

DOCUMENT RESUME

ED 391 723

SO 025 802

AUTHOR Matthews, Stephen F.
TITLE Indonesian "Adat" Customs as the Backbone of
Effective Environmental Policies.
SPONS AGENCY Center for International Education (ED), Washington,
DC.
PUB DATE [95]
NOTE 13p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Area Studies; *Cultural Influences; Culture;
*Environmental Standards; Foreign Countries; Global
Education; Higher Education; *Islamic Culture; Non
Western Civilization
IDENTIFIERS *Adat; Environmental Protection; *Indonesia; Islam

ABSTRACT

"Adat" is a term in Indonesia that defines culture, customs, and traditions to foreigners, but to the people of Indonesia it means basically the rules of the village life. Villages are predominant and overseen by chiefs. Adat's rules are the roots of Islamic religion. Many of Indonesia's environmental policies stem from the teachings of Adat. While the people live Adat's religious philosophy, they naturally abide by the rules in balancing their environment and adhering to the government's policies. An important factor for preserving the environment is involving village communities at all local levels. A list of six related readings concludes the paper. Five photo copies of articles associated with Indonesia's environment are provided. (JAG)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

Indonesian "Adat" Customs as the Backbone of Effective Environmental Policies

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☒ This document has been reproduced as
received from the person or organization
originating it

☐ Minor changes have been made to
improve reproduction quality

☐ Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy

by

Stephen F. Matthews

Fulbright-Hays Seminars Abroad/Indonesia '94
Professor of Agricultural & Environmental Law
University of Missouri/U.S.A.

Introduction

I joined sixteen other U.S. social science teachers during the month of July, 1994 in the country of Indonesia for a Fulbright-Hays Seminar Abroad Program. We listened to academics, governmental officials, and businesspersons explain the "Indonesian" way of life and doing things. We also could read The Indonesian Times (English-language newspaper), as well as interact (in English) with our hosts and the variety of speakers.

We began our exposure to diverse Indonesia in Jakarta for one week of lectures, tours, and street-culture exposure. From there, we spent a few days in Bogor at the Agricultural Institute, with two overnights with a host family. Mine was with an economics professor's family (two daughters, spouse, cook, one cat).

I began this trek to an unknown (for me) land hoping to understand the role of Islamic teachings on how the mostly-Muslim population viewed their natural resource environment and their practices of conservation and/or exploitation. As the month-long program opened our eyes to Indonesia, my focus shifted more to the interplay of traditional practices and national policies to regulate natural resources.

What is "Adat?"

"Adat" is the Indonesian word for indigenous customs and traditions. Some would say "adat" means culture. In the context of village life, adat are the rules of village life. The village chiefs held the power (not the king), women were the owners of property, and men managed the property.

There are twelve adat chiefs in each village, each nominated by a maternal clan, and approved by the other eleven "clan families." Each chief was highly respected, and referred to as "dato." Anyone addressing a "dato" with "you" would be fined for the disrespect.

Clans allowed no intermarriage between clans (sukru). "Horn-roofed" houses had to be rebuilt exactly where its predecessor stood.

Yet "adat" meant "culture," and tolerance for believers of other rules. There was no eagerness to forcefully convert people to follow adat ways.

ED 391 723

First There Was Adat, Then Came Islam

There is a saying that "Adat existed before sky and earth came together." This is interpreted as meaning adat was there before religion. Yet adat is based on religion, and religion is based on the book of Allah.

Is there a reconciling interpretation? The village chiefs found one, saying "Religion prescribes, Adat implements." This is interpreted as meaning "You tell us what to do, and we will carry it out in an adat way!"

"Trousers Are Not Polite Enough"

Another saying describes the interplay between adat and religion as "Adat wears the sarong on top of trousers, while religion goes naked." Our lecturer interpreted this as meaning adat is civilized, while religion is tough.

Indonesian Government Employs Both Religion & Adat

For the sake of development, the Indonesian government relies on both adat and Islamic teachings. When the Dutch ruled Indonesia, they openly encouraged adat more than Islam. Even today, many adat ceremonies are not really Islamic other than a few Islamic words and phrases.

An example of the different approaches of adat and Islam is the "death penalty:" adat does not allow a death penalty, viewing exile as the greatest punishment; Islam allows the death penalty.

Adat Must Be Respected By Governmental Policies

There is a saying throughout Indonesia that reminds governmental officials that their proclamations and rules can only go so far at the village level:

"If you make a wall, don't make it too high;
If you dam a river, don't dam it completely,
but allow some water to pass to others."

