Children, Poverty and Environmental Degradation: Protecting Current and Future Generations

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The public issue of environmental degradation represents private troubles of great consequence for poor children across the world. This paper illustrates local, national, and international connections among poverty, environmental degradation, and children's well being. Strategies to protect current and future generations through a clear focus on children's needs, coordination between environmental and children's organizations, and leverage of international agreements and conventions are reviewed.

The international public issue of environmental degradation represents private troubles of great consequence for children across the world. Millions of children exposed daily to toxic air pollution and contaminated water in the world's megacities such as Bombay, Beijing, New York, and Sao Paulo suffer from pollution-related respiratory problems, cancer, and learning disabilities (Davis & Saldiva, 1999). Over half of the 120 million children in China are estimated to have blood lead levels that exceed lead poisoning thresholds (Wei, 1998); in the United States, 3 to 4 million American children have blood-lead levels high enough to cause permanent neurological damage (Natural Resources Defense Council, 1998). Childhood leukemia and other cancers have been linked to chemicals in pesticides, herbicides, and household items including plastics, textiles, and furniture (Daniels, 1997). The most recent and troubling research includes studies of synthetic chemicals such as dichloro-dyphenyl-trichloroethane (DDT) and other pesticides widely used across the world, that block the functioning of reproductive and thyroid hormones. These endocrine and immune system disrupters have multiple effects, including genetic and reproductive damage, cancers, birth defects, and decline in sperm density (Colburn, Dumanoski & Myers, 1997; Repetto & Baliga, 1996).

Children who are poor are at even greater risk from combined effects of economic and environmental problems. Poor children suffer disproportionately from air, water, and ground pollution; diminishing global per capita water supplies; inadequate sanitation systems; poorly regulated agricultural and industrial practices; and flooding brought on by deforestation (Roberts, 1998; Rogge & Darkwa, 1996). There is growing awareness and concern about the connections among children's well being, the state of the natural environment, and economically-driven phenomena such as child labor (Spar & Yoffie, 1999) and the governmental debt restructuring that draws resources from nations' health, educational, social service, and environmental protection systems (Feenstra, 1998).

Differential government, private, and not-for-profit sector approaches across geopolitical boundaries complicate the effects that environmental and economic problems can have on children. This article suggests a modeling tool that may be useful for mapping, monitoring, and acting on environmental and economic problems for the purpose of ameliorating harm to children. The following sections summarize the basic model, discuss its components, and suggest how the model can be used to promote the well being of children regardless of where they live.

Focus on Children: Organizing Economic/Environmental Data

Chart 1 shows the model used in this article to organize information and visually represent interactions between economic and environmental factors that affect children's well being. Local, na-

Chart 1
Children, Poverty and Environmental Degradation

Geographic/ Political Dimension	Global Poverty Trap (Durning's 1989 Model)*	Environmental Problems (deforestation, natural resource depletion, air, water, land pollution, toxic waste)	Consequences for children (physical, mental, emotional, economic)	Strategies	Organizati
Local/ Regional	Lack of productive assets Poor health Population pressures Political powerlessness				
National	Domestic policies and development schemes that discriminate against poor citizens				
International	Flow of goods and services National debt burdens High interest rates Rising capital flight				

*Durning, A.B. (1989). Poverty and the Environment: Reversing the Downward Spiral. Worldwatch Paper 92. Washington DC: Worldwatch Institute.

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tional, and international boundaries depict permeable geopolitical dimensions of these interactions.

Each component of the model is discussed below. First, Durning's (1989) three-tier geopolitical conceptualization of poverty identifies economic factors that interact with environmental problems to harm children. Second, a summary of environmental problems facing local communities and international society is provided. Third, evidence of children's disproportionately high physiological vulnerability to environmental problems—especially for children who are poor—is reviewed. Fourth, strategies used to combat these problems are described, with a focus on anchoring children's well being at the center of action, initiating new collaborations among children's and environmental organizations worldwide, and leveraging the intent and resources of international agreements and conventions.

