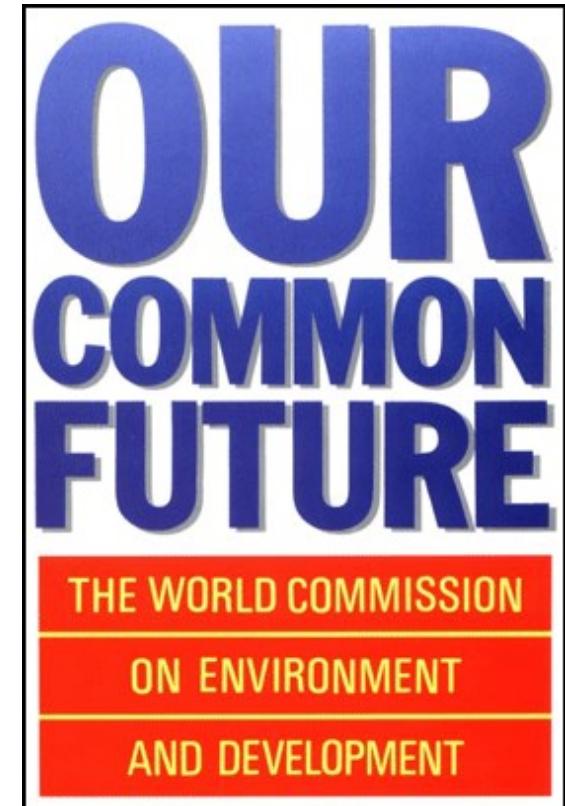
What is sustainable development?

The Brundtland report (1987) defines:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

It contains within it two key concepts:

- *the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of **limitations** imposed by the state of technology and social organization on the environment's ability to meet present and future needs*



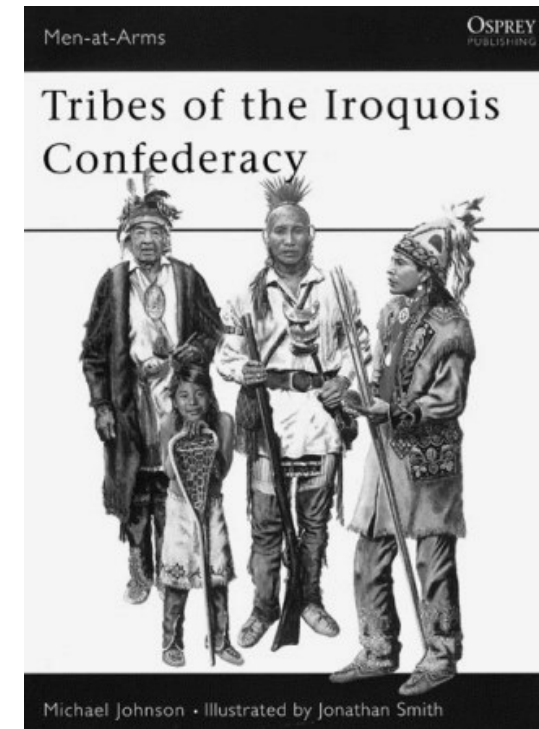


Great binding law of the Iroquois nations

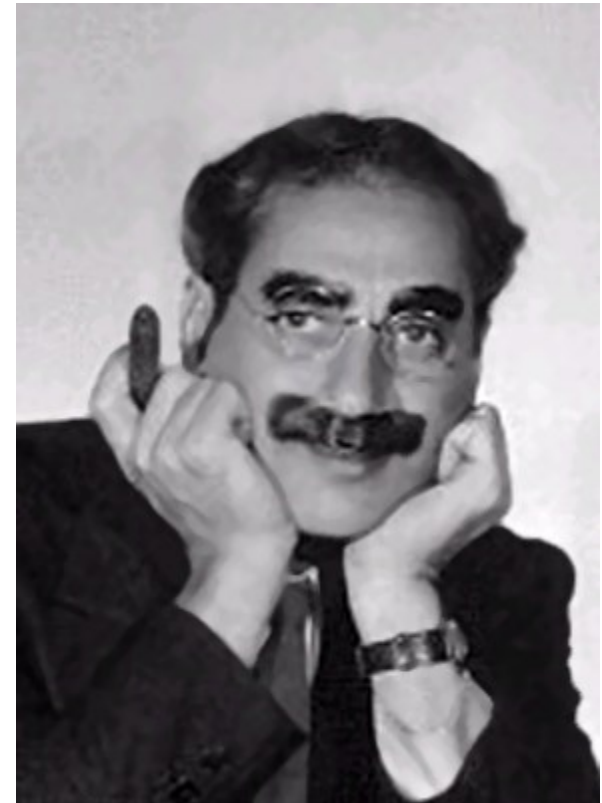
*“ In all of your deliberations in the Confederate Council, in your efforts at law making, in all your official acts, **self interest shall be cast into oblivion.***

Cast not over your shoulder behind you the warnings of the nephews and nieces should they chide you for any error or wrong you may do, but return to the way of the Great Law which is just and right.

*Look and listen for the welfare of the whole people and **have always in view not only the present but also the coming generations,** even those whose faces are yet beneath the surface of the ground – **the unborn of the future Nation.***”



“Why should I do anything for future generations — what have they ever done for me?”





Sustainability science

Proceedings of the National Academy of Sciences of the United States of America

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Sustainability Science: A room of its own

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Sustainability science has emerged over the last two decades as a vibrant field of research and innovation. Today, the field has developed a core research agenda, an increasing flow of results, and a growing number of universities committed to teaching its methods and findings. Like “agricultural science” and “health science,” sustainability science is a field defined by the problems it addresses rather than by the disciplines it employs. In particular, the field seeks to facilitate what the National Research Council has called a “transition toward sustainability,” improving society’s capacity to use the earth in ways that simultaneously “meet the needs of a much larger but stabilizing human population, ... sustain the life support systems of the planet, and ... substantially reduce hunger and poverty” (1).

In early 2005, Bruce Alberts and Ralph Cicerone, in their respective roles as outgoing and incoming presidents of the National Academy of Sciences, proposed that the maturing field of sustainability science might be ready for a “room of its own” in PNAS. After a committee study and extended discussion, the PNAS Editorial Board approved a new section on Sustainability Science, which now shares the masthead with other long-term residents such as Physics, Genetics, and Cell Biology. This editorial constitutes a progress report on the field itself and on the role of PNAS in fostering its development.

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Sustainability science

- “*..From its core focus on advancing understanding of coupled human–environment systems, sustainability science has reached out with focused problem-solving efforts targeted to urgent human needs...*”
- “*...these efforts include improving access to water supplies of adequate quality and quantity, advancing cleaner energy and manufacturing systems [...] enhancing agricultural production and food security [...] and more generally **making more effective use of environmental and natural resources to promote poverty alleviation...***”

William C. Clark, 2007



SUSTAINABLE DEVELOPMENT GOALS

