SECTION 1

Introducing the Tourism–Conservation–Research Strategic Alliance

Dr. Ceferino Sanchez, National Secretary for Science, Technology and Innovation, acted as Conference Chair during the first day of the conference. Opening day keynote presentations on the TCR concept applied in Panama emphasized the concept's applicability and capacity to boost the quality of tourism via cross-sectoral partnerships that involve members of the scientific and conservation communities as well as hotel developers, managers, and corporate leaders. These presentations (PART A) included welcoming remarks by Panama's President, Dr. Ernesto Perez Balladares, as well as keynote speeches by Cesar Tribaldos, General Manager of the Panama Tourism Bureau (IPAT); Dr. Hana Ayala, originator of the TCR concept and consultant to the government of Panama; Dr. Richard Nicholson, Executive Officer of AAAS and Publisher of *Science*; world renowned architect Frank Gehry; Dr. Ira Rubinoff, Director of the Smithsonian Tropical Research Institute; and Dr. Jorge Arosemena, Executive Director of the City of Knowledge Foundation. Following these keynote presentations, the concept of the TCR heritage routes, a package of several thematic routes that comprise the core of Panama's heritage tourism product, was illustrated through a multi-media presentation (PART B). At the end of the first day, the potential of the TCR teamwork among government sectors and in the context of public-private partnerships was further underscored through the presentation of a pilot portfolio of hotel projects that have embraced the TCR platform in its business value (PART C). Finally, the Panamanian government's commitment was explicitly demonstrated by the presentation of Executive Decree No. 327, which officially created the TCR Strategic Alliance Committee (PART D).

PART A

KEYNOTE SPEECHES

HIS EXCELLENCY ERNESTO PEREZ BALLADARES

President of the Republic of Panama

Si la expresión optimista y constructiva "abrir perspectivas, encontrar soluciones" tiene razones poderosas, la Conferencia Internacional Turismo Patrimonial para el Próximo Milenio y el Simposio Internacional simultáneo que ustedes desarrollarán durante estos tres días, es una plasmación de horizontes y retos de primer orden, que mucho me complace inaugurar y felicitar.

Este evento, sostenido por una fuerte base de pensamiento y de análisis, se constituirá, con el tiempo, en un suceso y en una referencia al salto geométrico del turismo en Panamá, fundamentalmente por el enfoque, por los objetivos y la reingeniería de la concepción estratégica de abordar esas perspectivas y nuevos rumbos.

Quiero dar la bienvenida a todos los participantes internacionales y saludar a los especialistas y líderes nacionales del sector. Muy especialmente al Dr. Theodore Panayotou del Instituto Harvard para el Desarrollo Internacional y a la Dra. Hana Ayala, Presidente de Eco-Resorts Internacional y Consejera Internacional de nuestro gobierno para el Plan de Acción Turismo-Conservación-Investigación Científica, quienes presiden la Conferencia y el Simposio.

Digo que es un salto geométrico de la concepción porque se trata de encaminar y conectar un desarrollo del sector turismo en Panamá en concordancia con las nuevas realidades, tendencias mundiales y expectativas del mercado turístico internacional.

El corazón de este enfoque es una oferta científicamente demostrada y que Panamá va a llevar a la práctica, como uno de los primeros países, sino el primero, en forjar la Alianza Estratégica de Turismo-Conservación-Ciencia, que dará por resultado un universo muy rico y beneficioso de ofertas al visitante y el sector pasará definitivamente a ser uno de los principales motores de desarrollo nacional.

Entusiasma sobremanera que este camino se abra para Panamá y que la enorme potencialidad de sus recursos patrimoniales, tanto naturales, como culturales, ocupen el valor que siempre han merecido y sea este lugar privilegiado del planeta, un destino del atractivo y del deseo del movimiento humano en general.

El Plan de Acción, ya conocido entre nosotros como Plan de Acción TCI para Panamá, puesto en marcha y como está diseñado por los especialistas, es una puerta que abrirá entre nosotros una dinámica de muy importantes alcances.

