

# II BRISPE

Second Brazilian Meeting on Research Integrity,  
Science and Publication Ethics

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# Bioethics, Biodiversity & Biopiracy: Ethical Issues in International Research Collaborations

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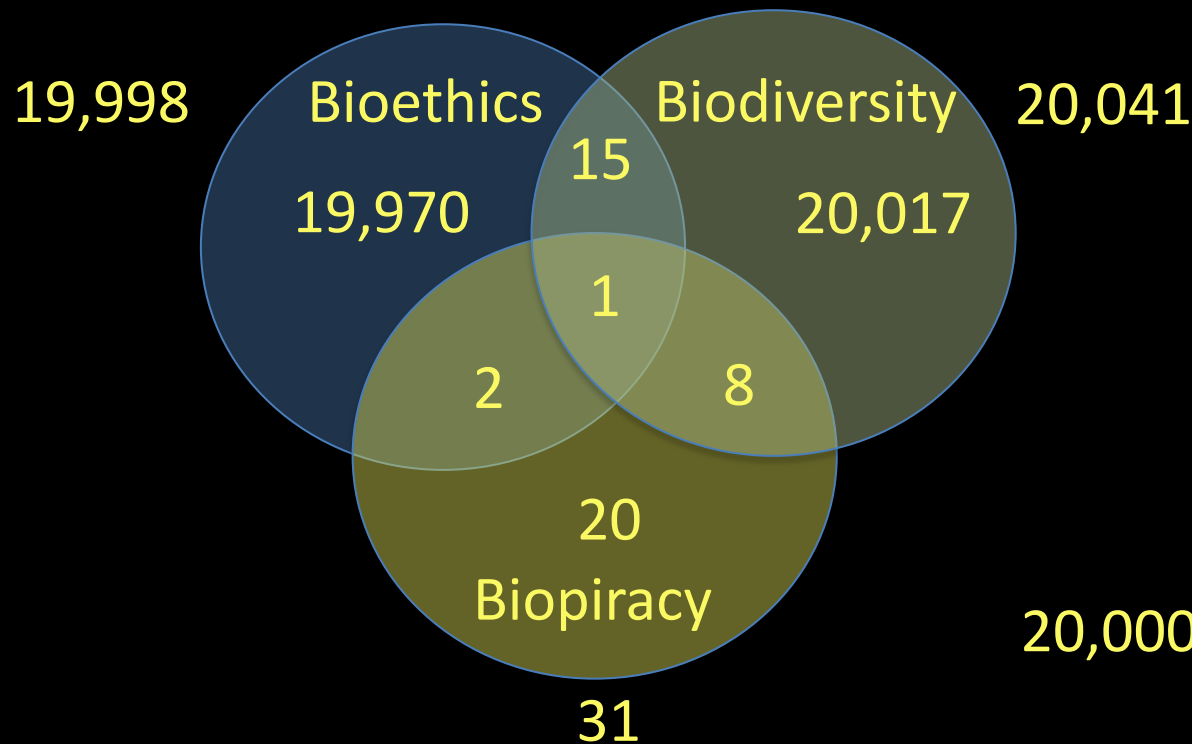
José Roberto Goldim



Good Investigation Values Critic accion Moral  
choice Bioethics Biodiversity error  
Interests Law Intuition LIFE Autonomy rules Respect Principles  
Retitude bonds Biopiracy Beliefs desires  
SOCIETY person Tradition adequacy Authorship collaboration  
Ambiguity Honesty Ethics Education conflicts Research  
situation Natural Utilitarianism emotion Knowledge  
Project fraud Model contracts Directives inadequacy  
progress Health patents complexity Information  
Publiccycling justification objectives Justice

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# Bioethics Biodiversity Biopiracy



