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Forest Conservation in Palawan

Dario Novellino

The environment occupies a central role in the political agenda of the Philippines. A review of recent options for environmental conservation indicates that a wide divergence of interests exists between the desires and needs of the native communities and the government and environmentalists' objectives to conserve natural habitats.

In Palawan (the Philippines' last frontier) conservation strategies are mainly articulated on three levels: a) the protection of single areas (e.g., the St. Paul Subterranean National Park) through the prohibition of hunting and gathering and other traditional forms of land utilization; b) the protection of forest by prohibiting shifting cultivation, to the inclusion of indigenous swidden practices (e.g. the City Government ban in the municipality of Puerto Princesa); and c) the integrated management of assemblies of ecosystems through the creation of land categories systems from buffer zones to core zones, as established by two environmental laws (SEP and NIPAS).

An analysis of present options for forest conservation and of "Community Based Forest Management" (CBFM) agreements reveals that government organizations tend to view the environment in objective terms, and share the assumption that "ecological sustainability" and the protection of biodiversity can be attained through restricted/controlled use and by introducing stable forms of agriculture among indigenous upland communities. On the other hand, even an innovative law such as the Indigenous Peoples Rights Act (IPRA) of 1997 needs to be improved, in order to reflect indigenous notions and practices.

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Presently the IPRA law is being 'killed' by the lack of political will, and the Department of Environment and Natural Resources (DENR) is resorting to some acronym-juggling and socially acceptable soundings such as CBFM to retain state control over indigenous ancestral domains. The way in which the Department of Environment and Natural Resources deals with the non timber forest products (NTFPs) trade is further contributing to jeopardize sustainable development in Palawan Island.

Palawan and its People

Palawan, is the fifth largest island in the Philippines, and has the highest percentage of forest cover in the archipelago, between 38 percent and 44 percent of the island surface.¹ Because of its rich diversity of animal and plant species, the entire province is the target of a large land management plan under Republic Act 7611, also known as SEP (Strategic Environmental Plan).

The population of mainland Palawan was estimated to be 318,000 in 1983, but it has raised rapidly at an annual rate of 4.64 percent due to the increasing entry of migrants and landless farmers from all parts of the archipelago.² Today, present population has nearly reached 600,000 people.

The original inhabitants can be divided into three main ethnic groups: Batak, Tagbanuwa and Palawan. They all have a heterogeneous mode of food procurement, mainly centered on shifting cultivation. Depending on the different circumstances, they shift from one activity to another (hunting, gathering and commercial collection of non-timber forest products), often pursuing them simultaneously. The local indigenous communities have witnessed the dramatic transformation of the world around them. Their territories are being occupied by migrant settlers, and their forest has been depleted by unabated commercial and illegal logging, and mining activities (Novellino 2000b, 1999a, 1999d, 1998, 1997). More recently, the government ban on shifting cultivation, and the very ambiguous regulations governing the use of non-timber forest products (NTFPs) have become the most dangerous threats to some of the local indigenous communities. Batak survival is now being jeopardized in the name of environmental protection.

The Batak are found scattered on a land area of about 240 square kilometers in the north-central portion of Palawan island. The Batak

population was estimated to comprise 380 individuals (Eder 1987), and continues to face demographic decline. They are divided into small local groups. The case study at stake concerns the Batak community living between the territorial jurisdiction of Barangay Tanabag and San Rafael, comprising about 130 people. The Tanabag Batak maintain more frequent contact with the Batak groups of the next river valleys Tarabanan to the North, and Mauyon to the South. However, they have very limited contacts with the other Batak communities settled further north, in Mangapin, Tagnipa, Caramay and Timboan.

Batak as a whole, have experienced intense demographic decline. At the close of the nineteenth century, an approximate number consisting of twenty to fifty Batak families were associated with each of the seven river valleys composing their territory (see Eder 1987). Interviews with Batak elders reveal that members of the different communities visited each other, often travelling by raft along the seashore. At that time, Batak were not living in the interior but on the coastal areas, building their night-camps on the beach.

Presently, economic relations with the Filipino lowlanders are mainly centered on the trading of forest products and wage-labor to obtain needed commodities. However, during recent years, communication with representatives of the national society (government officials, environmentalists, missionaries, tourists, etc.) has highly increased. Today, Batak are the victims of debt bondage, patronage, land encroachment, government measures for environmental protection, culturally unsound NGOs projects, and various forms of exploitation. Only the communities of Tanabag, Caramay and, to a lesser extent, Langogan are still predominantly composed of Batak; the others have been absorbed in Tagbanuwa and Filipino settlements (Novellino 1999a, 1997).

Batak exploit various micro-ecological zones within their ecosystem swidden fields, fallow fields, secondary forest, patches of primary forest, fresh water rivers, and formerly sea shores and coral reefs. Changes in foraging strategies over the years must also be related to the loss or occurring disturbance in one or more traditional foodzones. As micro-ecological zones are transformed (migrants settling on the coast) or lost (mangrove and primary forest being destroyed) Batak are forced to develop new responses. The new trend today is towards increased collection of valuable non-timber forest products coupled by a less intensive engagement in shifting cultivation and hunting. Gathering and collection for domestic consumption still continues; the most

common food items are shoots, tubers, mushrooms, and other edible greens. Apart from food, the forest provides wood for building, fibers for weaving, waxes, ornaments, medicinal plants, bamboo and wooden materials for musical instruments, weapons and other implements.

Commonly, Batak forage for seven species of mammal, two species of reptile, one amphibian, fifteen or more species of fish, four mollusks, three crustaceans, more than seven types of birds, and two types of honey (Novellino 1999a). The hunting of certain animals traditionally eaten by the Batak, is now forbidden by the law. Such species include flying squirrel, green parrot, green imperial pigeon, peasant peacock, wild chicken, hornbill, bear-cat, etc. Batak also recognize and utilize at least twenty wild plant species with edible leaves, and about thirty species (mainly trees), with edible fruits (Novellino 1999a). Mushrooms represent an additional source of food, especially during the rainy season, and the people can identify at least fourteen edible species (Novellino 1999a), belonging to four major genera (Agaricus, Pleurotus, Ganoderma and Polyporus). The Batak have traditionally exploited wild palms for their edible heart. Calamus spp. and Daemonorops spp. yield very little, but Arenga spp. and Oncosperma spp. might provide buds up to two-three kilograms (Novellino 1999b).

