

INDIGENOUS PEOPLES, ENVIRONMENTAL PROTECTION,
AND SUSTAINABLE DEVELOPMENT

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Washington, D.C. 20433

Drafted: October 1984

Revised: November 1985

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Man is both creature and moulder of his environment which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights--even the right to life itself.

--United Nations Conference on the
Human Environment, Declaration on
the Human Environment, Stockholm,
1972.

1. Introduction

Since the establishment in 1970 of an environmental unit, now called the Office of Environmental and Scientific Affairs, the World Bank has taken the lead among multilateral lending institutions in facilitating and promoting environmentally-sound development policies (Lee, 1984). Since 1970, the Bank's Environmental Affairs Office has reviewed over 2,000 projects and programs in developing countries in terms of their environmental, public health and safety, and socio-cultural impacts. Among other things, the Bank has found that economic development requires sound management of natural resources--particularly renewable resources--and systematic attention to environmental impacts; that environmental damage can be prevented or greatly reduced at financially acceptable costs; and that environmental protection measures can often be shown to have economic benefits that exceed their economic costs (World Bank, 1984).

Recently, there have been two noteworthy redirections in the Bank's environmental work. First, there has been a growing concern within the Bank not only for mitigating the adverse environmental impacts of economic development (e.g., water and air pollution, soil erosion, deforestation, etc.), but also with positively promoting environmental enhancement through wise resource management and sustainable development. In such diverse areas as improved water supply and waste disposal, energy conservation and the use of renewable energy sources, and forestry and firewood development, the Bank has promoted projects which improve people's environments while, at the same time, ensuring economic growth (Clausen, 1981).

The Guardian of London in a review of a draft of the 1982 policy paper noted that the World Bank "has become the first international development agency to recognize that economic development places in jeopardy the survival of tribal peoples." The review went on to assert that the tribal peoples policy report was a "remarkable document," because it "proposes a Bank policy for indigenous peoples which, if fully implemented, will support their rights to their land, resources, ethnic identity, and cultural autonomy." (Guardian, London, 12 August 1981)^{1/}.

Although tribal components now exist for more than a dozen Bank-financed projects, especially in Latin America, the tribal peoples policy, like the Bank's new emphasis upon sustainable development, is a statement of Bank intent which is still in the process of being translated into Bank and member country action and practice. Nevertheless, the relatively recent formulation of these policies provides a challenge to the Bank and its member countries to design projects which integrate the Bank's concerns with the welfare of indigenous peoples, environmental protection, and sustainable development. The following paper attempts such an integration through the presentation of several case studies where indigenous peoples have assumed an active, participatory role in the development process and contributed to the twin goals of economic betterment and environmental enhancement.

^{1/} The closely related terms indigenous, tribal and native peoples are explained in World Bank (1982) and are used interchangeably herein.

two or three decades, there has been a persistent assault on the physical and cultural integrity of the world's last remaining, unacculturated tribal societies (Bodley, 1985; Davis and Mathews, 1976; Davis, 1977; Swenson, 1982; Narby and Davis, 1983).

Finally, the growing threat to the survival of indigenous peoples has been accompanied by an increasing awareness of the deleterious environmental consequences of the rapid and unplanned occupation of these internal frontiers. This awareness is particularly great in countries such as Brazil and Indonesia where recent deforestation trends are jeopardizing some of the world's last remaining and most extensive tropical rainforests. Numerous studies have predicted that if current rates of deforestation continue, by the end of the century, these countries will have destroyed the natural resource base upon which much of their future economic development depends (Guppy, 1984).

The United Nations Conference on the Human Environment which met in Stockholm in June 1982 was well aware of the grave socio-cultural and environmental problems caused by post-war economic development trends. In its Declaration on the Human Environment, the Conference participants proclaimed:

In our time man's capability to transform his surroundings, if used wisely, can bring to all peoples the benefits of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the human environment.

6. Human activities should be designed and operated to maintain and enhance the productivity of the biosphere--the surface layers of the Planet Earth where all terrestrial and aquatic ecosystems operate and upon which all life depends.
7. Human activities should be designed and operated to use wisely (conserve), the energy and materials of Earth and to respect, maintain and enhance the natural processes which produce and recycle energy and materials.
8. And finally, development should respect, maintain and enhance the diversity of natural life and human cultures to maintain and expand the availability of options for this and future generations of humans. This requires that homogenization of land use and human lifestyles be avoided (Cocoyoc Declaration, 1974).

Recently, indigenous peoples and their advocates have joined environmentalists in seeking development strategies which respect native land rights and traditions, conserve natural resources, and provide for the long-term sustainability of human populations and the environment. In 1981, for example, UNESCO and the Latin American School of Social Sciences (FLASCO) convened a conference of experts and leaders of indigenous organizations in San Jose, Costa Rica, to discuss the topics of ethnocide and ethno-development in Latin America. One of the results of this important conference was the release of a declaration calling upon national governments and international development agencies to protect indigenous peoples against ethnocide (i.e., cultural destruction) and promote their own ethno-development. The Declaration of San Jose (See Section 6.1), as it has come to be called, affirms that "ethno-development is an inalienable right of indigenous groups." The Declaration defines ethno-development as:

the amplification and consolidation of the scope of a culturally distinct society's own culture, through the strengthening of its capacity to guide its own development

Indigenous Peoples released by the U.N. Human Rights Commission's Subcommittee on Prevention of Discrimination and Protection of Minorities in 1983.

The U.N. Subcommittee report follows the San José Declaration in recognizing the right of indigenous peoples to full and autonomous participation in the development process and the responsibilities of governments and international development agencies to respect this right. "Without such participation in both the planning and implementation of development programmes," the U.N. Subcommittee study notes:

there are several dangers that development projects will not only fail to satisfy the manifest needs of indigenous peoples, but may also be initiated and developed at their expense.

Development planners, the U.N. Subcommittee study goes on to assert, "should reconcile the needs of indigenous peoples with the requirements of national economic development." In this regard, the report says that experts and indigenous peoples themselves are currently placing "more emphasis on the need for self-reliance, self-management, and self-determination, and particularly on concepts of ethno-development in choosing the model of development as it affects their own interests, within the formulation of general development plans and efforts" (United Nations Commission on Human Rights, Subcommittee on Prevention of Discrimination and Protection of Minorities, 1983).

Unfortunately, most of the discussion of ethno-development to date has been of a programmatic nature, suggesting the need to integrate indigenous peoples as active participants in the development process,

the Hopi, Navajo, Southern Ute, and Northern Cheyenne reservations, Pittsburgh and Midway (Gulf Oil) and El Paso Natural Gas and Consolidation Coal on the Navajo reservation, Redcreek Corporation on the Uinta reservation, and Shell Oil, Westmoreland Coal, and Amax on the Crow reservation (U.S. Federal Trade Commission, 1975).

For most North Americans, the development of these energy resources was seen as a necessary good, providing Indian peoples with jobs and royalties and infusing the national economy with needed supplies of energy and fuel. Many Indian leaders and tribal planners, however, had serious questions about the social and cultural consequences of large-scale energy developments on their ancestral lands. Some tribes, such as the Navajo, took issue with the terms of agreements that were reached with the federal government and the energy corporations in the years preceding the Middle East oil embargo. Others such as the Northern Cheyenne, who successfully challenged all outstanding coal permits and leases on their reservation, wanted more time to study the nature of these original contracts and to analyze other paths to reservation development. No matter what approach tribes took, by the mid-1970s, there was a general feeling in Indian country that information was lacking about the social and environmental costs of large-scale energy developments and that more independent sources of information were needed to assess the meaning of proposed energy projects for Indian cultures and ways of life (Jorgensen, 1978; Ruffing, 1979; Ortiz, 1980).

The federal government tried to alleviate the fears of Indian and other rural communities in the western United States by arguing that Environmental Impact Assessments (EISs), mandated under the National

Jorgensen also criticizes the overuse of cost-benefit analysis in SIAs; a practice which tends, according to his review of the literature, to shift the focus of attention from social and cultural considerations to purely economic and technical matters. In the standard procedure, cost-benefit analysis is applied to social data by assigning dollar values ("shadow prices" in the jargon of this style of research) to everything from religious beliefs and historical traditions to air quality, noise levels, and recreational and aesthetic experiences. This method takes a tool developed for analysing the market and indiscriminately applies it to society. In so doing, the attention of policy makers is shifted away from the consequences of energy development for local peoples and communities and to the costs and benefits for the national economy.

Finally, Jorgensen criticizes federal agencies, and the social and environmental scientists who have worked for them, for failing to share the information contained in EISs with the members of Indian tribes and rural communities. "In the past decade," he writes

a mountain of information has accumulated at the Department of Interior, yet the information from those EISs and from subsequent studies of what actually happened to environments and communities after the EIS was approved and the uranium mill, coal-fired power plants or dam was built and put into operation have not been available to residents of communities facing the prospects of large scale changes to their environments and communities (Jorgensen, 1981, p. 80).

