

A large adult tiger is shown in profile, walking from left to right across a forest floor covered in fallen leaves. The tiger's distinctive orange and black stripes are clearly visible against its yellowish-orange fur. The background is a dense thicket of green trees and foliage.

Securing a Future for the World's Wild Tigers



ExxonMobil

Executive Summary • Year of the Tiger Conference

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Executive Summary Year of the Tiger Conference

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Cover Photo: A wild male tiger named 'Gembong Rahwana' first photographed in October 1995 and still living in Way Kambas National Park, Sumatra, Indonesia. Photo courtesy of Directorate General of Nature Protection and Conservation, Ministry of Forestry and Estate Crops, Republic of Indonesia, Sumatran Tiger Project, Way Kambas National Park.

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Photo courtesy of Ullas Karanth, Wildlife Conservation Society

Tiger populations can attain high densities in prey-rich habitats such as Nagarhole National Park, India.

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The Year of the Tiger Conference

From February 10 through February 12, 1998, more than 140 experts from 18 countries attended the *Year of the Tiger Conference*, the largest international meeting ever held on tiger conservation.

Coinciding with the beginning of the Chinese Year of the Tiger, the meeting, held at the Adolphus Hotel in Dallas, was an unprecedented collaboration of representatives from 13 of the 14 tiger-range countries—Bangladesh, Belgium, Bhutan, Cambodia, China, Holland, India, Indonesia, Lao PDR, Malaysia, Myanmar (Burma), Nepal, Russia, Thailand and Vietnam, as well as from Canada, Germany, Switzerland, the United Kingdom, and the United States—sharing ideas and developing plans that will secure a future for all the remaining tigers in the wild.

The 1998 *Year of the Tiger Conference* fostered cross-disciplinary and cross-regional communication among the participants, including government officials, representatives from non-governmental organizations, conservation biologists, forestry specialists, engineers, land managers, and representatives of more than 65 conservation organizations.

The Plight of the Tiger in Asia

Tigers in Asia live in differing cultures, climates, and habitats, from the seasonally dry evergreen forests of India, east to Vietnam, north to the temperate Russian taiga, and south to the Indonesian tropical rain forests. The story of the tiger and its plight is as complex as the many languages of the people who live near the forests it inhabits.

The one common bond throughout Asia is that the tiger is both revered and feared as a symbol of great power and strength. Now we are in danger of losing this living symbol of the Asian wilderness. Our efforts to secure its future should be as adaptable as the tiger itself.

In this century, eight recognized subspecies of tiger were found in Asia. Now, only five subspecies of the largest cat on Earth remain. Range-state tiger population estimates collected by the chairman of the World Conservation Union (IUCN) Species Survival

Amur tiger populations in the Russian Far East have recently stabilized but remain regulated by availability of elk and boar and by poaching pressure.



Commission (SSC) Cat Specialist Group indicate a total of 5,000 to 7,500 tigers. Although no robust data have been gathered, it is generally assumed that the population numbers are declining because of illegal killing of both tigers and their prey, as well as habitat loss throughout the range. An exception is in Russia, where censuses report an increase in the number of tigers following a decline assumed to have resulted from heavy poaching in the early 1990s. Another factor in the dwindling of the tiger population is that many wild tigers live outside the boundaries of national parks or other protected areas designed to secure them and are therefore vulnerable to poachers.

All five remaining tiger subspecies are threatened with extinction. In terms of criteria of risk used by the IUCN, the more numerous Bengal (about 3,100 – 4,600) and Indochinese (1,200 - 1,800) tigers are classified as endangered. The rarer South China (30 - 40), Amur (or Siberian) (300 – 400 adults), and Sumatran (400 - 500) tigers are critically endangered, which means they face an extremely high probability of extinction within the near future. The Bali, Caspian, and Javan tigers were lost between the 1940s and the 1980s, an extinction rate of one subspecies every 20 years.

It is imperative to break this vortex of extinction. The major conclusion of the conference participants was that, although the tiger remains in crisis, progress has indeed been made in the fight to save it.

About the Conference

The conference was initially organized by Peter Jackson, representing the IUCN/SSC Cat Specialist Group; Howard Quigley and Maurice Horrocker from the Horrocker Wildlife Institute and Siberian Tiger Project; and Ronald Tilson, representing the Sumatran Tiger Project. This organizing committee was expanded to include representatives of key tiger conservation organizations and funders: Joshua Ginsberg from the Wildlife Conservation Society, David Phemister from the National Fish and Wildlife Foundation, Nancy Sherman from ExxonMobil Corporation, and Save The Tiger Fund Chairman John Seidensticker from the Smithsonian National Zoological Park. Ulysses Seal, chairman of the IUCN's Conservation Breeding Specialist Group (CBSG), and a Save The Tiger Fund Council member, agreed to act as principal moderator of the conference.