Examples of organizations fighting to implement these strategies around the world are provided. Data from Peru, as a country having "medium development" status (i.e., ranked 80th of 174 countries in the United Nations Development Programme's [UNDP] Human Development Index [UNDP; 1999]) is also used to illustrate the model (see Chart 2). Additional illustrations of the model applied to other countries are located at the author's website (Rogge, 2001).

Local, National, and International Poverty

Worldwide poverty continues to take its grim toll: 1.3 billion people live on less than $1 (US) a day, a third of the world's children are malnourished, and 40,000 children die daily from malnutrition, disease, poor sanitation and water supply, and other environmental conditions (United Nations Children's Fund, 2000). Durning's (1989) conceptualization of poverty across *local*, *national*, and *international* levels provides a foundation from which to map interactions among poverty, environment, and children's well being.

Locally, poor citizens lack land, control over or access to natural resources, and other productive assets. Particularly in poorer countries, physical weakness and illness caused by poor nutrition and sanitation, lack of medical care, and poor housing leave citizens with limited physical capacity. In developing countries, birth rates remain high as families struggle for economic subsistence in the face of high mortality rates. Of Peru's 24.4 million citizens, 49% earn less than $1 (US) daily and the mortality rate of children under five is 54 /1000 live births (United Nations Children's Fund, 2000). Rapid population growth among the poor leads to competition for scarce resources and depressed wages among workers who are agricultural, unskilled, and illiterate. People who are poor have little power and control relative to government, multinational corporations, or wealthier citizens. In Peru, *campesino* communities own 60% of the land because of agrarian reform; subsistence farming is thus supported, but marketplace competition with agri-business is fragmented and constricted (Willer, 1999).

Nationally, tax laws and domestic policy structural adjustments favor the "haves" and harm the "have-nots". In Peru, about 5% of total government expenditures (2.2% of GNP) are for health care and 16% (2.9% of GNP) for education; only 56% of the population has adequate access to health services (United Nations Children's Fund, 2000).

Internationally, high national debt burdens, interest rates, exportation of raw natural resources, and capital flight draw scarce resources away from desperately needed national education, health, and social welfare systems (Durning, 1989). Peru's total international debt exceeds $30 billion. The $2.6 paid in debt service in 1996 exceeded Peru's total 1996 health care expenditures; debt payments in 1997 equaled 35% of the country's total exports (Jubilee 2000 Coalition, 2000).

Environmental Degradation

Poor environmental conditions exacerbate, and are exacerbated by, the harsh conditions of living in poverty. Any litany of global environmental problems must call attention to the six areas discussed here. Problems in each area interact with socioeconomic inequalities to amplify risks to children who are poor (Roberts, 1998).

First and foremost, *human population growth and consumption are responsible for the majority of environment problems*. Growth and consumption, particularly in industrial countries, continues to drive up energy use, which has increased about 70% since 1971. Urban expansion, particularly in developing countries, often occurs without adequate sanitation and other infrastructure. In Peru, 89% of urban dwellers have adequate sanitation systems compared to 37% in rural areas (United Nations Children's Fund, 2000). In Peru and globally, intensive, non-sustainable, high-yield food production methods continue to outpace more sustainable methods. Inequitable resource use patterns are often clear. For example, whereas most of the 800 million people who are undernourished live in developing countries, annual food consumption for one U.S. citizen is estimated to cause 15 metric tons of soil erosion annually (Davis & Saldiva, 1999; World Resources Institute [WRI], 2000).

A second area of concern is the alarming *reduction in per capita water supply and compromised water quality.* One third of all people live in countries in which water supply does not meet consumption demands; the percentage could rise to two-thirds by 2025 (WRI, 2000). Water pollution is estimated to kill approximately 2 million children yearly in developing countries (World Bank, 1996). In Peru, 84% of the urban population has access to adequate drinking water compared to 33% in rural areas (United Nations Children's Fund, 2000).