Products like resin from *Agathis philippinensis*, *bagtik*, rattan canes (semi-woody climbers of Calamus, Daemonorops and Korthalsia species), wild honey are collected to be sold and raise cash or bartered with modern items and food commodities.

Fishing with hook and line and collection of fresh water mollusks are women's activities, but fish stunning with vegetable poison involves all members of the household, and often the whole community. Some of the traditional techniques to catch game are still employed by the people. Modern weapons have been acquired in recent times.

Due to ongoing transformations of the traditional "subsistence" and mobility patterns, Batak are experiencing reduced diversity of diet, and widespread malnutrition. During my first visit in 1987, Tanabag Batak were consuming a larger number of wild animal species, fruits, vegetables, wild tubers. Recently, they have become increasingly dependent on imported rice, while traditional consumption of cultivated root crops (cassava, sweet potatoes, *dioscorea* and *colocasia*) is of lesser significance today than it was in the past. Sometimes rice is consumed plain, and even the use of wild greens is often insufficient to provide adequate nutrition. Overall, there is a nutritional imbalance in favor of carbohydrates (mostly purchased rice) with relatively little of the other

nutrients (fibers, vitamins, proteins). In addition, imported food such as tinned sardines, and baked goods (biscuit, bread, cakes, etc.) have contributed to affect Batak preference for traditional food (Novellino 1999c). Today, the quantity of food consumed is often insufficient, especially during the hungry months, before rice harvesting. The traumatic conditions that Batak are facing today (low fertility, high mortality, habitat depletion, external forms of exploitation, etc.) are leading them to physical and cultural extinction

The Limits of "Zoning"

In recent years, environmentalist discourse in the Philippines has apparently changed its approach. The old, strictly punitive protectionism is now being replaced by an equally dangerous "people-oriented" conservationism. Indigenous communities, entrapped in large or medium scale biodiversity projects, are no longer evicted from their territories as in the case of the "St. Paul Park"; instead, they are allowed to stay in selected areas on the condition that they "live in harmony" with nature. Thus they become "marginalized" in their own land. By the same token, their culture is re-defined by experts in a way that appears ecologically sound and satisfies policy makers, project planners and funding agencies.

The change from a punitive type of conservationism to a more "compassionate" one has been characterized by the switch from a relation of violence to a relation of power (which nevertheless does not exclude the use of violence) (Foucault, 1982).³ Today, many large scale environmental protective measures in Palawan—and in the Philippines in general—include the demarcation of areas either as off-limits to the human population, or reserved for local "indigenous cultural communities" (ICC), or both (Novellino 1999a, 1999d, 1998). Local communities are expected to limit or refrain from certain subsistence activities when their territory becomes divided into management zones with different levels of protection (from strictly non-touchable to controlled use).

The National Integrated Protected Areas System (NIPAS)⁴ and the Republic Act 7611, also known as the SEP (Strategic Environmental Plan) are relatively new laws, enacted in February and June 1992 respectively. Such laws establish the legal basis for the protection and management of the environment in Palawan (SEP) and nationwide

(NIPAS). NIPAS and SEP seek to establish what the laws refer to respectively as the Philippines National Integrated Protected Areas System and the Ecologically Critical Areas Network (ECAN).

As established by the NIPAS, total protection is likely to be enforced in areas defined as

- Strict Nature Reserve: possessing some outstanding ecosystem, features and/or species of flora and fauna of national importance.
- Natural Park: relatively large areas not materially altered by human activity where extractive resource uses are not allowed.
- National Park: forest reservation essentially of natural wilderness character which has been withdrawn from settlement, occupancy or any form of exploitation.
- Wildlife Sanctuary: areas which assure the natural conditions to protect nationally significant species, groups of species, biotic communities.

On the other hand, human occupancy and resource utilization are contemplated in categories such as

- Protected Landscape/Seascape: areas of national significance, which are characterized by the harmonious interaction of man and land.
- Natural Biotic Area: an area set aside to allow the way of life of societies living in harmony with the environment to adopt the modern technology at their pace.

Taking a provocative stand, would argue that the NIPAS objective to reserve areas for the purpose of leaving societies in harmony with the environment "free" to adopt the modern technology in their own terms, is not substantially any better than forcing them to move out. As Foucault puts it, freedom is the precondition to the existence of power. It follows that "power is exercised only over free subjects and only insofar as they are free" (1982, 221). Through land zoning, local communities are no longer displaced outside the boundaries of protected areas, but are allowed to remain on adjoining territories specifically defined and designed for them. Thus they become "locatable" and "being locatable, local peoples are those who can be observed, reached and manipulated as and when required" (Asad 1993, 9).

In addition, my criticism can be applied to the Strategic Environmental Plan (SEP) for Palawan, as well as to foreign financed projects pursuing similar objectives (e.g. the EU financed Palawan Tropical Forestry Protection Programme). The SEP law, also known as Repub-

lic Act No. 7611, provides a comprehensive framework for sustainable development and contains a package of strategies on how to prevent further environmental degradation. The centerpiece of the strategy is the establishment of the Environmentally Critical Areas Network (ECAN), which places most of the province under controlled development. The areas covered by ECAN include three major components: Terrestrial, Coastal/Marine and Tribal Ancestral Lands. Core Zones are defined as areas of maximum protection and consist basically of steep slopes, first growth forests, areas above 1000 meters elevation, mountain peaks, and habitats of endemic and rare species. The law establishes that core zones "shall be fully and strictly protected and maintained free of human disruption . . . exceptions, however, may be granted to traditional uses of tribal communities of these areas, for minimal and soft impact gathering of forest species for ceremonial and medicinal purposes." Interestingly enough, the ECAN core zone coincides with significant portions of the indigenous hunting and gathering ground. For instance, the resin of *Agathis* trees is usually extracted in commercial quantities around and above 1000 meters above sea level. In addition certain animal game, and especially flying squirrels (Hylopetes nigripes nigripes) are trapped by the Batak around these altitudes.