An Example of Indonesian Environmental Policy Based Upon Adat

Indonesia is blessed with rich and abundant coastal and inshore waters where traditional fishing customs (adat) guide the harvesting and conserving of the shrimp and other marine resources. But industrial pollution and commercial fishing practices, along with coastal development, are threatening the sustainable shrimp/marine natural resources. Governmental policymakers are explicitly incorporating adat practices into the environmental rules in order to keep these resources from being severely diminished or even depleted.

For example, the Maluccas islands communities have long-standing sophisticated methods of managing their coastal and marine resources that achieve sustainability. Here is an illustration of proven traditional practices being the "best management practices" to profitably benefit from the natural resources.

When adat rules are employed as workable standards for environmental policies, there is much less cause for emphasizing enforcement and compliance. In essence, the villagers are in 100% compliance because these practices are what they would do anyway, since they are proven to lead to sustainable natural resource use. And violators are punished by the village chiefs, for breaking the much-revered adat traditions.

Dire Warnings About Indonesia's Natural Resources

In the July 13, 1994 Jakarta Post (page 2), the headline reads "Neglect in Preserving Biodiversity Hurts Wealth." Basically, the state minister of the environment, Sarwono Kusumaatmadja, was saying that the Indonesian government pays too much attention to productivity, and not enough to the sustainability of nature's biodiversity.

"We boasted that our fishery industry grew wekk, that salt water fish exports have increased 51%. At a glance the figure is impressive, but the question is where the fish came from and how they were caught. Bung Hatta University in West Sumatra found out in a recent study that 71% of the coral reef in the province has been damaged. There is no proper managemtn for sustaining marine environmental functions."

He lamented that government officials had so little awareness of the importance of biodiversity, and that those who were aware of the problems seldom put their concerns into action. Too often project managers knew how to exploit but not how to manage in sustainable ways.

Listening to the Rio Earth Summit's Wisdom

Indigenous people's rights are viewed as keys to preserving biological diversity as well as sustainable natural resources. While almost all countries in the Asia-Pacific region have adequate legislation relating to biodiversity conservation, it is very complicated and scattered in various laws on environment, forestry, marine, and pollution regulations. Conflicts between national law, state or provincial laws, and religious laws, and local customs, have added to the confusion. The greatest legal problem is law enforcement. Wildlife protection laws are being broken everywhere everyday.

In order to have effective laws, the Earth Summit highlighted the need for community involvement. The key is "local," be it local communities, local institutions, indigenous groups, and the local economy.

Government must listen to the demands and aspirations of the people, and act accordingly. Not the other way around. Adat couldn't have said it better, whether in the beginning of time or here in the present. Peace!

For Further Reading

- 1) Victor P.H. Nikijuluw, "Indigenous Fisheries Resource Management in the Maluku Islands." (3 pp.) Dr. Nikijuluw is with the Socio-Economic Division of the Research Institute for Marine Fisheries, Jakarta, Indonesia. (attached)
- 2) Affendi Anwar, "Some Problems and the Territorial Use Rights in the Management of Coastal and Marine Resources in Indonesia." (42 pp.) Dr. Anwar is professor of natural resources economy, Bogor Institute of Agriculture, Bogor, Indonesia.
- 3) "Neglect in Preserving Biodiversity Hurts Wealth," Jakarta Post, July 13, 1994, page 2. (attached)
- 4) "Indigenous Communities--Stakeholders and Custodians of the Earth's Biodiversity," The Indonesia Times, July 30, 1994, page 2. (attached)
- 5) "RI's Rivers Undergoing Quality Deterioration," Indonesian Observer, July 28, 1994, page 1. (attached)
- 6) "Concessions Damaging Rain Forests," Jakarta Post, July 30, 1994, page 1. (attached)

Indigenous fisheries resource management in the Maluku Islands

The Indonesian government believes that its coastal fisheries are presently being overexploited, and is striving to formulate resource management approaches to cope with this problem. The indigenous fisheries resource management of the Maluku Islands is considered one of the best schemes. This article outlines this management approach, the challenges it faces, and its future prospects.

The main objective of fisheries resource management aimed at sustainable development is to optimize the current utilization of resources without reducing the maximum benefit to future generations. To meet this objective, various modern management approaches have been implemented. The most common of these are closed season, restrictions on fishing gear, closed areas, the regulation of mesh size, a total ban on certain equipment, licensing, and monetary measures such as fees and taxes (Rettig, 1991; Copes, 1991; Sardjono, 1980).