Renewable natural resources continue to diminish. Soil erosion, nutrient depletion, chemicals that kill organisms and contaminate soil, and irrigation have degraded about 40% of the world's croplands. Forest acreage has been reduced by half; deforestation rates continue to increase in developing countries and air pollution continues to damage the forests of industrial countries. In the Amazon, nearly 2 million acres of rainforest have been destroyed to produce coca crops (George, 1992). Many fisheries have been exploited to the point of collapse. Human consequences of fisheries' decline include unemployment and, for 950 million people, mostly in developing countries, loss of an essential part of their diet (WRI, 2000). Peruvian-based industry uses 9 million tons of fish and dumps 25 million tons of waste into the ocean yearly to produce fishmeal exported as livestock feed (Mosquer & Schwenninger, 1999).

Fourth, unprecedented rates of species annihilation from habitat loss and "bio-invasions" of exotic species threaten *biodiversity* and the vitality of natural ecosystems (Roberts, 1998). Fifth, 70,000 *chemicals used in industrial, commercial, and household applications* cause acid rain, infertile soil, lifeless waterways, and damage to the health of humans and other species (e.g., genetic and chromosomal mutations; developmental disabilities; reproductive, respiratory, and nervous system damage; and cancer (Colburn et al., 1997). Pollution causes hundreds of millions of missed school days, workdays, and billions of dollars in lost productivity (World Bank, 1999/2000).

In Peru, the natural environment and human populations are threatened by chemical exposure through multiple routes. The by-products of gold mines in Cajamarca include cyanide and mercury contamination of local waterways (Winkel, 1997). Pesticide and herbicide use is increasing on both legal (e.g., coca plants used for traditional purposes and medicinal exports, maize, sugar, olives) and illegal (e.g., coca for cocaine) crops. Simultaneously, U.S. and Peruvian government campaigns to defoliate illegal coca crops include aerial spraying with Fusarium. This mycoherbicide, known to mutate rapidly and damage other crops, is associated with a 75% increase in mortality rates among immune-deficient hospital patients exposed to it (Vulliamy, 2000).

A sixth area of concern is *global warming and climate change,* now acknowledged by the world's scientific community as a reality. Efforts to reduce greenhouse gas emissions may not be sufficient to avert predicted global changes such as increased severity of natural disasters and a rising sea level (World Bank, 1999/

Chart 2 (continued)
Children, Poverty and Environmental Degradation
Peru: National

Geo- Political Dimension	Poverty Trap	Environmental Problems	Consequences for Children	Strategies	Organizations*
National	Economic pressures in Peru have: • Created barriers to reducing coca plant production for cocaine. • Minimized industrial and agricultural regulations to attract foreign industry. • Encouraged one of the most radical and rapid privatizations in Latin America. • Reduced funding for public health programs such as hospitals, water and sewage systems. Of total government allocations, about 5% goes to health care (2.2% of GNP) and 16% to education (2.9% of GNP).	Rivers, streams, land and air are affected by industry-related pollution. Cocaine production has resulted in 15 million gallons of Kerosene (non-soluble in water) being dumped into waterways. The percentage of population with access to adequate drinking water is: Total: 77%; Urban: 84%; Rural: 33%. The percentage of population with access to adequate sanitation is: Total: 72%; Urban: 89%; Rural: 37% 1 of 966 has access to medical treatment; 56% of the population has access to health services.	Many children are learning farming methods for coca crops (cocaine production and legitimate use) that reduce soil nutrients, instead of learning soil preserving, sustainable farming methods. Many children are involved with illegal coca crop and cocaine production. Medical facilities report with growing number of children with childhood cancer. Youth are developing a new type of leprosy due to bathing in the same water repeatedly. Cholera is increasing in some areas because of unsafe drinking water and inadequate sewage systems.	Incentives for legal alternative agricultural crops and sustainable farming practices. Incentives and funding for public health and water treatment in collaboration with local organizations. Incentives to collaborate with organizations that promote the regulation of industry pollution. Incentives for use of clean water technology (portable solar water purifiers, etc.) Protection for campesinos using alternative development crops. Incentives to more efficiently organize campesino communities regionally and nationally.	**Sustainable Ecosystems for Land Use through Viable Agroforestry, SELVA** promotes appropriate land use along the Napo River in the Amazon rainforest. **ENLACE Child Survival Project.** (Water and Community Health Project). **GREENPEACE International** http://www.greenpeace.org/index.shtml **Worldwatch Institute** 1776 Massachusetts Ave.NW Washington, DC 20036 Ph.(202)452-19999 http://www.worldwatch.org/ wwpub@worldwathch.org **Peruvian Social Studies Center; Citizen Proposal @** http://cpi.alter.org.pe/psf/

