



# Rattan Utilization in Ancestral Domain Areas

THE NON-TIMBER FOREST PRODUCTS EXCHANGE PROGRAM (NTFP-EP), with the assistance of the Voluntary Service Overseas (VSO)-SPARK Program, undertook a research project to evaluate rattan utilization in ancestral domain areas. While indigenous communities use a variety of non-timber forest products (NTFPs), rattan was singled out as being one of the most important in terms of being a source of cash and income. Earlier statistics show that there was once as many as 121 permits granted to indigenous communities covering 1,388,571.70 hectares. Today, with 29 active permits covering about 344,146 hectares, it is clear that indigenous peoples are a major stakeholder in rattan operations.

This document integrates two full-length studies focusing on Indigenous Peoples' (IP) rattan operations [1]. The analysis and findings from these studies will hopefully provide significant input into policy review on IP rattan utilization, as well as give a more comprehensive picture of the sustainability and profitability of these enterprises.

The methodology used for the initial research (Gatmaytan, 2004) was case-study method, concentrating mainly on IP communities' economic activities, and more particularly, on their cutting and selling of rattan poles. Primary data gathering methods were key-informant interviews and focused group discussions at the community-level. This was supplemented by field observations, interviews of knowledgeable individuals (buyers, staff members of NGOs, personnel of the Department of Environment and Natural Resources [DENR]) and critical use of archival or secondary literature. Validation of the data from each partner community was also conducted.

[1] The full length papers are "Case Studies in Rattan Utilization in Ancestral Domain Areas" by Augusto B. Gatmaytan, June 2004 and "Report on Labor Cost Analysis of Rattan Gathering in a CADC area: The Case of SANAMA of Paitan, Naujan, Oriental Mindoro" by Arlynn C. Aquino, June 2004. This consolidated report was edited by Mariel de Jesus, VSO-SPARK. All photos by SANAMA.



**TABLE 1: Characteristics of the communities studied**

Community	Ethnic composition <sup>1</sup>	Level of Community	Location/ Region	Estimated population	CADC No. (Yr.); Area	Local Organization <sup>2</sup>
Giayan	Bugkalot/ <b>Ifugaw,</b> <b>Ibaloy</b> <sup>3</sup>	One sitio in a multi-sitio CADC area	Nagtipunan, Quirino/ Reg. 2	350 indiv./ 50 hsholds	No. 002 (1994); 108,360 has.	(Bugkalot tribal federation)
Pinagkampoan	<b>Dumagat</b>	One sitio controlling the CADC area	Gabaldon, N. Ecija; San Luis, Aurora/ Regs. 3, 4	14-18 hsholds	No. 117 (1998); 14,797 has.	<b>Mangayunan</b>
SANAMA	<b>Alangan/</b> Tagalog	Multiple sitios forming one CADC area	Naujan, Baco and San Teodoro, Or. Mindoro/ Reg. 4	Est. 10,000 indiv.	No. 086 (1997), 7,537 has. and No. 124 (1998); 32,000 has.	SANAMA
Kayasan	<b>Batak, Tagbanwa/</b> Tagalog, Ilocano, other migrant groups	Two sitios forming one CADC area	P. Princesa, Palawan/ Reg. 4	64 hsholds	No. 028 (1996); 7,530 has.	SATRIKA
Punta Baja	<b>Pala'wan/</b> Tagalog, other migrant groups	Multiple sitios forming one CADC area	Rizal, Palawan/ Reg. 4	400 hsholds	No. 100 (1997); 15,093 has. <sup>4</sup>	PINPAL
Latay	<b>Manobo/</b> Cebuano, other migrant groups <sup>5</sup>	One sitio in a multi-sitio CADC area	Rosario, Agusan del Sur/ Reg. 13	262 indiv./ 52 hsholds	No. 153 (1998); 14,225 has.	CAMPACAMM (federation)

A closer look was taken to study the economic dimension and labor costs of one specific community this being the rattan gatherers of SANAMA, Bgy. Naujan, Oriental Mindoro (Aquino, 2004).

To get a clear sense of the interaction between communities and the DENR over rattan operations, the research focused on communities that were recipients of a Certificate of Ancestral Domain Claim (CADC). The CADC program of the DENR needs to be evaluated to see if it has been effective in a) forest conservation through community-based decentralization and b) wealth distribution, income generation and poverty alleviation through community forest enterprises/livelihood activities.

Case studies were conducted in six

CADC communities nationwide. The communities belong to six different IP groups or combinations of groups. Table 1 provides summary data on each of the communities studied.

The character of each "community" differs considerably from case to case. While each one features indigenous groups engaged in the cutting and marketing of rattan poles, there are considerable differences in their particular histories, and in the way each community's involvement in the rattan industry is articulated institutionally.

These differences are outlined in Table 2. There are two ways of securing government sanction for rattan operations. The first is under DENR Department Administrative Order No. 4 of 1989, which among other things, gives indigenous communities

Table notes: <sup>1</sup> The ethnic group/s named before the slash represent/s the CADC applicant group. The ethnic group in bold letters is the statistically dominant group in the community.

<sup>2</sup> Where all community residents are members of the local organization, the organization's name is set in bold letters. Note that non-members may be IPs or non-IPs. Federations refer to organizational structures that theoretically cover the entire CADC area but may not have operational presence in the community named.

<sup>3</sup> Though the non-Bugkalot dominate in Giayan, the Bugkalot outnumber non-Bugkalot in the entire CADC area.

<sup>4</sup> Punta Baja shares its CADC area with Kampong Ulay, another cluster of Pala'wan sitios. It controls only 5,575.3 has. of the total CADC area. The two clusters thus have their respective territories, and are autonomous from each other, having different leaders and ADMPs.

<sup>5</sup> Though the Manobo dominate over the non-Manobo in Latay, non-Manobo outnumber the Manobo in the entire CADC area.

