Dener Giovanini

Taking Animal Trafficking Out of the Shadows

RENCTAS Uses the Internet to Combat a Multi-Billion Dollar Trade

Animal trafficking, the third largest illegal trade in the world after drugs and arms, is a US$20 billion business. Brazil is estimated to account for up to 15% of this illicit global trade.[1] In Brazil alone approximately 38 million animals are poached every year, posing a deep threat to regional and global biodiversity. The trade is as wasteful as it is massive; nine out of ten animals die while being captured or transported, often in torturous circumstances.

Animal trafficking is threatening Brazil's biodiversity at an alarming rate. Over the past 10 years, the official list of Brazilian animals threatened by extinction has nearly doubled. Today, over 600 species are on this "death row." Animal trafficking has played a significant role in the growth of this list. Many species run the risk of disappearing exclusively as a result of their illegal trade. In addition to contributing to the reduction of biodiversity, wild animal trafficking is responsible for the transmission of diseases and disproportionately harms poverty-stricken communities.

As Environmental Secretary in the municipality of Três Rios, a small city in the southern Brazilian state of Rio de Janeiro, in the mid-1990s, I was alarmed by a growing number of incidents involving captured wild animals in my jurisdiction. Sensing a problem of significant magnitude, in early 1999, I founded an organization to address animal trafficking at the local level. My two colleagues, Raulff Lima and Sergio Peixoto, and I named our organization the National Network to Fight the Trafficking of Wild Animals (the Portuguesa acronym is RENCTAS). In seven years, RENCTAS has become the leading force combating illegal animal trafficking

Dener Giovanini is founder of the National Network for Combating Wild Animal Trafficking (RENCTAS). Prior to founding RENCTAS, Giovanini was Environmental Secretary of Três Rios, a city in the Brazilian state of Rio de Janeiro. In 1999 he was elected an Ashoka Fellow, and subsequently honored as a Schwab Social Entrepreneur. In 2003 he was named co-winner of the United Nations Environment Program (UNEP) Sasakawa Environment Prize, among the world's most prestigious environmental awards.

© 2006 Tagore LLC

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

in Brazil, and is among the major organizations of its type globally.

When we began, animal trafficking was a non-issue in Brazil. Today it is a public concern addressed regularly on Brazil's major news outlets. We have worked to effect this change by documenting the particulars of the trade, enhancing public awareness, educating law enforcement officials, influencing legislation, and shaping public policy. Central to these successes is our use of the Internet to convert animal trafficking from an unknown and un-quantified issue to a high-priority item on the national policy agenda.

A BURGEONING TRADE CAUSING ENVIRONMENTAL, SOCIAL, AND ECONOMIC DAMAGE

While animal trafficking has escalated dramatically in recent years, it is not a 20th-century phenomenon. Five hundred years ago, when Europe began colonizing the world, voyagers returned with unknown animals as evidence of having discovered new continents. These animals drew attention and curiosity in Europe, and were soon exhibited and traded in the streets.[2] The possession of wild animals was a symbol of power, wealth, and nobility. This status and curiosity fueled the creation of a profitable business.

Brazil has long been a prime source of "exotic" animals. With an area covering more than 8.47 million square kilometers, Brazil has one of the richest fauna worldwide. It has the greatest number of species, with approximately 3,000 terrestrial vertebrates and 3,000 fresh water fishes.[3] Brazil is the richest country in mammal diversity, with 524 species[4] and ranks third in birds, with nearly 1,677 species, [5] fourth in reptiles, with 468 species, and first in amphibians, with 517 species.[6]

Traffickers plunder Brazil's living resources for four markets. The first market is made up of collectors and private zoos. Although these collectors and private zoos hold illegally extracted animals, many in fact have government authorization to operate. Private collectors are generally extremely wealthy individuals who maintain collections for reasons of vanity. Although this is a serious problem in Brazil, the problem is far more extensive abroad since these collectors are out of the reach of Brazilian law. Supplying private collections is perhaps the most destructive type of wildlife trafficking because its primary focus is the most endangered species; the rarer the species the higher an animal's value. The lear's macaw, for example, fetches US$60,000 on the international market.