Buffer Zones represent the most elaborate component of the ECAN and are designed to serve a multiplicity of purposes. According to RA 7611, they fall into three categories known as Restricted Use Areas, Controlled Use Areas, and Traditional Use Areas where "management and control shall be carried out with the other supporting programs of the SEP." The only area within the so-called Terrestrial Component which mentions agricultural practices is the Multiple/Manipulative Use Zone "areas where the landscape has been modified for different forms of land use such as extensive timber extraction, grazing and pastures, agriculture and infrastructure development." It is crucial to point out that a large number of indigenous communities are occupying marginal upland areas, which fall under the wider definition of buffer zones. Furthermore, the law never mentions indigenous slash and burn practices⁵; hence we may easily come to the conclusion that only imported methods such as terracing and hillside farming will be allowed in Multiple/Manipulative zones. There is no specific indication of where such zones are located, but it is legitimate to anticipate that these areas are occupied by a vast majority of migrants rather then by "traditional" indigenous communities.

It is important to point out that Sec. 11 of RA 7611 includes Tribal Ancestral Lands among its categories. The law specifies that "these areas, traditionally occupied by cultural minorities, comprise both land and sea areas identified in consultation with tribal communities concerned and the appropriate agencies of government." It is frustrating to learn that even Tribal Ancestral Lands "shall be treated in the same graded system of control and prohibitions except for stronger emphasis on cultural consideration." At the same time we are assured that "the SEP...shall define a special kind of zoning to fulfil the material and cultural needs of the tribes using consultative processes and cultural mapping of the ancestral land." It is clear that SEP, with a high degree of naiveté, proposes the protection of indigenous culture on the one hand, and the implementation of western zoning criteria in tribal lands on the other. So far, the law and its promoters have been unable to provide a convincing argument of how this can be achieved.

Having outlined the crucial features of the NIPAS and the SEP, I shall now analyze some of the ideas underlying the western concept of land zoning. I would like to argue that both the NIPAS and the SEP regard the environment as a space "located outside ourselves" (Croll & Parkin 1992, 13), and as something which needs protection for itself. Furthermore, land is viewed as a timeless container, a big puzzle which is only waiting to be put together by western "experts." On the other hand, indigenous communities represent one of the patchwork pieces to be placed in the most appropriate spot (a "Natural Biotic Area"), provided that they continue to live "in harmony with the environment" (cf. Novellino 1999a, 1999d, 1998). Overall, the persistent attitude to view indigenous communities in terms that are exclusively ecological rather than social (see Ellen 1979), has serious implications for the way in which conservation is achieved. What is striking about the NIPAS land classification is that "the harmonious interaction of man and land" is almost viewed as a precondition for residing in "areas of national significance." One may gain the impression that local communities are allowed to live within a protected area on the condition that they obtain from the forest what is strictly essential to satisfy basic subsistence needs. Undoubtedly this expectation matches conservationists' perception of the ideal interaction between man and nature.

It should be stressed that environmental laws such as the NIPAS and the SEP are not concerned with the protection of land but rather of the landscape's features (Novellino 1999a, 1999d, 1998). In section

2 of Republic Act no. 7586 (NIPAS law), we learn that the "policy of the state (is) to secure for the Filipino people of present and future generations the perpetual existence of all native plants and animals through the establishment of a comprehensive system of integrated protected areas," and that "the use and enjoyment of these protected areas must be consistent with the principles of biological diversity and sustainable development." As has been sustained by Ingold, land and landscapes are not the same thing at all. The latter may be constituted by rocks, trees, streams, lakes, caves, and so on, or a combination of these. On the other hand, land is rather "the common denominator of the natural world" (Ingold 1986, 154) which also includes people.

The Batak, like the other indigenous groups living on the island, do not only hunt and gather but also practice swidden cultivation, which is their major productive activity. Forest resources and foraging grounds are open to every member of the society. Individuals may claim rights to specific resources but not to the land where such resources are found. To give an example, an area covered by Almaciga philippinensis trees is "managed" by several individuals, each in charge of specific trees. However, not all forest products (rattan canes, animal games, fish, etc.) are subject to individual rights. Patches of forest with valuable fruit trees, bamboo groves, caves where swallows are abundant and other land features derive their significance from the relationship that people have established with such features, either in the historical past or through mythological events. Hence, trees may serve to trace back a relation with those members of previous generations who first planted or utilized them over the years. All these features have a time dimension which creates a stable link between past and present, and they serve to constitute the indigenous country.

Conservation measures based on land zoning, such as those proposed by the NIPAS and SEP, disintegrate the unity of the indigenous country. As stated by Ingold, "to take away a country is to extinguish the sites that enfold the country (so that) it is no longer somewhere but nowhere, and thus utterly devoid of context" (1986, 157). Tribal Ancestral Lands and Natural Biotic Areas which are cut off from the whole, become meaningless to the local indigenous communities. People do not perceive their country as an "enclosed" and "atemporal" island, but rather as a continuum of indivisible features (Ingold 1986) which are a repository of previous experiences and past events (cf. Rosaldo 1986).

The St. Paul Subterranean National Park

The St. Paul Subterranean River National Park (SPSRNP) encompasses a total area of about 5,753 hectares and lies within the jurisdiction of the government of the city of Puerto Princesa. The original 1993 nomination, of 5,753 ha. has been revised, and an expanded nomination has been considered by the World Heritage Bureau in July 1999. The nominated area of 20,202 ha. stands as a component of the National Integrated Protected Areas System (NIPAS). The legal owner of the Park is the City Government of Puerto Princesa, by virtue of the Memorandum of Agreement (MOA) for Devolution, between the City Government and the National Government.

The magnificent forest land that impresses scientists and inspires nature-lovers is now restricted to the people who had utilized the area for centuries. The local Batak and Tagbanuwa communities view the National Park as a curse; they feel they have been robbed their land, as well as animals and plants they once relied on for food. Today the expansion of the Park appears as an ominous cloud on the horizon.

Obviously, not all is rosy in "St. Paul" garden of Eden. The "handsoff" style of strict protection have curtailed the customary food-seeking practices of the affected Batak and Tagbanuwa communities. Moreover, blatant cases of human rights violation have occurred in the Park and its buffer zones during the past few years. In 1991, one Batak named Paya Paya, and two Tagbanuwa were arrested and detained without being charged for having allegedly burned primary forest inside the park boundaries. Later, investigations showed that the area utilized for agriculture by the three individuals was located outside the boundaries of the park, and consisted of secondary and scrub vegetation. After being released, Paya Paya, decided to abandon his swidden field for fear of being re-arrested. From that moment on, Paya Paya relied exclusively on the gathering of almaciga resin to support his family. According to Paya Paya's relatives, the very hard conditions that he faced, especially during the rainy season, were responsible for his premature death. It is important to recognize that the early death of many almaciga gatherers is often attributed by the Batak to overfatigue, and physical exhaustion, often leading to the worsening of respiratory diseases.