[2] Atty. LaViña was a former DENR Undersecretary of the Legal Department. The document dated June 25, 1997 contains his legal opinion on DAO 96-34, which states "An adequately prepared and duly submitted ADMP takes the place of resource extraction permits and or licenses for the cutting, gathering and harvesting of timber and other forest products which the community will otherwise have to secure from the field."

a 10-year “negotiated contract,” maintained through submission of reportorial requirements and payment of taxes, and which must be renewed on expiry. The second is under Atty. Tony LaViña’s opinion on DAO 96-34, which in effect allows CADC communities to use their Ancestral Domain Management Plans (ADMPs) as rattan licenses [2]. ADMPs do not have to be renewed, and are not subject to reportorial requirements. For CADC communities, it is easier to submit an ADMP rather than apply for

a negotiated contract.

The communities’ rattan operations were evaluated on the basis of three main parameters: sustainability, efficiency and profitability. Equity was also discussed as a parameter for evaluation in the complete study, but is not included in this shortened version.

### Sustainability

**B**ECAUSE of the difficulty of actually measuring sustainability, four key components critical to sustainable

resource management were selected.

These are area protection, rule compliance and enforcement, the establishment of utilization zones and non-use reserves, and rattan replanting. Theoretically, if communities perform well in all these respects, then their operations can be considered sustainable. It is notable that these four parameters are actually incorporated as standard provisions in the ADMPs of the six communities studied, except for Latay, which has no ADMP.

**TABLE 2: Institutional Aspects of Rattan Operations**

Community	Beginning of Involvement in Rattan Trade/ Year Licensed Operations Began	Form of Rattan License Held by Community	Status of Rattan Operations <sup>1</sup>	Entrepreneurial Level of Rattan Operations	Interface between Indigenous and Local Organization Leaders
Giayan	1980s/part of expired rattan license not controlled by community in 1990s	None	Ongoing, small-scale transactions	Individual/informal groups	n.a.
Pinagkampohan	1930s-1940s, possibly earlier/1998	CADC/ADMP (1998)	Ongoing, active	Sitio-level organization (Mangayunan)	Clan or family heads or representatives represented in Council, organization
SANAMA	1950s, possibly earlier/1990	Negotiated 10-year Rattan Cutting Contract	Suspended pending renewal of license	Multiple-sitio organization (SANAMA)	Council of Elders, <i>Aplaki</i> integrated into management structure
Kayasan	1950s, possibly earlier/part of negotiated license area in 1991, used CADC/ADMP when received in 1996	CADC/ADMP (1996)	Suspended pending submission of AWP, but ongoing small-scale transactions	Two-sitio organization (SATRIKA)	<i>Masikampo</i> and <i>Orangkaya</i> marginalized
Punta Baja	1970s/part of negotiated license area in 1989 or 1990, used CADC/ADMP when received in 1997	CADC/ADMP (1997)	Ongoing, inactive	Multiple-sitio organization (PINPAL)	<i>Mangungkom</i> integrated into management structure
Latay	1970s/ part of expired rattan license not controlled by the community in 1980s (?)	None	Ongoing, small-scale transactions	Individual/informal groups	n.a.

<sup>1</sup>The data presented is as of November 2003.

Of the four communities with rattan enterprises, three seem to be able to protect their area from outside encroachment. Where area protection has not been possible, it is perhaps because the community is quite diverse and has been unable to consolidate itself, or because of confusion as to whose responsibility area protection is. In the case of Latay and Giayan, there were no clear efforts to protect their area from outsiders. In these two areas, non-IPs are allowed to cut rattan within the CADC area. It can be noted therefore that the existence of a collectively defined community territory does not necessarily translate into a collective effort to protect that territory.

Communities that have long been practicing rattan utilization have been most successful when it comes to rule compliance and enforcement. This is apparent in the cases of Mangayunan and SANAMA, where

rattan utilization has been part of the repertoire of economic options since the post-war years. Their collective experience gives them an edge over those who have only recently begun rattan operations, as they have had enough time to learn from their mistakes and develop appropriate rules and practices for rattan utilization. In contrast, late-comers to rattan enterprises, like Giayan and Latay, conduct rattan cutting activities with little, if any, regulation. Cohesion and group solidarity—which are also linked to collective experience—are also key factors in the community’s ability to follow and enforce rules. The stronger the social expectation of rule compliance, the less likely the occurrence of violations; and if violations do occur, the likelihood of punishment is greater. Integrating indigenous political institutions into the management structure for rattan utilization has proven successful in

the case of SANAMA and PINPAL, as indigenous leaders still command respect, and thus become effective mechanisms for enforcing rules.

On the whole, zoning and reserves establishment are not particularly well enforced in the six communities. In the area of PINPAL, officials claimed that zoning was being followed, but other informants said rattan cutting was possible anywhere in the CADC territory. In Kayasan, SATRIKA’s area, there were reports of rattan cutting in areas that were supposed to be off-limits. Moreover, the easily accessible areas were badly depleted, while the distant ones were relatively healthy, suggesting that the zoning system is ineffective. Only two communities had established reserves, and of these, the one in the area managed by PINPAL is part of an area damaged by a forest fire, so it may have very little ecological or economic value.

As for rattan replanting, all the ADMPs contain a provision for this. The general intention is for individual cutters to replace the rattan cut by replanting. However, there is little technical support for this activity, which is fairly new to many community members. Also, the ADMPs are not clear as to how the rattan-replanting provisions should be implemented. Some rattan replanting is being done at the level of the community organization, but with PINPAL’s reforestation area covering only 0.0005% of Punta Baja, SATRIKA’s covering only 0.0009% of Kayasan, and SANAMA’s replanting covering only 0.005% of its CADC, the question remains as to how these plantations could replace the vast stocks of rattan taken from these areas. Some communities maintain that leaving areas to rest by reducing extractive activities will also lead to the regeneration of rattan and other species.