The second trade, biopiracy, extracts chemicals from animals for research and production of medicines. This industry is growing daily, with the incursion of illegal researchers within Brazil in search of new species. Huge revenues are garnered from these activities. The nigriventer spider venom is coveted for research on a new and more effective analgesic substance, with a value of up to US$4,000 a gram and the market value for hypertension drugs uniquely derived from one Brazilian snake species is US$500 million.

Biopiracy is supported through a complex operational system that navigates loopholes in laws and discrepancies in international accords. Many animal and

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

plant-based chemical substances leave one country illegally but arrive at their final destination as legal. This occurs, among other reasons, because the information-sharing among nations is still deficient. Many countries allow pirated animal materials to enter their territory, unaware of their illegal origins. The organized gangs who operate in this market deploy diverse types of fraud, from falsification of documents to bribing public officials. In some cases animal or plant products are even patented, which requires years to resolve through international courts.

Pet animals are the third market. Boas, turtles, macaws, marmosets, and many other creatures are captured; the few that survive end up in private homes in the United States, Europe, Asia, or elsewhere. The fourth category, fauna products, consists of parts of animals, such as reptile skins or bird feathers, which are used as ornaments and in crafts that cater to the fashion market.

Animal trafficking, the third largest illegal trade in the world after drugs and arms, is a US$20 billion business. Brazil is estimated to account for up to 15% of this illicit global trade. In Brazil alone approximately 38 million animals are poached every year, posing a deep threat to regional and global biodiversity.

Within Brazil, most stolen animals are transported by trafficking networks operating across highways in trucks, buses, and cars. Corruption and fraud often facilitate the process. According to the Brazilian Federal Police, smuggling is likely to be supported and facilitated by government officers assigned to strategic positions such as ports, airports, and customs offices; on the international side, researchers acting for international traffickers use government-issued credentials. Also, "animal laundering" is carried out in Brazil through zoos or so-called scientific, conservationist, or commercial breeding grounds which provide false certificates claiming that animals were born in captivity. Even when animals are recovered during busts or sting operations, many cannot be returned to nature. Close to 60% are found in conditions so poor as to make their return impossible. These animals must spend the rest of their lives in captivity.

Brazil's animal trafficking supply chain flows through three groups: suppliers, middlemen, and consumers. Suppliers are usually extremely poor people from the backlands of Brazil for whom the fauna trade is a supplementary source of income. The middlemen range from *regatões* (boatmen of the Northern and Mid-Western regions), to farmers, truck and bus drivers, and street peddlers. Small and medium traffickers connect these rural middlemen with the larger, international networks. Large-scale international traffickers operate globally and deploy the same smug-

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

gling and corruption tools as other international trafficking networks. Some zoos and breeding grounds also participate at this level. On the consumer end, animals and animal products land in homes, zoos, aquaria, circuses, private collections, tanneries for industry, fashion stylists and producers, and pharmaceutical industry.

Like the drug trade, animal trafficking capitalizes on an asymmetric economic relationship between the source, usually developing countries with fragile and under-funded enforcement capacity, many of whose citizens desperately need income, and the demand, wealthy countries with purchasing power. This disparity brings corruption, further eroding the ability of Brazil and other developing-country governments to build strong and accountable institutions. The responsibilities of the various enforcement agencies are fragmented geographically by local, national, and regional jurisdictions and bureaucratically by "silos" of operation. Their lack of coordination undermines the ability of enforcement agencies to take on the complex networks used by traffickers to move animals from their point of capture or breeding to the final purchaser.

An alarming development with far-reaching consequences for Brazil and other nations is the integration of trafficking activities, especially between animal trafficking and the drug trade.[7] For example, officials in Miami recently apprehended a shipment of snakes together with packages of cocaine. As animal traffickers become part of larger and more violent global criminal organizations, their capacity to outgun and outmaneuver enforcement efforts grows.

One area where animal trafficking differed notably from the drug trade was in the degree of public awareness of the scope and scale of the problem. In Brazil in the late 1990s, the animal trade was unknown. Ignorance of the problem spanned all regions and socio-economic strata of Brazilian society. For example, in an article published in a daily newspaper an economist and former elected representative was quoted criticizing Brazilian environmental enforcement because it arrested a German trafficker. According to him, the intention of the "poor fellow" was to help Brazil get rid of such plagues as spiders and other venomous animals. The animal trafficking business operated almost entirely under the radar.