The City Government Ordinance Banning Shifting Cultivation

It is interesting to note that aside from being the legal owner of SPSRNP, the city government is also the promoter of the ban on *kaingin* (slash-and-burn farming). This infamous policy has had detrimental repercussions on the local indigenous inhabitants of Puerto Princesa municipality.

In a letter to Survival International dated 28 March 1996, the City Mayor, Edward Hagedorn admits that "the farmers (including the tribal groups)...were adversely affected by the policy." On the other hand, he claims that necessary support and assistance are being provided to soften the impact of the ban. We learn that such remedies consist of "cash-for-work program and rice subsidies, and permanent mechanisms such as the carabao (water buffalo) and tractor pools, the provision of seedlings, and introduction of various livelihood opportunities including training and initial capitalization grants" and the introduction of alternative farming methods. However, according to the affected communities, the promised rice supplies had not come through and hundreds of people have faced starvation.

Many of the "remedies" proposed by the Mayor face long-term and deep-seated constraints to effective implementation. In the first place, the transition to permanent cultivation in the uplands is frustrated by the unresponsive soil, commonly deficient in micro-nutrients. In addition, "traditional" indigenous cultivation practices in Palawan are better suited to tropical conditions than many imported agricultural methods. If many communities are currently forced to shorten the fallow period on swidden fields or to plant on very steep slopes, this does not need to be considered as a cultural feature of the local indigenous groups, but rather their ultimate response to the drastic reduction of land and inadequate government policies (Novellino 1999a, 1999d, 1998). Furthermore, it is interesting to note that indigenous swiddeners in Palawan usually use secondary and tertiary forest which is grown during the fallow period rather than primary forest. In fact, the latter would need a higher energy expenditure to be chopped down. Traditional planting techniques are also ecologically sound, since the dibble stick does not disturb the fragile forest soil below a depth of a few centimeters.

Despite these facts, the ban on slash-and-burn agriculture has been implemented, with disastrous consequences both for the environment and for the survival of the local indigenous communities. Recently, the ban was partially lifted in favor of "regulated burning" but, until now, indigenous peoples have found it very difficult to maintain their traditional swidden practices.

Firstly, the environmental measures imposed by the City Government are altering the whole indigenous agricultural system irremediably. Presently, due to the prohibition of felling trees, several native communities have resorted to clearing areas consisting mainly of shrubby bushes and weeds. Such areas have not yet completed the fallow period and are likely to degrade into barren grasslands, especially when re-utilized for agriculture. Secondly, the ban is also affecting the genetic diversity of cultivated plants. Local varieties may become rare or even extinct if people are no longer allowed to cultivate them. Finally, the prohibition has placed an insupportable burden on the surrounding forest. This is because the victims of the ban are already suffering from dietary deficiencies and, in order to survive, they are increasing their use of available forest resources such as resin of balktik trees (Agathis philippinensis), rattan (semi-woody climbers of Calamus, Daemonorops and Korthalsia species) and honey. In some forest areas mature rattan canes have already disappeared and, according to some indigenous gatherers, what is left will be exhausted within two or three years.

The Coming into Being of IPRA

What is perhaps surprising is that not only the NIPAS and the SEP but also laws which have been specifically conceived to enhance indigenous land rights might not bring great advantages to the local communities, but rather increase the efficacy of government power and control over them.

On January 15th 1993, the Department of Environment and Natural Resources in the Philippines enacted Special Order no. 25 for the creation of a task force responsible for identifying, delineating and recognizing ancestral lands and domain claims.⁶ A more recent law is the "Indigenous Peoples" Rights Act of 1997 (also known as the Republic Act No. 8371), which recognizes, protects and promotes the rights of indigenous cultural communities. The legislation on ancestral

land represents a very fundamental step in favor of the indigenous peoples. On the other hand, most of its definitions dealing with land and the environment imply utilitarian criteria of human action and thus do not represent epistemologically valid concepts for the indigenous societies to whom these notions are applied. This does not mean that recent efforts to protect indigenous peoples' land has to be jettisoned. On the contrary, I rather question the very lengthy and complex procedures related to the final recognition of the ancestral domain.

To give an example, article one of the Department Administrative Order no. 02, S, 1993 sets the basic policy and objectives for the identification, delineation and recognition of ancestral land and domain claims.7 In section two we learn that one of the objectives of this law is "to protect the tenure of the indigenous cultural communities over ancestral lands and domains." I must confess that I have always found the notion of "land tenure" a little perplexing when applied to indigenous communities. So do the indigenous communities of Palawan when confronted with this and other western definitions. The presuppositions of immediate concern here are those underlying the western notion of man's mastery over the material environment. The term tenure does not seem to have any equivalent word in the Palawan, Batak or Tagbanuwa languages. In this respect, I do believe that Ingold touches a very relevant point when he claims that the notion of tenure "implies man's subjective transcendence of the natural world one cannot appropriate that within which one's being is wholly contained" (1986, 135).

Certainly, the use of notions which are alien to indigenous epistemology have serious drawbacks. When Palawan are confronted with this terminology they are often forced to express their claims using a "foreign vocabulary. As a result, they have to adjust their own epistemology in the attempt to make their social and physical world intelligible to outsiders (Novellino 1999d, 1998). "Pro-native" laws such as IPRA do not fully take into account the indigenous categories of space, locality, identity, and so on, nor the conditions in which local communities organize their daily food-seeking activities. The fact that the indigenous communities do no speak about their land claims in terms such as "tenure," "survey plans," "sketch maps" and "sworn statements" does not seem to matter.

The "ancestral land legislation" is characterized particularly by the rather complicated procedure that indigenous claimants have to follow in order to apply for the Certificate of Ancestral Land Claim. People are expected to submit proofs of their land claims. These include "the testimony of elders of the community under oath and other documents directly or indirectly attesting to the possession or occupation of the area since time immemorial"; "written accounts of indigenous customs and traditions, political structure, survey plans, anthropological data, genealogical survey, photographic documentation of burial grounds, agricultural improvements, hunting grounds, traditional landmarks, etc." Paradoxically, the indigenous peoples are asked to utilize western analytical tools to interpret, document, and explain their own culture. Therefore, if local communities want to enforce their land claims, they need to request the assistance of foreign experts, NGO representatives and government officials. Again, it is the authority of western scientific methods to provide the criteria for what constitute legitimate ancestral rights over land. On the other hand, local criteria of validation of land claims are not fully taken into account.