Local tenure concepts and practices affect community performance in terms of sustainable resource management. For instance, the areas that fared poorly in area protection

## Tenure and Sustainability

**T**HE research project encountered two general types of land tenure among the indigenous communities involved.

In the first type, residence tends to be concentrated in sitios, near which are the family- or individually-owned swidden fields and fallow areas. Adjacent to, or connecting the sitios is a relatively large area claimed by the residents as their common territory, from which any resident may freely extract resources such as game, wood and rattan, among others. This is the case in Pinagkampoan, Punta Baja and Kayasan.

In this case, setting and implementing resource-use zones and reserves is not problematic, because most of the community territory is communally claimed and can easily be reallocated to such uses without adverse effect on anyone’s interest.

In the second type, the community’s territory is also communally defined, but almost all of it is subdivided into landholdings owned by families or even individuals. In some cases, each landowning unit resides at or near their holdings, as is the case in the SANAMA area. In others, the people tend to concentrate into sitios, as in Giayan and Latay, even as they maintain their claims to their respective holdings, which may be some distance away. Generally the

landowner whether an individual, family or group of families can farm or extract resources only from their own holdings; if they wish to extract resources like rattan from others’ lands, they must first secure permission.

In this situation, it is very difficult to set resource-use zones and reserves because doing so means that some landowners will not be allowed to farm or extract resources from her/his landholding for one or more years (in the case of zoning), or even permanently (in the case of reserves).

This underscores the need to be aware of the actual land and resource tenure practices of each community, and to ensure that the provisions of an ADMP or ADSDPP take this into consideration. While zones and reserves are seen as good for sustainable resource management, implementation may fail if these conflict with the interests of one or more landholders. It is thus instructive that SANAMA’s ADMP did not establish zones or reserves, but rather left each landholding group to establish such within their own holdings, if they wished to. There was awareness that imposing zones or reserves on the entirety of the SANAMA area would prejudice some landowners, which could only weaken their commitment to the cooperative management of the entire territory.

were those without a sense of collective ownership of the territory. In Giayan and Latay, while there were community boundaries, family and individual landholdings crosscut the area. Land ownership in these areas is not communal in the sense that the entire community owns the entire territory. In contrast, those that performed best in terms of area protection had well-defined notions of collective ownership of the CADC territory of which it is a part, as is the case for Mangayunan and PINPAL; or were able to transcend the constraints posed by tenure, as in the SANAMA area.

DENR regulations also impact on the ability of communities to manage their resources in a sustainable manner. All informants from all communities, their support groups, as well as the buyers interviewed all describe current taxation rates on rattan pole harvesting as excessive. Taxation rates increase operational costs of rattan cutters and other users, while correspondingly decreasing the profit from the sales of already low-priced products. Tax rates are perceived to be so exorbitant that they encourage covert rattan operations, which allow rattan cutters to bypass the taxes and government monitoring.

Bureaucratic requirements of the DENR also affect community rattan operations. There are three types of these requirements: licensing requirements, reportorial requirements and transportation documents. Forms of licensing have already been discussed. It should be added though that procedures for securing a negotiated rattan license are quite complicated, particularly for novice community organizations with limited assets. In fact, one requirement – proof of available capital or credit line – is so difficult that many communities lose interest in registering their operations. The question now is on what basis the DENR determines what a CADC-holding community can do with its ADMP, and when it will be required to apply for a standard rattan license. Without a clear basis, there

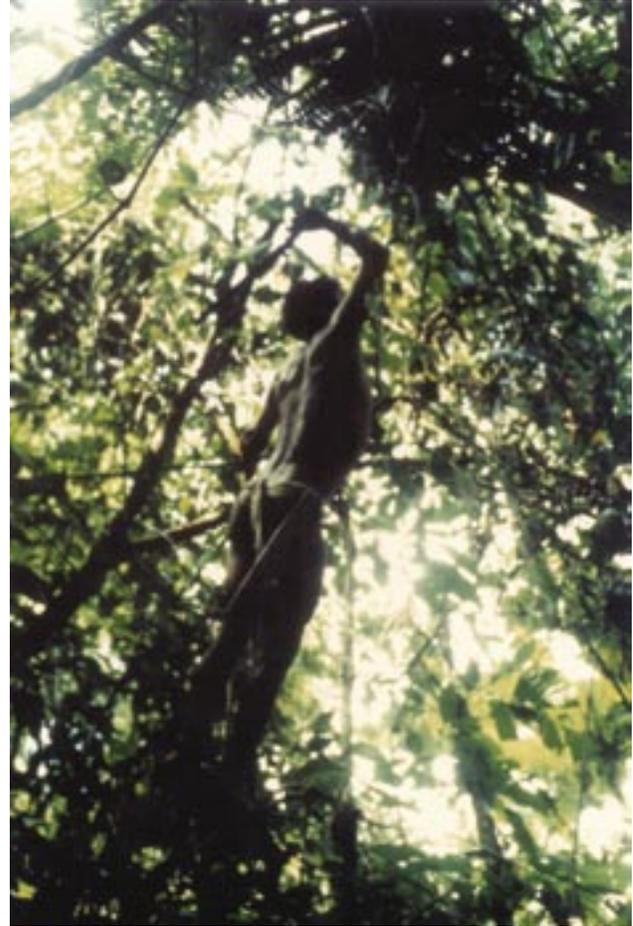
is the danger that DENR's judgment on the matter will become arbitrary, even abusive or whimsical.

Licensing and reportorial requirements, as well as securing transport documents form a considerable operating and transaction expense, particularly in the light of many communities or organizations' limited capital and technical resources. The bottom line is that the DENR's requirements do not improve the community's ability to perform their role as resource managers, but in fact impair their performance by increasing operational costs.