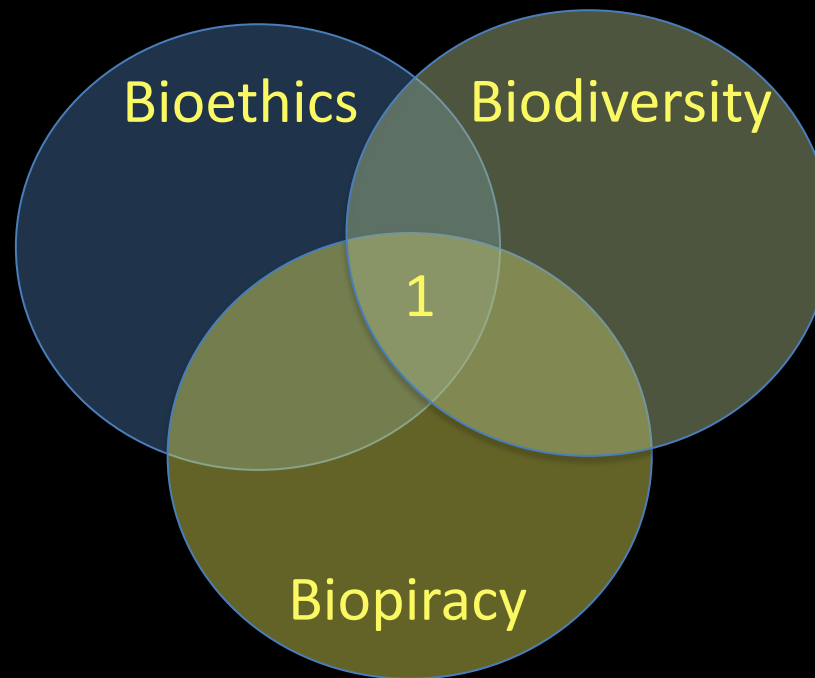
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## **Globalisation or Westernisation? Ethical concerns in the whole bio-business.**

Tangwa GB.

### **Abstract**

Increasing awareness of the importance of the biodiversity of the whole global biosphere has led to further awareness that the problems which arise in connection with preservation and exploitation of our planet's biodiversity are best tackled from a global perspective. The 'Biodiversity Convention' and the 'Human Genome Project' are some of the concrete attempts at such globalisation. But, while these efforts are certainly very good at the intentional level and on paper, there is, at the practical level of implementation, the danger that globalisation may simply translate into westernisation, given the Western world's dominance and will to dominate the rest of the globe. How is 'global bioethics' to be possible in a world inhabited by different cultural groups whose material situation, powers, ideas, experiences and attitudes differ rather markedly and who are not, in any case, equally represented in globalisation efforts and fora? One index of the pertinence of this question is that talk about biodiversity, biotechnology, biotrade etc. is being increasingly matched by talk about biopiracy, biorade, biocolonialism etc. In this paper, I attempt to explore and develop these very general concerns.



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**Bioethics**

**Biodiversity**

**Biopiracy:**

**Albert Schweitzer - 1923**

**Fritz Jahr - 1927**

**Aldo Leopold - 1936**

**Van Rensselaer Potter - 1970**

**José Roberto Goldim.**

**Revisiting the beginning of bioethics:  
the contribution of Fritz Jahr (1927).**

**Perspect Biol Med. 2009 Summer;52(3):377-80.**



# Bioethics

Life is feeling,  
experience, suffering.  
If you study life deeply,  
looking with perceptive eyes  
into the vast animated chaos  
of this creation,  
its profundity will seize you  
suddenly with dizziness.  
In everything  
you recognize yourself.

**Albert Schweitzer**

Reverence for life: Sermons 1900-1919.

New York, Irvington, 1993 (1966):109.

# Bioethics

**Land Ethic**  
simply enlarges  
the boundaries  
of the community  
to include soils, waters,  
plants, and animals, or  
collectively:  
the land.

**Aldo Leopold**

A sand county almanac and  
sketches here and there.

New York: Oxford; 1968 (1948):227.

# Bioethics

Most people are naturally not so sensitive as Ed. von Hartmann. Everyone knows that plants are also living beings that are injured when the flower is cut, but the idea that it also feels resentful at that is not familiar to us.

**Fritz Jahr**

**Bio-Ethik:**

**eine Umschau über die ethischen Beziehungen  
des Menschen zu Tier und Pflanze.**

**Kosmos. 1927;24:2-4.**

# Bioethics

**We must plead  
not for a moratorium  
on new knowledge,  
but a coupling of  
biological knowledge  
and  
human values.**

**Van Rensselaer Potter  
Bioethics: bridge to the future.  
New Jersey: Prentice-Hall; 1971 :11.**

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# Bioethics Biodiversity

## Biopiracy:

Raymond F. Dasmann - 1968

Thomas Lovejoy - 1980

W.G. Rosen - 1985

E. O. Wilson - 1990

## **Biological Diversity**

# **Biodiversity**

**Dasmann RF.**

**A Different Kind of Country.**

**New York: MacMillan Company, 1968.**

**Soulé ME, Wilcox.BA.**

**Conservation Biology: An Evolutionary-Ecological Perspective.**

**Sunderland: Sinauer, 1980.**

# Biodiversity

**W.G. Rosen (1985)**

*National Forum on Biological Diversity.*  
1986, National Research Council (NRC).

