EAST-WEST CENTER

Strapped for Cash, Asians Plunder their Forests and Endanger their Future

DEANNA DONOVAN

AsiaPacific

ISSUES

Analysis from the East-West Center
No. 39
April 1999

Effects of the Asian Economic Crisis series

SUMMARY As the economic crisis swept across Asia in 1997, gutting purchasing power in many countries, one potential silver lining seemed possible: a drop in demand for rhino and tiger parts, tortoises, wild orchids, fragrant woods, and other increasingly rare products of the region's forests. Though threatened with extinction, these and many other plants and animals, esteemed as medicinal marvels or status symbols, have fueled a vigorous trade buoyed by rising regional prosperity and market globalization. Today, contrary to expectation, the commerce in wild species and their products has increased substantially. The economic collapse that has been felt most keenly in Southeast Asia, combined with the continued relative prosperity of China and strong American and European economies, stimulates the flow of resources out of Southeast Asia and into East Asia and the West. Now, unexpectedly, it is increasing personal hardship that may pose the greatest threat to already endangered species and habitats, as cash-needy citizens turn to their forests for the income that their regular jobs and crops no longer provide. One result is the destruction of the very biological resources on which their future development depends.

The economic and biological impacts of forest exploitation will reach far beyond the current economic crisis

When currency devaluations swept through Asia in the spring and summer of 1997, the region's growing consumer class was hard hit. Once able to pay top dollar for designer goods and other symbols of their newly affluent lifestyles, many Asian consumers now found themselves scrambling to pay for necessities. Though disastrous for many, the financial crisis appeared to have a potential silver lining: decreased demand for expensive exotic meats (including tiger) and traditional medicines (rhino horn, bear bile) derived from rare and endangered plants and animals. These and many other Asian forest products are increasingly being consumed as symbols of success and as antidotes to increasing stress and illness. The cost to forests, especially in Southeast Asia, is clear and mounting, as legal and illegal harvesting threatens the survival of some species and, consequently, the health of associated ecosystems.

The silver lining, however, has not materialized. There has been no reprieve for the imperiled species. Though demand has fallen in many countries, China's economy has fared relatively well throughout the crisis and the country is both a growing market for these forest products and a major processor and exporter of them to expanding international markets. Indeed, along with disappointment that demand has not declined, many observers are now experiencing a rising sense of alarm: In Southeast Asia, which has been especially hard hit by the economic crisis and where millions of unemployed are returning to the countryside, people are increasingly looking to forest resources for their own survival. This short-sighted (albeit understandable) strategy will have economic and biological impacts that will extend far beyond the current financial crisis.

The Uses of Wild Plant and Animal Products

Medicinal and culinary preparations are the primary use for most wild animal and plant products. The demand for exotic meats and for pharmaceuticals based on natural plant and animal derivatives exists in virtually all Asian societies, including émigré communities in the West. In the last several years the trade in these products has been stimulated by a number of factors, including economic liberalization, market integration and globalization, and, until recently, rising incomes in Southeast and East Asia. Concern about higher drug prices and the increasing interest in "alternative" medicines and natural products in the West have also greatly increased demand. In the 1980s, the reestablishment of cordial relations between most of the socialist countries of Asia and the market economies of the rest of the world was the first step toward an improvement in commercial relations that has resulted in a rapid escalation of trade both within the region and between Asia and other regions.

Joining the global economy. The sale of forest products, especially wild animals and plants, has been the traditional means by which marginal rural groups could generate cash. More recently, it has provided a way to participate in the global market economy. Having struggled for many years to survive, these rural dwellers, some of whom have only recently joined the world economy, are eager to catch up and partake of the prosperity they see via satellite television. But they are finding that the cost of market participation has dramatically increased as economic troubles have rocked their countries. With few economic alternatives, they view the forest, and all the animals and plants therein, as the key to prosperity.

