



Globalization

Who Benefits?



Aside from its aggressive displacement of & threat to local cultures, globalization is increasingly polarizing the world into two highly disparate & disproportionate camps, the chronically impoverished & the obscenely wealthy

- The 225 richest individuals in the world now have assets greater than the annual income of 2.5 billion people, or more than 40% of the world's population
- Four fifths of people in the world live below what North American & European countries consider the poverty line, while the number of people living on less than one dollar a day equals 1,200 million
- Estimated number of people who died of hunger on 11th of September, 2001 is 24,000





Globalization

Where is it Headed?



- Between 1950 and 1998, world exports of goods increased 17-fold, from \$311 billion to \$5.4 trillion, yet the gap between rich & poor countries has significantly widened
- Whether in poor or in wealthy nations the gap between the rich & poor ever widens, e.g. today, 1 percent of Americans own 40 percent of the country's wealth
- Of the 100 largest economies in the world today, 51 are corporations, & 49 are nation-states
- The combined annual sales of General Motors & Ford are higher than the combined gross domestic product (GDP) of all sub-Saharan African countries





Globalization

Technological Dangers & Inequities



- The world is losing over 9 million hectares of forest each year, & at least double this area is being degraded
- Annually, out of roughly a million reported pesticide poisonings, human deaths will exceed 40,000
- Dr. B. Starfield of Johns Hopkins confirms a top estimate of 284,000 deaths annually in the U.S. caused by Western medical treatment, thus ranking iatrogenesis as the 3rd leading cause of death (*JAMA* 2000, July 26; 284(4) :483-5)
- South Asia, with nearly 1/4th of the world's population, has less than 1% of the world's Internet users
- With 739 million people in Africa, there are only 14 million phone lines on the continent





Globalization & Indigenous Peoples



The sessional working paper reviewed by the *Working Group on Indigenous Populations* July 21-25, 2003 aptly comments on Globalization's nefarious impacts upon Indigenous peoples:

“Processes related to globalization have led to the failure to recognize their rights, dispossessed them of their traditional lands, led to the degradation of their environment, restricted their access to natural & productive resources & impelled their migration & urbanization, thereby leading to their marginalization & impoverishment.”





The World's Two Major Knowledge Systems



Contrasting & Complementary Knowledge Bases

- The highly analytical systems of *Western Scientific Knowledge*, offers humanity micro-system technical developments, that generally find applications on a macro-scale.
- Whereas, the *Indigenous Knowledge* cooperative system – employing principles of holism & syntheses - offers humanity broad macro-system innovations, that are generally applicable at the micro-level, i.e. in the living context of local natural & social environments.





Indigenous Knowledge Defined



- *Indigenous Knowledge* represents the collective experience, wisdom & know-how unique to human social cultures & communities living in an intimate, symbiotic, & balanced relationship with their local environments.
- Such knowledge serves as the basis for individual, familial & community-level decision making in areas pertaining to: governance; food provision & security; human & animal health; childhood development & education; natural resource management; & other vital socio-economic activities.





The Scope of Indigenous Knowledge



⊕ *Indigenous Knowledge* includes, & extends beyond the *Aboriginal Knowledge* of First Nations peoples in the Americas, to include the knowledge of traditional cultures & societies of peoples in Africa, Asia, Oceania & parts of Europe who are living in intimate balance with nature & hold long historical roots to their territories.

⊕ Whereas, the *Local Knowledge* of remaining populations is highly hybridized, with Western scientific knowledge predominating.





The Acculturation Process: Indigenous Knowledge & Western Scientific Knowledge



Integration, Assimilation, Separation & Marginalization

When Indigenous Peoples Answer

Should Indigenous Knowledge be
maintained as separate bodies of
knowledge?

Yes

No

When the Dominant Society Answers

Should there be interface between bodies of
Indigenous Knowledge & the Western
Scientific Knowledge System?