Chart 2 (continued)
Children, Poverty and Environmental Degradation
Peru: International

Geo- Political Dimension	Poverty Trap	Environmental Problems	Consequences for Children	Strategies	Organizations
International Chart references (Anonymous, 2000; HORIZON Communication, 2000; Kindersley, 1994; Komisaruk & Ortega, 1996; George, 1992; Jubilee 2000, 2000; Motta, 1994; United Nations Children's Fund, 2000; UNDP, 1999; Winkel, 1997; Willer, 2000; Vulliamy, 2000)	Peru's international debt exceeds $ 30 billion. Debt service, as % of exports, is 35%. The $2.6 paid in debt service in 1996 was more than the nation's 1996 total health care expenditures. Peru pays $12.27 in debt service for every $1 received in aid grants Illegal drug exportation is Peru's number one source of income. Peru receives most aid from the U.S., contingent on Peru's cooperation to combat drugs. Cocaine production continues to rise. International aid contingent on coca plant reduction threatens production of coca leaves for legal traditional use and medicinal exports. Foreign companies are attracted to minimal regulations and low wages.	Deforestation of the Amazon (over 1,750,000 acres destroyed) for coca crops and for landing strips, camps, and laboratories for cocaine production. Families destroy forest in search of richer soil or to escape detection of coca crops. Many waterways in Amazon are sterile because of pollutants and toxins. The U.S./Peru policy to defoliate coca crops use aerial spraying of pesticides and herbicides, adding to river pollution, risk to other plants and species, and to human health. Peru, yearly, uses 9 million tons of fish, dumps 25 million tons of waste into the ocean, and pollutes air through factory emissions in the production of fishmeal exported as livestock feed.	The largest gold mine of South America, opened in Peru in 1993, profits $94 million a year; operators state they have given $4 million to the community. No children in local villages have clean or running water. The company employs few local families; those employed are paid $5.60 daily. Other industries follow suit. A Columbian study finds a 75% mortality rate in immune-deficient hospital patients exposed to the fungicide Fusarium. Babies in industrialized countries are addicted to crack cocaine; the estimated related cost to U.S. taxpayers is $2.5 billion yearly. Industrial countries are experiencing the affects of the drug movement. Younger children in industrialized countries are targeted for drug consumption.	Encourage World Bank, IMF, and industrial nations to forgive external debt. International incentives for alternative crop development and security for participating campesinos. Use "Debt for Nature Swaps" to increase reforestation efforts and decrease debt dilemmas. Create incentives and regulations for national and foreign industries to reduce pollution and contribute to communities housing their enterprises. Incentives for sustainable development trade agreements for small-scale farmers. Promote "green seal" for fishmeal and other products regarding environmental and social effects.	**Jubilee 2000,** http://www.oneworld.org/jubilee2000/ **Environmental Development Action in the Third World, ENDA,** http://www.enda.sn/ **GREENPEACE, Int.,** http://www.greenpeace.org/ **Save the Children Federation, Inc.,** http://www.savethechildren.org/ **UNICEF,** http://www.unicef.org **Institute for Agriculture and Trade Policy,** www.iatp.org and **UN FAO,** www.fao.org **Cooperation and Community Kitchens,** Chancay, Peru and **Infostelle Peru**, Germany, schwenni@tuebingen.netsurf.de