Exploding Demand

The huge and growing Chinese market is a major factor in the exploitation of Southeast Asian and southwestern Chinese forests. The country has a population of almost 1.3 billion, more than five times that of all of mainland Southeast Asia; an estimated economic growth rate of about 8 percent, more than that of the United States or any western European country; and an emerging class of young professionals—70 million consumers both interested

in and now able to pay for good health and good living. As much as 40 percent of the population is said to use traditional medicines, and Western-style pharmaceuticals are not always available. Many prefer products from wild sources.

An increasingly international market. In addition to being an important market, China is also a major processor of wild products. According to official statistics [i] the United States, the European Union, and Japan account for 60 percent by value of wildlife imports worldwide. Total U.S. imports of medicinal and culinary plant products recorded in 1995 amounted to 12.5 tons valued at US$42 million.[ii] China was the main source of those products.

Hong Kong, meanwhile, hopes to become a major provider of traditional Chinese medicine. Hong Kong-based NPH International Holdings has endowed research programs at both Harvard University and Hong Kong's Chinese University with the aim of developing new medicinal products for a growing international market.[iii] Among the province's own residents, a recent telephone survey revealed that 35 percent of the adult population consult traditional Chinese medicine practitioners and use their products. Other surveys indicate consumers' willingness to pay more for wild products than for those produced on a farm, and of nearly a third of those polled to use traditional medicine even if it were banned because it was derived from endangered species.[iv]

As import prices have shot up, local prices have risen on their coattails

As owners of trading companies have discovered, devotees of traditional Chinese medicine are an irresistible market for cash-needy people with access to forbidden products. Poachers supplying the Chinese medicine market killed three of the 37 known tigers in a Sumatran national wildlife park in late 1998 and a local police chief was arrested with a tiger slaughterhouse in his backyard.[v] The trade in endangered species is increasing and "we're about to lose a lot more species, no doubt about it," Tony Sumampau, an Indonesian conservationist told a reporter. "It's worse than losing money; animals we can't get back."[vi]

A Note from the Field

"In Laos, the pressure on wildlife and non-timber forest products (NTFP) is intensified by rapidly sinking world market prices for timber, traditionally Laos' most important product....Prospects for income from hydropower are also gloomy as the Asian crisis reduces projections of Thai demands for electricity. Hence, an increased pressure from the government to step up NTFP exports.

[With regard to forest products] the area around the capital city of Vientiane was already a 'depleted zone.' The effect has only been exacerbated by the economic crisis. Soldiers, policemen, and other low-ranking government officers saw their salaries drop from $40 per month (just enough to live on) to $10-$15 per month in 1998. They are all running into the forest to collect fish, fuelwood, bamboo shoots, etc., to add to their income. Ten years ago, most of these products could be found within 10 km around the city; nowadays people travel anywhere between 30 km to 100 km to find these products."

—from a note to the author written by an advisor to a project in Lao PDR funded by the World Conservation Union (IUCN)

Desperate Suppliers

The need for cash continues to grow. Governments reeling from the financial crisis and trying to conform to the demands of the IMF have cut social services. Prices of imports have shot up and local prices have risen on their coattails. With limited options, people increasingly look to forest product sales to generate cash, and the result is a growing threat to the ecosystem.

Everything has a price. Much of the forest that is commercially exploited for wild animal and plant products is located in relatively remote areas inhabited by ethnic minority groups whose economies still depend largely on shifting cultivation and collection of forest products. For many of these people, the forest has long served as an essential source of basic needs including fuel, food, fiber, construction timber, and medicinal plants. With economic liber-

alization, improved transportation, and the development of markets that are linked to the international economy the forest has taken on an enhanced economic dimension: it is the source of an array of products for which there is steady demand and a now even more accessible market. These products can be bartered or sold for the cash needed to pay taxes or school fees or to purchase necessities, including food in the "hungry season" after harvest stores are exhausted. As one observer noted, it seems that "every tree and animal has a potential price tag in the local, regional, or international market place."[vii] In short, it is not a tiger—with all its ecological associations—that the farmer sees, but a ticket to a better life. Now, thanks in part to currency fluctuations, the collector must often collect twice as much forest products to be able to obtain the same amount of store-bought goods as before the economic crisis. Meanwhile, traders profit handsomely as currency devaluation lowers the real price to the farmer despite often higher prices paid by consumers as a result of increasing scarcity.