The conference organizers strived to include a broad range of stakeholders, particularly the conservation and political leaders from Asia who have ultimate responsibility for saving the tiger in the wild. In addition, a cross-disciplinary advisory committee consisting of twenty members from nine countries provided input into the conference agenda and organization. The agenda for the *Year of the Tiger Conference* emphasized four questions:

- **What is the current status of wild tigers in Asia?**
- **What are the threats to their survival?**
- **How does each tiger-range country prepare itself to secure its wild tigers over such a broad spectrum of habitats and country-specific problems?**
- **What steps are necessary to move from where each country is now to a future where the tiger will be secure beyond the next century?**

Recognized leaders in the tiger conservation community shared their experiences and offered their suggestions about what has worked and what has not worked. The agenda included a combination of keynote presentations, working group discussions on a broad range of issues, development of country-by-country action plans, and development of regional cooperative initiatives.

Opening Presentations – Call for Action

In their opening remarks to the conference, John Seidensticker and other keynote speakers summarized the major issues facing tigers in the wild. Seidensticker pointed out that the endangered tiger is an indicator of ecosystems in crisis; therefore, both the tiger's long-term future and support for sustainable ecosystems and landscapes must be addressed.

"Many of the remaining tiger habitats are also critical watershed protection areas, and the long-term sustainable management of these areas is essential for all those who live downstream," he declared. The consensus was that saving the tiger can be accomplished only through a series of partnerships and depends on the people who live with and near tigers every day.

"It is those people who pay the highest price and who must be convinced that saving the tiger is worth their while. Otherwise, wild tigers will not survive," he said.

Another keynote speaker, M. K. Ranjitsinh, head of India's World Wildlife Fund's Tiger Conservation Programme, said the five basic needs in tiger conservation are people, money, political support, prey, and living space. Of these, the most important is manpower - "dedicated, skilled men in the field who are prepared to risk all for the tiger." Political support, he said, has become another casualty of democracy. That is because statesmanship and a major commitment to nature conservation are required, and votes may have to be risked to save endangered species.

Ranjitsinh described wildlife trade as much like narcotics trade - where there is a demand, there will be a supply. No matter what is done in Asia to stop poaching, tigers will still be killed as long as there is demand for tiger parts. He appealed to the tigers' well-wishers to use their dollars to clear the streets of New York, Vancouver, Toronto, San Francisco, Taipei, and Shanghai of tiger bone "junkies," pointing out that tiger conservation in the 21st century is the responsibility of every citizen of consuming states as well as of the range states.

Alan Rabinowitz, director of Science for Asia of the US-based Wildlife Conservation Society, called for agreement that, although dealing with people and the human-dominated landscape must be a part of the overall strategy for tiger conservation, the real needs of tigers in the highest-priority areas must come first.

Major Issues and Emerging Responses in Tiger Conservation

Some of the world's leading tiger conservation experts led thematic working groups and helped highlight key problems in the areas discussed below:

Research and Monitoring

Major investments in research and management over the last quarter of a century have not been able to reverse the decline of wild tiger populations. One reason is that many research and management projects have failed to use "good" science. This has, in many cases, made it virtually impossible to evaluate the success or failure of our efforts to save the tiger. Ullas Karanth highlighted this point in his presentation, "Auditing Tiger Conservation: Can We Switch from Magic to Good Science?" Examples of science-driven tiger monitoring projects include mapping distribution and range or estimation of relative abundance of tigers and prey based on advanced techniques such as telemetry or camera-trapping. To improve the likelihood of future success, Karanth challenged everyone present—particularly the donors—to

demand scientifically valid accountability from agencies and managers involved in implementing tiger conservation efforts.

The *Research and Monitoring* working group concluded that no standardized tiger assessment methodology is in place. The group highlighted the need for each country to develop techniques that work for it and emphasized that results must be comparable from one site to another. An important step in reaching this goal would be to create a manual or handbook of procedures and to organize workshops to develop these methodologies.

It is critical that we evaluate on a regular basis the status of efforts to save the tiger. Field research, funding and landscape-level conservation efforts need to be audited and a scorecard should be kept of our progress or lack thereof, if we are to know where we are – and where we need to go – and to evaluate our efforts.



Often, the absolute numbers of tigers are not a significant issue—the general trend is more crucial. Absolute numbers may be important for allocating resources or if knowing tiger densities is necessary for management purposes. Either way, effective long-term monitoring of wild populations—and changes in their numbers—over time is needed.

Similarly, tiger density estimates in different habitats and geographic regions should be established. It is also absolutely critical to identify these same measures for the tiger's primary prey species to understand the integrity and quality of the habitat that the tiger and its prey share. The value of tiger density estimates arises from their repeatability which can indicate decline, stability or increase.