USING THE INTERNET TO GATHER AND ORGANIZE INFORMATION ABOUT THE TRADE

When Raulff Lima, Sergio Peixoto, and I started RENCTAS in Três Rios in 1999, information technology, including the Internet, was not part of our plan. Our small team began by delivering workshops on the animal trafficking problem, and we began collaborating with law enforcement groups and environmental agencies locally and nationally. We also provided support to research projects concerning conservation of endangered species and carried out national awareness campaigns. Yet in trying to bring attention to the problem, we were confronted with indifference caused by a sustained lack of information.

Many of the advocacy and training activities in which we engaged were fairly

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

traditional for non-governmental organizations (NGOs) at the time. However, from the outset, the other critical component of our work was researching and investigating trafficking activity so we could report it to the enforcement authorities for action. Initially, all our research, tracking, and reporting of the illicit animal trade was paper-based. This changed late one Saturday night in our first year of operation. I was home when I received a call at 10:00 p.m. from a police officer at an international airport. She had just apprehended a foreign citizen who had in his suitcase nearly 500 toads and 200 snakes. He was bound on a flight to a European destination. As this individual was claiming that he was unaware that taking these animals out of the country was illegal (a common ploy by traffickers), the officer urgently needed to corroborate whether he had been involved in other criminal trafficking activity in Brazil, as this would escalate the gravity of the charges. Without this evidence, the police would be required to let him go after a brief detention and confiscation of the animals. With the clock ticking, I quickly called several colleagues away from their normal Saturday night festivities and together we began to search frantically through our piles of files containing approximately 30,000 papers. At 5:00 a.m., having given up, I sat in my chair, despondent—and saw the paper I had been looking for, face up on the floor among all the other papers.

Having found the needle in the haystack, we immediately phoned the police officer, who told me that, regretfully, they had just released the suspect due to lack of evidence proving deliberate intent to traffic animals. At that moment we realized the imperative of collecting information electronically. Soon thereafter we purchased database software and computers, and digitized our records.

Nevertheless, the story of the snake-trafficker resolved itself favorably. One year later, I received a phone call from a judge in the Amazonian city of Manaus, who had participated in one of our training workshops. She informed me that the following day she would make a judgment on a case involving a foreign citizen who claimed no knowledge of Brazilian law regarding animal transportation. Three minutes later I had pulled the records on the individual, the same who had gotten away the year before! This time, the government had the information it required to press the case.

This "back end" database allowed us to track larger volumes of criminal activity; however, we quickly discovered that criminals didn't appreciate being tracked. At that point our base of operations was very local (in the state of Rio de Janeiro) and very high-profile through talks we gave, our interactions with law enforcement, and so forth. One day I was in a local hotel giving a speech when through a door I saw a gun pointed at my head. The message was clear; the traffickers were giving me a "last chance" to withdraw our activities. This threat, coupled with an increasing volume of e-mails from citizens and collaborators, made clear the advantages–and necessity–of "going virtual."

Although we were dragged by circumstance and frustration into the information age, once online we were deliberate and aggressive in how we used our new capacity. From this point forward we chose the Internet as the primary venue for

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

our work. The original core model of our virtual operation consisted of a website we developed to allow ordinary citizens to report tips–instances of animal capture, sale, transport, or illegal breeding. RENCTAS investigated the tips and passed the findings to local law enforcement for action.

Our investigators also began using the Internet to scour auction sites, chat rooms, and pet and collector bulletin boards for clues to illegal animal trafficking. RENCTAS also employed old-school investigative tools such as the telephone and even a CB radio to speak with truckers. The Internet, however, proved the most efficient and effective way to gather information. As those who live by the sword die by it, those who trade on the Internet can also get caught in it: One of our techniques for identifying middlemen and sellers has been to pose as buyers on some of the more than 5,000 animal sites that cater to animal traffickers.

The Internet has also provided a higher degree of anonymity to those wishing to report animal trafficking crimes without being detected, as they might be by walking into a local police station in a small town. But even with the Internet, we must be careful. Given the risks inherent with digitally storing personal information, all tips are immediately taken off computers and stored separately in safe locations to protect the individual informers.