So far, efforts to survey and delineate indigenous ancestral land have been slow, due partly to a shortage of government funds and staff allocated to the tasks, and also to the inability of the Department of Environment and Natural Resources (DENR) to carry out its own legislation. Not surprisingly, three years after its submission, the documentation for Batak ancestral land claims is still awaiting approval in the DENR regional office.

Even in southern Palawan, government recognition of indigenous land rights is far from satisfactory. While bureaucratic procedures proceed, very slowly, for the identification, delineation and recognition of claims to ancestral lands and domain, Palawan territories are being occupied by Filipino migrants, by the members of the Federation for Land Reform Farmers (FLRF), and by the new road linking the north to the south-west coast of Palawan. This has been carried out without environmental protection measures being enforced. On the other hand, forest areas with valuable non-timber forest products (NTFPs) such as *Agathis* resin and rattan canes are being given as concession to outsiders, before ancestral titles are granted. As a result, the potential for future income from commercial gathering by indigenous peoples is highly reduced or virtually lost.

In the municipality of Rizal the endorsement of ancestral domain claims has already encountered the strong opposition of the local authorities. In October 1996, the former Mayor stated that the endorsement of ancestral land claims "for a handful of men is contrary to the ideals envisioned in our Constitutions for equitable access to the natural resources, and violates our Land Reform Law which allows only 5 hectares of land for an individual Filipino." In a similar vein, Willy Jardinico, secretary general of the Federation of Land Reform Farmers (FLRF) compares those NGOs supporting indigenous land claims to an Octopus "whose tentacles will engulf the vast land area of our beloved municipality' and he claims that 'with their success our aspirations for progress will be like an air castle that will melt into dust." Interestingly enough, statements of this kind are made by representatives of associations such as the FLRF, which are responsible for the ruthless destruction of hundreds of hectares of tropical forest at the expense of the local indigenous communities. Not surprisingly, people like Teddy Abendan, FLRF chairman, regards the recognition of indigenous land rights as a hindrance to development of the province, and he has recently issued a public warning to indigenous advocates that this could lead to severe clashes with the migrants—a "bloody revolution."

In response to this, Offie Bernardino, executive secretary of the Palawan National Network Inc. (PNNI), promises that the struggle for the recognition of indigenous land rights will continue, and that steps will be taken to question local government authority to issue occupancy rights to FLRF migrants in areas that have already been delineated as ancestral domain. While the issue of FLRF is now the object of debate between NGOs and government authorities, indigenous peoples are becoming the hopeless witnesses of the conflicting and unjust implementation of government land laws.

The Unmaking of IPRA and Possible Alternatives

Under the Estrada administration the IPRA law has finally sunk. Indigenous advocacy commentators have argued that "the creation of the National Council of Indigenous Peoples (NCIP), the national body mandated to implement IPRA, has been marred by political squabbles. Parties and groups close to Malacañang are vying for the Chairmanship against the wishes of the indigenous peoples' advocate groups" (IWGIA 1999, 187).

When and whether the NCIP controversy will be resolved remains an open question. It is significant to point out, however, that no funds have yet been requested and secured for NCIP to carry out its task. Even more worrying is the fact that Mr. Cerilles (DENR Secretary) has ordered that all pending Certification of Ancestral Domain Claim (CADC) applications to be frozen.

In Palawan, the suspension of all CADC applications has created much disappointment among indigenous groups and NGOs. Different organizations are now trying to come up with alternative solutions to secure the indigenous ancestral domain in spite of the wishes of the DENR secretary. One such alternative is being promoted by Atty. Lito Alisuag, the director of the Palawan Council for Sustainable Development (PCSD). PCSD is a unique government body formed by Republic Act No. 7611 with a mandate for the protection of the environment within the province. Indigenous interests are very poorly represented within the council whose decisions clearly express the views of the authorities.

A draft resolution on "adopting the revised guidelines for the identification and delineation of the tribal ancestral zone under SEP (Strategic Environmental Law)" was in the process of being revised by the PCSD in August 1999. Republic Act No. 7611 empowers PCSD to govern, implement and give policy direction to the SEP, and provides for the recognition of tribal ancestral lands as a main component in the Environmentally Critical Areas Network (ECAN). In Section 1 (Chapter IV) of the proposed draft it is stated that "the Palawan Council for Sustainable Development shall create a special committee composed of the PCSD as Chair, DENR-PENRO as Vice-Chair and the NCIP-Provincial Office, the Environment and Natural Resources Office-Province, the Provincial Planning and Development Office, the Provincial League of Municipalities, the DAR-Provincial Agrarian Reform Office and Local Government Units as members. The NGO and IP representatives shall be appointed by the PCSD upon the recommendation of the NGO representative to the Council. The committee shall be called the Palawan Special Committee on Tribal Ancestral Zones, hereinafter referred to as PSCTAZ" (Novellino 2000b)

In Palawan, some NGOs have raised doubts about the capacity of the proposed PSCTAZ to perform all tasks pertaining to the identification and delineation of tribal ancestral zones. For instance, Offie Bernardino, executive secretary of PNNI, has argued that, until now, DAO 2 remains the single instrument for ensuring that the rules and regulations of ECAN tribal zones are properly implemented. She adds that it is unlikely that DENR officials joining the PSCTAZ will support any process that recognizes tribal ancestral zones as this would contradict the wishes of their national secretary. Another major weakness of the PCSD draft resolution is its lack of innovation. Rather then mov-

ing forwards, it replicates most of the implementing guidelines set out by the DAO.

Overall, the resolution drafted by the PCSD makes no significant departure from the "culturally unsound" land zoning criteria proposed by the SEP. To be genuinely innovative and "pro-native," the resolution should abandon any attempt to implement western zoning criteria within tribal ancestral zones. Instead, it must push for the participatory mapping of such areas, and for the adoption of indigenous land classification criteria for defining different vegetation types and land use categories.

The Role of DENR in the Indigenous Affairs

Cooperatives on Batak Land

To complicate matters even further, new forest management laws are being implemented in areas which have been previously endorsed to the local indigenous communities. Hence Batak are becoming confused, and totally frustrated about their role as stewards of forest resources. One most recent example is provided by the Community Forest Management Agreement (CFMA) under DENR, which has included significant portions of the Batak territory, previously endorsed to people under a Communal Forest Stewardship Agreement (CFSA).