The above management approaches are based on in-depth studies of the existing biological, socio-political and economic conditions. They are formally enforced by local or national governments, and therefore both guidelines and sanctions are clearly laid down. Furthermore, all the schemes are scientifically developed, implemented, monitored and updated.

In the Maluku Islands similar fisheries management measures have been employed for over a hundred years. Consisting of about 900 islands with more than 1000 coastal villages, the Maluku Islands make up one of Indonesia's 27 provinces. The two most common practices, *sasi* and *petuanang*, are based on indigenous environmental knowledge and awareness. For example, the people of the islands have a special type of fishing gear which they use in the bay. By observing changes in nature--such as wind, waves and temperature--they can predict that on the following day there will be no fish in the bay. They can then switch to equipment which is suitable for fishing outside the bay. Both *Sasi* and *petuanang* are linked to religious customs: for example, the pastor and other religious leaders take an active part in *sasi* ceremonies. The islanders pass on their knowledge of these management measures from one generation to the next.

Villagers are not interested in the government programmes for fisheries management--such as licenses--in which they are expected to participate.

For this reason, the indigenous fisheries management practices are in the nature of a closed system, in which people are largely unaware of the fisheries resource management approaches being used outside the village. However, it must be said that these indigenous approaches have proved successful in maintaining the exploitation of resources at a sustainable level, promoting village growth, and guaranteeing equitable catch distribution among villagers. As a result, there is always enough fish to meet the needs of everyone in the village.

Sasi

The practice of *sasi*, as implemented in the Maluku Islands, entails a closed season and a number of closed areas. At certain times villagers are not allowed to fish in the waters bordering their village: this is generally taken to mean the area which can be seen with the naked eye from land. The *sasi*, which usually lasts about two months, is enforced before festivals such as Christmas Day, the New Year, and investiture days for village leaders. This ensures that there will be plenty of fish available during the festivals.

In Haruku village, the *sasi* is based on biological considerations. Villagers have always known that a certain estuary near their village is a spawning ground for certain types of fish. The estuary is also a place where small fish hide from their predators. They, in particular the *ikan lampa* (*Decapterus* sp.), stay in the estuary during the day, go out to sea at night and return in the morning.

In Haruku village, the *sasi* is effective throughout the whole year, except for one day. On that day, which is determined by the village leaders on the basis of the size of the fish, villagers are allowed to catch as many fish as they want in the estuary. The village leaders monitor fishing to see that everyone gets his share, and just before sunset they announce the closure of fishing. This single day of fishing yields enough to meet the needs of all the village households for several months. The fish are



Indigenous approaches to fisheries resource management have been successful in maintaining the exploitation of resources at a sustainable level, thus promoting village growth, and guaranteeing equitable catch distribution.



processed in the traditional manner, by drying or smoking. The rest of the year, people survive on fish taken from the sea.

Petuanang

Another traditional approach to fisheries resource management is *petuanang*, which governs the right to fish in certain areas: it often covers bays, lagoons, submerged atolls, and underwater reefs. As in the case of *sasi*, the area is considered to extend as far as one can see from the land. As a rule, the *petuanang* may not be entered by people from other villages. However, if they are permitted entry, the gear they use must be of the same size and type as that employed by the local people. In addition, they are obliged to pay a monetary fee (*ngase*) for a permit. The *ngase* is paid to the village leader, who uses it for village development, such as roads and schools.

In the coastal villages of Maluku Islands, many households engage in farming as well. These people--known as subsistence fishers--fish whenever they can take time off from their farm activities. The *ngase* does not apply to them, but only to the villagers who intend to sell their catch at the market. On Saparua Island, for instance, the *ngase* consists of ca. 10% of the catch which is given to village administrators, for the benefit of the village development fund. In addition, people are obliged to share their catch with the village leaders and with their neighbours; the rest of the catch can then be marketed. There are no exact rules governing how much of the catch must be shared. This usually depends on the size of the catch, but as a rule it consists of one day's consumption--two kilo--for each leader and each neighbour.

The village leaders determine the kind of gear permitted in the *petuanang*. Blast fishing (*thom tkani*) and dynamite fishing are strictly prohibited as such practices kill small fish and damage the structure of the reef, and thus diminish fisheries resources. These practices not only have a devastating effect on the ecosystem, they also threaten the lives of fishermen, as the risk for mutilation is very high.