Yes

Integration / Assimilation

No

Separation / Marginalization

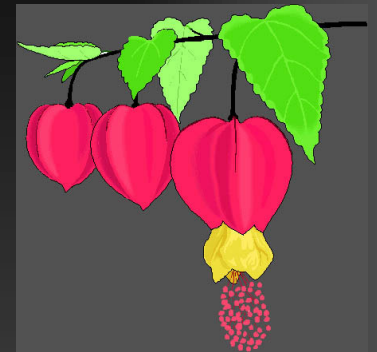




Indigenous Knowledge A Vast & Largely Untapped Resource

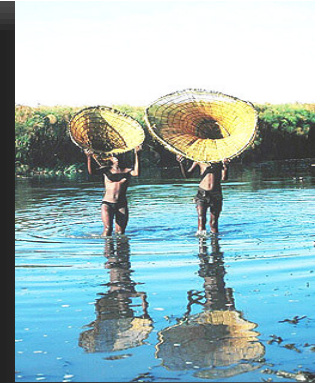


- The NY Institute of Economic Botany estimates that only 1,100 of the earth's 265,000 species of plants have been thoroughly studied by Western science, while as many as 40,000 plants likely hold medicinal, or undiscovered nutritional value for humans.
- Over 90 percent of the earth's biological diversity is in regions largely inhabited by indigenous peoples, who hold a substantial repository of the usefulness of unnumbered thousands of plant & animal species.
- For example, in Southeast Asia it is now estimated by experts that indigenous healers utilize some 6,500 medicinal plants. Whereas, on a worldwide basis more than 3,000 different plants are employed to influence fertility alone.

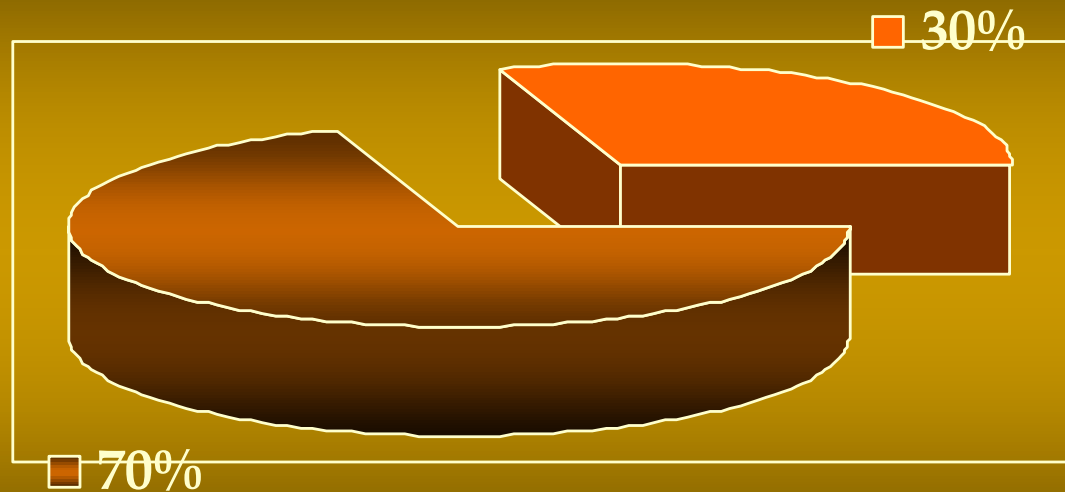




Indigenous Knowledge & Human Medicine



Reliance on Traditional Medicine



■ Traditional Medicine ■ Western Allopathic Medicine





Indigenous Knowledge for Human Survival



Its estimated that as many as two thirds of the world's peoples today could not survive without the foods that have been & are being provided to humanity Thorough *Indigenous Knowledge* of plants, animals, insects, microbial life & agricultural systems.



2000 Year Old
High Rice Fields
Ifugao People
Philippines

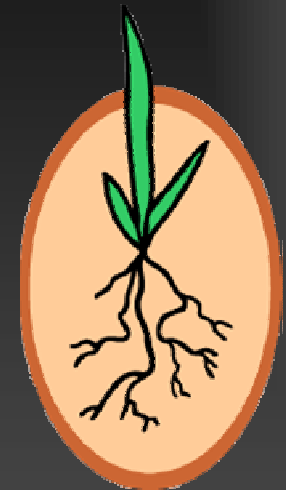




Indigenous Eco-Agricultural Knowledge Systems



- Indigenous Andean agriculturists have been able to maintain not hundreds, but thousands of varieties of potatoes which are adapted to a wide range of soils, topographies, climates, & altitudinal conditions.
- Among the Lua of northern Thailand, about 120 crops are grown, including 75 food crops, 21 medicinal crops, 20 plants for ceremonial or decorative purposes, and 7 for weaving or dyes. It is not unusual for as many as 20 varieties of seed rice to be kept in local villages.
- The Kayapo of Brazil effectively manage more than 600 distinct plant species in a complex agro-forestry system that is intensive, diverse and sustainable.
- Many previously assumed "natural" ecosystems, are in fact "cultural landscapes."