By the mid-1970s, Indians themselves began to see the problems entailed in standard assessment procedures and started to seek their own independent sources of information on the social and environmental

Along with providing the Northern Cheyenne Tribe with an valuable data base and training several tribal members in standard survey research techniques, the NCRP socio-economic studies served two other important purposes. First, they provided the Northern Cheyenne with a systematic and reliable body of information for intervention in various EIS assessments taking place in southeastern Montana. At the time the NCRP got started, there were already over a half a dozen project-specific EISs being conducted or scheduled for the vicinity of the reservation. Although NEPA provided no legal obstacles to Indian participation in such assessments, most of the federal and state agencies charged with assessing proposed power plant, mineral, and energy developments were extremely reluctant to involve the tribe in such participation, even though the tribe possessed its own research program and requested such participation. Hence, the NCRP found itself often in an adversarial role, requesting tribal participation in social and environmental assessments being conducted by federal and state agencies. Such intervention proved successful in 1977, when the U.S. Environmental Protection Agency (EPA) granted the Northern Cheyenne Tribe a Class I (clean) air-quality status, based on an air quality redesignation report prepared by the NCRP staff for the tribe. Because violations of the Northern Cheyenne Class I status were expected, the EPA denied a permit to Montana Power Company for the construction of two additional power plants at a site which was only 15 miles north of the reservation (Owens, 1978; Boggs, 1982 and 1984).

Another important aspect of the NCRP socio-economic studies was that they provided the Northern Cheyenne Tribe with a systematic profile of tribal members' attitudes and perceptions of various types of economic

developments as Cheyennes will be pushed out (29.7 percent); whites will bring crime and white ways and values (21 percent); discrimination and prejudice against Indians will increase (15.1 percent); and, Indians will lose control over the reservation (12.6 percent) (Nordstrom et al., 1977, pp. 143-191).

Interestingly, attitudes toward energy development similar to those of the Northern Cheyenne have been elicited from the Navajo by social scientists working for the Office of Research and Development at the Navajo Community College in Shiprock, New Mexico. The Navajo Community College research group has been conducting studies similar to those of the NCRP on the social impacts of energy developments among Navajo sheepherding populations in the Four Corners region. Ostensibly, their inquiries are meant to assist the Navajo tribal government in its contract negotiations with the federal government and the private energy corporations. In the process, the research group learned that Shiprock residents feared that energy projects would lead to loss of economic and emotional support of their extended family and kinship groups, livestock and land, self-sufficiency and security made possible by keeping livestock, and other activities that support the inculcation of values such as sharing and mutual support in the extended family. According to several reports, these fears of local community residents are not unfounded, as other Navajo populations who have been involuntarily relocated as a result of energy developments also expressed strong feelings of material insecurity, loneliness, despair, prolonged frustration from idleness, and shame, as well as increased illness and delinquency (Schoepfle et al., 1980; Scudder et al., 1979; Robbins, 1984).

3. there are native language barriers to SIA concepts and technical language;
4. it demands quality data gathering and analysis which are often costly and time-consuming; and
5. its review of "alternatives" is often very circumscribed (Geisler et al., 1982, pp. 1-12).

In summary, Indian SIA is not immune from the problems posed by any research technique which is imposed upon an alien cultural environment; nor is it totally free from the political constraints of standard EIS assessments done for government agencies or private corporations. Nevertheless, as one among many strategies that Indian peoples are using to protect and develop their resources, Indian SIA has proven useful as a development planning tool for Indian tribes in the United States (Green, 1980, Gondolf and Wells, 1984-1985).

3.2 The MacKenzie Valley Pipeline Inquiry in Canada

The second case study concerns the participation of several indigenous groups in a public inquiry of the social and environmental effects of a major regional energy project in northern Canada.

In the mid-1970s, the Canadian government asked British Columbia Supreme Court Justice Thomas R. Berger to organize a public inquiry about the social, economic, and environmental consequences of a proposed natural gas pipeline from Alaska through northern Canada and along the MacKenzie Valley in the Northwest Territories to the United States. Called the MacKenzie Valley Pipeline Inquiry, the study undertaken by Justice Berger

A second important feature of the MacKenzie Valley Pipeline Inquiry was that it relied heavily on the personal testimony of native people to assess the social, economic, and environmental consequences of the pipeline project. In total, Justice Berger held formal public hearings in 35 northern communities and heard testimony from almost 1,000 native witnesses. Justice Berger writes the following about the significance of this native participation to the overall scope of the Inquiry.

I found that ordinary people, with the experience of life in the North, had a great deal to contribute. I heard from almost one thousand witnesses at the community hearings -- in English (and occasionally in French), in Loucheux, Slavey, Dogrib, Chipewyan and in the Eskimo language of the Western Arctic. They used direct speech. They seldom had written briefs. Their thoughts were not filtered through a screen of jargon. They were talking about their innermost concerns and fears.

It is not enough simply to read about northern people, northern places and northern problems. You have to be there, you have to listen to the people, to know what is really going on in their towns and villages and in their minds. That is why I invited representatives of the companies that wanted to build the pipeline to come to these community hearings with me. Arctic Gas and Foothills sent their representatives to every hearing in every community (Berger, 1977, Vol. 2, p. 227).

Justice Berger also notes the importance of such native participation for the technical and scientific quality of the impact assessment:

The contributions of ordinary people were therefore important in the assessment of even the most technical subjects. For example ... I based my discussion of the biological vulnerability of the Beaufort Sea not only

Justice Berger and his co-workers recommended that strict land-use plans and regulations be formulated for the MacKenzie Valley before a pipeline and energy corridor be built. Along with the establishment of a comprehensive program of northern science and research, the Inquiry argued that industrial development activities in this area should recognize the aspirations of northern native peoples and include them as the principal shapers of the future of the north.

At least three aspects of the MacKenzie Valley Pipeline Inquiry's discussion of northern native issues are important to note. First, the Inquiry saw the need to strengthen the native hunting, fishing, and trapping economy in the face of a powerful threat from the expanding industrial economy, based upon the exploitation of non-renewable energy resources. While the industrial economy did offer the promise of jobs, the Inquiry noted that these were limited and short-term and could not replace the self-sustaining, food economy in the traditional way of life.

Second, the Inquiry discussed the probable dislocating effects on native society and culture of a too rapid and uncontrolled encounter with the industrial system. In the numerous community hearings, local villagers expressed their fears that the proposed energy projects would bring increased alcoholism, crime, violence, and other forms of social pathology to their communities. These stated fears, along with the evidence provided by experts on the social impact of rapid resource developments in other areas, led the Inquiry to conclude:

Canadian government and society are the same as those encountered by indigenous peoples in other parts of the world; namely, the right to survive and develop while at the same time maintaining their separate cultural identity as people in the face of a powerful industrial threat.

While it is impossible to transfer the entire format of a public inquiry, like that which Justice Berger conducted of the MacKenzie Valley Pipeline, the general methods and models of such an approach may be relevant to native policy formulation and socio-environmental assessment in developing as well as industrialized countries. To date, it is one of the best examples we have of how to include both native and environmental issues in the appraisal of a major regional development project (Berger, 1982).

3.3 The Central Selva Natural Resources Management Project in Peru

The third case comes from a Third World country and demonstrates how a regional highway construction and land settlement program can be redesigned to include the interests of indigenous peoples and the environment.

In August 1980, soon after assuming office as his country's new President, Fernando Belaunde Terry announced a multimillion-dollar highway construction, cattle ranching, and frontier colonization project in the Pichis, Palcazu, and Pachitea river valleys of the central jungle region of Peru. Called the Pichis-Palcazu Special Project, this development effort

Amazonian emptiness." As far back as 1957, when he began his political career, President Belaunde, like so many other South American national leaders before him, saw the "Conquest of the Amazon, as a way of solving other pressing social, economic, and political problems. To justify such conquest through the construction of "penetration roads" and government-sponsored colonization programs, the President perpetrated an official myth about the existence of a vast, bountiful, and upopulated territory, which only awaits an army of enterprising individuals to settle and harvest it.

The implications of this "development strategy" for the native peoples and other inhabitants of the Pichis-Palcazu region is amply described in Smith's report. Smith writes:

In addition to ignoring the ecological, agropastoral, and economic realities of development activities in tropical forest regions, lessons which have been so expensively yet easily extrapolated from the Brazilian experience, this development strategy usually ignores the local social reality. In the case of the Pichis-Palcazu Special Project, the government chose to ignore the fact that the project area is the homeland to some 8,000 Amuesha and Campa native peoples, most of whom are living in officially recognized Native Communities, and to some 5-8000 settlers of Andean, criollo and European origin who established holdings in the area throughout the past one hundred years (Smith, 1982, p. 1).