Chart 2
Children, Poverty and Environmental Degradation:
Peru: Local/Regional

Geo- Political Dimension	Poverty Trap	Environmental Problems	Consequences for Children	Strategies	Organizations
Local/ Regional	Communities are poor and have little power against large, polluting companies that move into their region. Campesino communities own about 60% of the land but organization tends to be fragmented. Many stable jobs are only available in coca-related (legal and illegal) fields. An estimated 1 out of every 3 jobs is drug related. Andean foothills contain large crops of coca plants for production of cocaine. Of Peru's 24.4 million citizens, 49% live in income poverty, earning at or below $1US daily. Life expectancy at birth is 68. Peru's population has doubled in the last 30 years.	Poorly regulated foreign industries dump poisons on land, in water, and in the air. In Cajamarca, a foreign-owned gold mine dumps cyanide into streams. Horses and cows that drink from streams below the mine "get stomach aches and sometimes die". Villagers say rivers once full of trout are lifeless. Pollution from gold and copper mines in Ilo contaminates Tambo, Ensenada, and Mejia valleys. Alfalfa, maize, rice, sugar and olive crops lose productivity. Coca, part of traditional Peruvian diet, leaches soil nutrients and can cause soil erosion. The debt crisis and cocaine trade have increased coca crops tenfold and destroyed forests. Pesticides/ herbicides used to enhance crop yield, and to destroy illegal coca crops, pollute streams.	Thyroid abnormality is widespread among children in mountain areas, with an average prevalence of 38% and 90% in some regions. In 1990 50-70 children and adult residents of Choropampa treated for mercury poisoning after a spill from a truck headed to Lima from Yanacocha mine. Children help trample coca leaves treated with toxic pesticides and herbicides. In 2000 24 children in Tauucamarca died because a pesticide was accidentally mixed into a breakfast drink at school. Indians in high ranges of the Andes complain of nausea, rashes, and stomach problems after pesticide spraying of coca crops. The mortality rate of children under five is 54 /1000 live births.	NGOs are bringing international and national attention to these issues and resources and training to local communities: Provide incentives for and teach insecticide and herbicide safety and integrated pest management. Use crops that do not require irrigation or fertilizer, such as potatoes and quinea. Provide incentives for and education about markets for llama, alpaca, and vicuna ranching and fish aquaculture. Provide incentives for training and employment for young people and adults in alternative development, microenterprise and community service (e.g., building of 1,206 family greenhouses for vegetable growing).	**Peru Solidarity Forum** http://cpi.alter.org.pe/psf/ **Centro International de la Papa,** Lima, Peru http://www.cgiar.org/cip/ciphome.htm **CHAVIN Agicultural Project,** (educates and aids farmers on productive, legal crops)., **North Andean Agricultural Development, ANDES** (assists farmers and educates on pesticide use). **Consejo nacional de Camelidos Sudamericanos (CONACS)** Lima, Peru, Conacs@amauta.rcp.net.pe **IVITA,** Pucallpa, Peru @ http://www.yale.edu/horizon/databank.htm **Youth and Employment Project,** Catholic Church of Sicuani, Cusco Province, @ Http://cpi.alter.org.pe/psf/

2000). Competition over scarce natural resources is predicted to increase conflict and violence between neighboring citizens and nations and to threaten the capacity of some cultures to survive (Hoff, forthcoming). The anticipated scale of tragedy from climate change is massive: in Bangladesh, a one meter rise in sea level would create about 70 million environmental refugees, many of them children, and slice the country's rice production in half (World Bank, 1999/2000).

Children's Physiological and Developmental Vulnerability

As daunting as the combined consequences of poverty and environmental degradation may be for human populations, the greatest risk is for children because of their development needs. Contaminated water, breast milk, and other foods may concentrate toxic chemicals. Developing cells are more susceptible to damage. Faster respiratory rates and more hand-to-mouth activity increase the likelihood of ingestion of harmful substances at higher rates of concentration (National Research Council, 1993). Pesticides, heavy metals, and other toxins concentrate near the ground where children play and work (Repetto & Baliga, 1996). Children can suffer from parental exposure to chemicals during the *parents'* own childhood development (Bearer, 1995) and from parental work exposure (Colburn et al., 1997). Recent studies, most notably among Yanqui Indian communities in Mexico, link pesticide exposure to developmental disabilities and violent behavior (Guillette, Aquilar, Soto, & Garcia, 1998).