No sólo porque apunta a colocar a la industria turística en el lugar clave, que ya sería un logro suficiente, sino porque las febriles iniciativas que de allí van a derivarse, arrojarán otros resultados de alta significación: Nuestra condición como país, descrita con certeza como Puente del Mundo,

nuestros fundamentos históricos, nuestras riquezas naturales y valores culturales, se integrarán en armonía con las ciencias, con la investigación y con la protección y conservación ambiental, como políticas estatales de impulso a todo el sector turístico.

Hay que imaginarlo un instante: aquí estamos a la puerta de desatar una perspectiva, es cierto, pero de una poderoza fuerza económica, donde intereses empresariales y de la Nación concurren positivamente al escenario del desarrollo y a la elevación de la Nación panameña. Ello significa crecimiento nacional, nuevas fuentes de empleo, rescate patrimonial, aseguramiento de nuestro habitat, reconocimiento del mundo de nuestras expresiones artísticas hasta los productos culturales legítimamente ubicados en el comercio y el mercado turístico, desde nuevas inversiones internacionales, hasta la valoración de nuestras etnias, su integración deseable y con respecto a sus esencias culturales dentro de la totalidad nacional que somos.

Por ello, abrir perspectivas va a ser una realidad con fundamentos sólidos.

Este Congreso tiene esa riqueza en los enfoques y en la práctica de poner en marcha estas ideas y aciertos.

Mis felicitaciones a todos ustedes; tengo la certeza de los estupendos resultados que aquí van a producirse.

Como Presidente de la República, les doy las gracias por poner sus talentos y entusiasmo al servicio de estos horizontes promisorios, factibles y que Panamá va a lograr concretarlos.

CESAR TRIBALDOS

General Manager, Panama Tourism Bureau

(Presentation at the conference was given in Spanish)

It is a great honor and real pleasure to welcome you on behalf of the Instituto Panameño de Turismo or Panama Tourism Bureau.

This keynote speech gives me the unique opportunity to share with you some basic information about tourism in Panama. I will also go over some of the actions and programs that we are implementing in order to make our country a preferred tourist destination, not only because of the Canal, but also because of its cultural, historical and natural attractions.

As you well know, Panama is considered by many as a key country within the region, because of its geographic and political strategic location.

Approximately three and a half million years ago, this continent was divided by the Northern and Southern Hemispheres. Then, from the depths of the oceans emerged the Isthmus of Panama, a land of singular appearance that formed a natural biological bridge between the Americas.

Because of its "S" type shape, the Isthmus of Panama has some geographic and natural phenomena that amazes the most devoted observer. For example, in Panama, the sun rises in the Pacific and sets in the Atlantic, and the city of Panama is located south of the city of Caracas.

Archeological evidence reveals intriguing tracks of Panama's role as part of a significant commercial route between North and South America. There is firm indication that thousands of years ago, the New World's first colonist must have crossed over an "iced bridge" between Siberia and Alaska, in their way to the Southern lands of this continent, via the Isthmus, creating different cultures.

The discovery of the Pacific Ocean by Vasco Nuñez de Balboa from the coasts of Panama created a new East-West maritime route through Panama, and made possible the conquest and colonization of Central and South America.

By the end of the eighteenth century, Panama was recognized as the center of the world commerce and trade, on account of the famous fairs of Portobelo.

Historians have estimated that between the sixteenth and the seventeenth centuries, more than half of the gold and silver sent to Europe by the Spaniards made its transit through Panama.

In 1849, with the discovery of gold in California, Panama played an important role again, due to the needs of the people from the East Coast of the United States to move into the West coast, in search for the gold mines. This "gold rush" originated a demanding market that made possible the construction of the Panama railroad, the first locomotive in America that connected the Caribbean-Atlantic and the Pacific coasts.