### Efficiency

SOME of the transaction costs faced by communities have already been discussed above. This section goes further into these costs and how they impact on the performance of community rattan operations.

The six communities interface with the denr in very diverse ways. Three communities use their cadc-admps as licenses, one uses a negotiated rattan license. Two communities do not bother with licenses. For giayan and latay, where rattan operations are ongoing without a license or cadc-admp, rattan cutters are able to function without having to deal with denr's bureaucratic requirements or machinery. Bribes solicited by denr, military and police personnel during transport constitute the entirety of the transaction costs shouldered by these



**Antonio Castillo, an Alangan Mangyan, cuts rattan vine in Basal, Paitan, Naujan, Oriental Mindoro**

cutters. In comparison with the four other communities, rattan cutters here have virtually no transaction costs to shoulder. This suggests that strictly from the standpoint of efficiency, it is more cost-effective to ignore or violate the law than to comply with it.

In terms of what the DENR requires from communities, there is also a great deal of variability. Where SANAMA is burdened with many reportorial and other requirements, Mangayunan concerns itself only with securing transport documentation. DENR requirements vary, even for communities under the jurisdiction of one Provincial Environment and Natural Resources Office (Palawan). SATRIKA is required to submit an Annual Work Plan and the resource inventory upon which it is based, while



**Antonio Castillo splitting rattan into strips. The core is not utilized as wicker and is discarded.**

PINPAL is not.

Even procedures differ, particularly for securing transport documents. Mangayunan enjoys the relative ease of a procedure where all transactions are limited to the Community Environment and Natural Resources Office (CENRO). The entire process takes 2 to 3 days. In contrast, SATRIKA must go to the DENR station in Bahile to request inspection of their rattan stocks, then proceed to the CENRO to arrange a schedule for the inspection, then return home to await the date of inspection. After inspection, they must go back to Bahile to get the report, proceed to the CENRO to pay the assessed forest charges, proceed to the PENRO to get a blank Certificate of Minor Forest Products Origin (CMFPO), return to the CENRO to have the form typed

up and signed, and then have it notarized before going home. The entire procedure usually takes three to four days to finish, but if key DENR personnel are unavailable, it may take up to a week.

These complicated procedures increase the transaction costs of communities engaged in rattan-based operations. The transaction costs discussed here do not even include the “unofficial” transactions, commonly known as “SOPs”.

This evaluation shows that

there is no connection between the kind of license a community uses to operate and its performance as a resource manager. SANAMA, with its negotiated rattan license does relatively well as a resource manager charged with protection of its area. But then again, so do PINPAL and Mangayunan with their CADC-ADMPs. In fact, the least efficient system observed is that governed by the standard 10-year negotiated license, because of the complicated process of securing the license and the heavy burden of reportorial requirements.

Neither is there a connection between the number of reportorial requirements imposed on a community and its performance as a resource manager. SANAMA with its heavy reportorial burden, and Mangayunan and PINPAL with their comparatively lighter loads, all function relatively well as resource managers. Simply put, the ability to renew a cutting permit and file required reports has no relation to one’s performance as a resource conservator. To sum up, the key to sustainable resource management is not in the form of license held by the community, nor in the number or types of reports required of it.

The only area where DENR is consistent is that it requires all communities to secure transport documentation. But as illustrated above, the procedures the communities undergo are strikingly different. Procedures for securing transport documentation can and should be streamlined to reduce the time, money and effort expended in applying for a CMFPO.

These transaction costs increase the operating costs for each community organization, as they require personnel, time/labor, paperwork and money to meet, not to mention opportunity costs foregone. For SANAMA the most conscientious in complying with legal obligations, this amount can be very large. This is less so for PINPAL, SATRIKA and Mangayunan, but in any case, these costs eat into the already small profits earned from the sale of generally cheaply priced rattan poles.

A more specific study was done on SANAMA of Oriental Mindoro. This section consolidates some of the findings of the case study, especially in

[3] Derived by averaging the costs per pole size at the gatherer’s level

Size (diameter in inch)	Volume distribution per pole size	Wage rate per pole size	Adjusted wage rate (volume % x wage rate)
1 ¼ and up	0.08	14	1.07
1 1/8	0.06	12	0.73
1	0.26	10	2.60
7/8	0.31	8	2.44
¾ and below	0.30	4	1.20
	1.00		<b>8.04</b>

relation to efficiency and transaction costs, and gives an idea of how these costs impact on IP rattan enterprises.

**The cost of rattan gathering: operating costs & shadow pricing**

**D**URING normal operations, an average full-time gatherer earns about PhP1,500 per month. On the average, a rattan cutter collects around 20 poles in two days. Day one involves entering the forest and settling at a collection point within the identified cutting area. The production run is completed on the second day, when the poles are hauled to the association’s assembly center. From a range of PhP4.00 to PhP18.00, depending on the size of the pole and the volume required for each of the sizes, the weighted average price is PhP8.04 per pole [3]. The labor and other expenses incurred in production and marketing of poles are shown in the Table 3.

From these expenses, at least two items were adjusted based on their shadow prices. Shadow pricing considers “social costs” that occur but are not transacted in the market (meaning, there is no actual exchange of cash). These can be directly valued in the course of the rattan operation

[4] Bidded rattan cutting contracts (RCCs) are awarded to private individuals and companies that “bidded” and won the rights to operate rattan gathering, subject to provisions, based on their submitted capacity to manage the operations. Negotiated RCCs are given to community groups without having to go through bidding but are instead evaluated and selected by the government to operate in areas where they are located. All IP groups with rattan operations are given the negotiated RCCs.