It is not a tiger that the farmer sees, but a ticket to a better life

Environmental free-for-all. Government officials, too, may view forests as "cash cows," to be exploited in time of need. As local officials ignore national conservation directives and permit unplanned extraction of forest products for the benefit of government cronies (if not themselves), an additional effect is the undermining of public campaigns that promote conservation. If, as has been suggested, a conservation ethos was starting to emerge among middle-class Indonesians, for example, it was an early casualty of the economic crisis. "Now, it's back to every species for itself," noted a former Indonesian environment minister.[viii]

Imports: No Longer Just Luxuries

Imports have become commonplace and seemingly indispensable even in remote areas. Clothes, pots and pans, watches, kerosene lanterns—all are acquired tastes that, whether perceived as essentials or luxury items, people continue to demand. In some areas, for example, the sale of forest products finances the purchase of ready-made fabrics and clothing, relieving women of the arduous work of making the family's clothes, often starting with cultivation of fiber and dye plants.

Local substitutes. In addition to creating an increased demand for cash, the economic crisis has driven people to find substitutes for products they can no longer afford. In the case of pharmaceuticals, for instance, national governments cannot produce enough to meet local needs. Devaluations have driven the prices of foreign-manufactured drugs too high for most people. Governments, which must allocate scarce foreign exchange for their import, are encouraging people to consider using traditional medicines. So people either exploit their local forests to raise cash or return to the use of native plants for medicinal purposes. Either way, in the absence of sustainable cultivation systems, the environment suffers.

Assessing the Trade's Environmental Impact

A clear picture of the wild species trade and its impact is difficult to obtain given the wide variety of animals and plants exploited, the lack of monitoring at virtually any level, and trade statistics for forest products that do not distinguish between those from domesticated or semi-domesticated sources (essentially former forest products now grown in plantation systems, such as cinnamon) and those from wild sources. The only statistics available are from random market surveys conducted by concerned scientists and from the records of sporadic seizures by customs officials. At best these figures are illustrative. Recent data[ix] analyses from researchers in Lao PDR, Vietnam, and Yunnan (China), for example, show more than 30 species of mammals, more than 15 species of birds, and a wide variety of reptiles (turtles, tortoises, snakes, lizards, and crocodiles) being traded. Although some of these animals reportedly come from farms, many farm operations are suspect: generally they are fattening, not breeding, facilities. Even some zoos have been involved in the trade.

Plagues of rats. Though statistics are poor, anecdotal evidence from a variety of sources strongly indicates that the volume of both legal and illegal trade has increased substantially over the past decade and that new developments pose an increasing threat. Ominous signs include:

- dramatic increases in consumer prices for several species;
- lengthier waiting periods for the delivery of certain species by suppliers;
- increasing reports of animals transported into Vietnam from neighboring Lao PDR and Cambodia;
- reports of increased interceptions of smuggled animals;
- the virtual absence of wildlife in village forests and fallow fields in many areas;
- plagues of rats attacking crops in rural areas, a phenomenon attributed to a loss of predators—everything from snakes to birds of prey;
- reports of conflicts between neighboring villages, and between villagers and outsiders (in some cases foreigners), over access to and control of neighboring forest resources;
- the emergence of a macabre form of tourism—"wildlife tasting tours"—as the exorbitant restaurant prices charged for wild game in some economies (e.g., Taiwan and Korea) have driven those consumers to travel to Southeast Asia (Thailand, Vietnam, Indonesia) where devaluation has made wild game much less expensive.[x]

'Wildlife tasting tours' are a macabre new form of tourism

The difficulty in obtaining certain species seems to stimulate the market. Some buyers appear to be motivated by the very real possibility of obtaining the last specimen of its kind (the horn of the last rhino, for instance), thereby securing not only a perverse notoriety, but also a monopoly in this product.