Later on, in 1876 and under the supervision of Ferdinand de Lesseps, France started to build a canal through the isthmus. The failure of this project brought the attention of the United States, which in 1903 acquired the rights and responsibility to build the canal. After solving incredible problems of construction, sanitation and logistics, the canal was successfully completed on August 15, 1914, when it was finally opened for the use and benefit of world commerce.

Although for years since it was built, the Panama Canal has been the most popular target and attraction for international travelers, few investors or tourists have really been aware of the country's natural beauty and its great potential for tourism development. Thousands of cruise passengers and business travelers have passed through Panama City and the Canal each year, but ironically, never experienced what lies just beyond their business hotel or the historic waterway. This is a country packed with unique ecological treasures, a great historic and colonial heritage, plus a multiracial culture that includes people of European, Chinese, Hebrew, and Afro-Caribbean origin and seven different ethnic cultures among the native groups.

This "bridge of the Americas" is a natural habitat for thousands of birds on their North-South migratory flights, making it possible for the Audubon Society to report in Panama world records in bird observation, with counts of over 400 species in one single day.

Just 45 minutes from the city of Panama, you can get to Barro Colorado Island and visit its world famous research site for tropical research, managed by the Smithsonian Institute. There you will be able to appreciate the sights and sounds of the rainforest, see the tucan, howler monkey, green iguana, porcupine, capuchin monkey, white tail deer, large crocodile, and thousands of other bird and mammal species. Nature has also blessed Panama with 1,200 species of orchids, 1,500 species of butterflies, more than 1,500 species of trees, and over 10,000 species of medicinal and vascular plants.

Panama has more than 1,000 islands, almost 3,000 kilometers of coast, and thousands of acres of unique coral reefs in the Caribbean and the Pacific coasts. More than 143 world records of sport fishing have been broken here.

All of these tourist attractions, and much more, can be enjoyed in less than one-hour distance.

More than 25 percent of our territory pertains to the national protected areas system, composed of 48 protected areas, including 14 national parks, two heritage sites, one biosphere reserve, five marine parks, and forest areas bordering each frontier.

More than 50 percent of the Panamanian territory is forested, and its tropical rainforests have been set aside for national parks and wildlife refuges, making the country a world leader in protecting indigenous species in their natural habitat.

Panama has such an exceptional geographic position, that in less than 3 hours you can be within reach of important markets, of more than 300 million people.

The priority for Panama's tourism policy has been oriented specifically to achieve a better advantage of what has been the main tourist product of the country—the shopping and business travelers- which have represented during the last decades almost 70 percent of the international visitors to our country.

The tourism sector of Panama has been characterized for maintaining a significant growth during the present decade, equivalent to 12 percent average annual growth. During 1997, a total of 517,000 visitors arrived to Panama. Therefore, it is expected that by the year 2000 we can easily reach the figure of 600,000 visitors.

Currently, tourism occupies the third place in the economy of the country, after the exports caused by the services of the Panama Canal, and the income received from the business transactions made at Colon Free Zone.

Based on current conditions, it is estimated that if this 12 percent growth is sustained over the year 2000, tourism can step ahead and become the second source of foreign reserves for the Republic of Panama.

The tourism master plan of 1993, the Strategic Alliance for the development of tourism in Panama, and the approval and implementation of several fiscal incentive laws, such as Law 8 (1994) and Law 9 (1997) for the rehabilitation of the historical area of Panama City known as "Casco Antiguo", have all favored the execution of tourist projects. These laws have also favored the construction of new hotels in the city of Panama, such as the Miramar Intercontinental, Radisson, Country Inn, Bristol, and Marriott.

In addition, other investments made by existing hotels to rebuild and upgrade their installations for a better service, as well as the construction of other new hotels in different areas of the country, were all favored by Law 8.

Currently, there are some important tourist-related and hotel projects under construction in the areas of Colón, Gatún and Amador, that will increase the offer of rooms for the year 2000 by about 3,000 additional rooms, with an investment cost of over $500 million.

