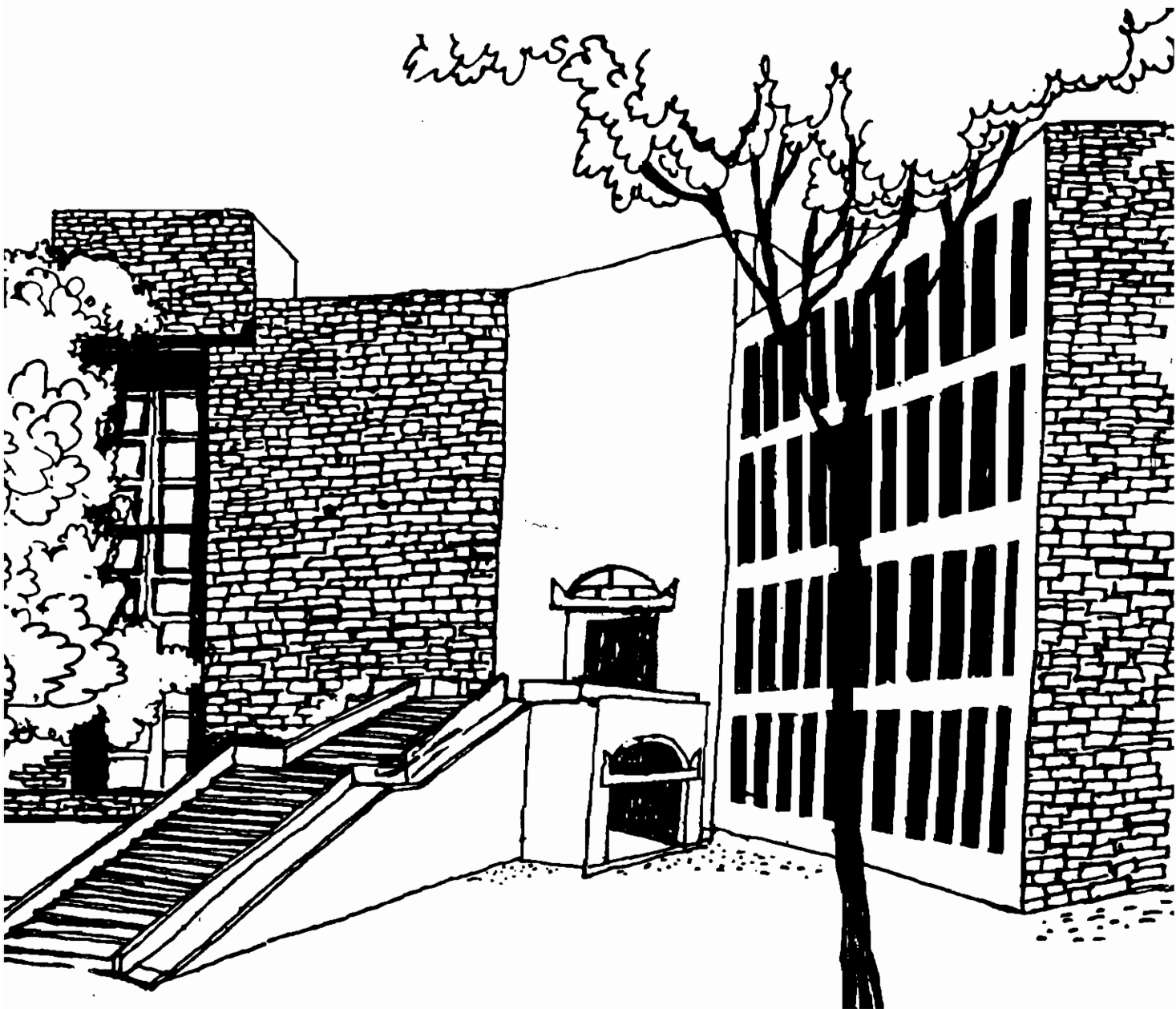




Working Paper



Ethical Issues in Prospecting Biodiversity

by

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ETHICAL ISSUES IN PROSPECTING BIODIVERSITY

Abstract

Biodiversity Treaty has recognized in an unequivocal manner the need for developing an accountable and equitable system for building relationship with people who conserve biodiversity and associated knowledge systems. Article 8J provides for 'involvement and approval' of the individual innovators, communities and others conserving biodiversity for accessing this resource in a manner that benefits are equitably shared. Article 15.5 stresses the need for prior informed consent.