Still Reeling from One Crisis, Governments Face Another

Government officials in most countries realize that the uncontrolled trade in forest products is a threat not only to the region's environmental heritage, but also to government income, both present and future. Clandestinely exported products avoid taxes and rob all levels of government of much-needed revenues. And when species are depleted beyond the point at which it is profitable to harvest them, both individuals and institutions risk losing a base for potential development, whether as a product through domestication or as a commercial service via tourism. The major plantation crops—rubber, tea, cacao, coffee, and oil palm—are former forest species that through management and genetic selection have become major economic contributors.

Regulating the International Trade

Policies to protect endangered species, on the books for nearly a decade or more in most countries of Southeast Asia,[xi] are poorly enforced. A treaty, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), was instituted in 1973 with the goal of preventing international trade from threatening survival of species in the wild. CITES establishes a regulatory system for controlling wildlife trade that is implemented by domestic legislation in member nations. As of May 1998, 144 countries and parties had signed the treaty (including the United States, in 1975). CITES accords varying degrees of protection to wild species, both plant and animal, depending on their status as determined by scientific authorities and agreed by the signatories. For instance, species listed on CITES Appendix I are those determined to be threatened with extinction and very likely to be significantly affected by trade; thus, they are banned from trade between members. Most of the countries in Southeast Asia (including Indonesia) joined CITES in the late seventies or early eighties; Vietnam joined in 1994 and Cambodia in 1997. As of May 1998 Lao PDR had not yet joined.

The CITES Secretariat cooperates with TRAFFIC (Trade Records Analysis of Flora and Fauna in Commerce), which has offices worldwide and provides reports and analysis. Based in Washington, D.C., TRAFFIC maintains a website: www.traffic.org. Other international NGOs working to support CITES (www.cites.org/) include the following: FFI - Fauna & Flora International (www.ffi.org.uk/welcome_to_ffi.htm) IUCN - The World Conservation Union (www.iucn.org/) WCMC - World Conservation Monitoring Centre (www.wcmc.org.uk/programmes/) • WWF - World Wide Fund for Nature (www.panda.org/home.htm)

The Challenge of the Trade: Reverse Extinction Trend, Revitalize Economies

Controlling the traffic in endangered species presents many of the same problems as controlling the traffic in illicit drugs. In both cases, policymakers emphasize interdiction, but continued failures suggest the focus should shift to the forces driving supply and demand. The implications of that, however, are daunting since only profound economic and social changes seem likely to have an impact. In the case of the endangered species trade, suppliers are often ethnic minority farmers living in or near forests. Falling outside of the mainstream economy, they are essentially marginalized in the social and economic structure. Consumers, in contrast, span the social and economic spectrum, and those with a taste for the most expensive species are among the more privileged and educated segments of society. Any successful campaign to address the illegal trade in wild species must reverse the status of these key players in the trade. The marginalized suppliers must be given environmentally sound economic opportunities that will move them into the mainstream, while the behavior of buyers, whose demands endanger species and entire ecosystems, must come to be seen (by themselves and others) as self-serving and irresponsible.

On the demand side, we must:

- conduct scientifically rigorous research to debunk fraudulent medicinal claims as well as to identify and develop products of significant medical and economic potential;
- consider a tax on natural medicines to support research on traditional remedies;
- require truth in packaging and advertising with regard to the ingredients in and effectiveness of traditional medicines;
- enlist the support of practitioners of traditional medicine to identify alternatives to products containing endangered species and to offer them to clients;
- conduct consumer education campaigns to promote the use of these alternatives.