Landscape Planning and Management

At the 1997 *Tigers 2000* conference in London, Eric Dinerstein and his colleagues introduced a map of priority habitats suitable for tigers, or Tiger Conservation Units (TCUs), throughout Asia. The speakers proposed that for tigers to survive over the long term, populations of tigers and their prey must be managed at a landscape scale. Simply defined, this approach goes beyond just defining where tigers and their habitat are found; it also includes information on core areas of protection, buffer zones, dispersal corridors, and adjacent forested tracts.

At the *Year of the Tiger Conference*, Dinerstein, Eric Wikramanayake, and Arun Rijal argued that ground-truthing the boundaries of these TCUs would be a useful step to improve tiger conservation efforts—but even more important is the need to evaluate annually the status of efforts to address important conservation issues at the landscape scale. They proposed a simple scorecard to keep track of the progress—or lack of progress—of our efforts. This scorecard should include landscape-level issues (e.g., whether core areas are of adequate size, core areas are connected, or anti-poaching units are effective), management of buffer zone areas (e.g., incentive programs designed with local participation, recovery of prey populations, or local awareness of TCUs), and research and monitoring (e.g., implementation of monitoring programs designed by biologists, local capabilities for data analysis and display, and monitoring to guide decision making). The TCU approach, and a mechanism to report on progress and needs, would provide a valuable framework to guide future priorities, conservation activities, and the critical need to continually evaluate and improve our efforts to save tigers in the wild.

The **Landscape Planning and Management** working group decided to address the task of delineating problems, needs, and conservation actions related to landscape ecology by addressing these issues first with respect to core tiger areas, then with respect to buffer zones, and finally on a landscape level.

In many core tiger protected areas, important problems include poaching of tigers and their prey, human settlements, resource extraction, cultivation/encroachment, and livestock grazing. Determining the causes, and reducing the prevalence, of illegal activities is needed. Actions that could reduce these threats include stringent enforcement (e.g., anti-poaching units, information networks), education of local villagers, and economic alternatives outside core areas. Habitat enhancement needs include maintenance of a high density of prey populations. Water, fire, and grazing management options should be pursued to maintain the viability of core protected areas—especially in smaller TCUs.

Buffer zones to border many protected areas are either absent or inadequate. In areas with the potential for future expansion, the goal should be to establish and manage buffer zones and to expand existing areas, if possible. In areas with no room for buffer zones, physical barriers delineating core areas may be required. In buffer zones, over extraction of resources, immigration, and lack of legal designation demand better land use planning, management, and education. Where habitat is degraded, the potential for regeneration should be assessed. In these areas, tiger-human conflicts are a significant potential problem (addressed in the Tiger-Human Conflict working group summary).



Photo courtesy of Peter Jackson

It is clear that tiger conservation will not succeed by focusing on core protected areas alone. Tiger conservation must be viewed as a process that includes the entire landscape. Efforts must cross many spatial, temporal, political, and even economic boundaries – from forest-edge villages to urban metropolises an ocean away; from emergency responses to attacks on livestock to management practices that acknowledge the evolutionary pace of gene flow; from park rangers to state ministers; and from the poorest farmer to the richest corporations.



Finally, lack of connectivity is a critical problem facing many tiger habitat patches. This lack of connectivity will have long-term implications for genetic exchange among tiger metapopulations. Where the potential for connectivity exists, landscape-level analysis is needed, including mapping of disturbed landscapes, developing tools to analyze these landscapes, using a legal framework for administrating these areas, and building a constituency for developing landscape-level planning and management options. In cases where tiger protected areas fall across national or sub-national boundaries, transboundary cooperation is urgently needed (see the *Country and International Issues* working group summary).

A tiger on the prowl in
Ranthambore Tiger Reserve, India.

Country and International Issues

Tiger conservation will not succeed if our efforts are restricted to core protected areas. That is a point Dale Miquelle and his colleagues emphasized in their presentation, “Tiger Conservation on Unprotected Lands: Searching for the Co-existence Recipe.” Using their experiences in Russia to highlight the importance of managing tigers on unprotected lands, they explained that we need to know which actions of people negatively impact tigers and which actions of tigers negatively impact people. They challenged conference participants to seek coexistence recipes that deal with competition for prey, livestock depredation, road access, and increased economic well-being of local communities. Partnerships—those that are “true,” not just on paper—are rare but likely will be pivotal components of any far-reaching tiger conservation plans. Miquelle set the stage for the working groups by asking:

- Will tigers survive if they are dependent solely on strictly protected areas?
- Will tigers survive if additions are made to existing protected areas?
- Do we know what the primary conflicts are, and when we do, do we know how to resolve them?
- What legislation is necessary to make tiger management on unprotected lands possible, and how can different agencies and non-governmental groups work cooperatively toward a common goal?

The *Country and International Issues* working group discussed the failure of international organizations and non-tiger-range countries to protect wild tigers in range countries. It divided the problems into four categories: international agreements, international co-operation and collaboration, policy and legislation, and national and regional imperatives.