Even prior to the announcement of the Pichis-Palcazu Special Project, there had been a resurgence of ethnic identity and organizing among the nearly 250,000 native peoples of the Peruvian Amazon. Since the

project--to express their concern for the design of the Pichis-Palcazu Special Project, especially its failure to recognize and protect native lands. This was followed by the release of a public statement on the Special Project by the Commission for the Defense of Native Lands, a Lima-based coalition of professional, human rights and religious groups founded in 1979 to defend native land rights. Led by the Inter-Ethnic Association for the Development of the Peruvian Selva (AIDSESP), the Commission initiated a national and international campaign to modify the social terms of the proposed government project, as well as to ensure the inclusion of environmental and natural resource protection measures.

The Commission never questioned the Peruvian government's right to plan the economic development of the Pichis-Palcazu-Pachitea region. However, it did question the specific road-building and colonization plans included in the Special Project and especially the project's failure to consider native land rights and the delicate ecology of the region. The Commission also suggested the broad outlines of an alternative plan which included the recognition of native land rights and specific recommendations for native economic development, organizational growth, health, education and cultural services.

One of the major issues raised by the Commission was the current demographic, land tenure, and soil-quality picture in the Special Project area. In its public statement of February 1981, the Commission noted that of 17 Amuesha communities in the Palcazu Valley, only 11 had been officially recognized and, of these, only 9 had legal titles to the land.

agricultural lands and moderately or well-endowed with forest lands. The other five communities were all critically poor in both agricultural and forest lands. "The five NNCC (native communities) rated poor," the final report of the consulting team reads,

are so poorly endowed with agricultural and forest lands that their situation is already critical. Serious problems have so far been avoided only because the residents of these NNCC have been relatively insulated and therefore minimally dependent on the market economy. As the Palcazu branch road will shortly pass through three of these NNCC, their needs for consumer goods will rapidly increase as will the pressure on their land and resources to produce greater cash incomes to pay for these goods. Within the decade, the resources of these NNCC will be under severe pressure, provoking serious environmental degradation and food shortages (JRB Associates, 1981, Vol. II, Appendix L).

In response to these findings, the U.S. AID consulting team recommended that the Peruvian government increase the recognized land holdings of the native communities in the Palcazu Valley so as to insure that each family had a guaranteed minimum land and resource base. The team also recommended that a more comprehensive land and resource management plan be elaborated--with the full participation and consent of the Amuesha--in order to provide for the long-term and sustainable economic development of the region. "It is our opinion," the section of the Central Selva Natural Resources Management report relating to the native communities stated,

[that] all specific development projects for the Palcazu NNCC are contingent on the two conditions outlined above; without an adequate land and resource base and without a long-term land and resource management plan, other efforts would only temporarily relieve a chronically worsening situation. With these two conditions met, the Amuesha can look forward to participating beneficially in the Peruvian nation and economy (JRB Associates, 1981, Vo. II, Appendix L).

sacrificing either local or national goals. The key to such a plan lies in its emphasis on the recognition and protection of native land rights and the promotion of development projects for local residents rather than outside, intrusive populations.

As Richard Chase Smith writes in his assesment of the Central Selva Natural Resources Management Project:

The native inhabitants of an area such as the Palcazu are often the best suited participants of a long-range program of economic development. They have already developed sophisticated survival strategies based on their accumulated knowledge of the environment and long term experimentation with appropriate technologies. Because it is their homeland, the native inhabitant has a vested interest in conserving the limited natural resources on which the future of his society depends. The new settler, on the other hand, who often sees his future in urban areas, develops strategies for exploiting the natural resources on a short-term, high-profit basis for the capitalization of economic activities outside the area. Futhermore, for the same reason, the native inhabitant is less likely to abandon the area if the development program fails (Smith, 1982, p. 43).

In working on the social soundness part of the Central Selva Natural Resources Management Project report, Smith proposed the concept of "autonomous development" as an alternative to current models of development which are essentially destructive of indigenous cultures and communities. In a detailed discussion of the concept, Smith suggests that the minimum conditions and guidelines for an autonomous development strategy for indigenous communities can be outlined in terms of the following four questions:

- 1) Is the indigenous community in control of the conceptualization, planning, and implementation of their development?

pineapples, chile peppers, and other crops. Slowly, over the course of the past two decades, colonists have been moving in the direction of the San Blas Reserve, destroying the tropical forest and posing a potential threat to the Kuna's political autonomy, resource base, and way of life. In the mid-1970s, the Panamanian government announced the extension of a feeder road which, when built, would enter the southern part of the Comarca at a place called Udirbi (Chapin, 1985).

Aware of the potential threat of these activities, a number of young Kuna leaders began to search for a project which would protect the land area around Udirbi and ensure that no further encroachments would take place within the San Blas Reserve. At first, the Kuna youth attempted various agricultural experiments but then, on the advice of forestry experts at the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) in Costa Rica, they came upon the idea of establishing a forest park and wildlife reserve. Today, with the help of numerous national and international institutions, including the Inter-American Foundation, the World Wildlife Fund, the Smithsonian Tropical Research Institute (STRI), and CATIE and the Tropical Science Center (TSC) in Costa Rica, the Kuna have set aside 5,000 acres of tropical forest on the southern border of their Comarca for conservation purposes, scientific research, and scientific tourism. The reserve, one of the only one of its kind ever created and managed by indigenous peoples, may someday serve as a model for native land and resource protection schemes in other parts of Central and South America (Breslin and Chapin, 1984; Chapin, 1985).

Western society and culture, and they want to ensure that in accepting new cultural traits they do not threaten their own cultural beliefs and values. Breslin and Chapin make this point when they observe:

From the very beginning, the Kuna have approached the West more like careful department store shoppers than awe-struck primitives. They have an instinctive ability to search through the wares of Western culture, pick out those ideas and techniques that seem useful, and then tailor them to their own traditions. They approach the world with confidence, assured of their own worth and even superiority. So conscious and proud are the Kuna of their culture, so fluent in discussing it, they can sound at times like a convention of anthropologists. And in all their discussions, the Kuna invariably stress the identification of their culture with a specific expanse of land--the Comarca of San Blas. (Breslin and Chapin, 1984, p.31).

Third, the Kuna, like many other lowland indigenous groups, have a sophisticated knowledge of rainforest ecology and find it relatively easy to understand modern notions of conservation and resource management. Interestingly, there is a growing body of evidence demonstrating that native peoples think like modern ecologists, although it is more appropriate to describe their knowledge in terms of ethno-ecology than in the language of Western biology (Reichel-Dolmatoff, 1976; Posey, et. al., 1984; Denevan, et. al., 1984).

Finally, it is important to note that the Kuna have worked closely with numerous scientific, conservation, and funding organizations, but they have never relinquished their power of decision-making or control over the Udirbi project. Perhaps, this is the most distinguishing feature of the Udirbi project, and the one which makes it a legitimate example of ethno-development. Again, it is instructive to quote Chapin on this matter:

conflicts should be inevitable; there are, as Clad argues, numerous areas where native peoples and conservationists can cooperate for their mutual interest and benefit.

Recently, the Cambridge-based indigenous rights group Cultural Survival devoted a special issue of its quarterly journal to a discussion of the subject of national parks and indigenous peoples. Several articles in this issue noted that native peoples have traditionally been relocated from their aboriginal homelands when these areas have been designated by governments as national parks, nature reserves, or wildlife areas. But, the Cultural Survival contributors also noted that there is a growing awareness among anthropologists, conservationists, and public policy makers that many of these problems can be avoided if (a) local people actually participate in the planning of national parks; (b) the subsistence practices and cultures of indigenous peoples are respected; and, (c) the local knowledge of indigenous peoples is integrated into land-use planning and natural resource management (Clay, 1985).

4. Implications for World Bank Project Design

In this report, several case studies have been presented in which indigenous peoples have actively participated in the design and/or assessment of resource management and development projects. Although there are major differences in the national contexts in which these projects have taken place, they all demonstrate that indigenous peoples can be the shapers and beneficiaries of the development process, if their land rights are recognized and their cultures and ethnic identities are respected. A key question, however, is how can the private and public

the territorial integrity, Natural resource base, and ecological balance of indigenous or tribal groups. Again the 1982 tribal policy paper includes several excellent statements about the need to protect the land rights of tribal peoples, including those of hunters-and-gatherers and pastoralists who need extensive land areas to survive. In actual practice, however, most governments either do not recognize indigenous land rights, or they believe that they have satisfied international agreements (e.g., the land rights provisions in the ILO Convention 107 on indigenous or tribal populations) when they have announced their intention to create indigenous "reserves." In almost no cases, do national governments recognize the territorial integrity of indigenous groups, especially the rights of these groups to own, control and use the valuable water, forestry, wildlife, mineral, and other natural resources on their lands. In fact, the delimitation of Indian reserves, without a concomitant commitment to maintaining their territorial integrity, is often just a first step in depriving indigenous peoples of the natural resources upon which both their physical and cultural survival depends.