On the supply side, we must:

- assist farmer-collectors to understand how markets work and how best to plan for environmentally sustainable production of forest crops;
- expand research to identify and develop systems of cultivation and harvesting for economically promising forest species;
- expand rural development programs to address farmers' needs for cash crops;
- support programs that offer local communities land access or tenure benefits in exchange for their protecting and restoring the habitat;
- link financial and technical assistance for developing nature-based tourism to successful control of wild species trade and habitat restoration.

Across the board, we must:

- support environmental education, including discussion of endangered species exploitation, beginning in primary school in both rural and urban areas;
- blanket the media with public service messages to develop public support for species conservation;
- enlist the support of international consumer product companies in advertising the message;
- enlist the support of respected local notables and modern heroes (movie stars, sports personalities, pop singers) to support the cause of species conservation;
- make the institutional reforms necessary to enforce laws against the capture, sale, or possession of endangered species or products made from them and impose fines sufficient to deter such activity;
- strengthen nascent international cooperation in policy coordination, policing, and public education to ensure a consistent response across the region.

A significant way in which the illegal species trade differs from the drug trade is that, at least theoretically, it could be converted into a legal and lucrative industry. This will require us to commit the latest scientific technology to, and enlist community support and know-how in, developing environmentally sound commercial activities. By doing so, we might not only reverse the trend to extinction for many species but also revitalize economies in many areas of Southeast Asia.

(For many species we can only hypothesize the extent to which early overexploitation may have degraded the gene pool, possibly to the point where commercial domestication was no longer possible.) When domestication has not been possible, proper management of wildlife has enabled a very profitable tourist industry to develop; for example, photo safaris or big-game hunting.

Paying the price of enforcement. As a result of increasing international pressure, governments have attempted to strengthen enforcement of regulations against wildlife trafficking. Conflicting pressures on the implementing field staff, including their own increasingly poor financial situation as well as that of their rural neighbors, make stringent application of rules and regulations difficult. Suppliers must be more clever and more careful in their subterfuge, often "compensating" officials for looking the other way as illegal merchandise passes under their noses. These increased risks and "transaction costs" often contribute to higher prices to the consumer but, conversely, lower prices paid to harvesters of wild products. As a consequence, to meet their own growing income requirements, these farmer-collectors must sell more and more forest products.[xii]

With their goods earning less and less, forest harvesters take more and more

Given the fiscal restraints imposed by international financial institutions, Southeast Asian governments are hard-pressed to find the money needed to research and implement cultivation and wildlife management systems that will permit the sustainable harvesting of forest plants and animals. Meanwhile, the pressing economic needs of current and returning rural inhabitants may preclude the possibility of future forest product development, especially if attempts at increased regulation—with associated transaction costs—actually promote increased exploitation of forest resources.

Conclusions

New economic pressures on the people of Southeast Asia and southwestern China are accelerating the exploitation of rare and endangered forest plants and animals. The wild species trade threatens biological resources that are important from an ecological as well as an economic perspective. The cultural damage resulting from the environmental destruction is even more complicated to assess and address. Rising prosperity and the globalization of the market economy have been major forces fueling the process of extinction. Now, increasing economic hardships may pose the greatest threat. Clearly, the market for wild species is subject both to the pull of demand as well as the push of suppliers desperate for cash and eager to participate in the new market economy. The continuation of present trends will in all likelihood lead to the local extinction of several species.

The future of environmental protection. Current policies, mostly directed at the control of trafficking, have had minimal impact in the face of strong demand, legions of willing and eager suppliers, and the desperate need for cash. Given the apparently growing scale and scope of the trade, existing laws and regulations barely serve as a holding action, let alone offer a solution. Strapped for funds, government officials who now merely ignore existing regulations may be pressed to rescind important environmental legislation, such as logging bans, and wildlife trade restrictions. Thus, the current crisis threatens to dismantle the legislation that must be the foundation for any effective environmental protection, critically important at a time when improved accessibility (via roads, airstrips, etc.) to formerly remote, resource-rich areas facilitates every kind of commerce. A road system, for example, destined to connect Ho Chi Minh City in southern Vietnam to Kunming in southwestern China—slicing through the forested heartland of Southeast Asia—will open truly golden opportunities to illegal wildlife traders. Despite the current hardships, governments must preserve the legislative progress of the past decade.