The group concluded that to save the tiger is to save an entire ecosystem. The protection of these natural habitats must be a top priority in which the involvement of local communities, national governments, and international bodies plays a vital part so that larger areas become inviolate from large-scale projects, logging and poaching, or other harmful activities.

Our goals should be to enforce existing agreements and to encourage countries that have not entered into these agreements to adopt and enforce them as soon as possible. Another problem is the lack of action on trans-frontier issues. Also, priority areas (e.g., the Sundarbans in Nepal and Valmiki in India) should be agreed upon.

A United Nations resolution to protect trans-frontier tiger habitat or the establishment of other international resolutions would be helpful. Participants called for a regular exchange, dialogue, and meetings between countries and their decision-makers regarding these issues.

At the national level, courts and judiciary systems have often failed to implement and enforce legislation. Government and the judiciary need to be educated about the importance of conservation legislation, and bottlenecks to enforcement and reform of legislation and institutions should be identified and reviewed.

Other concerns are that multilateral agencies are funding some projects, and the private sector is engaged in activities, that have adverse impacts on tiger habitats.



Action should be taken to demand that multilateral agencies stop funding damaging projects, that development agencies protect natural habitats (including tiger habitats), and that guidelines be developed to assist these agencies in making decisions that favor the tiger over simple economic expediency. The non-governmental sector can play a critical role in this process. Another point addressed is that both development agencies and multilateral agencies need to adopt ecosystem planning and management that would lead to the establishment of tiger bioregions.

Poaching within tiger-range countries and along borders is a critical problem. Enforcement and anti-poaching measures should be given high priority. To reduce poaching, governments and development agencies should emphasize funding anti-poaching teams and equipment.

Effendy Sumardja used Indonesia's experiences with the Sumatran tiger to highlight the importance of cooperation among different groups for the success of conservation efforts. In his talk, "Integrated Efforts for the Conservation of the Sumatran Tiger," he highlighted how Indonesia's work to conserve tigers both in the wild and in captive facilities has sought to develop a unified strategy for securing the tiger's future in that country. Sumardja challenged conference participants to coordinate their fund-raising and conservation efforts and encouraged open communication, transparency, and shelving of personal interests in the common endeavor to save wild tigers.

Cooperation and integration of our efforts will be required if we are to save tigers in the wild. Traditional boundaries between field conservation efforts and zoo programs, between research agencies and management agencies, and between funders and fund recipients must be broken down if we are to reverse the powerful current of declining tiger populations.



Local Issues

If not properly addressed, conflicts between tigers and people, principally over predation of livestock, will almost certainly result in the further decline of the tiger. People living near tiger habitats have used firearms, snares, poison, and traps to protect themselves, their families, and their property. Jasmi bin Abdul discussed in his paper, "The Distribution and Management of the Malayan [Indo-Chinese] Tiger *Panthera tigris corbetti* in Peninsular Malaysia," how, in his country, human-tiger conflicts and habitat loss are important factors in the study of tiger populations. Malaysia's experience with tigers provided a valuable case study to frame discussions on the role of local issues in, and their importance to, the long-term survival of tigers.

Tiger attacks on people and their livestock—and retaliation for these attacks—are just one example of conflicts between tigers and people. People killing tigers for profit or sport remain a serious concern. Based on his experiences in the Russian Far East, Steve Galster of Global Survival Network presented the important message that effective anti-poaching programs are necessary to protect tigers. He emphasized that park-based and mobile anti-poaching programs can be very effective, but that they will not succeed unless they are combined with research, conservation education, and community outreach. The reverse is also true: local conservation initiatives will fail unless anti-poaching programs are in place.

Bittu Sahgal added the sobering reminder that even if all other problems are effectively solved, habitat

The importance of local issues — the needs of people living in and near tiger habitats — cannot be overemphasized. Ultimately, it is at this level that the tiger will live or die. Whether the question is access to resources, protection from danger or property loss, or the attitudes of people toward wild and dangerous animals, local conflicts and problems must be addressed at all levels if tiger conservation efforts are to succeed.



loss to commerce will ensure the extinction of the tiger in India—and everywhere else. He proposed the establishment of Tiger (Habitat) Defense Units, the purpose of which would be to use the courts and local lobbying and networking to prevent the loss of more tiger habitats.

Tiger-Human Conflict

The *Tiger-Human Conflict* working group discussed two broad categories of problem: Tiger attacks on humans and human impact on tigers.

Tiger attacks on humans and livestock are a pressing concern in many areas. Such attacks must be prevented, or at least reduced, and responses when attacks do occur must be improved. Actions that can be taken to reduce the number of conflicts include:

- Legally defining “problem tigers” and developing methods to properly identify them.
- Identifying institutions and developing protocols and procedures to deal with tiger-human conflicts.
- Adding legal provisions and considering compensation for human or livestock losses as a strategy to reduce conflict. To prevent abuse of the system, specific procedures regulating compensation would have to be developed.
- Adding land to parks, beginning or improving buffer zone programs and establishing alternative grazing lands.
- Developing alternative fuels (biogas, solar, fuelwood plots) that remove the need for people to enter tiger areas for fuelwood.