Interestingly enough, in the CFS agreement entered between the Batak Association of Tina and the DENR, it is clearly stated that "the grantee shall have the sole and exclusive right to peacefully possess, cultivate and enjoy all the produce of the land." What is perhaps surprising is that the newly created co-operative under CFMA, managed and organized by Filipinos, are alienating Batak land rights under the CFSA.

The cooperative has replanted rattan and *Acacia mangium* in Batak fields under fallow. Furthermore cooperatives' forest management activities include the cutting of climbing vines around valuable timber species. This has caused proliferating tension among the Batak. The people are particularly concerned about the activities carried out by the cooperatives for three main reasons a) once swidden fields are replanted, they can no longer be used for cultivation, b) vines are used to climb trees for harvesting wild honey combs, b) certain vines such

as *malabnang*, are bearing flowers during the second phase of the honey season, and thus are important producers of pollen. Until now, no significant steps have been taken by the Department of Environment and National Resources (DENR) to solve this matter.

Those Batak working for the cooperative are well aware that the planting of tree crops in fields under fallow will jeopardize swidden clearing in the future. Nevertheless they accept the planting of some of these areas to counter the effects of food-scarcity. The general perception of Batak people is that the future is very uncertain, and short-term gains can offer a solution to immediate food needs.

The Freezing of CADC and the Coming into Being of CBFM

Recently, the Department of Environment and Natural Resources (DENR) has frozen all pending applications for the recognition of ancestral land claims. As a result, there is a resurgence of repressive forest policies reintroduced under apparently benevolent rubrics and acronyms such as the "Community Based Forest Management" (CBFM). CBFM is a DENR policy that allows local communities to manage forests that have been converted to non-timber uses. Its ultimate objective is to develop self-sustaining production systems in the uplands by substituting indigenous swidden practices with permanent forms of agriculture which, in reality, are not culturally acceptable and cannot provide an adequate amount of staple food. A closer look at CBFM reveals that the policy violates indigenous peoples' rights to their ancestral land, and it perpetrates government control over indigenous peoples' livelihoods (Novellino 2000a, 2000b). In fact, with CBFM, indigenous peoples' role in their own territory is rather reduced to that of stewards of public land. For instance, the agreement between the Provincial Environment and Natural Resources Office (PENRO) and the Association of Batak of Tina (18/12/98) specifies that the indigenous beneficiaries should "immediately assume responsibility for the protection of all forest land within the CBFM area against illegal logging and other unauthorized extraction of forest products, slash and burn agriculture (kaingin), forest and grassland fires, and other forms of forest destruction, and assist DENR in the prosecution of violators of forestry and environmental."

Clearly, the contract requires that the Batak themselves must guard their area from their own practices, such as swidden cultivation. This uncharacteristic turnaround from indigenous rights under IPRA, does nothing to recognize the claims of indigenous communities over their ancestral domain. It rather places indigenous forest management under government control, and uses the people as subcontractors of DENR. Not surprisingly, in the CBFM penalty clause we learn that "in the event of default in any of the above undertaking by the PO nothing herein shall preclude the DENR from resorting to such judicial remedies, civil or criminal, to which it may be entitled under existing laws."

It is worth noting that this CBFM agreement, before being signed by a Batak representative, had been evaluated by members of the Haribon Palawan (a local environmental group). The other members of the community, however, claim to be unaware of the real content of the CBFMA, which is written in English rather than in the national language (Tagalog). Furthermore, they complain that the agreement was signed by Perfecto Salvador (one of the Batak of Kalakuasan) without proper co-ordination with the other community members. According to some Batak informants, a percentage from the proceeding of their sale of almaciga resin under CBFMA has been used to pay the salary of a technician assigned to the area by DENR. The same informants complain that the DENR technician has never performed his task nor has visited their area (Novellino 2000b).

Regulating the Non Timber Forest Products (NTFPs) Trade

Batak extract resin form *Agathis philippinensis* tree, known as *baltik*. Gatherers claim that their way of extracting the resin does not damage the *agathis* tree, since the cuts are only "dua kamrut" (two fingers) deep, and tapping takes place no more than twice a month. On the contrary, they complain about the destructive tapping techniques employed by the Filipino gatherers. Some Batak gatherers from the uplands of Tanabag agree that, if well managed, an old *agathis* tree can provide up to one sack of resin per month. Each individual is in charge of a certain number of trees, which will not be utilized by other gatherers, unless permission is obtained by the "owner."

In recent years, energy cost invested in transporting both the load of resin to the coast, and the corresponding food commodities back to the village is increasing to an unprecedented level (Novellino 1999a, 1999d, 1998). Today Filipino unauthorized gatherers have penetrated into the Batak territory, and the natives have decided to abandon the most accessible *agathis* trees for the purpose of avoiding confrontation

with the lowlanders. As a result, a considerable amount of trees traditionally tapped by the Batak, are now exploited by outsiders. Therefore, members of Batak communities are often forced to extract the resin from trees growing in remote and inaccessible areas. Interviews to Batak gatherers reveal that, due to the remoteness of such places, the time invested in transporting the resin to the coast is five to six fold higher than it was ten years ago. Furthermore, Batak gatherers claim that today, the amount of resin sold to the lowland buyers does not provide enough rice to sustain them during the food-shortage season.

Aside from *baltik*, Batak also harvest the stems of climbing rattan palms (*Calamus spp.*, *Daemonorops spp.* and *Korthalsia spp.*) which are of significant commercial value in Palawan, as elsewhere in South East Asia (Novellino 1999a, 1999b). Both large and small diameter rattans are gathered by the Batak, with the former being much prized for furniture making, and thus exported internationally.

During the past few years, NGOs in Palawan have supported and facilitated the shift of NTFPs permits from private concessionaires to indigenous communities. Several 'negotiated' contracts have now been released, especially to Tagbanuwa associations. On the other hand the transferring of concession rights to indigenous people has been strongly opposed by Filipino concessionaires having privileged relationships with high-rank officials of the Department of Environment and Natural Resources (DENR). The major drawback of negotiated rattan contracts, is that they do not necessarily benefit the communities where the NTFPs are found. On more than one occasion, Tagbanuwa gatherers holding a negotiated contract, have entered the Batak territory. Coming from other parts of Palawan, these gatherers have no vested interests in the sustainable utilization of resources found in the Batak land. On other occasions, Filipino concessionaires operating in the Batak territory, have hired harvesting crews from other areas, as a result the Batak have been excluded, receiving little or no benefits from the NTFPs trade. At the best, Batak have become involved in the harvesting of rattan canes in competition with the more numerous groups of Tagbanuwa and the non-indigenous collectors.