Up until 1980, activity in the *petuanang* was confined to hunting finfish and collecting shellfish (Andamari et al. 1991). As the trade in fisheries products developed, people were encouraged to catch as many fish as possible, leading to a depletion of resources. Shellfish and sedentary species such as sea-cucumber and clams are now protected by special provisions. For instance, in *Nalloth* village on Saparua Island, the *sasi* also covers the trochus (*Trachus moluccensis*), and villagers have been forbidden by their leaders to collect this shell inside the *petuanang* when the *sasi* is closed. Instead, they are encouraged to find young shells outside the *petuanang*; these can then be raised in the *petuanang*, and the shells harvested when the *sasi* is open.

Why the system works

The *sasi* and *petuanang* apparently work so well because they are community-based and there is no direct interference on the part of the government. All the villagers are responsible for maintaining the

system, and this task is considered part of their social obligations. The management of the system as a whole is the responsibility of the formal leaders, while decision-making and supervision are the concern of the informal leaders.

Each village on the Maluku Islands is a collection of clans, and each clan has its own special task. In the enforcement of the *sasi*, for instance, one clan provides messengers (*marinvo*), who spread the news throughout the whole village, another functions as an informal police force (*kewang*), while yet another is responsible for the opening and closing rites of the *sasi*. Although everyone has her or his special task, control and surveillance are carried out by all clans. For instance, although one particular clan functions as *kewang*, this does not mean that a member of another clan who discovers some violation is not responsible for informing the village leaders.

The system also governs rewards and sanctions. Violators are sentenced by the village leaders, and punishment may be anything from public shaming, doing community work, denial of the right to fish, or a fine, to the most severe penalty: permanent banishment from the village.


Prospects and challenges


At present the government of Indonesia is giving more attention to the management of its fisheries resources, which have been so heavily exploited in some parts of the country (Bailey et al. 1987; Martosubroto et al. 1989). This new interest is reflected in the government's sixth five-year development programme (1994-1998), in which the management of resources is one of the main development objectives within the fisheries sector.

Among the possible measures to achieve this objective are formal management approaches, such as licensing, fishing belts, the regulation of mesh size, restrictions on fishing gear, and the abolition of trawl fishery. The total ban on trawl fishery has been realized (Sardjono, 1980), and represents a major success in the field of fisheries resource management in Indonesia. Thus far, the other formal management approaches have proved ineffective. The government of Indonesia is now searching for more precise and efficient management approaches: it is particularly interested in the inshore waters, as these are more heavily exploited than the offshore waters.

The indigenous fisheries resource management of Maluku Islands is considered one of the best approaches. Studies are presently being conducted--for example, by the Research Institute for Marine Fisheries--to gain a better understanding of this management system, and to look into possibilities to apply similar systems in other parts of the country.

Although the Maluku system is commonly viewed as the best option, there are signs that it is gradually dying out. For one thing, the migration of the villagers is reducing the number of people who belong to the system. New clans come to live in the village who do not understand this inherited system. Nor are the immigrants themselves directly involved

 The government is searching for more precise and efficient management approaches.

 The indigenous fisheries resource management of Maluku islands is considered one of the best approaches.



in the system, as they are not native to the village. At the same time, there is a tendency for young men in the prime of life to leave in search for a 'better' life. There are also signs that young people who have left to further their education have become accustomed to modern ways and are reluctant to participate in this indigenous resource management system. (see also Ulluwishewa (1993))

Trade, together with government efforts to promote exports, has also had an impact, forcing villages to shorten the *vasi* period, to allow for more frequent fishing and harvesting. As a consequence, fisheries resources now appear to be heavily exploited. In some villages, the rights to the *petuanang* are rented out to private entrepreneurs, which means that the community has lost its control over these resources. Such decisions are generally taken by the formal leaders, whom villagers are obliged to obey. The formal leaders are the executives at village level. On the one hand, they are of village origin and therefore pledged to protect the system, while on the other hand, they are expected to implement development programmes introduced by the central government. In most cases they opt for the latter course.

There is also competition from industrial fisheries. Using advanced equipment, they often enter the *petuanang* and catch large quantities of fish within a short time. The villagers tend to accept the situation, as they are politically weak and unable to take countermeasures. (Wahyono et al. 1993; Naamin and Badrudin, 1993).

In the light of all the above challenges, it is time for the government to take action, if this system of indigenous resource management system is to be maintained. It is generally agreed that indigenous knowledge, technology, and heritage cannot survive in this changing environment unless the government has the political will to protect them.