Continued economic uncertainty and growing financial need (not to mention greed), improved access to remote areas, and market growth are anything but conducive to conservation. Indeed, these forces are working synergistically to jeopardize the remaining Southeast Asian forests and their invaluable biological resources.

Notes

[i] Donovan, Deanna G. 1998. *Policy Issues of Transboundary Trade in Forest Products in Northern Vietnam, Lao PDR, and Yunnan PRC.* Proceedings of a Workshop held in Hanoi, Vietnam, September 14-20, 1997. Vol. 1. Honolulu: East-West Center. The trade is most effectively documented in the West and thus may not accurately reflect the size of the Asian market.

[ii] Robbins, C. 1997. "US Medicinal Plant Trade Studies." *TRAFFIC Bulletin* 16(3):121-125.

[iii] Williams, Ceri. September 29, 1998. "Chinese Medicine 'May Hold Out Cure for Economic Ills.'" *South China Morning Post.*

[iv] Lee, Samuel K. H. 1999. "Attitudes of HK Chinese Towards Wildlife Conservation and the Use of Wildlife as Medicine and Food." Species in Danger Series. TRAFFIC-Hong Kong (via Internet).

[v] Waldman, Peter. October 26, 1998. "Desperate Indonesians Devour Country's Endangered Species." *Wall Street Journal.*

[vi] Ibid.

[vii] Rabinowitz, Alan. 1997. "Lost World of the Annamites." *Natural History Journal* 4:14-18.

[viii] Waldman. *Op. cit.*

[ix] Donovan. *Op. cit.*

[x] Highley, Keith and Suzie Chang Highley. 1998. *Bear Farming and Trade in China and Taiwan.* Earthtrust Taiwan. <www.earthtrust.org/bear.html>; Waldman. *Op. cit.*

[xi] Donovan. *Op. cit.*

[xii] Donovan, Deanna G. 1997. Field notes.

About this Publication

The AsiaPacific Issues series reports on topics of regional concern. The views expressed are those of the author and not necessarily those of the Center.

The contents of this paper may be reproduced for personal use. Copies of the paper are available for $2.50 plus shipping. For information or to order copies, please contact the Publications Office, East-West Center, 1601 East-West Road, Burns Hall Rm. 1079, Honolulu, Hawaii 96848-1601.

Telephone: (808) 944-7145
Facsimile: (808) 944-7376
E-mail: ewcbooks@ewc.hawaii.edu

Series Editor: Elisa W. Johnston

ISSN 1522-0960

Home page: http://www.ewc.hawaii.edu

Recent AsiaPacific Issues

No. 38 "International Response to Nuclear Tests in South Asia: The Need for a New Policy Framework" by Muthiah Alagappa. June 1998. $2.50 plus shipping.

No. 37 "Russia's Media Revolution: From Party Control to Money Control" by Gennadi Gerasimov. June 1998. $2.50 plus shipping.

No. 36 "Indonesia In Crisis" by Richard W. Baker. May 1998. $2.50 plus shipping.

No 35 "Global Lessons of the Economic Crisis in Asia" by Manuel F. Montes. March 1998. $2.50 plus shipping.

No. 34 "Toxic Waste: Hazardous to Asia's Health" by David Nelson. November 1997. $2.50 plus shipping.

No. 33 "Will Population Change Sustain the 'Asian Economic Miracle'?" by Andrew Mason. October 1997. $2.50 plus shipping.

About the Author

Deanna G. Donovan is a fellow in the East-West Center Research Program. Her work focuses on the social and economic effects of forest conservation in developing economies. She has worked with the Asian Development Bank, the Dutch government, and the U.S. Agency for International Development, among others.

Telephone: (808) 944-7246
E-mail: donovand@ewc.hawaii.edu