The situation is made even worse by the lack of adequate laws regulating rattan gathering, or by the negligence of the existing ones. For instance, there are no legally sanctioned limits to control the number of collectors hired by Filipino concessionaires. On the other hand, concessionaires do not abide by their contractual obligations, which would include the DENR specified "maximum allowable" levels of

harvested product. Furthermore, there are no official and reliable estimates of the quantity of rattan canes that can be harvested annually from a given area and for different forest types. Hence, when forest areas are given in concession, rattan resources are collected until rattan canes are all or nearly exhausted. Neither concessionaires and middleman is interested in ensuring a sustainable harvest; as a result rattan natural regeneration is jeopardized. It does not come as a surprise that the irrational use of resources taking place both under bidding and negotiated rattan contracts has the effect of exhausting an important indigenous source of local income.

The real constraint to a sustainable utilization of NTFPs in Palawan comes from the existing laws and regulations. Philippine forestry laws, especially the Minor Forest Product Concession Licensing Act, have contributed to establish and maintain monopoly-control over commerce in non-timber forest products. The authorized concessionaires are the only ones allowed to purchase, transport, and market the non-timber forest products. On the other hand, there are no established wages for the collectors receiving very low compensations for the raw material.

Conclusion

As this paper has attempted to argue, despite their benevolent ecological connotations, environmental measures such as zoning and the ban on shifting cultivation can aggravate the living conditions of local indigenous communities to an unprecedented level. Forest protective measures, such as those described in this paper, all aim at modifying indigenous practices. They are based on the assumption that the natural balance can only be re-established by applying specialized technological western knowledge. Hence, indigenous peoples are placed in a position that not only makes it impossible for them to reproduce their local knowledge, but paradoxically, forces them to infringe it.

It may appear that one of the tendencies underlying development discourse continues to be that of conceiving man's adoptive success in terms of material wealth and advanced technology rather than measuring it in terms of long-term survival (see Sahlins 1960). As a result, in Palawan, imported agricultural techniques and western criteria of land management have been regarded as the auspicious standards to which indigenous groups should conform. Thus the joint venture of development and conservationism has become a most sophisticated strategy to avoid listening to people's concrete needs and aspirations.

A few comments must also be made regarding the role and potential of local NGOs in safeguarding indigenous rights and resources. Overall, in Palawan, NGOs have confined their participation to sustainable development mainly to the task of protecting the physical environment. Issues related to indigenous well-being and cultural rights have been given much less attention. As a result, NGOs have often supported or silently accepted environmental laws such as SEP, or the city government ban on shifting cultivation, without considering the impact of such laws and ordinances on indigenous livelihoods and practices. In most cases, conventional NGO packages for ecological sustainability in the uplands have proven to be ineffective (agroforestry, marketing assistance, health and education) (Novellino 2000b).

NGO initiatives to establish security of access and tenure for indigenous communities have also lagged behind schedule. While CADC applications under IPRA are now frozen, the local NGOs have vet to agree on a common strategy to secure indigenous lands. The key point here is that NGOs should come up with a more unitary policy and define where they stand on questions of power, political alliance and indigenous rights in Palawan. Certainly, NGOs such as Haribon Palawan, Palawan NGOs Network Inc. (PNNI), and ELAC (Environmental Legal Assistance Center) have gone a long way in terms of advocacy. Nonetheless, there is a real danger that such gains could be overturned by the lack of tangible and coordinated NGO action against controversial unsustainable projects and legislation that undermine indigenous wellbeing and restrict indigenous self-determination. (e.g., road construction in Rizal Municipality, the City government ban on shifting cultivation, forest destruction by the FLRF, etc.). Local NGOs therefore need to consolidate their political voice as soon as possible. In particular, they must develop more effective strategies for influencing the agenda of the Palawan Council for Sustainable Development (PCSD), and for monitoring large programs financed from overseas (e.g., the EC financed "Palawan Tropical Forest Protection Programme"). All this will require a high degree of interaction and collaboration among different NGOs who also need to establish the capacity to mobilize human resources and respond quickly to sensitive issues as they arise.

The critique to forest conservation in Palawan would be incomplete without taking into account the very important role that DENR has played. The inability of the Department of Environment and Natural Resources (DENR) to carry out its own legislation is acknowledged nation-wide. DENR should stop the freezing of all CADC applications, as soon as possible. Furthermore, it should promote specific studies to generate essential information on NTFPs harvest quantities. So far there is no reliable data on annual production of rattan and *almaciga*. For commercial species of rattan, available stocks can be estimated by gathering information on the concession areas for which rattan licenses have been issued. Quantities and species harvested from concession areas should be carefully reported to determine the stock of rattan that can be harvested within a certain area by an identified group of individuals. On the basis of these information, measures must be identified and implemented to determine the level of sustainable extraction.

To conclude, addressing the problems faced by the Batak, as well as by the other indigenous groups of Palawan, will require a shift in emphasis away from both official and environmentalists' criteria of forest conservation to culturally specific and locally situated solutions, geared towards village people's needs. Undoubtedly, ecological equilibrium in Palawan cannot be restored by placing the forest off limits to the local indigenous communities and excluding from the conservation discourse the processes that have led to environmental degradation, such as commercial logging and mining. In a similar way, the sustainable development of the island cannot become a reality through the prescriptions of the SEP and the NIPAS. On the contrary it will only be achieved through a radical nation-wide reform which needs to create the political and social conditions for stopping or at least reducing social inequalities, and thus the migration of thousands of land-less people to Palawan.