By the late 1990s, e-activism was nothing new. What was novel, however, was our approach to it. Many NGOs were active online through chain-letter petitions, letter-writing campaigns, and general list-serv-based forums for discussion. These activities tended to be one-directional, directed at already mobilized constituents, and they rarely linked the common citizen to tangible results. In contrast, we internally mandated that each tip receive a personalized response and gave priority to updating our tipsters on the results of their contributions. It was clear to us that virtual and anonymous online interactions required heavy personalization to effectively build a community base.

TAPPING THE STRATEGIC LINK BETWEEN VIRTUAL INTERACTIONS AND MEDIA DISSEMINATION

From this model of heavily personalized online information brokerage, two challenges began to emerge. First, although RENCTAS could investigate many local cases, enforcement spanned many local, sub-national, and national government levels in Brazil, a huge country. A second growing challenge for our investigative staff of two was the sheer volume of tips, which were coming into our system at an average of 30 per day. The problem of improving our coordination with government enforcement agencies was partially addressed by our move, after one year of operation, from the state of Rio de Janeiro to Brasilia, the country's capital, in January 2000. This gave us proximity to the federal government's federal police and environmental agencies such as IBAMA (Brazilian Institute for Natural and Renewable Resources) and the Ministry of Environment.

Our move to Brasilia also coincided with a shift in the balance between virtual and traditional interactions. While we maintained our website for tip-gathering

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

and for nationwide reach—continuing to broker information between citizens and law enforcement officials—we began to leverage the value of that capacity in novel and powerful ways. The tips we received related, variously, to each point along the traffickers' supply chain, from source to final buyer. We began to translate the information in those tips into a clear picture of the trade. By aggregating the bits and pieces we gathered through the Internet, we achieved an understanding of the process of animal trafficking unsurpassed by anyone except, perhaps, the traffickers themselves.

The tips we received related, variously, to each point along the traffickers' supply chain, from source to final buyer. We began to translate the information in those tips into a clear picture of the trade.

We used this aggregated information to tell a compelling, and tragic story. In January 2000, at the same time as our move to Brasilia, Brazil's largest television network, Rede Globo, broadcast a five-part series on animal trafficking called "Life for Sale" based on the work of RENCTAS.[8] In addition to dramatically boosting awareness of the problem, the Globo series generated an explosion of 28,000 new tips, queries, and other information through the RENCTAS site from throughout the country. In the Brazilian print press, coverage of animal trafficking in the country's four leading daily newspapers multiplied fourfold between 1999, the year of RENCTAS' inception and 2006. RENCTAS and the problem it combats have been featured in the leading international press as well, including *The Economist*, the BBC, *National Geographic*, and the *Christian Science Monitor*.

One reason our media work in Brazil has been so effective is that we have appealed to a sense of national pride in one of our most distinctive attributes: our biodiversity, as symbolized by beautiful and unique animals. Appealing to the emotional side of the problem also served another purpose: it gave us political coverage and thus protected us from counterattacks, be they from corrupt officials or the traffickers themselves.

Increasingly we learned to manage the interplay between our Internet work and press coverage of animal trafficking. For example, each time a story appeared in a local newspaper, our staff sent e-mails with a link to the article to our subscribers, encouraging people to write the newspaper to thank them for covering the issue. This positive reinforcement motivated more coverage that, in turn, drove even more traffic to RENCTAS. The dynamic between Internet and media ultimately served our goal of creating awareness of a formerly invisible issue. The next question was how to translate this awareness into changes in policy and practice.

We came to understand that many of the visitors to our website were environmentalists who would respond to pleas for action. Using postings on the home

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

page of the site along with the "push" of e-mail messages to over 60,000 subscribers, we developed the capacity to galvanize people to respond to specific issues or threats. For example, at 9:00 a.m. one morning we learned that a measure with harmful implications for wildlife conservation would be discussed and decided upon that day at 11:00 a.m. in one of the Brazilian government agencies. We posted the news on our site and via our e-mail listserv. By 10:30 a.m. 25 activists dressed in black RENCTAS "uniforms" and wearing dark glasses were flashing cameras at the participants arriving at the meeting. Our goal was to apply pressure on decision makers by evoking an intimidating image, while suggesting that their picture might appear in the media associated with an unpopular decision. We succeeded in influencing the outcome of this policy decision with only five minutes of effort that morning. We increasingly use this type of "power of persuasion" to accomplish our goals.