[5] The distribution mix (per size) of the usual 10,000-pole load per delivery varies depending on the situation: 1) at the gatherer’s level, the ratio is 70:30 of large and small poles based on the actual sizes of green poles (which means newly cut, moisture content high, and therefore larger than commercial size) and also partly by the organization’s high goal of providing incentives to its members; 2) at the buyer’s level, 75:25 large to small poles, allowing downgrade of some poles due to defects and ‘resek’ (poles when dried get smaller); and 3) at the inspection upon payment of forest charges, 30:70 large to small poles to pay less forest charges.

(i.e., monetary values could be assigned). The following discussion details the adjustments based on shadow prices.

There are two production runs in a week, which makes a total of four days (and nights) in the forest. Essentially, this equates to five regular person-days of labor. Given this figure, the rated labor wage rate of rattan gathering should be adjusted from PhP8.04 to PhP10.05 per pole. No direct alternative use of labor applies on the 5<sup>th</sup> day as gatherers claim that it would be physically difficult to resume work the following week if physical strain extends to five days.

In terms of transport costs incurred during product delivery, SANAMA spends only for petroleum and for the daily wages of about four persons involved in the delivery. The use of the vehicle is free, since the association

uses the truck of the local government. For use of a commercial truck, they would have to spend at least PhP10,000. The group also claimed that they have “less problems” on the road because checkpoint guards recognize the red registration plate that indicates that they are using a government vehicle. But since no verifiable values could approximate the social costs that the group would have otherwise paid, no shadow prices were assigned for these costs.

**Official and “unofficial” costs**

**T**he IPs interviewed for this study maintained that they do not incur extra, unofficial and illegal costs (or “SOP” payments) in paying the forest charges for rattan extraction. This is uncommon for rattan cutting concessions (for both bidded and negotiated contracts)[4]. The forest

**TABLE 3: Operating Costs of Rattan Gathering**

Process	Cost per pole <sup>1</sup>		
	Labor	Others	Total
Rattan gathering	8.04		8.04
Scraping and other processes	2.64	0.15	2.79
<b>Total, production</b>	<b>10.68</b>	<b>0.15</b>	<b>10.83</b>
Loading	0.02		0.02
Transporting	0.04	0.46	0.50
Unloading and quality control	0.02		0.02
Collection of payment	0.01	0.09	0.10
<b>Total, marketing</b>	<b>0.09</b>	<b>0.55</b>	<b>0.64</b>
<b>Total</b>	<b>10.77</b>	<b>0.70</b>	<b>11.47</b>

<sup>1</sup>Average costs based on volume distribution of pole production per size





**Hauling of split rattan across the Dulungan river, Paitan, Naujan**

were considered in this evaluation and treated with 10 per cent interest rate over 10 years (the lifespan of a concession).

Table 4 shows the legal and illegal fees [7] paid to the government in connection with rattan pole production. It was earlier stated that the group perceives the SOP indicated in the table as “manageable”, and that this case is actually the best among all other areas visited in terms of SOP payments. Later discussions show that SOP is nevertheless a major expense of IP rattan gatherers, and that SANAMA is actually operating at a loss, despite the “manageable” SOP. It follows then, that with less “manageable” SOP conditions, the situation of IP rattan gatherers could only worsen.

In comparison to the five other communities, SANAMA seems to perform better in terms of “SOP,” or unofficial payments or bribes. However, despite this, the community is still operating at a loss. Major factors contributing to this situation are the SOP payments themselves, not just the amount of money unnecessarily spent for these but also the impact of non- or delayed payments of these on the livelihoods of people. Another factor is the high cost of forest charges. Forest charges amount to 22 per cent of total cost, yet the community’s income is only 4 per cent of sales. Finally, there are the difficulties that communities face in having to compete in the mainstream market, which pits their limited entrepreneurial skill against the aggressive business behavior of large players in the industry. The negative profitability performance of IP rattan enterprises therefore reflects the inappropriate income that the people receive as rattan gatherers.

**Table 4. Forest Charges and SOP**

Process	Enterprise costs	Forest Charges	SOP
Preparation / application for RCC			0.01
Approval and release of RCC (10-yr concession)			0.05
Rattan gathering	8.04	3.31	0.10
Scraping and other processes	2.79		
Loading	0.02		0.03
Transporting	0.50		0.05
Unloading and quality control	0.02		
Collection of payment	0.10		

charges indicated in this study were “clean”. As provided by law, the SANAMA community pays PhP1.40 per linear meter of rattan pole for poles measuring above 2cm in diameter, and PhP0.95 per linear meter for poles 2cm and below. For every 10,000-pole [5] load delivery, 70 per cent are small poles and 30 per cent are large, therefore averaging PhP3.31 resource rent per pole.

The group also claimed that SOP payments collected by government officials were “very small and manageable”. Yet, at the time of the interview, the group had already been waiting four years for their concession

permit to be approved for renewal. The reason for the non-renewal of their permit was their failure to pay a total amount of PhP120,000 of SOP to the CENR office in their area. Of this amount, PhP20,000 is said to be collected for conducting an inventory of rattan stocks. As for the PhP100,000, the community has a vague understanding that the amount will be used as a proxy for special deposit (or rattan reforestation.) [6]. When the community demanded official receipts upon payment, the government officials candidly replied that no official receipts could be issued for these transactions. These costs

[6] This is actually a cost (rattan special deposit) that has already been phased out and is not being exacted in other provinces.

[7] The rattan gatherers interviewed said that aside from the PhP120,000 SOP to renew the permit, the “manageable” SOPs paid to various government officials during operation constitute PhP0.10 per pole at the assembly point, PhP300 per shipment at the Calapan pier (PhP0.03 per pole), and PhP500 at about 4 checkpoints along the way to Manila (PhP0.05 per pole)

## Profitability

**R**ATTAN gatherers and workers have been described as the most disadvantaged groups in the rattan sector, ranking lowest in terms of income among all such groups (Tesoro 2002, see also Kilmer 1994). True enough, almost all the rattan cutters, community leaders and even some buyers or traders encountered during this study could be fairly described as poor.