The issues of territorial integrity and natural resource control are so vital to both the cultural survival of indigenous societies and the promotion of ecologically viable and sustainable development that it is worth quoting some of the recommendatons of the 1983 U.N. study on discrimination against indigenous populations in this regard. Among other things, the U.N. study recommends the following:

- a. that the environmental impact of the exploitaton of non-renewable resources on indigenous lands, especially water which is so vital for survival, should be seriously and urgently investigated;

Fourth, the World Bank should increase its professional staffing in the socio-cultural assessment field. Although the Bank has taken the lead among multilateral lending institutions in creating a special Office of Environmental and Scientific Affairs, it is seriously constrained by a lack of staff with anthropological training in its regional offices which would enable it to implement its tribal peoples policies. Further, within the Office of Environmental and Scientific Affairs, there is a need for anthropological expertise which could be deployed on a permanent basis, rather than just for consultation or the annual evaluation of the tribal peoples policy. Such increases in professional staffing would enable the Bank to implement the operational procedures envisioned in its 1982 tribal peoples policy, as well as to ensure that the interests of indigenous peoples are introduced early in the project identification and preparation stages, rather than at the appraisal stage which appears to be the practice at present.

Fifth, the World Bank, following recent Bank initiatives in this direction, should make more use of non-governmental organizations (NGOs) concerned with indigenous peoples' rights in its project planning and assessment. Unfortunately, many NGOs concerned with indigenous populations have been forced to assume the role of critics of Bank social and environmental policies, either because they were not consulted early enough in the project identification and preparation cycle or because they were not taken seriously by project officers or other Bank personnel at the appraisal stage. Yet, many of these NGOs often possess more expertise about the social and environmental effects of development projects on tribal peoples than many government agencies charged with protecting tribal populations.

United Nations has done in hosting several international conferences on the human rights of indigenous populations, the World Bank could invite cooperation and dialoge with indigenous peoples to address the issue of the place of indigenous peoples in development. Historically, indigenous peoples have always had their homelands desecrated by outsiders in the name of civilization, progress, and development. Perhaps the time has now come to reverse this historical process by inviting indigenous peoples to join, as equals, in a continuing dialogue on how to promote more environmentally sound and sustainable models of development.

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6.1 Appendix One

DECLARATION OF SAN JOSÉ

December 1981

For the past few years, increasing concern has been expressed at various international forums over the problem of the loss of cultural identity among the Indian populations of Latin America. This complex process, which has historical, social, political and economic roots, has been termed ethnocide.

Ethnocide means that an ethnic group is denied the right to enjoy, develop and transmit its own culture and its own language, whether collectively or individually. This involves an extreme form of massive violation of human rights and, in particular, the right of ethnic groups to respect for their cultural identity, as established by numerous declarations, covenants and agreements of the United Nations and its Specialized Agencies, as well as various regional intergovernmental bodies and numerous non-governmental organizations.

Organizations representing various indigenous groups in Latin America and experts in the field have proclaimed, with growing insistence, the need to counter ethnocide and to set in motion an authentic process of ethno-development, that is, the establishment and application of policies guaranteeing ethnic groups the free enjoyment of their own cultures.

In response to this demand, Unesco organized an international meeting on ethnocide and ethno-development in Latin America, in collaboration with FLACSO, which was held in December 1981 in San José, Costa Rica.

The participants in the meeting, Indian and other experts, made the following Declaration:

1. We declare that ethnocide, that is, cultural genocide, is a violation of international law equivalent to genocide, which was condemned by the United Nations Convention on the Prevention and Punishment of the Crime of Genocide of 1948.
2. We affirm that ethno-development is an inalienable right of Indian groups.
3. By ethno-development we mean the extension and consolidation of the elements of its own culture, through strengthening the independent decision-making capacity of a culturally distinct society to direct its own development and exercise self-determination, at whatever level, which implies an equitable and independent share of power. This means that the ethnic group is a political and administrative unit, with authority over its own territory and decision-making powers within the confines of its development project, in a process of increasing autonomy and self-management.
4. Since the European invasion, the Indian peoples of America have seen their history denied or distorted, despite their great contributions to the

This appeal is also addressed to officials in the legislative, executive, administrative and legal branches, and to all public servants concerned in the countries of America, with the request that in the course of their daily duties they will always act in conformity with the above principles.

The participants appeal to the conscience of the scientific community, and the individuals comprising it, who have the moral responsibility for ensuring that their research, studies and practices, as well as the conclusions they draw, cannot be used as a pretext for misrepresentation or interpretations which could harm Indian nations, peoples and ethnic groups.

Finally, the participants draw attention to the need to provide for due participation by genuine representatives of Indian nations, peoples and ethnic groups in any activity that might affect their future.

San José, 11 December 1981

A common response to this situation is a shrug of the shoulders and a sigh--there is no other alternative--as if history alone were in control of human destiny. During the past fifteen years I have worked directly with the Amuesha communities to explore new and different paths of development (Congreso Amuesha 1980, 1981a, 1981b; Smith 1976, 1977, 1980). Others have been conducting a similar search (Indianidad 1979; Bonfil 1981c). As a result of this collaborative effort, the outlines for a program for the autonomous development of indigenous communities have emerged. As a positive response to such programs as the Pichis Palcazu Special Project, I will spell out some of the guidelines for such a program in the remainder of this document.

Autonomous development, as a concept, seems most appropriate for functioning indigenous communities in Latin America which maintain relative economic independence and cultural coherency. It has been tooled for those who have not been entirely absorbed by metropoli. Yet, autonomous development need not be limited to them: the principles of autonomous development are applicable to all peoples subject to domination by others, who wish to rediscover "community" and regain control over their future.

However, there can be no doubt that indigenous communities with a solid sense of WE and their own cultural vision will have an easier time developing such programs. These communities still have the cultural resources to create or recreate alternatives for their own development. Autonomous development establishes the conditions under which this indigenous creativity can exist and flourish.

The minimum conditions and guidelines for autonomous development can be outlined as a response to four fundamental questions.

QUESTION 1: Is the indigenous community in control of the conceptualization, the planning, and the implementation of their development?

Autonomous development means that indigenous communities regain control over the course which their communities and their cultures take. A program of this nature begins with the community's vision of the future it wants to build, the values it wants to promote, and of the history it wants to make. It is not development for the Indian communities; it is development by the Indian communities. It is the difference between having control and not having control over one's life, between a relationship based on paternalism and one based on equality and respect.

Autonomous development begins with the principle of self-determination. The community decides what direction its development will take. These decisions are made by local peoples in their assemblies or in whatever form they choose to discover and express the consensus of the community. Local and ethnic forms of organization, whether for the promotion of political, economic, or cultural ends, play an extremely important role in the decision-making process and in the implementation of development programs. Therefore, they must be encouraged as part of a foundation for autonomous development. Coercion by the state, or by religious missions, political parties, economic or academic interests restrict the community's decision-making process and

considered human beings. It is quite freely extended to include other Indian peoples. However, while most Amuesha will now concede that non-Indians are also human beings, this term is most often used in contrast to ocanesha' the collectivity of non-Indians especially white Europeans.

spiritual ties to physical landmarks, or on a combination of claims? Does the community currently control all of the territory it claims or only a portion of it? Has the territory been invaded and settled by non-indigenous peoples?

It is currently the practice in many Latin American states, as indeed it is in the Peruvian Amazon, to define legally the community as the local settlement, and then to recognize as the community territory, those lands presently occupied and directly used by the members of the settlement. The shortcomings of this policy are discussed in Chapter V of this document and elsewhere (Smith 1977). While the question of territoriality, especially in the Amazonian region, is complicated, it is not beyond sorting out, provided the state is willing to do so.

A thorny third problem is the meaning of indigenous control of a particular territory. How can the autonomous administration of an indigenous territory fit into an over-all state structure? What are the limits of indigenous territorial autonomy within that structure? Does the state continue to exercise the right of eminent domain under certain circumstances? If so, under what circumstances?

Like the notion of territory, the concept of resources needs to be clarified so that community control can be more precisely defined. I suggest, after Bonfil (1981b), that resources be defined broadly into four categories: material, organizational, intellectual and symbolic/emotional. I will suggest some guidelines for community control over each category of resources.

1. Material resources include soil, sub-soil minerals, water, plants, and animals. The current legislation for the Peruvian Amazon recognizes full Native Community control over only the soil of that portion of its recognized territory classified for agricultural use. For those lands within the community territory classified for production forestry, the state retains property rights, but cedes to the community exclusive usufruct rights to the soils, the forests, and the fauna. The state retains ownership of all water resources, but cedes to the general public usufruct rights over waterways and riverine fauna. Finally, the state retains sole proprietorship of all sub-soil resources of the national territory.

Autonomous development is necessarily based on exclusive community proprietorship and control over all material resources found within its territory. The use of those resources within the community must be governed by custom or by collective decision and should benefit the entire community. As new production systems are employed within the community territory, new environmental problems will likely emerge for which the traditional culture has no solutions. The state should encourage the community to combine their traditional conservational practices with modern environmental management techniques to ensure that the land and its resources are not mismanaged. The autonomous development of community resources is guided by the needs of future generations, and not by the imperatives of immediate profit.