Possibly the best way to reduce the conflicts is to separate tigers from people and their livestock. This can be done by relocating villages from core protected areas, reducing the number of livestock near tiger protected areas, and increasing the prey base where it has been depleted. Better communication, public awareness, and data about conflicts between people, their livestock, and tigers are needed. Public awareness programs and activities to enable immediate responses by authorities should be initiated.



Photo courtesy of the WCS Sumatran Tiger Project

Although tiger-human conflicts are often viewed as a problem of tigers attacking humans or livestock, the group discussed how these conflicts are also a problem of humans impacting on tigers. In some areas, such as the Russian Far East, hunting needs to be regulated and patrolling improved to control

Tiger parts illegally sold to local people in southern Sumatra, Indonesia.

the impact of hunters on tigers and their prey. To increase prey populations—critical for the needs of tigers—it will be important to involve local communities (especially hunters) in management decisions, provide incentives for hunters not to hunt, and provide better protection of tigers and their prey through anti-poaching networks.

Growing populations of humans and their livestock have resulted in reduced biomass in many protected areas, and development (e.g., of roads) has also degraded habitat. In many regions, alternative employment should be found and management practices for livestock should be improved.

Where livestock populations are high, food resources for existing tiger prey species are often depleted. In some areas, for example certain regions of India, livestock and prey should be separated so their food needs overlap only minimally. Actions that can be taken include vaccination of livestock, stall feeding (instead of grazing), adding land to core areas, reducing excess cattle populations, and in the long term, developing improved breeds of livestock.

One of the most serious threats to tigers is indiscriminate killing for profit or revenge. Education, public awareness programs, and improved patrolling in and around tiger-protected areas are crucial. Resource managers should strive for tiger habitat that is as inviolate as possible by developing and implementing plans to address these problems, including rapid response networks.

Tigers and Traditional East Asian Medicine

The illegal trade in tiger parts continues to be a major force in the decline of tiger populations across all of Asia. The international trade in tiger parts and derivatives has been prohibited by CITES since 1975, and trade in medicines containing tiger bone has been illegal in all the major consuming markets of China, Hong Kong, South Korea, and Taiwan since 1993. Nevertheless, the trade in and consumption of tiger products continue. Judy Mills and Paul But pointed out in their talk, “Taking the Tiger Out of Traditional East Asian Medicine,” that it will be necessary to enlist traditional Chinese medicine (TCM) specialists in tiger conservation by respectfully showing them why their help is essential and welcomed and to encourage the research, development, and use of viable substitutes for tiger bone medicines. They argued that laws and enforcement can not completely stop illegal trade in tiger products. Nor can substitutes be a panacea for stopping tiger poaching, though successful marketing and development of *approved* substitutes must be encouraged and supported. Using the languages of Asia in communication and outreach efforts must be a priority.

A distinction must be made between killing tigers for medicine and killing them for other reasons, such as retaliation for livestock deaths.

Endi Zhang and Dorene Bolze added that we need to ask what the driving forces are for using TCM, since different segments of the market might have different reasons. Therefore, public awareness campaigns must be designed to address a diversity of audiences. Techniques of social marketing are applicable to reduce demand for tiger parts and to build support for conserving tigers in top-priority areas.

The sale and use of tiger products for traditional medicines continues to be a driving force in the decline of tiger populations. Consumption of tiger products in countries around the world must be reduced if tiger conservation efforts are to succeed. Efforts to tackle this problem must involve traditional medical specialists as well as the people who use these products. Research, development, and sale of approved substitutes need to be encouraged. Ultimately, people's attitudes and preferences must be modified – for example by using the techniques of social marketing and through formal and informal education – if we are to make progress in reducing demand for tiger products around the world.



The *Tigers and Traditional East Asian Medicine* working group chose to call itself the “Reducing Demand for Tigers in Traditional East Asian Medicine (TEAM)” working group. Traditional East Asian Medicine is virtually the same system as Traditional Chinese Medicine, but is considered by some to be a more appropriate term, given TCM’s widespread use in countries beyond China.

The working group addressed the need to develop a reliable forensic test to identify the presence of tiger parts in TEAM. Such a test would help enforce legislation and inform consumers. Recommended actions include assembling information on current testing available and developing a cost-effective and reliable testing mechanism by the year 2000.

A goal should be to stop both trade in products purporting to contain tiger parts and the increasing availability of fake tiger bone. The group recommended:

- Prohibiting domestic trade of anything claiming to contain tiger parts.
- Strengthening the enforcement of existing laws in consumer and range states.
- Making sure that existing stockpiles aren’t going illegally into trade.
- Undertaking a multinational effort to verify the source of products on the market today and finding pirate manufacturers (this would include undercover police work).