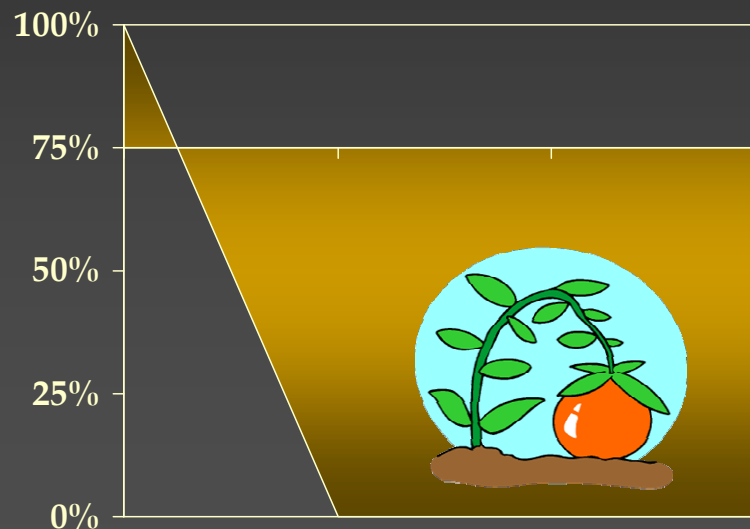


Agribusiness Technologies & Crop Diversity Loss



Agribusiness interests & technologies have led to massive scale monocropping across the globe, leading to: roughly three fourths of the genetic diversity of the world's 20 major food crops being lost from farmer's fields; massive increases in soil erosion with lessened natural soil fertility; & a significant weakening of biological pest controls. IK polyculture systems emphasize *plant diversity*, *soil regeneration* & *non-toxic pest controls*, & are thus key to reversing these ominous trends.

■ Genetic Diversity Lost From World's Major Food Crops

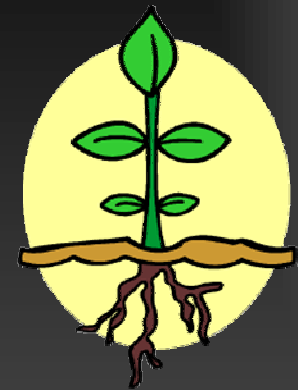




Indigenous Knowledge A Viable Alternative to Agribusiness Technologies



- According to Cornell Entomologist Pimental, over a period of four decades in the last half of the 20th Century, globally the share of crop yields lost to insects has virtually doubled (7% to 13%). This huge increase in losses occurred, despite a more than 10 fold increase in the amount & toxicity of synthetic insecticides used.
- His research findings also reveal that frequently “less than 0.1%” of pesticide applications actually reach targeted pests.
- Conversely, IK polyculture systems exhibit a number of desirable features including: low cost; production stability; diversity in diet & income; biological resilience (including reduced insect & disease incidence); minimum ecosystem degradation; & enhanced productivity.





Indigenous Building Techniques



An ancient technique still used widely today in Tibetan villages on the Tibetan Plateau of China, are structures made of rammed earth (usually a mix of about 70% sand & 30% clay).

Such structures are noted for:

- their amazing strength (said to be as strong as a bomb shelter);
- long life (durable for centuries not decades) with absolute minimal maintenance;
- being dry and immune to rot and insect damage.
- remaining warm in cold weather and cool in hot weather;
- being fireproof; and
- Soundproof.



Rammed Earth Home
in Zhongdian, China





IUCN Recommendations



*International Union for the Conservation of Nature & Natural Resources (IUCN) commissioned Working Group on Traditional Ecological Knowledge recommends that *IK*:*

- i. Should be sought for obtaining new biological & ecological insights
- ii. When used in natural resource management is as relevant & valuable as are “Western scientific prescriptions”
- iii. Is a key resource for conducting quality environmental assessments in the Developing World
- iv. Should be employed in conducting practical & experiential conservation education programs
- v. Is a vital resource for effective environmental, natural resource, & production systems focused development planning.





Indigenous Knowledge & International Development



Far too often, *IK*, intelligence & initiative have been neglected in the design and implementation of development efforts. Genuine development requires that local peoples are free to engage in what they understand & believe is best for them.

Holders of *IK* should not be regarded as paraprofessional aides to exogenous professionals. Rather, they must be seen and treated as experts in their own right, for that is what they are. They can serve as “expert consultants” capably advising in the design, planning & implementation of enterprise & development initiatives related to their fields of Experience & Knowledge.