2. Organizational resources of the community include traditional forms of integrating people for a common enterprise. Within its territory, a community must be free to express its own organizational forms for political, economic, and cultural purposes. The community may choose to experiment with non-indigenous forms of organization consistent with the over-all goals of their autonomous development, when traditional forms are demonstrably inadequate. The imposition of organizational forms

of decision-making by the community, a reliance on local resources, a continued emphasis on small scale, diversified economies, and sufficient knowledge of how new production systems and the marketing process work.

While market factors inevitably dictate the type of production which is commercially viable, a community must work towards exercising control over the material resources used for production, the technology employed, the organization of production, the community labor supply, capital and capital inputs, and the marketing process.

Material resources. Commercial production in indigenous communities is largely based on local natural resources, usually land or forests. Instances of commercial production in a community based on resources imported from outside the local area are rare indeed. It is essential, therefore, as was pointed out earlier, that the community have inalienable proprietary rights to all the material resources of its territory.

Technology. The technology employed for commercial production must be readily available, inexpensive and understandable to community members. This would suggest, for example, the use of local plant varieties rather than sophisticated hybrid varieties for agricultural production, and the use of local production techniques rather than techniques imported from another cultural or ecological milieu. If tools or machines are incorporated into the process, they should be inexpensive, and, with training, easily managed and repaired by community members. Mechanical aids should be used to increase the productivity of labor rather than to replace labor in the production process.

Organization of production. Currently there are a variety of ways in which commercial production is organized within indigenous communities. The apparent irreconcilable opposition between "private" family or individual based production systems and "collective" community based production systems is usually created and exacerbated by political interests of the metropoli. The organizational form must be determined by the type of production (agricultural, cattle raising, lumbering, or manufacture), and by the need to establish a balance between the requirements for efficiency and high productivity on the one hand, and the exigencies of the local cultural milieu - the demands of family and community life - on the other. The choice of organizational form, with room for experimentation, ultimately must rest with the community.

Community labor. A program of autonomous development should encourage the employment of the community labor force to further the goals of the community self-sufficiency and economic independence rather than to enhance the accumulation of wealth outside of the community. The community organization and the state should work together to eliminate and prohibit coercive labor practices and the economic exploitation of labor outside of the community.

Capital and capital inputs. Because of the low level of capital accumulation within most indigenous communities, a program for autonomous development will have to depend to a large degree on outside sources for its initial capital. The community, in this case, will have little control over this aspect of development. Commercial loans are not appropriate for financing autonomous development because of the high risk and lack of collateral to the lender, and the high cost to the borrower. The communities, the state, and private funding agencies should coordinate to develop a source of low interest long-term capital to finance programs of autonomous development in indigenous communities. The development program should, however, aim to increase capital accumulation within the community in order to lessen dependence on outside sources.

who function as priests, the fundamental symbols and their millennial message are transmitted within the family on a daily basis, as part of growing up in the community. As an integral part of community life, this system imbues a bounded physical world with symbolic and historical meaning. And it provides reciprocal relations with a strong moral basis.

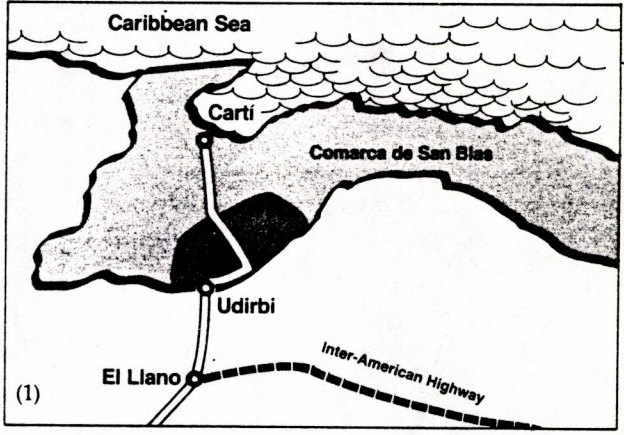
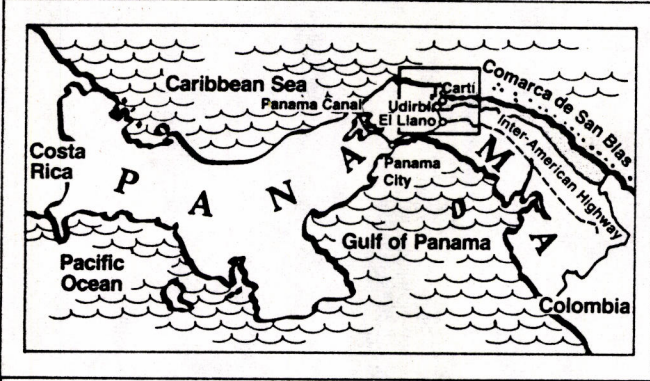
An indigenous cultural system is a complex whole of carefully integrated parts. Current models of development tend to emphasize only some aspects of that whole for development--most often economic production--to the detriment of other aspects. Long after this lop-sided development has taken place, evaluators lament the breakdown in community social relations, the incipient formation of class lines, the erosion of religious and moral foundations, or perhaps the physical disintegration of the community which accompanied the rise in production and productivity indicators.

A program of autonomous development would not willingly sacrifice some parts of the cultural whole in order to develop others. The program takes into account the particular integrative function of different cultural aspects of the indigenous community. In the Amuesha case, it would affirm Amuesha territoriality, the principle of reciprocity, and the underlying cosmological/intellectual system as the basis of development. The great challenge for autonomous development and for indigenous communities is to engage in a mutually beneficial dialogue with industrial capitalism, incorporating useful features of that alien system, while at the same time affirming the integrity and the balance of the indigenous culture and community.

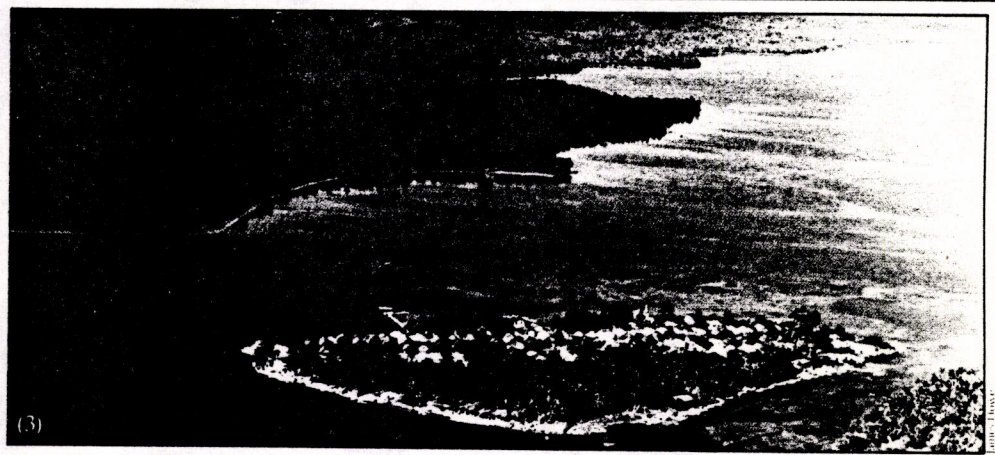
This brings us back to the words of an Amuesha friend, who revealed his source of strength in the community when he said: "WE are WE." The more I ponder those words, the more I realize how profound they are. They underscore two fundamental human qualities which are essential for healthy human development. One is a sense of identity, both personal and collective, by which the sense of who you are as an individual is inseparable from who you are as a member of a community. And the other is a sense of dignity, both personal and collective, by which who you are is worthy of your own respect and that of others.

Identity and dignity are essential for an autonomous development process because without them, people are not capable of taking charge of their own lives; they cannot assume the power which autonomy implies. The situation of domination of Indian peoples in the Americas, and the structures which reinforce that domination, subvert the identity and the dignity of the dominated peoples. Development under these circumstances further incapacitates the dominated peoples from realizing their potential for autonomous development and leaves them more vulnerable to the demands of the dominant group.

Autonomous development stresses identity and dignity, both personal and community, as fundamental conditions for human growth. It does so by affirming the intrinsic value of each community's particular cultural alternatives and their right to be different within the context of the state. It does so by encouraging the state and the entire national society to decolonize itself, to divest itself of the structures of domination which restrict its own creativity and growth. It does so by affirming cultural variation as an important national resource and local autonomy as the means of perpetuating that resource.



The Comarca of San Blas, the traditional homeland of the Kuna Indians, stretches more than 200 kilometers along Panama's Atlantic coast. The inset beside the accompanying map shows the location of the Udirbi Park (1). Mist-shrouded rainforest within the Udirbi Park (2). Aerial view of a Kuna island village, with the coastal plain in the distance. Virtually all farming occurs on the mainland, within a few kilometers of the shore (3). Kuna farmer standing amid his densely intercropped forest "farm." He carries freshly harvested manioc roots; his crops include coffee, cacao, bananas, pineapple, chile peppers, and fruit trees (4). Two Kuna girls wearing their everyday dress: *mola* blouses, strings of multi-colored beads, and wrap-around printed cloth skirts (5). Dancers with pan pipes and gourd rattles performing in an island community (6).