Damage from and future opportunities forfeited because of poverty and environmental degradation are personal tragedies for millions of affected children and their families. The Ukraine Ministry of Health estimates that up to 1.5 million children have highly irradiated thyroid glands from the radioactive iodine released during the 1987 Chernobyl nuclear reactor disaster; the rate of thyroid cancer among these children affected is approximately 100 times greater since the disaster (Page, Bobyleva, Naboka, & Shestopalov, 1995; Souchkevich, 1996). Iraqi children whose mothers ate mercury-contaminated grain suffered developmental and mental functioning harm (Gilbert & Grant-Webster, 1995). Especially for poor children in poor countries, protection from some environmental threats means exposure to others. DDT, for example, is one of the most effective weapons against malaria and has saved millions of children from the disease, yet it is also one of the most deadly pesticides (Wargo, 1996).

In Peru, children drink from waterways downstream from mines. The rate of thyroid abnormality, associated with exposure to cyanide and other chemicals, averages 38% among children in mountain areas with rates in some regions as high as 90% (Kindersley, 1994). In June 2000 50-70 children and adult residents of Choropampa required treatment for mercury poisoning after mercury spilled from a mining truck en route to Lima (Anonymous, 2000). Children help process coca crops, usually treated with pesticides and herbicides, by crushing the leaves with their bare feet (George, 1992). In October 1999 24 children from Taucamarca died when the pesticide parathion was accidentally mixed into a breakfast drink at school. The pesticide was apparently shipped to the school with government food supplies and was labeled in Spanish; the majority of Taucamarca residents speak Quechua. Additionally, methyl parathion use has been banned in many countries but not in Peru (Willer, 2000).

From Local Participation to International Convention

Effective global action to remediate economic/environmental problems that harm children requires that local, participatory "bottom-up" strategies be matched with "top-down" strategies at national and international levels (Kansouh-Habib, 1997; Kondrat & Julia, 1997; Lusk & Hoff, 1994). Chart 2 shows an application in Peru of the child/poverty/environment matrix model that includes multi-level strategies and organizations that are using them.

Strategies should be emphasized that have a clear focus on children's needs, enhance coordination between environmental and children's organizations, and leverage international agreements on economic, environmental, and children's issues.

Focus on Children

Effective global action to remediate economic/environmental problems that harm children must truly focus on children. We must take care to avoid assumptions about how children are protected. In the United States, for example, citizens generally assume that federal standards for toxic chemical thresholds account for children's safety. In fact, it is only since 1996 that such standards, traditionally based on risk assessment data for adult males, are being reevaluated regarding children's greater vulnerability (Rogge & Combs-Orme, in press). In the Philippines, 2.2 million child laborers are exposed to physical, biological or chemical hazards; 900,000 have documented labor-related injuries or illnesses. Despite these and other economic/environmental problems faced by Filipino children, a 1998 study of children's organizations in the Philippines found that (1) *none* of the organizations had child advocacy as an objective, (2) only 21.7% reported

any advocacy to protect children, (3) few local laws promote child welfare, and (4) national laws are insufficiently enforced (Anonymous, 1998). In Peru, the death of the 24 Taucamarca children from pesticide poisoning has raised advocates' voices about corporate responsibility and the government's failure to protect (Willer, 2000).

Interorganizational Collaboration

Collaboration on the behalf of children can be fruitfully increased among sub-national, national and international governmental (IGOs) and non-governmental organizations (NGOs), especially between environmental and children's organizations. For example, Filipino Children's Congresses held in 1992 and 1995 were followed in 1997 with the Expanding Children's Participation in Social Reform (ECPSR) Project. ECPSR involves children advocating on their own behalf through government-sanctioned children's organizations in neighborhoods, cities, provinces and nationally. ECPSR collaborators include Filipino children; neighborhood groups; national, provincial and local Filipino government; the U.S. Agency for International Development; World Vision Development Foundation; Christian Children's Fund; PLAN International; and the Educational Research and Development Assistance (ERDA) Foundation, Inc. Successes to date include environmental research conducted and presented by children and successful enactment of new child labor and sanitation laws (Anonymous, 1998).