Another goal should be to halt the sale and purchase of real tiger bones. Two immediate needs are to ascertain who is buying the bone and to get government commitment in as many countries as possible to stop the trade. Actions that should be considered include:

- Deep undercover police work in range states and consumer countries.
- Application of political pressure to implement undercover police work.
- Collaboration among interested parties, including the police, government officials, conservationists, and local citizens.
- Technical assistance and funding.

Another action would be to identify, develop, and promote good substitutes for tiger products for use in TEAM. If successful, this would eliminate the use of real tiger bone in TEAM.

Lack of awareness of the endangered status of wild tigers and of the link between buying tiger products and poaching remains a serious problem in both tiger-range states and consumer countries. Therefore, developing and implementing a public awareness campaign for specific segments of the public, including consumers, TEAM practitioners, and students is urgently needed.

Finally, the working group identified the need to combat the perception that tiger farming is the solution to meeting demand in tiger parts.

Financial Support and Networking

Ultimately, tiger conservation initiatives will fail without sufficient communication, cooperation, and funding. Bittu Sahgal in his talk, “Communicating the Tiger Crisis: In Search of National and

International Support for Tiger Conservation,” pointed out that the widely publicized image of the mighty tiger and its plight has failed to prevent the cat’s steady decline. Sahgal urged the development of better communication channels among ourselves and to the public to increase local and global awareness of the tiger’s challenges.

Everyone involved in tiger conservation knows that funding is one of the most important criteria for long-term success. Garry Jewett explained a financing mechanism to cover recurrent costs of protected areas and to support the overall goal of conserving biological diversity: a conservation trust fund. Such funds can range from local to international scales. Ultimately, these funds can help secure a sustainable source of income to pay for the day-to-day operations that will be necessary if tiger conservation in Asia is to succeed.

The *Financial Support and Networking* group discussed a range of issues related to obtaining and generating funding. For example, it is sometimes difficult to identify who the funders are. The group suggested assembling and widely distributing a comprehensive list of funders (who, what, and where), including a list of interests, restrictions, resources, and profiles. Mechanisms to accomplish this might be a Web site and/or a low-cost pamphlet outlining who funders are and how to contact them.

A network should be created among funders to coordinate support for conservation projects and to generate some cohesion among grant seekers. Eventually, a central clearinghouse of information exchange among funders and fund seekers should be established.

Many tiger conservation personnel in tiger-range countries (in governments, non-government organizations (NGOs), and other groups) need training in how to craft and sell grant proposals; how to identify who needs to be trained; how to identify who can provide training; and how to translate existing training materials into other languages. The following actions could greatly increase the capability of local groups to write proposals:

- Ask groups such as the World Wildlife Fund, the U.S. Fish and Wildlife Service, and the Save The Tiger Fund to provide training in fund raising.
- Ask those who provide grants now to include in their programs training of their local counterparts on proposal development for sustainability and local ownership.
- Have agencies like the United Nations Development Program (UNDP) fund grant-writing workshops.

Lack of focus on long-term funding for long-term solutions and lack of funding continuity and dependability are problems. Both funders and fund seekers need to continue to move toward a long-term focus that would complement existing or developed Tiger Action Plans. Actions to assist in addressing these needs include informing donors of the impacts of short-term funding (1 - 3 years) compared to longer-term opportunities. Efforts should be made to ensure continuity of existing funding programs also.

To avoid the risk of tiger conservation getting put on the “back burner,” it is important to keep the public

Tiger conservation will fail if people and projects are not funded. This meeting was the first time that the international tiger conservation community and major donors have sat together – literally in one room – to set priorities for funding and action. Various programs were discussed, from the establishment of conservation trust funds to the establishment of networks and better communication. The new energy and partnerships that were fostered at this meeting will certainly form the basis for a renewed, and stronger, push for the tiger’s survival.



and the media focus on tigers. Common goals and concerns among all parties also need to be agreed upon and prioritized. The working group suggested the following actions:

- **Assess existing action plans and get concrete budgets for them.**
- **Involve GTF and the Cat Specialist Group in this process.**
- **Have individual grant seekers explain how their project fits into overall range-country tiger action plans.**
- **Launch community-based programs to address any immediate negative impacts of conservation on local people.**

In some cases, funding and equipment either do not arrive or are delayed and can delay field operations. Tiger range states should guarantee that they will waive or ease tariffs on and barriers to equipment and supplies for tiger conservation activities. They should also seek to improve the flow of funds from donors to those receiving the funds. Actions to address these problems could include obtaining the approval and the active backing of the GTF, UNEP, IUCN, and other international organizations for projects in problem areas.