Notes

- 1. These percentages have been computed by E. Wakker from estimates of forest cover loss quoted in Serna (1990) and Kummer (1992). See E. Wakker, Towards Sustainable Production and Marketing of Non-Timber Forest Products in Palawan, The Philippines (Haarlem Tropical Social Forestry Consultancies (TSF), 1993).
- 2. For more information on population increase and the percentages on cultivated land in Palawan, see Hunting Technical Services Limited, Planning, Management and Development System Inc. and Sir. M. Mac Donald and Partners Limited, *Palawan*, *A Strategic Environmental Plan*, 1985.
- 3. I am here drawing on the work of Foucault. He differentiates "relations of power" from "relations of violence." The former "does not act directly and immediately on

- others. Instead it acts upon their actions." The latter "acts upon a body or upon things, it forces, it bends, it breaks on the wheel, it destroys, or it closes the door to all possibilities." It follows that "freedom must exist for power to be exerted" while "slavery is not a power relationship, when man is in chains" (1982, 220–21).
- 4. Republic of the Philippines, Congress of the Philippines, Republic Act no. 7586 (National Integrated Protected Areas System Act of 1992), Manila 1992. For an orientation on the NIPAS law see DENR (Department of Environment and Natural Resources), The NIPAS law a primer (Manila Conservation International & Foundation for Sustainable Development Inc., 1992).
- 5. According to Forest Act no. 1148 of 1904, and Revised Forestry Code (PD no. 705 of 1975), shifting cultivation with the slash and burn method, also known in the Philippines as "kaingin," is unlawful. For a more detailed discussion on these issues, see Laws and Development Legal Assistance Centre (DLAC), Laws and Jurisprudence Affecting the Indigenous Peoples of the Philippines (Quezon City, 1990).
- 6. DENR (Department of Environment and Natural Resources), Special Order no. 25, S. 1993. Manila 1993.
- 7. DENR (Department of Environment and Natural Resources), Administrative Order no. 02, 5, 1993. Manila 1993.

References

- Asad, Talal. 1993. Genealogies of religions discipline and reasons of power in Christianity and Islam. London: J. Hopkins University Press
- Croll, Elisabeth and David Parkin. 1992. Anthropology, the environment and Development. In *Bush base forest farm: Culture, environment and development*, edited by E. Croll & D. Parkin. London: Routledge
- DENR (Department of Environment and Natural Resources). 1992. The St. Paul Subterranean National Park. Manila.
- DENR (Department of Environment and Natural Resources) & Panlipi (Legal Assistance Center for Indigenous Filipinos). 1993. Northern Palawan Batak-Tagbanuwa Ancestral Heritage Reserve (NP-BATAHR) Management Plan. Prepared by Dario Novellino for DENR & Panlipi, Manila.
- DENR (Department of Environment and Natural Resources). 1993. Special Order no. 25, S, 1993. Manila
- DENR (Department of Environment and Natural Resources). 1993. Administrative Order no. 02, S, 1993. Manila.
- Eder, James. F. 1987. On the road to tribal extinction: Depopulation, deculturation, and maladaption among the Batak of the Philippines. Berkeley: University of California Press.
- Ellen, Roy F. 1979. Anthropology, the environment and ecological System. ASA Monograph 18. In *Social and ecological Systems*, edited by P. C. Burnham and R. F. Ellen. London: Academic Press
- Foucault, Michel. 1982. The subject and power. In Michel Foucault beyond structuralism and hermeneutics. Chicago: The University of Chicago Press.

- Hunting Technical Services Limited, Planning, Management and Development System Inc. and Sir. M. Mac Donald and Partners Limited. 1985. *Palawan: A strategic environmental plan.*
- Ingold, Tim. 1986. The appropriation of nature: Essays on human ecology and social relations. Manchester: Manchester University Press.
- Noveilino, Dario. 1997. Social capital in theory and practice the case of Palawan. Rome Food and Agriculture Organization (FAO) of the United Nations
- -------. 1998. Sacrificing people for the trees: The cultural cost of forest conservation on Palawan Island (Philippines). *Indigenous Affairs*, no. 4:4–14.
- . 1999a. The ominous switch from indigenous forest management to conservation: The case of the Batak of Palawan island, Philippines. IWGIA Document No. 97. In *From principles to practices: Indigenous peoples and protected areas in South and Southeast Asia*, edited by Marcus Colchester and Christian Erni, 250–97. Copenhagen: IWGIA.
- ------. 1999b. The emergency role of palm food in Palawan island (Philippines). In *Food and body: From food to culture, from culture to food,* edited by A. Guerci, 52–74. Proceedings of the "Second International Conference of Anthropology, Nutrition and Health," 2–5 April 1998, Genova. Genova Erga edizioni.
- ———. 1999c. Prohibited food and dietary habits among the Batak of Palawan island (Philippines). In *Cultural food: From food to culture, from culture to food,* edited by A. Guerci, 145–54. Proceedings of the "Second International Conference of Anthropology, Nutrition and Health," 2–5 April 1998, Genova. Genova Erga edizioni.
- ————. 1999d. Conservation without Condescension. *Indigenous Perspectives* 2 (1) 40–61
- ————. 2000a. From seduction to miscommunication: The confession and presentation of local knowledge in "Participatory Development." Paper to the ASA 200 Conference, School of Oriental and African Studies, 2–5 April, 2000, London. Available on the web: http://www.asa2000.anthropology.ac.uk/novellino/novellino.html
- ———. 2000b. Wetlands and indigenous rights in Palawan (Philippines): A preliminary account of the status of mangroves, coral reefs, road construction and indigenous rights in Rizal municipality. Bangsa-Palawan, Philippines & Forest Peoples Programme.
- Novellino Dario & De Matteis Tortora Manuela. 1997a. L'Uso delle Piante nella medicina tradizionale e nell'organizzazione di alcune Pratiche Palawan. In *Meetings between medicines*, edited by Antonio Guerci, 312–19. Genova Erga edizioni.
- Republic of the Philippines, Congress of the Philippines. 1992. Republic Act no. 7586 (National Integrated Protected Areas System Act of 1992. Manila.
- Republic of the Philippines, Congress of the Philippines. 1992. *Republic Act no.* 7611. Manila.

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- Republic of the Philippines, Congress of the Philippines. 1997. *Republic Act no.* 8371. Manila
- Sahlins, Marshal. 1960. Evolution specific and general. In *Evolution and culture*, edited by M. Sahilins. Ann Arbor University of Michigan Press
- Serna, C. B. 1990. Rattan resources supply situation. In N.K. Toreta & E.H. Belen (Eds). Rattan, Proceedings of the National Symposium/Workshop on Rattan, Cebu City, 1988.
- Spretnak, C. 1985. The spiritual dimension of green politics. In *Green politics:* The global promise, edited by C. Spretnak and F. Capra. London: Paladin.
- Wakker, Eric. 1993. Towards sustainable production and marketing of non-Timber forest products in Palawan, the Philippines. Tropical Social Forestry Consultancies (TSF), Haarlem.