There are several other Articles of the Biodiversity Treaty which (a) legitimize national sovereignty over biodiversity resource, (b) provide mechanisms for technology transfer from countries which are advanced in technology but impoverished in biodiversity to the biodiversity rich but economically poor countries, (c) call for setting up clearing house of information etc. The treaty also provides for recognizing the importance of indigenous innovations and traditional knowledge system.

The most important dilemma that one has to resolve deals with the responsibility of society towards those who have conserved biodiversity despite remaining poor. Obviously one cannot wish to keep people poor if one notices inevitable decline of biodiversity with increase in affluence. I discuss various questions that have to be addressed around seven issues or themes to help in the development of guidelines that may illuminate further deliberations on the subject. I hope we will be able to identify areas which are clear or unambiguous as distinct from areas where moral judgments have to be made.

1.) Accountability of researchers and biodiversity prospectors engaged by public or private sector in national or international organizations towards providers of biodiversity resource from wild, domesticated and public access resources. 2.) Accountability of researchers and biodiversity prospectors towards the countries from where resources are extracted. 3.) Accountability to profession engaged in generating universal knowledge and developing norms guiding this process. 4. Accountability of international UN or other organizations which possess globally pooled germ plasm collections deposited in good faith but accessible to public and private corporations as well as other institutions without reciprocal responsibility. 5.) Natural resources as property governed by various kinds of property right regimes and consequent moral and ethical dilemmas. 6.) Accountability of civil society and consumers of products derived from prospected biodiversity or other competing alternatives. 7.) Accountability towards future generations.

Readers are invited to participate in this exploration by sharing their insights, dilemma and concerns in this regard.

ETHICAL ISSUES IN PROSPECTING BIODIVERSITY¹

Anil K Gupta

Biodiversity Treaty has recognized in an unequivocal manner the need for developing an accountable and equitable system for building relationship with people who conserve biodiversity and associated knowledge systems. Article 8J provides for 'involvement and approval' of the individual innovators, communities and others conserving biodiversity for accessing this resource in a manner that benefits are equitably shared. Article 15.5 stresses the need for prior informed consent. The implication is that any company or country organization interested in obtaining biodiversity resource from another country must obtain from the donor country an informed consent before prospecting the biodiversity. There are several other Articles of the Biodiversity Treaty which (a) legitimize national sovereignty over biodiversity resource, (b) provide mechanisms for technology transfer from countries which are advanced in technology but impoverished in biodiversity to the biodiversity rich but economically poor countries, (c) call for setting up clearing house of information etc. The treaty also provides for recognizing the importance of indigenous innovations and traditional knowledge system.

All these provisions, however, can become operational only after a number of ambiguities are removed. Negotiations among countries are still taking place to achieve this end. The most important dilemma that one has to resolve deals with the responsibility of society towards those who have conserved biodiversity despite remaining poor. Obviously one cannot wish to keep people poor if one notices inevitable decline of biodiversity with increase in affluence.

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1. This is a draft note prepared for a discussion during the Pew Scholars workshop on Ethics and Biodiversity, October 16 -17, 1994 at Arizona. I have benefited from the comments from Ashok Gadgil, Vijay Sherry Chand and Kirit Patel. Usual Disclaimers apply.

I will appreciate very much receiving your comments, criticism, references, and copies of relevant reprints at following address: Prof Anil K Gupta, Coordinator, SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) & Honey Bee network, c/o Indian Institute of Management, Ahmedabad - 380015, India. fax : 91-79-427896 email: anilg@iimahd.ernet.in

I mention below seven issues that we need to discuss to help in the development of guidelines that may illuminate further deliberations on the subject. I hope we will be able to identify areas which are clear or unambiguous as distinct from areas where moral judgments have to be made.