A comprehensive study should be carried out to establish the similarities between the systems employed in the various villages. On the basis of these similarities, it should be possible to devise a broader scheme of indigenous fisheries resource management, one that will enable villagers engaged in small-scale fishery to move freely from one *petuanang* to another, while at the same time discouraging encroachment by industrial fishermen.

The possibility of combining this indigenous resource management system with so-called modern management approaches should be carefully examined (FAO, 1993; ICLARM, 1992). It may prove possible to find some intermediate form which is more appropriate to today's changing environment. Perhaps the inter-clan relationships on which the indigenous system is based can be replaced by a scheme similar to those found in rural organizations such as cooperatives.

Finally, it must be kept in mind that there are about three million small-scale fishermen in Indonesia. They are now facing serious problems of resource management, and it is important that due attention be given to their indigenous systems.

Dr Ir V.P.H. Nikijuluw
Socio-economic division
Research Institute for Marine Fisheries
(BALITKANLUT)
Jln. Muara Baru Ujung
Jakarta 14440
Indonesia
Tel: +62-21-6602044
Fax: +62-21-6612137

References

- Andaman, R., Subagyo and S.H. Talahua (1991) 'Fishing *muklus niklaus* in Nulloth village, Saparua Island through *vasi* system', *Jurnal Penelitian Perikanan Laut* (80):31-36.
- Bailey, C., A. Dwiponggo and F. Marahudin (1987) 'Indonesian marine capture fisheries', *ICLARM Studies and reviews* 10.
- Copes, P. (1991) 'Fisheries Management in Canada', pp. 339-440 in T. Yamamoto and K. Short (eds) *International perspective on fisheries management*. Proceedings of the IIFRS-IIFET-Zengroven symposium on 'Fisheries management' held at the National Research Institute of Fisheries Science in Tokyo (Japan).
- FAO (1993) 'Experiences in community based management: Discussion guide', *FAO Fisheries Report* 21474:552-555.
- ICLARM (1992) 'ICLARM's strategy for international research on living aquatic resource management', Makati, Metro Manila: ICLARM.
- Marasubroto, P., N. Naamin and B.B. Malik (1989) *Potency and distribution of marine fisheries resources in Indonesian waters*. Jakarta: Directorate General of Fisheries.
- Naamin, N. and M. Badrudin (1993) 'The role of coastal village communities and fishermen's organizations in the management of coastal resources in Indonesia', *FAO Fisheries Report* 21474:390-397.
- Retting, R.B. (1991) 'Recent changes in fisheries management in developed countries', pp. 359-398 in T. Yamamoto and K. Short (eds) *International perspective on fisheries management*. Proceedings of the IIFRS-IIFET-Zengroven symposium on 'Fisheries management' held at the National Research Institute of Fisheries Science in Tokyo (Japan).
- Sandjono, I. (1980) 'Trawlers banned in Indonesia', *ICLARM Newsletter* 3:4:3.
- Ulluwishewa, R. (1993) 'Indigenous knowledge, national resource centres and sustainable development', *Indigenous Knowledge and Development Monitor* 1(3):11-13.
- Wahyono, U., K.C. Chong, Suseno and R. Pahlavi (1993) 'Traditional community based fisheries management practices in Indonesia', *FAO Fisheries Report* 21474:243-263.

Endnotes

In the villages there are three kind of leaders who play a significant role in the decision making process. The formal leaders are the head of the village and his staff; the informal authorities are the traditional leaders and religious leaders.

It is generally agreed that indigenous knowledge, technology, and heritage cannot survive in this changing environment unless the government has the political will to protect them.

BEST COPY AVAILABLE

Neglect in preserving biodiversity hurts wealth

Jakarta Post 7/13/94 p.2

JAKARTA (JP): Indonesia is losing much of its natural wealth because the government has paid more attention to productivity than to the sustainability of nature's biodiversity, says State Minister of Environment Sarwono Kusumaatmadja.

"Monocultural activities, which conceal various inherent problems, are at present regarded as the key to the successes of our development," Sarwono said yesterday in a seminar on biodiversity held by the National Consortium for Nature and Forest Conservation in Indonesia (Konphalindo).

That attitude, he said, makes the difficult struggle to protect Indonesia's biodiversity — which some would like to call megabiodiversity — even harder.

The minister said there was no or little awareness of the importance of biodiversity among government officials and, thus, little effort to protect it. Moreover, those who are aware of the problems seldom put their concerns into action.

Taking concrete action is difficult, he said, because it is at odds with those in the mainstream who still think they can succeed without paying attention to biodiversity and only to productivity.