RENCTAS AND BRAZIL'S GOVERNMENT

In our early efforts to build relationships with local, national, and international government organizations, we found that government attitudes about the problem encompassed everything from inertia to outright obstruction by officials who were probably compromised by the trafficking trade. We developed a two-pronged approach to meet this challenge. First, we discovered pockets of enthusiasm among lower-level government technical staff, many of whom were committed to saving the environment. In contrast to many more combative Brazilian activist NGOs at the time, we were cooperative with the government. At the same time, RENCTAS never accepted government grants or program support to ensure its complete autonomy. This stance has played a key role in building trust and respect with government officials, who realized that RENCTAS was not after their money.

Our strategy of collaborative autonomy allowed us to build support from the bottom up in ministries and police agencies. We combined this with top-down political pressure generated by the increasingly visible cycle of media publicity and the growing volume of tips and other forms of citizen involvement flowing into RENCTAS through the Internet. RENCTAS and the animal trafficking problem in Brazil could no longer be ignored. As a result of our efforts, the Brazilian Parliament created an Inquiry Commission to investigate the problem and the Federal Police launched and implemented a national campaign against animal trafficking. Interpol, the Brazilian Federal Police, IBAMA (the Brazilian national environmental agency), the U.S. Department of Justice, CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora, headquartered in Switzerland), WEG (Wildlife Enforcement Group, New Zealand) have all grown to depend on RENCTAS for information and collaboration.

As time progressed, RENCTAS has increasingly diversified its operations and has taken on training programs for police, hosted international conferences, and published a book detailing the levels and patterns of animal trafficking.[9]

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

KEEPING PACE WITH AN INCREASINGLY GLOBAL AND INTEGRATED TRAFFICKING NETWORK

Just as the Internet has evolved, so have we. While we continue to use the Internet to drive enforcement, media coverage, activism, and public policy domestically and internationally, we are also expanding our use of Web conferences and instant messaging to interact online in realtime with our collaborators. We are also expanding our use of "just-in-time" activism, relying especially on our advocacy e-mail list of 60,000 thousand activists for pointed, rapid mobilization focused on public policy decisions.

Ironically, while it was the traffickers who drove us to the Internet in 1999, now we have driven them into more virtual spaces. The clearest evidence of this is the disappearance of open markets in Brazil where, until a couple of years ago, one could purchase huge varieties of birds, reptiles, and even primates. As with all other forms of global criminal networks, from drug traffickers to terrorists, animal trafficking networks increasingly deploy technology to their advantage to circumvent local enforcement and to capitalize on the lack of both legislation to regulate their online activities and government information-sharing to pursue them. Our challenge is to keep pace with them, which we do by increasing our undercover presence in their online worlds. We are also working to influence government regulation over these activities; most recently we succeeded in providing the Brazilian justice ministry with information on over five thousand violations based on our research of offers of illegal animal sales on the Internet.

As with all other forms of global criminal networks, from drug traffickers to terrorists, animal trafficking networks increasingly deploy technology to their advantage to circumvent local enforcement and to capitalize on the lack of both legislation to regulate their online activities and government information-sharing to pursue them.

One of our most significant recent actions has been to move directly into the distribution channels by partnering with transportation companies that have served, often but not always unwittingly, as the conduits for animal trafficking. We currently partner with the Itapemirim Group, one of Brazil's largest passenger transportation companies. Itapemirim was even considered an "accomplice" of traffickers by some sectors of the government and society since its buses were often used by traffickers. This bad publicity eventually compelled Itapemirim to rethink its position in the market. By partnering with RENCTAS, the firm and its clients,

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

suppliers, and employees have been educated to realize that they were victims, not villains. We have conducted a massive joint PR campaign to raise awareness among the company's drivers and passengers about animal trafficking. A second effort to reach into the traffickers' transportation networks in Brazil involves our collaboration with the Martins Group, one of Latin America's largest trucking firms which travels over all of Brazil's roads. The company's entire team of truck drivers has been provided with awareness training.