1. *Accountability of researchers and biodiversity prospectors engaged by public or private sector in national or international organizations towards providers of biodiversity resource from wild, domesticated and public access resources.*
2. *Accountability of researchers and biodiversity prospectors towards the countries from where resources are extracted.*
3. *Accountability to profession engaged in generating universal knowledge and developing norms guiding this process.*
4. *Accountability of international UN or other organizations which possess globally pooled germ plasm collections deposited in good faith but accessible to public and private corporations as well as other institutions without reciprocal responsibility.*
5. *Natural resources as property governed by various kinds of property right regimes and consequent moral and ethical dilemmas.*
6. *Accountability of civil society and consumers of products derived from prospected biodiversity or other competing alternatives.*
7. *Accountability towards future generations.*

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1. Accountability of researchers, corporate or other extractors towards providers of resource and associated knowledge system.

a) From whom should a biodiversity prospector take approval and in what form (written, oral, individually or collectively) before prospecting a given biodiversity whether of plants, animals or micro-organisms available in wild, domesticated or other private or public access properties.

b) How should the responsibility be defined in cases where a given resource is spread over several countries, regions within a country, villages within a region or farms within a village?

c) Assuming that representative structures do exist in some countries, whether the biodiversity from individually owned properties can be contracted by collective institutions or even state institutions? Similarly in countries where local representative bodies do not exist, what mechanisms should be evolved for informed consent of the communities before prospecting biodiversity?

d) Whether a researcher is obliged to keep parallel collections of samples with complete scientific and technical information with local communities as well as with relevant state institutions?

e) Should providers of information be quoted with their name and addresses in any publication based on the information provided by them?

f) Should the intellectual property rights in value added products derived from local biodiversity be shared with the providers of resource in both the cases where value addition has been facilitated by the knowledge provided with the resource and also where value addition is independent of the lead provided by the local community or individual?

g) In what proportion should benefits arising out of value addition in local resource be shared among the community and the individual provider and conservator of resources and associated knowledge systems? The assumption is that in many cases the knowledge may have been produced through local innovations in recent past by individuals or groups thereof as distinct from knowledge produced by large number of people through small contributions over several generations.

h) How should responsibility for extraction of a given resource in a sustainable manner be assigned among the prospectors and providers of the resource. What kind of penalties or incentives be developed to encourage extraction of resource within sustainable limits?

i) For what periods should rights of individual or community providing resource remain intact such that they have a claim on any income accruing to the prospectors or the user of the prospected biodiversity resource through value addition in that resource?

j) Do the rights of local communities which have to migrate from one region to another get exhausted because of their permanent migration from a given region which they had inhabited and conserved for long time?

k) How should accountability of prospectors be decided in cases where resources are drawn from wild or publicly owned or managed forests, water bodies or land mass without explicit involvement of local communities (in some cases the region concerned may not be inhabited at all) ?

l) There are several individuals as well as communities which refuse to accept any compensation or payment in lieu of the knowledge that they provide to outsiders. The irony is that most of such people are also very poor. How do we evolve norms such that local institutions receive compensation for collective development without in any way violating the eco-ethics and spiritual values upheld by resource conserving communities?

m) How should rights to microbial biodiversity be assigned when it is obtained from private, common or public owned resources without explicit contribution of the owner or manager of the diversity (though the contribution of resource owner or manager through habitat conservation can not be denied) ? To what extent can incentives for habitat conservation be linked with norms for compensation to institutions, communities of individuals for continued management of given habitats?

n) In many cases the biodiversity is conserved in sacred spaces and in some cases there are rituals or rules which have to be followed before any one can partake any resource from these spaces. What kind of norms and ethical principles be evolved which make it obligatory for outsiders to respect these values of local communities?

2) Accountability towards and within biodiversity donor countries

a) Given the fact that most states ignore the marginal population and regions in terms of allocation of public resources, infrastructure and opportunities for employment and income generation, how should the resources generated through value addition in a given biodiversity resource be shared with the state as well as the concerned community or regional body?

b) Should state have a right to disenfranchise local communities from any right to contract access to local biodiversity?

c) How should the claims of national sovereignty be balanced with local governance and rights?

d) Is it possible for a state to contract access to certain resources to national or international corporations without sharing the information and obtaining the permission of the local communities?

e) Can asymmetry exist in accountability of national or international organizations required by a state towards local bodies or local communities providing biodiversity?