**E. O. Wilson, F. M. Peter**

**Biodiversity.**

**Washington: National Academy Press, 1988.**



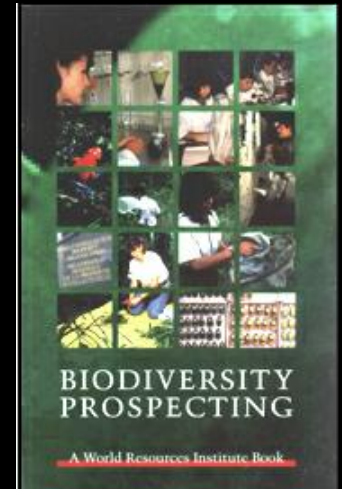
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# Biodiversity Bioprospection

**Walter V. Reid**

**Biodiversity prospecting: using genetic resources for sustainable development.**

**Washington: World Resources Institute (WRI), 1993.**



# Bioprospection

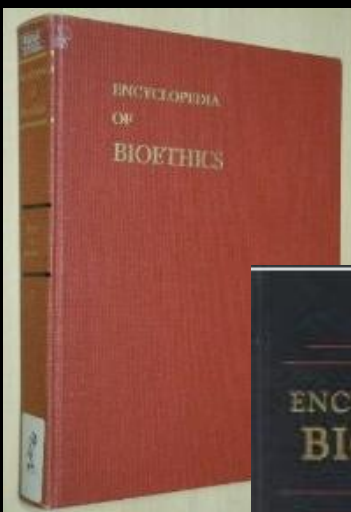


Spotlight: Diversa,  
Yellowstone Sign  
'Bioprospecting' Pact  
Los Angeles Times. August  
19, 1997.

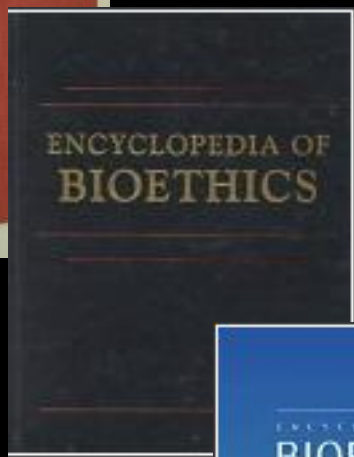
In what is considered to be the first "bioprospecting" agreement signed in the U.S., San Diego-based Diversa Corp.

said it entered a five-year pact to search for new organisms living in the hot springs of Yellowstone National Park

for possible commercial use. Closely held Diversa said the agreement will give it expanded access to the park's hot springs and allow the park access to Diversa's findings and royalties from any products discovered. Diversa has similar pacts in Iceland and Costa Rica.



1978



1995



2003

# Biopiracy

No entries  
No citations

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**BIOETHICS**  
RESEARCH LIBRARY  
at GEORGETOWN UNIVERSITY

Search

Full Text Search:

Results/page: 10 Sort items by: relevance in order: descending

Go

Your query "biopiracy" produced 22 result(s).

# **Biopiracy**

**RAFI - 1994**

**Darshan Shankar - 1997**

**Vicki Brower – 1997**


**Vandana Shiva - 1997**

**Marina Silva - 1998**

# Biopiracy

RAFI - 1994

RAFI.  
Bioprospecting/Biopiracy  
and indigenous People.  
RAFI Communiqué.  
Canada, 30/11/1994:1.



**Bioprospecting/Biopiracy And  
Indigenous Peoples**

Type: Communiqué  
Date: 11/30/1994  
Language: English

**Bio-Prospectors Hall of Shame...or Guess Who's Coming to Pirate Your Plants?!**  
**Pros and Cons of Bilateral Bioprospecting Agreements**

**ISSUE:** Biodiversity prospecting is the exploration, extraction and screening of biological diversity and indigenous knowledge for commercially valuable genetic and biochemical resources. Bilateral bioprospecting agreements are sanctioned by the multilateral Convention on Biological Diversity. In the vast majority of cases, however, commercial bioprospecting agreements cannot be effectively monitored or enforced by source communities, countries, or by the Convention, and amount to little more than "legalized" bio-piracy.