The data suggests that there are no economically self-sufficient IP communities today. The communities involved in the research project were all—even the semi-nomadic Dumagat—strongly linked to the national and global economic system (Watts 2000).

The linkage arises in part from the limitations of traditional or contemporary economic strategies. Communities, like the Alangan, Pala'wan, Tagbanwa and Manobo, that still rely partially on indigenous swidden technologies, all report a uniformly low agricultural output, with stocks lasting only about three months after harvest. No communities reported being able to achieve marketable surpluses in farm production. To offset such shortfalls and supply themselves with rice the rest of the year, the communities need a source of cash with which to make market purchases.

Another factor is linked to culture change. IP communities have significantly expanded the range of goods and services they consider necessary or beneficial, which they themselves cannot produce (Schroeder 2000). This is most evident in their attitude towards rice. The Alangan and Pala'wan, for example, reported that they have “learned” to eat rice, and that they now find it difficult to subsist on root crops for long periods of time, as their ancestors probably used to do for at least part of each year. Other goods important for the local economic and social life include rubber inner tube for the Dumagat, and work implements, clothes, salt, medicine and education for all communities. To

supply themselves with these goods and services, communities need a source of cash.

In spite of the presence of alternative livelihood options and the prolonged lull in rattan cutting operations in between renewal of cutting permits, IPs still generally regard rattan gathering as their primary source of livelihood. While their kaingin or swidden farms serve to provide basic food supplies, as already mentioned above, rattan cutting provides cash income for other basic household needs.

This explains why a number of respondents insist that rattan cutting and marketing not be seen in isolation from their traditional swidden practices. Rattan supplies what their farms cannot. In fact, the Dumagat consider rattan selling as a traditional livelihood, mainly because they have been engaged in it for many decades. It is clear therefore that today very few indigenous communities and their individual members can survive without cash. It is not surprising then, that despite the lack of government licenses or permits, rattan cutting continues in Giayan, Kayasan and Latay.

In four of the six communities, the general assessment was that the rattan trade was not profitable for the cutters. Rattan cutting and selling usually provided just enough money for immediate needs. They explain this by citing two factors, taken in relation to each other: low prices for rattan poles, and high labor costs.

Prices received for rattan poles differ considerably in the six communities. In four out of the six communities, respondents considered the current prices for rattan poles as low. Only the Alangan of the SANAMA area explicitly declared that their cutters do make a profit from rattan operations, as the prices offered by the organization are designed to offset labor costs. Yet even in the two communities offering the best prices to cutters—Mangayunan and SANAMA—their respective support groups believed that those prices should be set even higher.

In the case study done for SANAMA, a value chain analysis was constructed. This gives a comprehensive picture of what the IPs are receiving from rattan enterprises from the perspective of the industry.

## Value Chain Behavior

**G**enerally, four major sectors or players characterize the rattan industry: the government (through the DENR), the rattan gatherers (who are typically the IP communities), rattan traders and rattan furniture manufacturers and exporters. In terms of revenue, the DENR legally collects about Php3.31 in resource rent for every rattan pole extracted from the forest. The largest profit goes to the rattan furniture manufacturers and exporters, who earn about Php14.17 per pole. The rattan traders do not engage in value addition to the poles they trade, but they can still earn about Php5.22 per pole. The rattan gatherers, who essentially “start” the industry, and who have the rights to utilize the natural resources earn only Php0.62, the least among all the stakeholders in the industry.

Three factors affect the value chain behavior. First of all, there is the cost of the rattan to the gatherers. Forest charges amount to 22% of the total cost. The SOP payments hike this up to 24%. Together, the forest charges and the SOP payments amount to 5.6 times the IP rattan gatherer's income. Then there is the cost of labor in rattan operations. Rattan is the IP's primary source of cash income, and wages for labor form a major expense in rattan cutting operations, up to 69% of sales. Yet rattan cutting is still insufficient to meet the IPs basic needs. If shadow prices are taken into account however, labor in rattan operations should be 25% higher than it is in the market. Rattan manufacturers benefit from this imperfect market, and because of their upper hand in the market and their better negotiation skills, they are able to make the most profit.

### Shadow Price Scenarios

As the use of shadow pricing aims to reflect an imperfect market scenario, this study reveals that the manufacturers are willing to pay a higher price for rattan poles, up to 12 percent more than the current price [8]. Alternately, this corresponds to 5 per cent over the usual percentage of rattan in total cost. This is significant for the IP gatherers as they could possibly gain back the PhP1.88 loss per pole if shadow prices of labor in the community and transporting of products are considered. This is of course assuming that the change in price at the manufacturer's level would be brought back to the gatherers level. If this happens, the IP groups would get PhP1.66 income, which is 2.68 times the current income level of PhP0.62 per pole. At a further consideration, the hope to achieve minimum wage for rattan gatherers would mark PhP13.56 loss (NWPC 2004) even at the increased selling price of rattan at the manufacturer's level.

The table below shows the value chain in three scenarios that apply shadow prices where appropriate:

1. Direct labor (rattan gathering and

other processes): instead of PhP10.77 market price, PhP12.78 shadow price was applied; Other costs are set at PhP1.20 due to the shadow price of transporting;

2. Conditions of #1, plus selling price of rattan pole increased to PhP19.19 at the gatherer level to capture the shadow price of rattan at the manufacturer's level; and

3. Conditions of #2, plus direct labor (rattan gathering) was changed to PhP28.00, the minimum wage rate provided by the law (NWPC 2004).