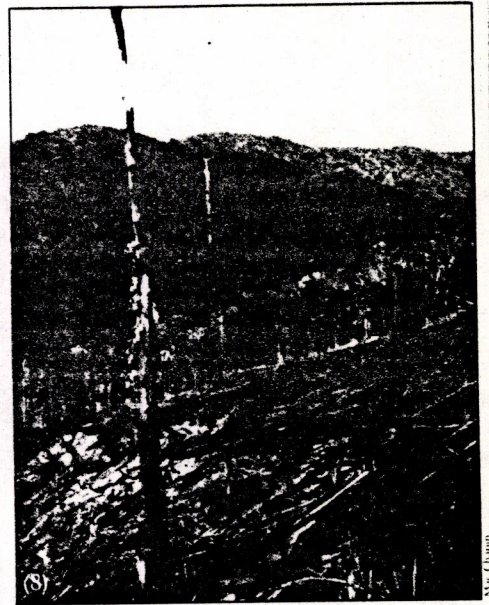
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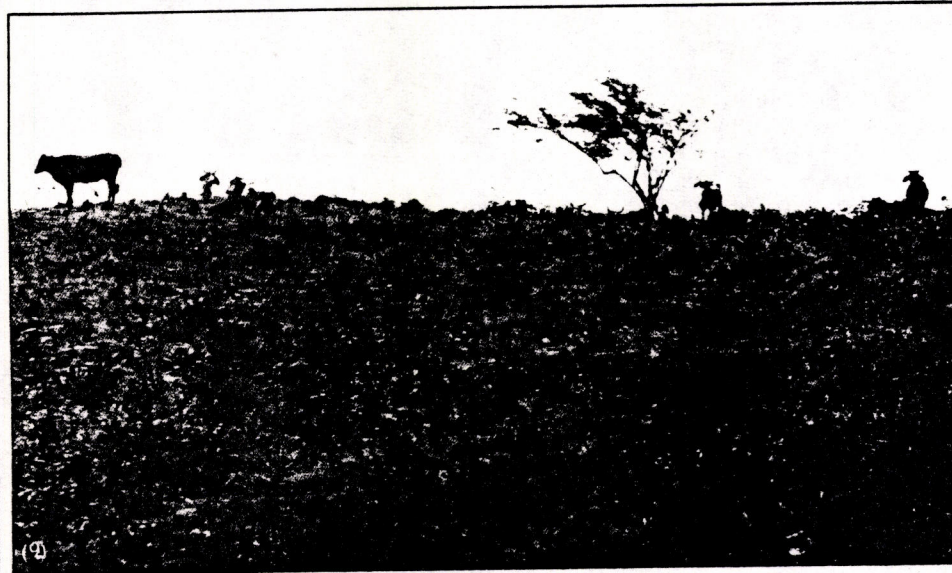
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Patrick Breslin

Much of the land on the southern slope of the Continental Divide is being deforested. The El Llano-Cartí road, which snakes through the hills toward the reservation, is a mixed blessing. Although it gives the Kuna easier access to the rest of modern Panama, it also serves as a conduit into Kuna territory for peasant colonists who are being pushed out of the heavily populated interior provinces. Forests within reach of the road have been devastated (7). Subsistence farms are carved into the virgin forest by slash-and-burn techniques (8). The fragile soils beneath the tropical forest are soon so leached that agriculture becomes unprofitable for the colonists, and the land is sold to beef exporters (9). With the trees cleared for cattle grazing, gulleys erode the land during the heavy seasonal rains. Where this is occurring along the El Llano-Cartí road, the land will be soon be virtually useless (10). Each year more and more virgin rainforest becomes arid and barren as cattle ranchers advance steadily into the mountains (11).

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the isthmus from the Atlantic to the Pacific coasts. Over the centuries the Kuna have retreated into the Comarca of San Blas—a thin band of jungle running some 200 kilometers along the Atlantic coast, east to the Colombian border. Today, some 30,000 Kuna live spread out among more than 60 villages located on small islands hugging the coast or at the mouths of rivers.

Living in this jungle fastness, which until recently could only be reached by small plane or launch, the Kuna have evolved into the 20th century largely on their own terms. Never conquered nor subjugated, they are the sole masters of their territory. According to Panamanian law, no non-Kuna can hold claim to land within the reservation. While tourists flock to the islands to photograph the Kuna and buy beautiful, reverse-appliqué *mola* blouses, tourism is locally controlled and regulated. If travelers spend the night in San Blas, they stay in hotels owned and managed by Kuna.

Although the Kuna are in many ways insular, they are by no means strangers to the modern world. Since the 1930s, thousands of Kuna men have worked in what was formerly the Panama Canal Zone and in Panama City. Kuna women dressed in their traditional wrap-around skirts, red-and-yellow head scarfs, and exotic *mola* blouses are a familiar sight on the bustling streets of the capital. And the Kuna are easily the best-educated tribe in Panama, and perhaps in Central America. Many Kuna students study at the National University and abroad, and the number of professionals has grown steadily during the past decade.

At the same time, the Kuna have not been so enticed by foreign ways that they have lost sight of their roots. They govern themselves according to custom, resolving disputes and making decisions in town meetings that are held nightly in most villages and in semi-annual General Con-

gresses of local representatives. These traditional institutions bind the Kuna together as a nation and set the tone for everything in San Blas.

From the very beginning, the Kuna have approached the West more like careful department store shoppers than awe-struck primitives. They have an instinctive ability to search through the wares of Western culture, pick out those ideas and techniques that seem useful, and then tailor them to their own traditions. They approach the world with confidence, assured of their own worth and even superiority. So conscious and proud are the Kuna of their culture, so fluent in discussing it, they can sound at times like a convention of anthropologists. And in all their discussions, the Kuna invariably stress the identification of their culture with a specific expanse of land—the Comarca of San Blas.

"We say that this land is our mother," Leonidas Valdez explained. Valdez is the second-ranking of the three *caciques*, or chiefs, who are the principal spokesmen for the entire Kuna people. "And the land is also the culture. Here are born all things necessary to our culture: the fronds we use for the puberty ceremonies, all the foods gathered for our communal feasts, the materials our artisans use, what goes into the construction of our houses. All of it comes from the forest. If we were to lose this land, there would be no culture, no soul."

A threat to any part of the Comarca is instantly perceived by the Kuna as a threat to their survival as a people. Growing out of a deep-seated respect for the land and a quiet determination to protect it, the Udirbi park is an example of how the Kuna utilize new ideas and techniques to serve old values.

Indeed, greater numbers of policy makers throughout the world are beginning to view their natural resources in a similar light. Until recently, people and governments in many tropical countries consid-

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ashes. But the continuous cycle of regeneration that supports the rain forest has been sacrificed. Food crops planted by settlers suck up the soil's limited store of nutrients; the tropical rains wash away more; and within three years or so, the soil is exhausted, capable only of supporting grass. If the land is hilly, erosion will soon eliminate even the grass.

Until recently, Kuna lands seemed safe from this specter of a grim and swift passage from jungle to farm to pasture to desert. Although less than 100 miles from Panama City, the Comarca is sheltered behind a mountain range cloaked with almost impenetrable jungle. It was practically inaccessible by land until a branch road from El Llano on the Pan American highway opened about 15 years ago. The road brought a gradual influx of settlers, who opened farms along its flanks. But the real threat first appeared in the 1970s, when the government launched its "Conquest of the Atlantic Coast," a campaign to open up the largely unsettled Caribbean side of the isthmus to landless settlers from the interior provinces. As part of that campaign, the El Llano road would be pushed over the ridge and down the northern slopes of the San Blas to Cartí on the Caribbean coast.

From the start, the Kuna were of two minds about the El Llano-Cartí road. Plane trips from Panama City were becoming ever more expensive as the cost of fuel rose in the mid-1970s, and the journey by launch out of the port city of Colón was lengthy and uncomfortable. The Kuna welcomed the prospect of easier movement for themselves and their goods between San Blas and Panama. But the tribe also worried about encroachments from peasant squatters moving steadily nearer to the southern rim of the reservation. With a fine sense of geopolitics, the Kuna realized that the point of maximum danger was a place called Udirbi, where the new road would enter the Comarca. It was there that they

had to establish a presence.

In 1975, Guillermo Archibold, a young leader with experience in agronomy, went to Udirbi with a small group of volunteers to found an agricultural colony. Udirbi, named for a palm tree common in the area, is in premontane rain forest near the summit of the San Blas mountains. When not blanketed with rain clouds, the site offers a spectacular view across more than 20 kilometers of jungle out to the Gulf of San Blas and the densely populated islands of the Cartí group. The terrain is broken, a jumble of steep hills quite unlike the flat, sunnier land near the coast where Kuna farming is concentrated.