"We boasted that our fishery industry grew well. That salt water fish exports have increased 51 percent."

Sarwono cited an example.

"At a glance (the figure) is impressive but the question is where the fish came from and how they were caught."

He said Bung Hatta University in West Sumatra found out in a recent study that 71 percent of the coral reef in the province has been damaged. Of its western islands, only one has been spared from the damage and that is because there is no landing site there.

"There is no proper management for sustaining marine environmental functions," he said.

There has also been considerable damage of the ocean environment by bombing, poisoning, waste dumping, and sand excavation, he said, but there are no quantifiable reports, only laments.

Citing other examples the minister said that, of the original 13 million hectares of mangroves in the country, all that's left is a mere two million hectares.

Sarwono said that only in recent years have policy makers started to realize that mangroves are rich zones. For years mangrove forests were cut down to make way for monocultural development of paddy and shrimp farms.

There is an island resort in Seribu Islands where the management cut down all the mangrove trees so that tourists could have a place to swim, he said.

Even local people, who for generations have lived near the mangroves, could not name more than two or three species of the trees, Sarwono said. They are interested only in using them as fire wood.

Sarwono calls on all parties to think of the future and not be satisfied with the current success, which may prove to be only temporary.

He urged economists to pay more attention to the preservation of the natural resources. As an example of the lack of foresight, Sarwono cited several pulp and paper factories who used bamboo as raw material and used up bamboo reserves in only a few years. This was because they knew how to exploit but not how to manage sustainable way, he said.

The seminar was held to launch Indonesian translations of two new books: *Indonesian Country Study on Biological Diversity* (Keanekaragaman Hayati di Indonesia), a report prepared by Indonesia with the help of Norwegian government for the 1992 Earth Summit in Rio de Janeiro, Brazil, and *The Earth Summit's Agenda for Change* (Bumi Lestari Menuju Abad 21) by Michael Keating, a popular version of the Agenda 21, the blueprint on how to manage a socially, economically, and environmentally sustainable development as adopted by the Earth Summit. (smb)

BEST COPY AVAILABLE

OPINION and ANALYSIS

Indigenous communities -- stakeholders and custodians of the earth's biodiversity

By Jenny S. Santiago

MANILA - The Nahikala region of Doon Valley in India was recently the scene of battle between villagers, fighting to preserve their dense forests and a private group that has government support to exploit these genetic wealth.

Indigenous people from 31 villages in Doon Valley launched a non-violent resistance against a commercial venture of limestone quarrying that would ruin their forest and water resources essential to their livelihood.

"A fight for life has begun" -- so goes the last line of a song by folk poet Ghanasyam Sailani, which has inspired by the struggle of local people to protect their environment.

The Doon villagers hugged the trees to prevent big trucks from clearing the area to give way to the development of a quarrying site. The state and the entrepreneur retaliated with violent attacks.

The people of Doon Valley suffered in silence but stood their ground. In the end, they won the struggle to save their natural wealth.

It was a repeat of the Bishnois community's "Hug the Tree Movement" under the leadership of Amrita Devi some 250 years ago in the Rajasthan deserts of India. More than 300 people were killed before the

slaughter of trees and human beings stopped.

Similarly, the Rajasthan people protected the trees with their own lives by embracing them when the king sent troops to cut timber for the palace he was building.

These anecdotes were retold by Assistant Director-General A.Z.M. Obaidullah Khan of the UN Food and Agriculture Organization (FAO) at the recently concluded Regional Conference on Biodiversity Conservation in Manila, jointly organized by the Asian Development Bank (ADB) and the IUCN-World Conservation Union.

Mr. Khan made the narrative in his keynote address to stress the link between biological diversity -- the various species of animals, plants and other lifeforms -- and the survival needs and spiritual sustenance of indigenous people.

The FAO official aptly pointed out: "For the communities in 31 villages in Doon Valley who have traditionally

managed their forest for fodder, timber, fiber and medicine, and tapped the natural water from the limestone aquifer for their field crops, what was at stake is life itself -- and even more, the sacred spirits of ancestors in forests and streams and mountains."

The recent Conference emphasized, among other things, the need for better involvement of local or indigenous communities in environmental decision making.

The role of indigenous people in preserving the environment could best be understood by looking into the case of tropical countries in the Asia-Pacific region, which is endowed with rich biodiversity.

Majority of the population in the region are indigenous people, who maintain a strong attachment to their lands and biodiversity as their culture dictates.

Margaret Taylor, are those that have, within a meaningful human timescale, originated in, having been living in or occurring 'naturally' in a particular region or environment."