Conference Conclusions

The 1998 Year of the Tiger Conference was a watershed event that brought together more than 140 of the world's foremost experts on tiger conservation from 18 countries to develop plans to secure a future for the world's remaining wild tigers. Participants recognized as an important element in tiger conservation a new generation of programs that are designed to benefit both wildlife and people by providing individuals living near habitats with a vested interest in saving tigers. For example, experts are working on adding one million hectares of tiger habitat to existing protected areas in the Russian Far East by changing existing land management practices to include a strong Siberian tiger conservation component.

We have seen a joining together of people in partnerships that can make a difference in securing a future for tigers.



Lines of communication were opened for securing important—and limited—tiger-range areas that span international borders. Countries agreed to open communications across borders because many important tiger areas are located on trans-boundary areas. Innovative partnerships that bring together small agencies with larger, more traditional conservation organizations were recommended.

Participants agreed that field projects should collaborate to save tigers instead of competing for regional funds. Conservationists agreed on the importance of moving beyond one-time grants towards more sustainable funding options in support of tigers.

For example, funding mechanisms were recommended to support recurring costs such as funding of anti-poaching activities, replacing lost livestock, and maintaining park staffs.

Funding alone is not enough to save the tiger. If we are to make progress in slowing—or perhaps even reversing—the decline of wild tiger populations throughout Asia, tiger conservation stakeholders must work together to invest the funding “pie” intelligently and transparently. Research, monitoring, management, and protection must be based on good science, a long-term vision, and better coordination inter- and intranationally, and within a framework where scientific audits demand accountability—not based on political correctness, donor-driven priorities, or personal agendas.

In his concluding remarks, John Seidensticker summed up what had emerged from the deliberations:

- We have a common understanding of what is required for securing a future for wild tigers. We want to move from a reactive phase in our efforts to save the tiger to securing the future through a more purposive and sustainable approach.
- We worked hard at defining problems and sought ways to handle the flow of information. We deliberately sought divergent views and ways to identify new choices for people who will affect the tiger's future. We worked at bringing forward new ideas so that they can become institutionalized in organizations and in tiger conservation practices.
- We sought ways to secure sustainable futures for key tiger habitats – and we heard many good examples of how to do this. We sought ways to restore and maintain essential connections of landscapes or corridors that can ensure the persistence of wild tigers. We especially sought to encourage trans-frontier conservation efforts.
- We sought sustainable ways to stop the steep decline in tiger numbers through poaching and killing. These methods range from controlling trade and designing effective anti-poaching strategies to reducing the demand for tiger parts. In this, we have worked to encourage cross-discipline understanding.

Seidensticker said that he believes the attendees share the objective of placing people and money in projects that will result in securing a future for tigers. "At the end of the day, however, I believe that it is our attitude toward and with each other that will make the difference for tigers. I believe this is the key to taking the tiger through the next millennium for our children and for our children's children," he declared.

Increased funding, new projects, and global recognition of the tiger's plight, one of the most recognized conservation problems in the world, have nevertheless failed to halt this magnificent animal's steady decline. Three of the world's original eight subspecies are already extinct. None of the remaining five is guaranteed a future in the wild forests of Asia. What are we to do?

Many new ideas were proposed, from the development of local Tiger (Habitat) Defense Units comprised of local groups whose sole purpose would be to use the courts as well as lobbying and networking to prevent the loss of tiger habitats, to international audits of research and conservation efforts, to the development of trust funds to pay for these efforts.

In the end, communication and networking among individuals, groups, and governments is necessary to coordinate these efforts and to continue to reflect on what has worked, what hasn't worked, and how to improve the odds that tigers will remain in the forests long after we have passed this battle on to the next generation. It was almost universally agreed that we are far from being able to claim success. However, there was also growing excitement that our collective efforts are starting to pay dividends and that we can confidently say there is hope—given sufficient energy, participation, good science, cooperation, funding, and the growing support of as many people as possible from Sumatra's farmers to the West's economic elite—of securing the tiger's future in the forests of Asia.

Epilogue

As this Executive Summary goes to press two years after the *Year of the Tiger Conference* was convened, the challenge of securing a future for the world's wild tigers remains as daunting as ever. But as John Seidensticker, Chairman of the Save The Tiger Fund, observed, "The messages here are just as important today, or perhaps more so."

Two years after this historic conference, many recommendations made by the conference participants are being implemented. One notable example includes United States legislation making products claiming to contain tiger derivatives illegal. Another is the significant trans-border cooperation among tiger conservation agencies in India

and Nepal, something that started, in many ways, at the conference. Third, the Wildlife Conservation Society (WCS) held a workshop in September, 1999, "Tigers in the 21st Century," sponsored by the Save The Tiger Fund that was attended by 35 experts.

Since that workshop, WCS and WildAID have moved forward on implementing collaborative programs in Thailand and Cambodia, and WWF and WCS are working together to develop a "tiger scorecard" to assess and evaluate the effectiveness of tiger conservation programs and the conservation status of tigers throughout their range.