3) Accountability of professional bodies

a) Many professional communities such as that of ethnobiologists have not enacted any rules clarifying the responsibility of researchers towards providers of resource and knowledge. How should it be ensured that all professional associations having anything to do with biodiversity recognize the rights of local communities and individuals and acknowledge their contributions without jeopardizing their intellectual property rights?

b) Should Bio-ethics committees be set up by different research, academic and commercial organizations to ensure that various obligations required by Biodiversity Treaty are upheld while prospecting biodiversity, publishing any results based on related research or commercializing any products based on the same ?

b) Despite provisions to the contrary in the TRIPS (Trade Related Intellectual Property Rights) under GATT, patent laws of many countries have permitted patenting of human cell lines /genetic information as well as plants providing specific function hitherto unknown or known to very small communities. How should moral issues assigning monopoly rights to private, individual or corporations in natural unmodified resources be resolved? The dilemma is no less complex in cases where biotechnological corporations claim monopoly rights over genetic information in the same form as found in nature except that this information is made expressible outside its natural context. How do we balance the interest of those who invest in generating or identifying useful information from a very large mass of natural diversity with the interests of those who maintain 'libraries' of such information? What kind of norms need be evolved by the community of natural scientists to regulate or modify the scientific pursuits in this regard?

c) There is an obvious conflict between production of universal knowledge and generation of private proprietary rights in resources obtained from either public domain or private domain. Under what circumstances should private proprietary rights have precedence over the need for producing universal knowledge in the short run particularly when institutions concerned are funded by public exchequer?

d) Should it be obligatory for every researcher or user of biodiversity to share full information about the research or value addition done in the resource in local language with providers of resource? Should professional associations and scientific committees make it a norm that nobody would be permitted to present research results till these have been shared in an easily understandable manner with the local community which has provided the resource or information or both?

4) Accountability of international gene banks

a) Gene bank managers in different parts of the world were supposed to act as trustees of local communities and countries which have provided various accessions in the gene banks. In the post-GATT and TRIPs scenario many banks are entering into contracts with private national or multinational corporations providing resources in their possession for generation of private profit. Should Material Transfer Agreement proposed by IPGRI become mandatory for all international gene banks? Should the plant genetic researchers evolve professional codes of conduct making it obligatory for every prospector to record the identity of local communities and/or individual from whose fields or neighborhoods a given germ plasm has been collected?

b) In the recent meeting of various contracting parties (i.e. the countries) to the Biodiversity Convention or Treaty in Nairobi in June 1994, a proposal of World Bank for taking over the international gene bank in order to provide them financial solvency was severely opposed by the various developing countries. Given the poor record of World Bank in upholding the rights of local communities in various resources, the opposition was understandable. Since the accessions in the different gene banks were

made under very different assumptions of global access to the resource, changing of rules now raises numerous moral, ethical and political questions. Since the current budget deficit is partly a product of non-sustainable salary structures of these organisations, how should basic restructuring of the personnel compensation pattern in these organisations be done so that their solvency does not get threatened once again?

5) Property right regimes and overriding accountability

a) It is well known that depending upon the nature of biodiversity, whether of aquatic animals or organisms, plants resources or micro-organisms may or may not move from one property right regime to another. The accountability of researchers or biodiversity prospectors in such cases would require moral judgments about the need for sharing part of the profits obtained through value addition with institutions that cement and strengthen the interaction between various resource regimes.

b) Non sustainable use of resources in catchment area of a watershed can endanger the downstream biodiversity. Therefore, the overlapping accountability towards upstream/downstream stakeholders needs to be defined.

c) Biodiversity in the global commons has become a bone of contention particularly when certain species for example, dolphins or whales are endangered. International agreements in some cases are being violated by specific countries which do not want to subscribe to the restraint imposed by the international bodies. Similarly, extra-jurisdictional applicability of national laws has been questioned repeatedly in the GATT thus generating conflicts in the mutual perception of interest in conservation versus economic exploitation of resources.

d) Transport of hazardous substances and toxic waste across the world and their dumping in forests or other regions particularly in developing countries endangers the conservation of biodiversity and safe access of local communities. Problems in this regard are also being faced in the Native American reser-

vations of North America. What kind of norms and agreements should be enacted which safeguard the interest of the marginal population who may not even be aware in many cases of the hazards.

e) Many scholars and activists argue that the knowledge of local communities and indigenous innovators be treated as a common property of the entire world or at least the entire nation. They oppose any proprietary rights (e.g. IPRs) of the local innovative individuals or communities. How should we assign property rights for knowledge that is shared in a local community but is inaccessible to outsiders till it is catalogued. Should the local awareness be considered a case of prior art and thus ineligible for patenting? Should not Intellectual Property laws be modified to include collective intellectual property rights so that the innovations and the practices in which individual innovators can not be traced, the rights of local communities are still protected?