### Labor costs and labor valuation

LABOR COSTS here refer to the time and effort spent in trekking to cutting areas, locating suitable rattan, cutting and carrying the poles back, in all the variations seen in the six case studies. Most respondents consider their labor costs in rattan cutting as high, and increasing as marketable rattan stocks become more difficult to get to due to the continuing exploitation (see also Rivera n.d.). In five out of the six communities cutters described their work as very difficult. Only the Bugkalot cutters asserted that rattan cutting was not hard work, a cultural reflection perhaps of their

confidence in their own ability to work in remote, forested areas. For them, then, prices are not low in relation to time and labor expended.

In four of the six communities, it was felt that once the cost of labor is included in assessing the viability of rattan operations any money made from rattan cannot compensate for the time and labor expended in gathering rattan, let alone provide a profit.

The tendency of most rattan cutters then is to disregard or discount the value of their labor, and settle for whatever cash their day's labor brings in because they simply need the cash. In this sense, the question of profitability is actually beside the point. The core attitude of rattan cutters towards the trade then is that it is a coping mechanism for securing cash. They are not so much interested in making a profit, as they are in making money. In this light, rattan operations for many cutters are not an enterprise in the sense of a project aimed purposely at making a profit, failing which it will be discontinued.

While the IP-gatherers are disadvantaged in terms of risks and economic returns for their role in the industry, the stewardship of natural resources is neither a sufficient factor to support an equitable labor price for rattan gathering. The value of rattan (as a natural resource) is embodied only as forest charges. The practice of SOP payment, the need for cash investment for forest charges and SOP, the delay in operations while legally and illegally transacting forest charges with the DENR, and the small income margin gained by community enterprises, are some of the reasons why IPs feel burdened by the costs associated with rattan gathering. Because forest charges and SOP are a major cash expense, the IPs feel that their labor payments should always remain affordable so that they can still pay the forest charges



**Begnay rattan gatherers, led by Alangan elder Maximo Lintawagin, bring bundles of split rattan to Brgy. Paitan to be sold at the SANAMA Livelihood Center.**

[8] Derived through FGDs with rattan manufacturers, traders and exporters in Cebu and Manila. While the cost of rattan is currently 20 per cent of its total cost, an additional five per cent could still be viable.

**Table 5. The Rattan Value Chain** (referred to in "Value Chain Behavior")

Player	Value Source	Value per Pole (market price)	Cumulative Value Chain	% to Total Value of Finished Product
The government	Cost of rattan (resource rent)	3.31	3.31	4.7%
IP-gatherers	Direct labor (rattan gathering)	10.77	14.08	15.2%
	Other costs	0.70	14.78	1.0%
	SOP	0.24	15.02	0.3%
	Profit	0.62	15.65	0.9%
	Revenue (raw rattan poles)	15.64		
Trader	Cost of rattan	15.64		
	Other costs	6.73	22.38	9.5%
	SOP	0.75	23.12	1.1%
	Profit	5.22	28.34	7.4%
	Revenue (raw rattan poles)	28.34		
Manufacturer/ Exporter	Cost of rattan	28.34		
	Direct labor (furniture making)	14.17	42.51	20.0%
	Other costs	14.17	56.68	20.0%
	Profit	14.17	70.85	20.0%
	Revenue (exported furniture)	70.85		100.0%

**Table 6. Value Chain at Actual Costs and Shadow Prices** (referred to in "Shadow Price Scenarios")

Player	Value Source	Scenario		
		1	2	3
The government	Cost of rattan (resource rent)	3.31	3.31	3.31
IP-gatherers	Direct labor (rattan gathering)	12.78	12.78	28.00
	Other costs	1.20	1.20	1.20
	SOP	0.24	0.24	0.24
	Profit	(1.88)	1.66	(13.56)
	Revenue (raw rattan poles)	15.65	19.19	19.19
Trader	Cost of rattan	15.65	19.19	19.19
	Other costs	6.73	6.73	6.73
	SOP	0.75	0.75	0.75
	Profit	5.22	5.22	5.22
	Revenue (raw rattan poles)	28.35	31.89	31.89
Manufacturer/ Exporter	Cost of rattan	28.35	31.89	31.89
	Direct labor (furniture making)	14.17	14.17	14.17
	Other costs	14.16	14.16	14.16
	Profit	14.17	10.63	10.63
	Revenue (exported furniture)	70.85	70.85	70.85



**Table 7. Labor Wage Rates** (referred to in “Labor Valuation: Are the IP gatherers getting a fair wage rate?”)

PhP10.77	Existing market price of rattan gathering and other direct processes
PhP12.78	Shadow price of labor that validates actual person-days used in production
PhP13.02	If gatherers would rather earn the extra money they illegally pay for SOP (not including forest charges)
PhP13.97	All players (IP, traders, and manufacturers) produce the same ROI of 15.6 per cent <sup>1</sup>
PhP28.00	Prevailing minimum wage rate in their municipality as mandated by the law <sup>2</sup>
PhP32.38	At the poverty threshold, minimum household income for basic needs (NSCB 2004)

<sup>1</sup> The average ROI among the three players at shadow pricing (IP: 9.48 per cent, traders: 19.57 per cent, furniture manufacturers and exporters: 17.65 per cent)

<sup>2</sup> The minimum daily wage rate at Calapan of P156 is almost equal to the rated farming labor rate of non-IP laborers in their area, which is P100 to P120 plus day meals. For IP laborers, ongoing rate is P60.

and SOP, given that the price at which they sell their rattan remains low and constant. As it is, the costs of forest charges and SOP payments do not simply reflect an incorrect value of the resource, both in economic and biophysical contexts, but also affect the way the IPs perceive their incomes.