Archibold and the volunteers started by planting staple crops—corn, manioc, bananas, and yams. The results were disappointing, so they switched to tree and bush crops—coffee and cacao, peach palm, cashew. Most would not grow in the cool, wet climate; those that did were stunted. Attempts to raise pigs, chickens, and cattle also failed. In early-1981, frustrated, the colonists consulted forestry specialists from the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), a regional agricultural research and teaching center based in Costa Rica. The CATIE foresters soon confirmed what the Kuna had already discovered the hard way: the land at Udirbi was unsuitable for agriculture and would best be left in its virgin state.

It was then that the idea emerged to make the entire top of the mountain ridge at Udirbi into a park. Over the next two years, the Kuna consulted with scientists, foresters, and technicians from a wide variety of institutions: CATIE; the Smithsonian Tropical Research Institute (STRI) in Panama; the Center for Human Ecology in Austin, Texas; the Tropical Science Center in San José, Costa Rica; the Agency for International Development (AID); and the Inter-American Foundation. The foreigners quickly became enthused about collab-

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jects are working closely with project staff to develop a design for the new buildings that will fit into the environment and reflect Kuna culture.

These new facilities will serve not only scientists engaged in research projects, but a special kind of visitor the Kuna hope to attract—the "scientific tourist" drawn by the uniqueness of the region, the great beauty and variety of the plant and animal life. Bird watchers, for example, are most definitely welcome.

Thanks to the new road, the park will offer scientists and visitors an unusual combination: a pristine rain forest that is only two hours from a major city with a busy international airport. For scientists, an added bonus includes nearby laboratories and photographic-processing and communications facilities—much of which has grown out of the presence in Panama for more than 60 years of the Smithsonian Tropical Research Institute.

"There is a great unexploited potential for scientific tourism in Panama," said Ira Rubinoff, STRI's director. "Because this is a narrow isthmus, there is an enormous concentration of species of animals and birds. The bird flyways are funnelled through here. There are few places like this left in the world, and the great attraction, of course, is that there is a good prospect for this being saved. That's the beauty of working with the Kuna. If their Congress accepts an idea like this, then they'll do it. You can count on it."

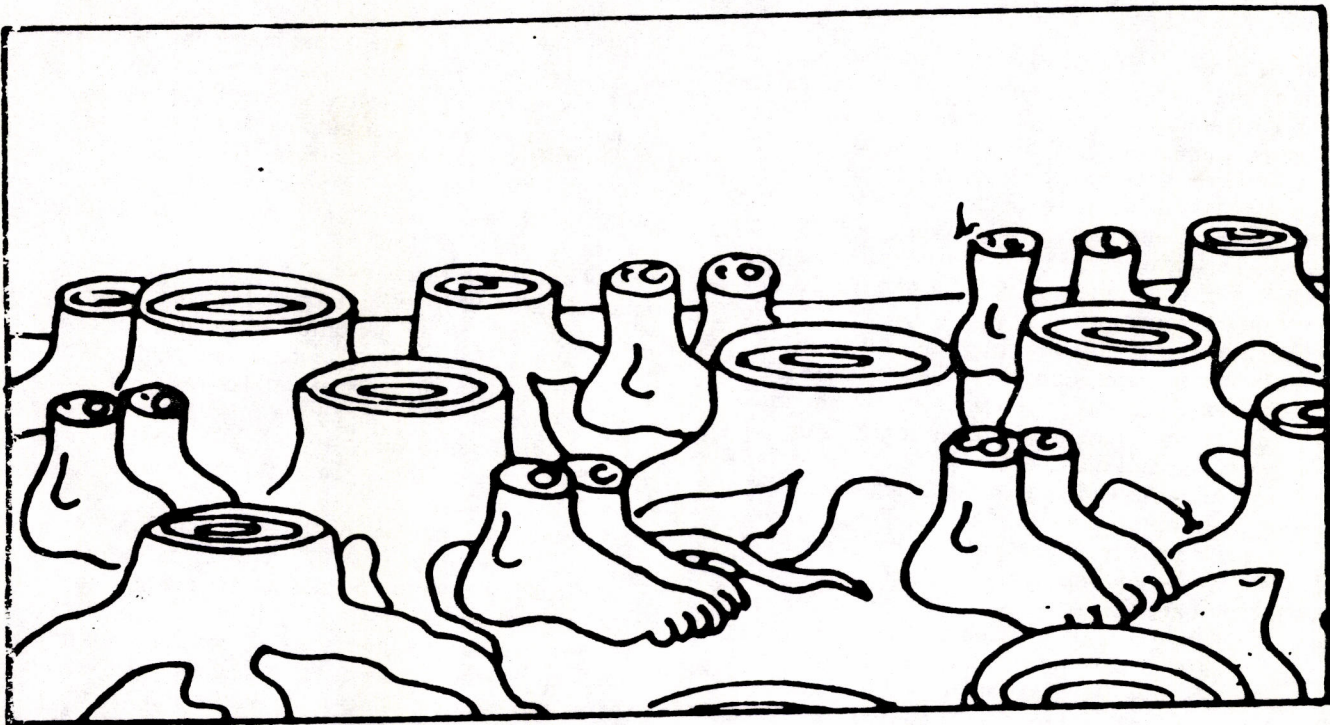
Brian Houseal, a young park management specialist who works as full-time consultant for the Udirbi staff, emphasized that the Kuna's new park will not only preserve virgin forest and facilitate basic research but also will provide unique opportunities for applied studies of agricultural techniques appropriate to tropical areas. "Again, there's so much we need to learn," he says. "The models of land use now current in the tropics are really not suitable. Some temporary use is gained from the

land, but the end result is destruction. You just have to look at the other side of these mountains to see that. We need to study the techniques used by groups like the Kuna, who have lived in these areas for centuries without destroying them. They've developed technologies that are appropriate for tropical agriculture."

"We must control this chaotic use of tropical land," Rubinoff says. "The Comarca is a good example of using the tropics in a planned way. There are areas, like the park, which should be a reserve. There are other areas that are perfect for agriculture. But we need to learn how to use that land. At least now we know that the way to approach tropical lands is through seduction, not rape."

The Kuna, of course, have always known that. When the Kuna stand on their home islands and contemplate the jungle-shrouded slopes of the Comarca, they gaze, according to oral traditions, at the "green-clothed" body of the Great Mother, who is the Earth. Those histories say that in the beginning she came naked. Her union with the Great Father produced all of the vegetation—which became her "garments"—the animals, and finally humans. Each season, the Earth replenishes her supplies of living things: plants grow and flower, and yield fruit; fish are delivered from the Earth's body in rain-choked rivers and turbulent seas; and animals fall from the clouds that float low over the jungle. The act of periodic regeneration, together with nurturing and maternal protection, are themes that find expression throughout Kuna culture. If the Udirbi project ultimately succeeds in preserving the virgin rain forest of San Blas for scientific study and for future generations, the main reasons will be the Kuna's careful husbandry of their values and their special relationship with the land—reverential, affectionate, and intensely personal.

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Graphics such as this one emphasize the basis of cooperation between indigenous peoples and conservationists. *Pogrom*

digenes; what troubles (and rallies) them is their powerlessness *vis-à-vis* the outsider.

Just as indigenes misunderstand conservation trade-offs, so also may conservation planners misjudge the extent to which aboriginal groups living within or adjacent to proposed protected areas actually wish to work for (or guard) the attainment of conservation objectives. For example, assumptions that traditional lifestyles practiced by the indigenes necessarily complement conservation objectives often turn out to be wide of the mark. Some commentators acknowledge this: for example, Dr. Brownrigg writes that,

the social and behavioral patterns of native populations have been integrated with natural environment variables in a way which usually, though not always, results in ecologically sound long term use of an area (emphasis added).

To illustrate how choice of new technology poses awkward problems to conservationists, the following indicative examples might be noted:

- Some Inuit whale hunters now favor using explosive harpoons and other contemporary technology.
- Gasoline-powered chainsaws accelerate land clearing by slash and burn agriculturalists.
- Explosives are occasionally used to stun or kill fish in traditional Maori hunting and fishing areas of New Zealand.

These examples suggest that some contemporary manifestations of traditional "lifestyles" no longer can be assumed to conform to a harmonious prototype.

In part many of these misapprehensions result from protestations from the fledgling international indigenous peoples movement, which attributes all the disruptive ecological consequences of possessive individualism to Western colonizers. The following extract from a report to the International NGO Con-

ference on Indigenous Peoples and the Land, held from 15-18 September 1981 in Geneva, illustrates the point:

In the world of today there are two systems, two different irreconcilable "ways of life." The Indian world - collective, communal, human, respectful of nature and wise - and the western world - greedy, destructive, individualist and enemy of mother nature.