The aim of our partnerships with both Itapemerim and Martins is to make it more difficult for animal traffickers to use transportation networks to transport animals. By educating the drivers, cargo handlers, those in management positions, and even the firms' clients, we increase the level of vigilance and make it more difficult for all of these people to be co-opted into the animal-trafficking process. This, in turn, leads to fewer denunciations (tips) linked to specific buses or trucks (due, we believe, to reduced trafficking) which in turn translates into better business for the transportation companies.

LOOKING AHEAD

Our work has garnered public recognition. In 1999 I was honored to be awarded a fellowship by Ashoka for my work with RENCTAS, and in 2003 I received the United Nations Environment Programme (UNEP) Sasakawa Environment Prize, considered the highest distinction for environmental work in the world. In 2004, Former Brazilian president José Sarney, then leader of the Brazilian Senate, bestowed upon me the National Congressional Medal. At this ceremony he summarized what we do:

> The great merit of RENCTAS was, without doubt, to show Brazil a country we didn't know. Today the trafficking of animals has come out from the shadows thanks to the light that RENCTAS cast upon it to be seen by all except those who refuse to look.

Indeed, lifting the curtain on this activity in Brazil is an important accomplishment. However, just as trafficking is both global and domestic, our work increasingly involves both spheres. The challenge at home still looms large. Perhaps our biggest barrier is the relative lack of a civic and philanthropic culture to support wildlife preservation in Brazil, among other things. Getting companies and citizens on board in sustainable ways is a huge uphill battle in a country with a limited history in philanthropy or corporate responsibly. Many of our future efforts in Brazil will be directed in this area. On the global front, we must raise awareness among the consumers of animals and their products. Currently we are working with the Brazilian Foreign Ministry to conduct an awareness campaign abroad with posters, brochures, and other educational materials through our embassies worldwide.

Unfortunately, the accomplishments of RENCTAS and our colleagues in other organizations can not ensure the survival of the 600 Brazilian species now on extinction's "death row," nor can they ensure the sustainability of our planet's bio-

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024

diversity. As with arms and drugs, traffickers service a demand. Until citizens—particularly individuals and institutions in industrialized countries—hold themselves and their governments fully responsible for curtailing consumer demand for illegally traded animals, the traffic will continue.

Acknowledgements

I thank Winthrop Carty for his work in translating this paper from the Portuguese, and providing invaluable assistance in framing and organizing the ideas presented. I also thank Ashoka for their support along multiple dimensions, including the development of a previous case study of RENCTAS.[10]

We invite reader comments. Email <editors@innovationsjournal.net>.

1. Rocha, F.M. (1995) Tráfico de Animais Silvestres, WWF. Discussion Paper.
2. Hagenbeck, C. (1910) *Animales y Hombres*. Hijos de Carlos Hagenbeck. Editores, Hamburgo-Stellingen, . 483.
3. Mittermeier et al, (1992) "O País da megadiversidade". *Ciencia Hoje* (14): p. 20-27, 81.
4. Fonseca et al, (1996). Lista Anotada dos Mamíferos do Brasil. Ocasional Paper no. 4, April, Conservation Internacional.
5. Sick, H. (1997) *Ornitologia brasileira.* Nova Fronteira, Rio de Janeiro, p. 912.
6. Mittermeier et al, 1992
7. This relationship is documented in the final report of the Brazilian Congress's Parliamentary Inquiry Commission on Animal Trafficking.
8. "Vida a Venda" in Portuguese.
9. "First National Report on Fauna Traffic in Brazil." Available in PDF format from <http://www.renctas.org>.
10. Additionally, this article drew from a report written by Shannon Walbran, then of Ashoka in 2002 and from a case study co-authored by Stanley Yung, then of Ashoka, and Winthrop Carty, then of the Ash Institute at Harvard University. For more about Ashoka see <www.ashoka.org>.

Downloaded from http://www.mitpressjournals.org/doi/pdf/10.1162/itgg.2006.1.2.25 by guest on 28 March 2024