6). Accountability of civil society and consumers of products derived from prospected biodiversity or other competing alternatives.

a) It is the consumer who finally pays for all the conservation efforts in one form or the other. However, it seems that in the given value system and cultural context in developed as well as developing countries, most urban consumers are not willing to pay a premium even in the short run for biodiverse products. This takes away incentives from at least agricultural producers to encourage biodiverse farming systems. How do we make a cultural transition in which educational, media and other interventions would promote alternative set of values that put premium on biodiverse production and consumption systems. Even the educated and enlightened consumers such as conservation biologists do not insist that the meals in their conferences reflect a bias in favour of biodiverse inputs. Since symbolism helps in certain matters, how do we generate an elite behaviour that shows the power of consumers in conservation of biodiversity and compensation of the communities pursuing that path.

b) The consumption of competing products that encourage mono-cultures and thus reduce ecological and economic space for biodiverse production systems is supported by the dominant lifestyles and consumption patterns in the developed world. Since these lifestyles act as role models for rest of the developing world, change in this regard is called for. What kind of strategic mix be chosen to achieve this transition in the long run as well as short run?

7) Accountability towards future generations

a) Sustainable conservation of a resource is vital for ensuring our accountability to future generations. But even more vital is the concern for stemming the erosion of knowledge which is even more rapid than the erosion of biodiversity itself. Conservation of this knowledge is not possible without conserving certain cultural values, institutions and vernacular languages. Respect for cultural pluralism particularly of the marginal populations inhabiting highly biodiverse regions is an issue that has not received adequate attention. In many cases internationally funded development projects have contributed to the uprooting of local communities from their habitats without adequate care for conservation of their cultural and other institutions. What kind of protocol needs to be established which would make it necessary to incorporate the wishes and aspirations of every local community in any programme or project that disturbs the existing resource use systems.

b) Some of the land use systems, for instance, pastoral systems are under considerable strain because of the inability of most states to adapt to the mobile communities. The effort to sedentarize pastoral communities has meant increasing the population pressure on marginal grazing lands and, therefore, endangering local biodiversity. What kind of institutional mechanisms be developed which can help in renegotiating the national and international discourse on the rights and responsibilities of mobile population. It is not without significance that many of these communities have a very rich repertoire of local knowledge about various aspects of biodiversity.

c) During several Biodiversity Contests organised among rural children who never enrolled in schools, dropped out or were continuing in schools, we discovered a large number of such children who had very rich knowledge about local biodiversity and its uses even though their academic standing was poor. Most of these children might end up becoming 'unskilled labourer'. Irony is that while huge investments are made in educating those who have had no exposure to biodiversity so that they could help conserve this resource. On the other hand, there is nothing in the educational and learning systems that can help those who have a natural affinity for this field. How do we recast the educational philosophy so that knowledge rich educationally backward children do not have to unlearn their skill and learn to become an unskilled labourer? The institutional context of this erosion of what children know but can not grow with raises many serious ethical and moral dilemma. We have to identify processes by which unlearning process of children can be stemmed and learning process can be stimulated.

Agenda next

It is possible that some of the important issues in conservation dealing with consumer demand for biodiverse products or other legal or institutional issues may not have been adequately dealt with. It is hoped that further discussions on these issues would help in generating some consensus as well as new insights about the way we should handle the listed issues as well as identify other issues that have been inadvertently left out.

Our goal should be to identify those principles on which we can have endorsement of as many conservation biologists, environmental NGOs, and other academics and activists. Separately we could list the principles or propositions on which only a few provide endorsement. WE could circulate these lists with adequate qualifications to the governmental agencies dealing with Biodiversity conservation in all the countries as well as to UN agencies, funding agencies and private corporations as well as Business Council for Sustainable Development. May be a greater consciousness on these issues will change the way business is done today.

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