Indigenous Knowledge & International Development



The rationale and imperative for Multilateral and Bilateral aid agencies, and the NGO community to incorporate *IK* into development programming is simple. As a core element of the “social & intellectual capital” of Indigenous peoples it is:

- Locally familiar
- Readily available;
- Environmentally appropriate;
- Frequently less costly;
- Vital in identifying locally sustainable & manageable measures for poverty alleviation; &
- Noteworthy for its effectiveness





Development Principles Commonly Found in Indigenous Cultures Worldwide



- ✓ Intra & inter-community cooperative;
- ✓ Family reinforcing, i.e. bonding of young & old;
- ✓ Holistic, while seeking to integrate key knowledge disciplines or sectors;
- ✓ Ecologically sound;
- ✓ Local & renewable resource reliant;
- ✓ Local community scaled, scheduled & administered;
- ✓ Local knowledge, skill & employment intensive; &
- ✓ Self-sustaining.





The High Costs of Ignoring Indigenous Knowledge in Development



A *World Bank* paper entitled “Indigenous Knowledge for Development: A Framework for Action” (1998), informs us that a study of 121 rural water projects in 49 countries found that:

- 70 percent of projects succeeded when the experience and knowledge of intended beneficiaries were inputted into project design; *whereas in contrast*
- Only 10 percent of projects succeeded when *Indigenous Knowledge* inputs were not sought.





Indigenous Knowledge - A Vital Counterforce to Globalization



Indigenous Knowledge is a largely untapped, albeit crucial force for establishing cost-effective & sustainable approaches to socio-economic development, that are locally manageable & socio-culturally fulfilling

- As an effective counterforce to globalization, there needs to be a renewal of local self-reliance which hinges upon employing the best of Western science with the inherent knowledge, wisdom, & skills of Indigenous peoples
- These locally rich & largely hidden knowledge systems offer much promise for creating innovative pathways for human renewal & community development, while sustaining local natural environments. Indeed these pathways promise a better & more sustainable future for the whole human family.





Recommendations on Education & Learning for Nation State & Multilateral Aid Agencies



Policy Recommendations

- ❖ Public sector agencies should encourage the effective integration of *IK* into formal school curricula & programming in both basic & higher education levels
- ❖ In the field of adult education, there should be exploration of the potential to revive & renew apprenticeship training programs in specific traditional knowledge fields such as: regenerative agriculture; agro-forestry; human & veterinary medicine; & conflict-resolution
- ❖ Finances should be granted to support the process of Indigenous people's learning from each other, within & between communities, & multiple regions of the world





Recommendations to Mitigate the Inimical Impacts of Globalization



Policy Recommendations

- ❖ Governments worldwide should adopt operational policies that respect & support the socio-cultural integrity of Indigenous peoples, & communities, including the implementation of analogous international agreements.
- ❖ Nation states should take measures to safeguard & not undermine the opportunities & capacities of Indigenous peoples to freely employ & expand their integral knowledge in the design & implementation of development initiatives. This will include supporting field trials that can compare & at times integrate *IK* applications with non-disabling elements of Western science in a variety of sectors.





Multi-Sectoral Recommendations to Mitigate the Inimical Impacts of *Globalization*



Policy Recommendations:

- ❖ IPOs should collaborate with CSOs, research & professional bodies to enhance their policies & practices relative to ensuring that the integrity of indigenous cultures, languages & knowledge bases are not further compromised
- ❖ Under the direction of Indigenous experts, staff orientation guidelines on IK should be established by public & private sector entities, CSOs & academia to ensure appreciation of & due respect for *IK*
- ❖ Governments should ensure that indigenous peoples customary law, including conflict aversion & reconciliation practices are respected & employed in conflict resolution & peace building initiatives





Recommendations for the International Community on Local Culture & Knowledge Safeguards:



Policy Recommendations:

Whereas, globalization pushes Indigenous peoples deeper into poverty & social marginalization by being forced to pay for what were originally their own resources & knowledge:



Multilateral bodies should afford support to Indigenous communities & IPOs in establishing adequate protection measures designed to safeguard their cultural & intellectual property rights for the benefit of current & future generations



IPOs, acting in alliance with regional CSOs, should lobby governments to implement preventive & punitive legal measures to minimize the unjust exploitation of *IK*, and to strengthen international protection measures





Recommendations for the International Community on Local Culture & Knowledge Safeguards:



Policy Recommendations

- ❖ Require external aid agencies & corporations to undertake impact assessments to ascertain the potential of current & new technologies to further precipitate erosions of *IK*, including the diminution of the basic human rights, environmental, ethical, & cultural integrity of Indigenous peoples
- ❖ IPOs & or local Indigenous communities should be afforded with direct input into these assessment methodologies & in turn derive feedback from all research conducted upon its completion