Greater collaboration among NGOs has become more and more feasible, if not necessary, in part because of exponential growth in the number of international NGOs. The Union of International Associations (1999/2000) recorded no international NGOs in 1960, 741 in 1968, 8,579 in 1988, and 29,495 in 1999. A review of international organizational directories, however, shows little evidence of organizations for which environmental and children's issues are dual priorities (Fridtjof Nansen Institute, 1999-2000). A search of the World Directory of Development Organizations and Programs (Project Cooperating for Cooperation, 1996) identified 62 international environmental international NGOs and 92 international children's NGOs. Only sixteen (25%) of these NGOs addressed both environmental and children's issues.

There may be greater cross-fertilization than is documented between environmental NGOs (e.g. the Environmental Liaison Centre International, Friends of the Earth International) and children's NGOs (e.g. ACTIONAID, Childnet International). Friends of the Earth Middle East (2000), for example, recently distributed information worldwide, via email, about their collaboration with Israeli and Jordanian schools and others in a year-long youth campaign for the environment. Inter-governmental organizations (e.g., United Nations Children's Fund, UNDP, United Nations Environment Programme, World Health Organization) continue to occupy central information exchange and networking roles (Kansouh-Habib, 1997). Although there are important issues about how information technology overall contributes to the gap between rich and poor (see United Nations Research Institute for Social Development, 2000), technology such as email and the Internet makes information about partnerships among local, national, and international organizations increasingly accessible. Such technology also increases opportunities to create new partnerships and disseminate information.

International Agreements and Conventions

International agreements such as the 1989 United Nations Convention on the Rights of the Child, the 1992 United Nations Conference on Environment and Development, and the World Summit for Social Development can be powerful tools for improving economic/environmental conditions for children (Jayasuriaya, 1997). International agreements bring a new salience and legitimacy to the geopolitical dimensions of economic, environmental and children's problems and impose moral obligations on national governments to act differently (Princen & Finger, 1994). The 1992 and 1995 Filipino Children's Congresses, for example, followed the Filipino ratification of the 1989 Convention on the Rights of the Child (Anonymous, 1998). The 1994 Convention on International Trade in Endangered Species has played an important role in Peruvian efforts to enhance economic, environmental and children's well being. Under this Convention, Peru can participate in international marketing of wool sheared from the endangered vicuna. Campesino communities harvesting the wool have been given custody of vicunas, the right to manage the land on which they live, training in animal husbandry and land management through Consejo nacional de Camelidos Sudamericanos (CONACS), and housing, health and educational programs for children and their families (Tovar, 1997).

Working together, local, national, and international NGOs can leverage international agreements to negotiate common purpose, push environmental and children's issues onto national political agendas, and facilitate citizen pressure on governments to act (Brown-Martin & Ofosu-Amaah, 1992; Susskind, 1994). NGOs and IGOs can test strategies, monitor, and evaluate international, national, and local activity. Childwatch International, for example,

a network of 30 research institutions in Africa, Asia, Europe, Latin American and the Caribbean, North America, and the Pacific Region, is developing indicators and evaluations of how well the approximately 170 nations that ratified the 1989 Convention on the Rights of the Child carry out their commitments (Children's House, 1997). National governments, in turn, can leverage international agreements to improve their political and administrative capacity and expand their resource base. Raschick (1996), for example, notes that the National Programs of Action stemming from the 1990 World Summit for Children relied most heavily on NGOs and international assistance to implement their Plans.

Conclusions and Recommendations

The combined threat from poverty and environmental degradation to the children of the world can be a powerful incentive for local, national, and international organizations to negotiate new common purpose and action. Environmental and children's NGOs have important opportunities to share strategies, leverage tools such as international agreements, and otherwise expand their collaboration. The more such tools can be created, shared, and used, with a constant and clear focus on the needs of children, the more we can hope that collective action will be a sufficient response to the daunting economic and environmental problems that threaten our current and future generations.

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