Similar views embellish pronouncements from the World Council of Indigenous Peoples. While the sincerity of such statements cannot be disputed, the likelihood of their being true is open to question. Such formulations by the indigenes themselves support the view that indigenous lifestyles are, almost by definition, compatible with conservationist goals. Such statements not only ignore past adoption of biologically disruptive technology by aboriginal peoples, but also in a curious way buttress the fallacy of the "noble savage," a uniquely European concept. The same misconception lies buried in the automatic assumption that indigenous peoples will accept or even welcome cultural stasis as a condition of their involvement in conservation management. The specialist literature shows many examples of national parks or protected reserves having, as one objective of a multiple use design, the goal of retaining traditional technologies, settlement patterns and food gathering. While this is a worthy objective, incorporation of endangered tribal cultures into conservation areas must be subject to the caveat that these peoples may maintain their isolation only for as long as they desire to do so.³

To act otherwise leads to results as coercive and contrived as the disruptive development which "anthropological reserves" are designed to prevent. During their occupation of Taiwan, for example, the

land is unoccupied, and considerable areas are still in primary or secondary bush. Much of this is administered as Maori Reserve Land under the relevant legislation, and one option being investigated by the New Zealand government is the creation – with full tribal support – of “tribal reserves,” entry to which will be restricted to owners whose usage will conform to specific conservation objectives.

Some of this experience has guided New Zealand’s assistance to the fledgling Sagarmatha National Park in Nepal. Some 2,500 of Nepal’s estimated 20,000 Sherpa people live in the 430 square miles of the park (which also includes the Khumbu area, famous for Mount Everest).

The treks and mountaineering following the opening of the area to outsiders in 1950 has led to worrying changes in traditional Sherpa life, associated with the depletion of manpower (for porters) and firewood (it is estimated that each expedition needs 30,000 kilograms of wood for fuel).

In association with New Zealand rangers, the park’s managers have determined upon the following objectives, directed specifically at the inclusion of the indigenous Sherpa in the park’s activities:

- constant *liaison* with monastery lamas;
- *restoration* of religious structures within the park;
- *retention and protection* of all monastery buildings;
- *maintenance* of traditional village water supply schemes;
- active *encouragement* of the traditional character and architectural styles of villages within the park;
- *prohibition* of all trekking within sacred areas (including whole mountains) where guardian spirits reside;
- *employment* of Sherpas as rangers on a preferential basis;
- retention as far as possible of firewood as the Sherpas’ fuel (rather than displacement by kerosene or other new – and imported – fuel technology);
- internal *modification* where possible of traditional Sherpa houses to minimize heat losses and consequently reduce firewood consumption; and
- *revival* of Sherpas’ traditional forest-use control system, i.e., the ‘*Shing-i Nawas*’ (“protectors of the forests”) who were empowered to allocate wood for families.

These objectives demonstrate an active involvement of a partially-aculturated indigenous people in a park which is *not* co-extensive with the indigene territory. Briefly, the conservation objectives of Sagarmatha are to arrest a situation where over half of the forest cover within the park territory has disappeared and to revive, within a system catering also to outsiders’ mountaineering expeditions, a pattern of traditional usage in which, prior to the influx of tourism and mountaineering, the Sherpas were managing a partly-modified landscape under a system of social and community controls which ensured wisest use of forest resources and minimized long-term forest degradation.

Conclusions

The launching in March 1981 of the World Conservation Strategy brought the convergence of indigene

and conservation interests into sharp focus; the strategy deals with global problems such as deforestation, desertification, depletion of fisheries, soil erosion and misuse of crop lands – all matters of direct concern to aboriginal populations. The logic behind this compatibility of interests has already occurred to the World Council of Indigenous Peoples, which was invited by the United Nations Environment Program in 1980 to prepare a study on “environmental degradation in indigenous areas.” The WCIP is following closely the operation of the international agreements such as the 1972 Convention for the Protection of World Cultural and Natural Heritage. This Convention was followed by the Man and the Biosphere Program, resulting in a number of “biosphere reserves” created in various parts of the world, many with a direct effect on the indigenous peoples *in situ*. The Mosquitia biosphere reserve in Honduras is a case in point; the reserve is designed, *inter alia*, to protect two indigenous tribes.

As suggested above, outright conflict between conservationist and indigenous objectives has occurred in the past. Tribes have been expelled from National Parks or denied the use of resources within the park: e.g., the Shakilla were driven from Lake Rukana Park in Kenya and the Ik expelled in Uganda. Understanding of conservation objectives by aboriginal peoples remains low (battles erupt in Ethiopia’s Simien Park over wood-cutting rights, for example). Some conflict even has an international dimension; enforcing the Migratory Birds Convention and accommodating native Indian demands have caused headaches for governments in Canada and the USA. Whaling Commission sessions grapple with Inuits who oppose bowhead whale-hunting prohibitions, and argument still revolves around Inuit rights to use modern whaling technology.

Several commentators have advanced suggestions for successful involvement of indigenous groups with an interest in territories in which restrictive land use policies are tied to conservation objectives. Brownrigg offers four management options for resource managers contemplating cooperation with indigenes:

1. *reserves*, where a protected natural area corresponds with the territory of a particular native population;
2. *native-owned lands*, where the protection of the area is by native peoples;
3. *buffer zones*, where a protected area serves as a physical or ecological barrier between native lands and the lands of others; and
4. *research stations*, where certain areas under native management are organized as agricultural or ecological research stations.

Brownrigg [page 72] concludes that

Each option of relations between native cultures and protected areas will fit only in certain circumstances. The appropriateness of a particular option and its details must be determined on a case by case basis, and certain elements for different options can be combined to form new models.

In his 1976 article about Peru’s Manu Park, Jungius urges incorporation of indigene-inhabited territories into a national park and creation of a buffer core. Indigenes are to practice traditional hunting patterns

for better aboriginal entitlement to the lasting benefit of all parties. It is not an easy task, but it is one worth doing, and worth doing well. □

James Clad, who now works for the Far Eastern Economic Review, wrote a longer version of this report for the IUCN in 1982.

Footnotes

1. The potential for liaising with indigenous peoples in island, estuary or tidal flats environments is often neglected. Traditional fisheries and marine lifestyles depend closely on the retention of basic character of these particular ecosystems; and cooperative possibilities between indigenes and conservation managers exist. See, for example, an IUCN paper prepared for the Second Regional South Pacific Symposium on the Conservation of Nature by G. Carleton Ray [SPC-IUCN/2 RSCN/WP.5:1975], which envisages incorporating traditional usages into the management of marine reserves. See also: Auburn, F.M., "Convention for the Preservation of Man's Cultural Heritage in the Ocean," *Science*, 185(4153)1974, and Kearney, R.E., "Some Problems of Developing and Managing Fisheries in Small Island States," in *Island States of the Pacific and Indian Oceans* (edited by R. Shand), Australian National University, 1980.
2. G. Carleton Ray (cited in Footnote 1 above) also makes the point: "The protectionist approach emphasizes a drawing of legal or geographic boundaries, which do not really exist ecologically, around what is considered, usually on a highly selective basis, exploitable and what is not." Other rigid Western notions may similarly impede the development of indigenous approaches to conservation: "Western emphasis on public ownership and control has until recently inhibited the establishment of national park systems in areas under a form of traditional ownership," Wilhelm, E., "Cultural Problems in Treaty Negotiation: A Case Study of the International Convention on Conservation of Nature in the South Pacific, Apia, 1976" in Anand (ed.) *Cultural Factors in International Relations*, New York, 1981.
3. Note the following remarks from the World Bank Report (1981): "Enforced 'primitivism' is a disruptive policy occasionally practiced on a reservation. This policy is often followed either to promote tourism . . . or it is defended as a means of preserving the tribe's cultural identity. However, whereas enforced 'primitivism' is always damaging, elective 'primitivism' can be beneficial, as in the case of the Cunas of Panama. Minority culture never has been a static entity which must be preserved exactly as it is found or as it is believed to have been. Rather it is a dynamic reality which should be provided with conditions adequate for development in a natural and progressive manner. Cultural continuity should be encouraged in all spheres, but the choice of whether to continue to modify old ways should be left to the tribal people themselves and not imposed upon them."
4. Other examples include a proposed reserve at Siberut (an Indonesian island near Sumatra where traditional Mentawai lifestyles are threatened by timber concessions), the Ngorogoro Crater (where the Masai have the right to graze their cattle), the Ghin forest reserve in India (which permits traditional gathering by the Maldhari people), several of Sweden's National Parks (where the Lapps still graze reindeer) and the Manu National Park in the Amazon area of Peru (where three tribes inhabit the Park's 1.5 million hectares).
5. The World Bank (1981) distinguishes four successive phases of acculturation or integration into the national society: completely uncontacted tribes; semi-isolated groups in intermittent contact; groups in permanent contact; and integrated groups retaining a residual sense of tribal identification.
6. Indigene control of their own economic development appears to be increasingly a feature of the politicization of partially or extensively acculturated tribes. Examples include horticultural export ventures by New Zealand Maoris, the Navajo Forestry Project in Colorado and the Lumni tribe's Aquaculture School in the Pacific Northwest of the USA.
7. The IUCN has recently advocated a revival of traditional Bedouin rangeland management designed to restore exhausted grazing lands in West Asia and preserve traditional cultural patterns. IUCN presented the plan calling for reactivation of the "hema" system at a meeting of the UN Economic Commission for West Asia on 9 May 1981 in Damascus.

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