Since they live closest to and, therefore, depend the most on areas of high biodiversity, indigenous people are in the best position to conserve these natural resources.

Simply stated, they can act as responsible stewards of biological resources if given appropriate incentives. IS. Tahir Qadri and Robert Doblas of ADB told the Conference.

In a paper presented, they cited a study by the World Wildlife Fund (WWF-Indonesia) on the Cyclops Mountains' Nature Reserve in Irian Jaya, which shows that "Effective government action in resource management is severely limited without strong local support and participation."

The WWF contributed to Indonesia's endorsement of the use of buffer zones as a management tool to address environmental problems.

According to Theodore Panayotou and David Glover, involvement of local people is also significant since it would lower the costs of effective protection.

In their paper, they gave the following reasons for this: 1) indigenous people have intimate knowledge of the forest, its

functions and the threats it faces; 2) they are continuously present and can be motivated to police themselves; and 3) being among the lowest socioeconomic groups, they can do the job at the lowest possible cost.

A community derives its rich traditional or local knowledge by using biodiversity, and such knowledge is important to its survival and that of the global community. Ambassador Taylor pointed out in her paper.

"The recognition of intellectual property right (IPR) could serve the goals of conserving biodiversity and useful medicinal and agricultural knowledge by giving indigenous people incentives to maintain and disseminate traditional knowledge and practices in the face of financing attractive, but destructive modern alternatives," she maintained.

That local knowledge is a considerable source of wealth is an undisputed fact. For instance, the annual world market value for medicines derived from medicinal plants discovered by indigenous people is US\$43 billion. Yet, these local folk virtually do not derive any benefit from said profits.

Donna Craig, a senior lecturer in the Environmental Law Centre in Australia, said that intellectual property conventions and laws have failed to protect

the rights of indigenous people. They were finalized with almost no regard for the needs of indigenous and traditional peoples for the protection of their cultural and intellectual property.

Despite considerable limitations, she said there is a growing support for the use of IPR by indigenous and traditional people.

The Convention on Biological Diversity, she noted, attempts to recognize some rights of indigenous people but, at the same time, promotes access and use of their knowledge and resources. The Convention is one of the two most important products of the Earth Summit.

Principle 22 of the Rio Declaration on Environment and Development, likewise, focuses on the concerns of indigenous people. Indeed, there are many existing international instruments and policies on this subjects and more are in the process of being formulated.

This is because of the growing awareness of the contribution of indigenous and rural communities in conserving and enhancing biodiversity.

Last year, a Draft Universal Declaration on the Rights of Indigenous Peoples was proposed by the UN Commission on Human Rights Working Group on Indigenous Populations.

Almost all countries in the Asia-Pacific region have adequate legislation relating to biodiversity conservation, observed another Conference resource person John Mackinnon.

But this legislation, he said, is "Very complicated and scattered" in various laws on environment, forestry, marine and pollution regulations.

Mr. Mackinnon, in his paper, noted that conflicts between national law, state or provincial laws, and religious laws, and local customs, have added to the confusion.

"By far, the greatest legal problem is law enforcement," he said. "Wildlife protection laws are being broken everywhere everyday."

For effective implementation of laws, the recent Conference highlighted the need for community involvement in this undertaking. It called for concerted laws of the protection of indigenous knowledge and urged regional action on selected issues such as IPR.

One of the conclusions of the Conference was that maximum level of benefits derived from biodiversity conservation must be reserved for local communities, local institutions, indigenous groups, and the local economy.

Charles Barber, senior associate in the World Resources Institute, concluded: "The bottom line is that government must listen to the demands and aspirations of the people and recent accordingly. Too often, it is the other way around." (Deftnews Asia)

RI's Rivers Undergoing Quality Deterioration

7/28/94

Indonesian Observer

Banjarasin, S. Kalimantan (Ant) - Fifteen years of observation has indicated that many rivers in Indonesia have undergone quality deterioration, State Minister for Environmental Affairs Sarwono Kusumaatmadja said here Wednesday.

Before a number of officials and industrialists during the signing of a Statement on a government-sponsored Clean River Program (Super Prokasi), Kusumaatmadja, who is also head of the Agency for the Control of Environmental Impact (Bapedal), said most river water has been found to be below the quality standard.

More and more complaints have been filed because the deteriorating quality of river water

has reached a disturbing level, he said.

The minister said that some industrial undertakings have been embroiled in conflicts because industries located downstream must use water already contaminated by waste disposal from those upstream.