Photo courtesy of Dr. Heck, Berlin Zoo

One of the last Caspian tigers (*Panthera tigris virgata*) in captivity, taken in 1899 at the Berlin Zoo.

These are just several of the many examples of real progress that are being made to save the world's last wild tigers. Since its launch in the Fall of 1995, the Save The Tiger Fund has donated more than \$7.3 million to support more than 110 projects in India, Nepal, Bhutan, Myanmar, Thailand, Cambodia, Malaysia, Indonesia, China, Russia, Europe and North America. Additional examples and updated information is available online at www.5tigers.org.

Conference Sponsors

The Year of the Tiger Conference was sponsored by the Save The Tiger Fund, a special project of the National Fish and Wildlife Foundation in partnership with ExxonMobil. The Save The Tiger Fund is an international effort to save Asia's remaining populations of wild tigers.

"Helping to preserve the tiger is very important to ExxonMobil," said Edward F. Ahnert, president of the ExxonMobil Education Foundation, noting that the tiger has been Exxon's symbol for almost 100 years. Mobil's symbol is Pegasus, which will continue to be used. "The Year of the Tiger Conference has

advanced the considerable efforts of conservationists working to save the tiger. ExxonMobil is very pleased with the results of the conference and the efforts of the participants."

Important strides in tiger conservation were made during the conference, culminating in an

announcement by Lee Raymond, ExxonMobil chairman and CEO, that to recognize the Year of the Tiger, ExxonMobil



ExxonMobil

would contribute an additional \$1 million to tiger conservation efforts.

In 1995, ExxonMobil committed \$5 million to tiger conservation over five years. The centerpiece of that commitment is the Save The Tiger Fund.

As a direct result of the Save The Tiger Fund's support, international conservation efforts have been significantly enhanced to save the tiger in the wild. The Fund supports habitat conservation, community conservation, anti-poaching, field research, capacity development, and conservation education projects across the tiger's range. The Fund also provides a vehicle

for public donations to support international tiger-related projects.

In addition to committing the additional funding of \$1 million to tiger conservation, Raymond announced that ExxonMobil and the Save The Tiger Fund would sponsor a wide range of activities throughout the rest of 1998, the Year of the Tiger. The intent was to make the public more aware of the plight of tigers. In 1999, ExxonMobil pledged an additional \$3 million to tiger conservation, for a total of \$9 million over eight years.

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Conference Presentations

- **Opening Remarks** *Lee R. Raymond*
- **From Tigers: 2000 to The Year of the Tiger Conference and Securing the Future for Wild Tigers** *John Seidensticker*
- **A Critique of Tiger Conservation in Asia** *M.K. Ranjitsinh*
- **The Current State of Tiger Conservation - Where Are We Now?** *Alan Rabinowitz*
- **Conservation of the Amur Tiger** *Gennady Kolonin*
- **Strategy for Conservation of the Amur Tiger in Khabarovsk Krai** *V.G. Kruckov and Y.M. Dunishenko*
- **Conservation Issues of Amur Tiger Population in Primorsky Region** *Eugen Stomatyuk*
- **The Indonesian Sumatran Tiger Conservation Strategy** *Ir. Soemarsono*
- **Status of Tigers in China and Their Conservation Strategies** *Wang Wei*
- **Auditing Tiger Conservation: Can We Switch from Magic to Science?** *K. Ullas Karanth*
- **Tiger Conservation on Unprotected Lands: Seaching for the Coexistence Recipe** *Dale G. Miquelle, Evgeny N. Smirnov, Vladimir V. Aramelev, Yuri M. Dunishenko, Linda Kerley, John Goodrich, Dmitry G. Pikunov, Troy Merrill, and Howard Quigley*
- **The Distribution and Management of the Malayan Tiger *Panthera tigris corbettii* in Peninsular Malaysia** *Jasmi bin Abdul*
- **Taking the Tiger Out of Traditional East Asian Medicine** *Judy Mills and Paul But*
- **Targeting Consumer Groups and Eliminating the Use of Tiger-Based Products in China** *Endi Zhang and Dorene Bolze*
- **Global Survival Network** *Steven Galster*
- **Integrated Efforts for the Conservation of the Sumatran Tiger** *Effendy Sumardja*
- **Communicating the Tiger Crisis: In Search of National and International Support for Tiger Conservation and Tiger (Habitat) Defense Units: Even If We Win the Poaching Battle We Could Lose the Tiger War** *Bittu Sahgal*
- **Conservation Trust Funds** *Garry Jewett*
- **Address to Year of the Tiger Conference** *David H. Schmalz*
- **Closing Remarks** *John Seidensticker*

Working Group Reports

- Research and Monitoring Summary
- Landscape Planning and Management Summary
- Country and International Issues Summary
- Indonesian Working Group Summary
- Local Issues Summary
- Tiger-Human Conflict Summary
- Tigers and Traditional East Asian Medicine Summary
- Financial Support and Networking Summary

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