Ideally, putting a credible value to rattan gives the IPs a feeling of increased benefit, as this would result in an increase in their total income. This would mean shifting the administration of forest charges to the IPs as the owners of their ancestral domains and the elimination of SOP. Given their different roles in the rattan enterprise, the community members, collectively and individually performing their various roles, should receive the following forms of income: resource rent (as the owners and administrators of their ancestral domains and the natural resources therein), labor wage (as the laborers in rattan gathering) and enterprise profits (as the operator of the rattan cutting enterprise). Since the gatherers are only receiving labor wages and enterprise profits, the income they get from rattan is meager (mainly labor wages). By discounting the value of the rattan, for which they could legitimately receive resource rent, they lose 22% of their total costs, which could have been part of their income. (Based on the table above, since they only receive #2 and #3, the situation contributes to the meagerness of the money they get out of rattan (mainly labor wages). Discounting #1 easily throws 22.0 per cent of their total costs, which could have been part of their income.)

### Labor valuation: are the IP-gatherers getting a fair wage rate?

The different dynamics in the rattan industry all contribute to the reality that the IP gatherers have been heavily disadvantaged in terms of compensating their contribution to the industry. While it is recognized that the rattan furniture industry would not be possible without



**Begnay rattan gatherers sell their split rattan to the Livelihood Center of the Alangan tribal organization SANAMA.**

the difficult job performed by IP gatherers who supply the raw rattan poles, the payments to the gatherers have always been insufficient. The labor cost analysis study on SANAMA revealed the following labor wage rates (on a per pole basis) for rattan gathering, corresponding to the conditions indicated:

The tiers of these different labor wages start at the current market price, i.e., the actual cash value that the gatherers receive for their production of rattan poles. There are no effective labor prices lower than this rate, whether perceived or actual. When asked, "Are you receiving more than what you think your effort is worth?", the gatherers would often answer in the negative.

The range generally shows that the income that IPs get out of rattan cutting is actually only a third of how much an average family needs to reach the poverty threshold (NSCB 2004). IPs are only earning 38.5 per cent of the minimum requirement to be able to live (and spend) in their municipality. (NWPC 2004). With this already impoverished position, the payment of SOP indeed becomes an

issue for the IP rattan gatherers. SOP-free operations can improve the income vis-à-vis the poverty threshold by 6.9 per cent. A clean rattan operation may still not be enough to make a decent living but it does make a difference.

If efficiency pricing were to be considered, the additional price that manufacturers can actually pay (from PhP28.34 to PhP31.88) for every rattan pole would just be enough to cover the correct costs of production plus a very little PhP1.66 profit for the organization. The labor wage improves from PhP10.77 to PhP12.78.

### Recommendations

There are six main points that can be drawn from these two related research activities that can help improve the rattan industry and also help encourage the sustainable use of forest resources.

It was found that the type of license does not have a bearing on how well a community manages its rattan enterprise. With all things being equal, the recommendation of this study is to allow IP communities to use their ADSDPP<sup>9</sup> as the permit for their rattan operations, rather than force them into

the tedious process of applying for a negotiated contract. By allowing IP communities to use their ADSDPP, transaction costs can be reduced, and operations made more speedy and efficient. In this way also, there is more of an investment in sustainability, and communities have less incentive to under-report or recycle documents. The suggested action for this is to explore the possibilities of a joint memorandum between DENR and National Commission on Indigenous Peoples.

In the same way, the findings of these studies also suggest that reducing reportorial requirements would also help to improve the conditions of community rattan enterprises. If the burden of reportorial requirements is lightened, transaction costs can be reallocated to rattan production and manufacturing, and thus also improve the speed of operations.

The evaluation has shown that forest charges eat into the already small profits that the IPs make from rattan. If forest charges can be reduced or adjusted, this would reduce the cash outlay required from IP rattan enterprises, and this would mean less delay in their operations. Also, this would mean more investment in sustainability and also less transaction costs for communities. There would also be less incentive to underreport, which would mean that the DENR would have more reliable data on rattan enterprises. This would help improve the DENR's monitoring and planning. Perhaps a new Department Administrative Order on forest charges, with adjusted computations would be a good place to start.

The communities studied all had experiences of having to pay "unofficial" or "illegal" fees. So prevalent is this practice that it is actually termed as "SOP". Certainly, reducing or minimizing these unofficial transactions would help improve the



Rattan handicrafts are made in SANAMA Livelihood Center.

economy of the rattan industry, with costs being shifted towards rattan production and manufacturing, rather than to the payment of SOP. The processes and procedures in the rattan operations need to be streamlined, such that there is less opportunity for collecting unofficial fees.

As can be seen from the data, IP rattan operations are generally unprofitable – at least for the IP cutters and gatherers. There is actually potential for the IPs to demand a better price for their rattan; in fact, some of those interviewed say that the manufacturers are willing to pay up to 12% more than the current price of rattan. Support groups also insist that prices for rattan can be pushed higher. If the equilibrium price can be captured, this would result in the IPs being better compensated for their labor, and hence they would also not need to over-harvest to make a profit. This would also hopefully ensure a steady and regular supply of rattan for the manufacturing industry and encourage better operations.

The last, and perhaps most radical, recommendation is for the administration of forest charges to be transferred to the community level. Again, this would improve the economy of the industry by shifting transaction costs to improving rattan production and manufacturing, and improving the speed of operations. More significantly, this would give the actual stewards of the area increased capacity to manage and protect the forests. More study is needed to determine how feasible this recommendation is. **nbtta**



#### EDITORIAL BOARD

Jenne de Beer  
Maria Cristina S. Guerrero  
Arlan M. Santos

#### CONTACT DETAILS:

Non-Timber Forest Products - Task Force  
92-A Masikap Extension, Barangay Central  
Diliman, Quezon City 1100, Philippines  
TELEPHONE : 02 - 426 2757  
TELEFAX : 02 - 436 0706  
WEBSITE : <http://www.ntfp.org>

[9] The ADSDPP is required of all communities issued a CADT under the provisions of IPRA, much as an ADMP was required of all CADC holders under DENR's ancestral domains delineation program.