Similar conflicts have also been found in agricultural and settlement areas, he added.

Therefore, he said, the government has for five years now been carrying out a national program to control water contamination, known as a Clean River Program (Prokasi), in 20 rivers throughout eight provinces.

Prokasi aims to improve the quality of river water by means

of reducing the load of pollutants entering the river and is implemented under the principles of simple focus and law compliance and enforcement, he said.

Regarding river contamination, Kusumaatmadja pointed out that besides industrial waste, waste from hotels, hospitals, trade centers and housing estates has also been found to be responsible for the deteriorating quality of river water.

In the current 6th Five-Year Development period (1994-99), law enforcement with regard to Prokasi will be implemented more firmly and more consistently, he added.

Sectoral Egotism
Meanwhile, an environmen-

tal affairs official said in Malang Wednesday that environmental problems in general, pollution in particular, must be dealt with without sectoral egotism as they are a common responsibility.

"If each sector singularly takes care of its own interest and obligation, the country will collapse," said First Assistant to the State Minister for Environmental Affairs, Atja Sugandhi at the presentation of reports on the development of an environment-conscious program for the Brantas river basin in East Java.

Sugandhi made his remark following conflicting opinion among government agencies and institutions regarding the water contamination in the Brantas river basin.

The river is the source of water for the Surabaya Drinking Water Company.

Tap water users in Surabaya recently lodged protests because their water was filthy, but the drinking water company argued the water from the Brantas river had been heavily contaminated, and it was almost impossible to process it into clean water.

In the meantime, Perum Jasa Tirta, the company managing the Brantas River, refused to shoulder any responsibility, saying it has been assigned only to manage the use of water from the river.

The East Java Industry Office stated that it serves only to coordinate industrial affairs, and that industrial and domestic waste problems must be handled by a team from the East Java Commission for the Management of Environmental Pollution (KPPLH), which brings together various relevant technical government agencies.

Concessions damaging rain forests

Jakarta Post

7/30/94

JAKARTA (JP): Minister of Forestry Djamaloedin Soeryohadikoesoemo yesterday aired his concern over ongoing environmental destruction which has caused water shortages on Java Island and desolation of rain forests on other islands.

"On islands other than Java, concessionaires still log forests without following the principles of sustainability. They focus on their own profit-oriented objectives," Djamaloedin said during a swearing in a ceremony for forestry officials here.

He instructed ministry officials to increase control and supervision over the operations of concessionaires. He warned repeatedly that international communities are also watching the way In-

donesia manages its rain forests.

Based on the latest satellite analysis, Indonesia, which holds the third largest area of forests in the world, currently has 113 million hectares of forests, which hold some 2.4 billion cubic meters of timber.

The Indonesian government, in a bid to preserve forests while exploiting them, has introduced a selective cutting program, which prohibits timber firms from cutting trees with a diameter of less than 50 centimeters.

Timber companies are required — amid the acknowledgement of government officials that law enforcement is still in question — to replant the exploited forests within a 35-year harvesting program.

Djamaloedin said yesterday that local administrations will be asked to become shareholders in certain privately-run timber estates to help control their forest management.

He said the companies to be designated are those which have proven to be unable to function properly under the government's program.

In a related development, the minister briefed officials of his ministry about the challenge of *rimbawan* — an Indonesian word for people working in or making a living from forests. This matter has become an increasingly complicated one.

He said the issue has developed in such a way as to exhibit a number of aspects such as economic, social, en-

vironmental and political elements.

The minister pointed out that in the 1950s, the only *rimbawan* issue was that of technical methods used in the development of teakwood forests in Java.

In the 1970s, the issue became entwined with the boom of timber industries, during which concessionaires outside of Java were allowed to exploit forests with minimum supervision.

"The activity of forestry nowadays deals with not only planting, logging and selling timber, but also with the socio-economic aspects of the society, the global environment and bio-diversity," Djamaloedin said.

"The water supply is a big problem now, while on the other hand, the soil deprivation and the need for timber is still going on following the rise of population and the more rapid pace of development."

Djamaloedin yesterday inducted six officials, I Gusti Made Tarra, Soewardi, Amir Hamzah, Soas T.S., Hubertus Johannes Andries and Hartadi, to take new posts in the ministry.

He told the newly inducted officials that the most important political issue in terms of forestry is the benefit of forests for people living around them.

"Those people traditionally depend on forests for their day-to-day necessities. Most of them are not well educated and have not enjoyed the results of our development," he said. (09)