Technogaianism (a portmanteau word combining "techno-" for technology and " gaian " for G
aia philosophy
) is a bright green environmentalist stance of active support for the research, development and
use of
emerging and future technologies
to help restore
Earth
's
environment
. Technogaians argue that developing safe,
clean
,
alternative technology
should be an important goal of
environmentalists
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Theory

This point of view is different from the default position of radical environmentalists and a
common opinion that all technology necessarily degrades the environment, and that
environmental restoration
can therefore occur only with reduced reliance on technology. Technogaians argue that
technology gets cleaner and more efficient with time. They would also point to such things as
hydrogen

[fuel cells](#)
to demonstrate that developments do not have to come at the environment's expense. More directly, they argue that such things as
[nanotechnology](#)
and
[biotechnology](#)
can directly reverse
[environmental degradation](#)
.

[Molecular nanotechnology](#)
, for example, could
[convert garbage in landfills into useful materials and products](#)
, while biotechnology could lead to novel
[microbes that devour hazardous waste](#)

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While many environmentalists still contend that *most* technology is detrimental to the environment, technogaians point out that it has been in humanity's best interests to exploit the environment mercilessly until fairly recently. This sort of behaviour follows accurately to current understandings of [evolutionary systems](#) ,
in that when new factors (such as foreign
[species](#)
or
[mutant](#)
[subspecies](#)
) are introduced into an
[ecosystem](#)
, they tend to maximise their own resource consumption until either,
a)
they reach an equilibrium beyond which they cannot continue unmitigated growth, or
b)
they become extinct. In these models, it is
completely impossible
for such a factor to totally destroy its host environment, though they may precipitate
[major ecological transformation](#)
before their ultimate
[eradication](#)
. Technogaians believe humanity has currently reached just such a threshold, and that the only way for human civilization to continue advancing is to accept the tenets of technogaianism and limit future exploitive exhaustion of
[natural resources](#)

and minimize further un
[sustainable development](#)
or face the widespread, ongoing mass extinction of species.
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Furthermore, technogaians argue that only
[science and technology](#)
can help humanity be aware of, and possibly develop counter-measures for,
[risks to civilization, humans and planet Earth](#)
such as a possible
[impact event](#)
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One controversial example of technogaian practice is an artificial [closed ecological system](#)
used to test if and how people could live and work in a closed
[biosphere](#)
, while carrying out scientific experiments. It is in some cases used to explore the possible use
of closed biospheres in
[space colonization](#)
, and also allows the study and manipulation of a biosphere without harming Earth's.
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The most advanced technogaian proposal is the "
[terraforming](#)
" of a
[planet](#)
,
[moon](#)
, or other body by deliberately modifying its atmosphere, temperature, or
[ecology](#)
to be similar to those of Earth in order to make it
[habitable](#)
by humans.
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Sociologist [James Hughes](#) mentions Walter Truett Anderson, author of *To Govern Evolution: Further Adventures of the Political Animal*
, as an example of a technogaian political philosopher;
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argues that technogaianism applied to environmental management is found in the
[reconciliation ecology](#)
writings such as
[Michael Rosenzweig](#)
's
Win-Win Ecology: How The Earth's Species Can Survive In The Midst of Human Enterprise
;
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and considers
[Bruce Sterling](#)
's Viridian design movement to be an exemplary technogaian initiative.
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Related environmental ethical schools and movements

- [Bright green environmentalism](#)
- [Biomimicry](#)
- [Reconciliation ecology](#)
- [Social ecology](#)
- Viridian design movement

See also

- [Environmental ethics](#)
- [List of environmental issues](#)
- List of environment topics
- *Ten Technologies to Save the Planet* (book)

References

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External links

- Green Progress
- Viridian Design Movement
- WorldChanging

http://en.wikipedia.org/wiki/Technogaianism