**IMPACT:** A growing number of pharmaceutical corporations, biotechnology companies (and their intermediaries) are stalking the forests, fields and waters of the developing world in search of biological riches and indigenous knowledge. Northern-based institutions seek access to tropical biodiversity for the primary purpose of developing patented and profitable products. No matter how convincing the rhetoric, conservation and equity are secondary issues. Under the vast majority of current bioprospecting agreements, when indigenous peoples share information or genetic materials they effectively lose control over such resources, regardless of whether or not they are compensated.

**FINANCIAL STAKES:** RAFI estimates that medicinal plants and microbials from the South contribute at least \$30 billion a year to the North's pharmaceutical industry.(1) It is conservatively estimated that the market for natural product research specimens (samples or extracts of biological materials) within the U.S. pharmaceutical industry alone is (US) \$30-60 million per annum. Not surprisingly, biological bounty hunters are in feverish pursuit of the South's "green gold."

# Biopiracy

**Darshan Shankar.**

Traditional medicine and biopiracy.

Ancient science of life. 1997 Jul;17(1):67–71.

**Vicki Brower**

Biopiracy, From human rights to the human genome

– stopping biopiracy.

Nature Medicine. 1997;3(10):1056.

**Marina Silva**

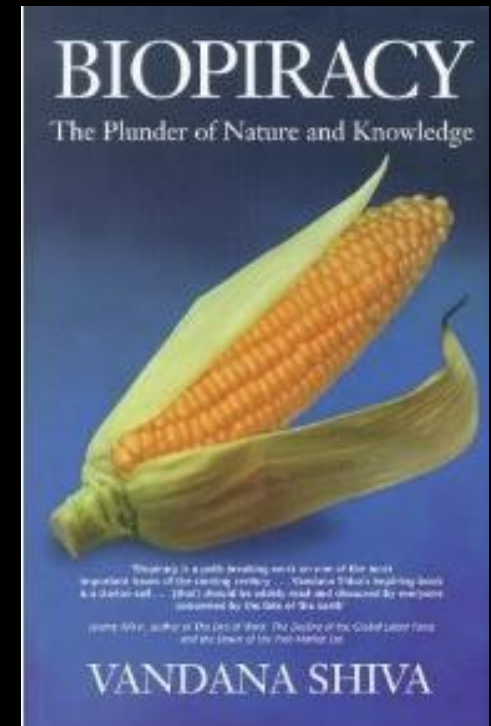
Bioresources and biopiracy in Brazil.

Science. 1998;280(5364):657.

# Biopiracy

**Vandana Shiva**

**Biopiracy - the plunder of nature and knowledge.  
Boston: South End Press, 1997.**





# Biopiracy

Carolyn Marshall  
Bioprospectors Mine  
Nature For Genetic Gold.  
FORBES May 29, 2000.

As with all things biotech,  
controversy surrounds the  
*bioprospecting* trade.  
Some environmentalists and  
foreign governments  
consider the practice  
"*biopiracy*."

# Biopiracy or Bioprospection

Pirates

Corsairs

Plundering

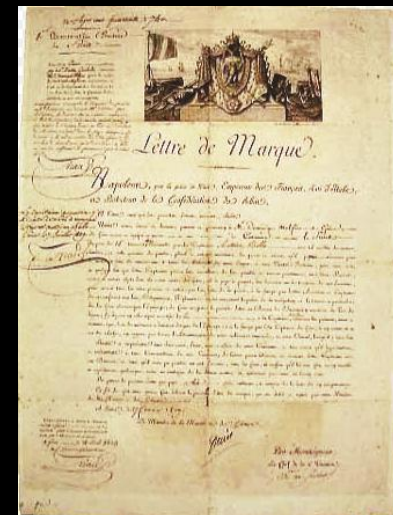
Illegal

Authorized

Theft

Free-riding

Misappropriation



Complex  
Bioethics

Cultural  
Issues

Environmental  
Issues

Political  
Issues

Psychological  
Issues

Educational  
Issues

Scientific  
Issues

Economical  
Issues

Legal  
Issues

Ethical  
Issues

Moral  
Issues

Social  
Issues

Biological  
Issues

Health Care  
Issues

Professional  
Issues

Espiritual  
Issues

**Biopiracy**



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graph TD; CBI[Complex Bioethics] --> B[Biopiracy]; CI[Cultural Issues] --> B; EI[Environmental Issues] --> B; PI[Political Issues] --> B; P[Psychological Issues] --> B; E[Educational Issues] --> B; S[Scientific Issues] --> B; EC[Economical Issues] --> B; L[Legal Issues] --> B; Eth[Ethical Issues] --> B; M[Moral Issues] --> B; S2[Social Issues] --> B; B2[Biological Issues] --> B; HC[Health Care Issues] --> B; P2[Professional Issues] --> B; Esp[Espiritual Issues] --> B;
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José Roberto Goldim

Bioética: origens e complexidade.  
Revista HCPA 2006;26(2):86-92.

Complex  
Bioethics

Cultural  
Issues

Environmental  
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Economical  
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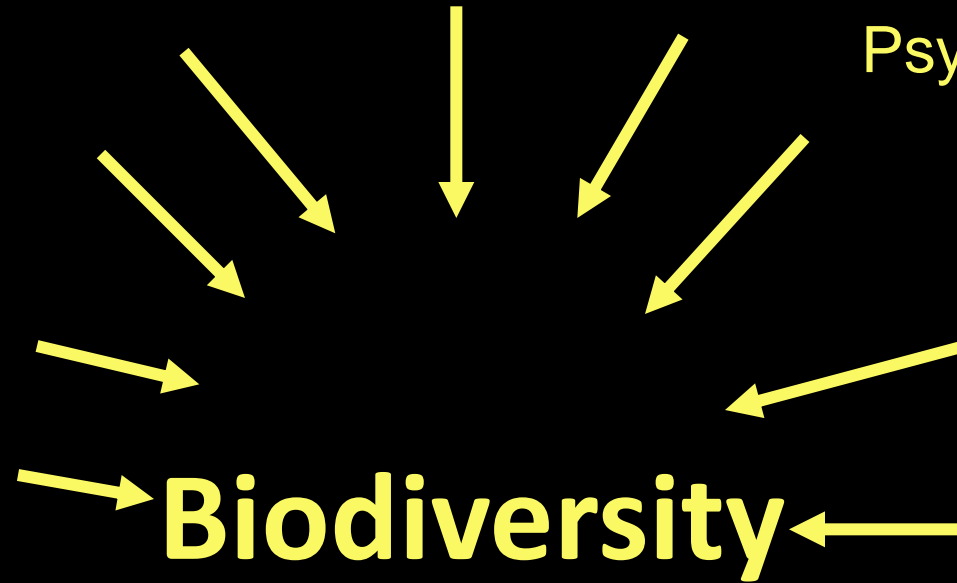
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**Biodiversity**

José Roberto Goldim

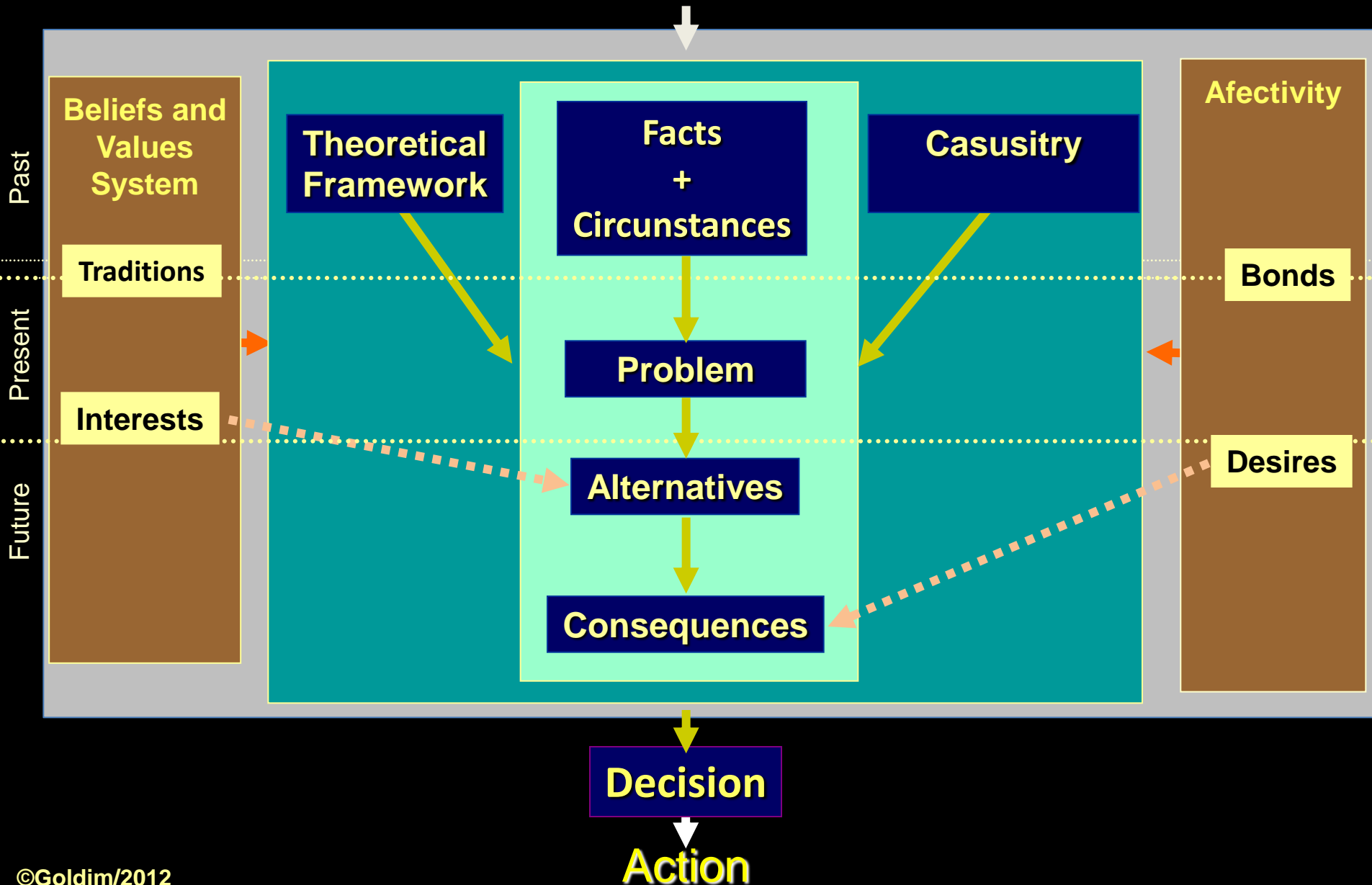
Bioética: origens e complexidade.  
Revista HCPA 2006;26(2):86-92.

# Bioethics

**Is a complex,  
shared and  
interdisciplinary reflection  
about the adequacy of actions  
involved in Life and Living**

**José Roberto Goldim  
Bioética: origens e complexidade.  
Revista HCPA 2006;26(2):86-92.**

# Evidences



## Usual Perspective

- Human beings dominate Nature
- Natural environment as a resource for humans
- Human beings are superior than other living beings
- Centralized national community

## Deep Ecology

- Human beings in harmony with Nature
- All Nature has an intrinsic value
- Different species are equal
- Bioregions and recognition of the minorities traditions'



**Arne Naess**  
The shallow and the deep,  
long-range ecology  
movements: a summary.  
Inquiry 1973;16:95-100.

**Only a  
systemic,  
unitary and  
symphonic perspective  
will bring us a closer  
understanding of what is our  
wonderful live planet.**

**José Lutzenberger**

**Gaia, o planeta vivo.**

**Porto Alegre: L&PM, (1986) 1990.**



**Ethics**  
**Applied Ethics**  
**Bioethics**  
**Ethics inserted into Reality**



[www.bioetica.ufrgs.br](http://www.bioetica.ufrgs.br)

# Yellowstone National Park Biodiversity

There still remains, even in the United States, some areas of considerable size in which we feel that both red and gray [wolves] may be allowed to continue their existence with little molestation. ...Where are these areas? Probably every reasonable ecologist will agree that some of them should lie in the larger national parks and wilderness areas: for instance Yellowstone and its adjacent national forests. ...Why, in the necessary process of extirpating wolves from livestock ranges of Wyoming and Montana, were not some of the uninjured animals used to restock Yellowstone?

Aldo Leopold, 1944

Paul Schullery

The Yellowstone Wolf—A Guide and Sourcebook.  
Worland, WY: High Plains Publishing, 1996:97–98.