The new global economic order demands a series of actions to be taken in order to promote our natural, historical and cultural heritage among the tourists of the world. With the financial cooperation of the Inter-American Development Bank, an strategic study of marketing, planning and communication will be completed that will permit the prioritization of the objective markets that will constitute the main source of attention on which the efforts and the international promotion campaigns will concentrate.

Under a new scheme of patronage for the protection and conservation of its resources, Panama has come forward and is ready to initiate a new and exciting project of quality ecotourism, oriented towards conservation and scientific research.

This project, called the Action Plan for the Development of Tourism-Conservation-Research (TCR), will place our country in a privileged position to enter into the next century with a unique tourist product, which integrates tourism, conservation and research as an important catalyst for the welfare of Panama.

This conference will integrate the high profile of the Canal transfer from the United States Government to Panama with the high profile transformation of Panama into a model of heritage destination that will make conservation leadership and advancement of knowledge the hallmarks of its largest industry to be.

Our objective is to turn Panama into a leading tourism destination and a model of heritage conservation for the twenty-first century. We plan to become part of the critical mass of professionals, investors, researchers, educators and communities that are seeking to create the synergy of real examples for a more sustainable world.

Welcome to Panama, land of great heritage, splendor and business opportunities.

A BRIDGE TO THE MILLENNIUM: THE IDEAL AND THE PROMISE OF A HERITAGE-DRIVEN ECONOMY

Dr. Hana Ayala

I am deeply honored to take the floor following this very special inaugural ceremony. It fills me with gratitude to have heard the support that His Excellency Ernesto Perez Balladares, President of the Republic of Panama, has given to a daring vision for transforming the ideal of sustainable development into a tangible economic paradigm in a most symbolic setting of the "bridge of the world."

As Napoleon put it, *riches do not consist in the possession of treasures, but in the use made of them.* We are meeting in a country that in the uniqueness, importance, and beauty of its natural and cultural endowment represents a rare treasure trove. Yet, the potential of this bounty to yield riches for the nation is currently almost entirely untapped.

The roots of Panama's dormant wealth go back in time. Some three million years ago, the rise of the Isthmus of Panama completed a land bridge between the two Americas, splitting apart the Atlantic and Pacific oceans. What followed this milestone geological event has been nothing short of an evolutionary spectacle. The Isthmus of Panama has become a migration route along which the species of two distinct worlds have intermingled—producing an extraordinary biodiversity. In the number of species of flowering plants, Panama compares to all of Europe; it has more species of insects, reptiles, birds, and mammals than Canada and the United States combined. From the rainforest-clad Darien National Park to the Amistad International Park, an intricate mosaic of landscapes of striking beauty and diversity mirrors the geological, evolutionary, and ecological complexity of Panama. The country's cultural heritage is equally remarkable. The Isthmus and Panama's almost 800 islands have been traveled, settled, and endowed with a rich cultural legacy by a number of distinctive ethnic groups. At the time of the Spanish conquest, this bridge between the two continents was transformed into the true bridge of the world, when Balboa's discovery of the Pacific Ocean in the early 16th century enabled the unification of the world's geography and history.

Less than a century ago, the Panama Canal—the "eighth wonder of the world"—spanned the Isthmus from the Atlantic to the Pacific. Scheduled to be reflagged to Panama on December 31, 1999, this engineering marvel is focussing global attention on the adjacent rainforests. These rainforests are the source of the water in the Canal, which, in turn, yields Panama's riches. Nowhere in the world is the momentum greater than in Panama for proving that the priceless resources provided by ecological systems deserve equal rank with the market forces that govern production, investment, and trade. And nowhere is the opportunity more spectacular than in Panama for

engaging the world's largest industry, the tourism and hotel industry, with this exercise of upgrading conservation to the economic imperative of the 21st century.

I am talking now about hard-nosed economics. Panama has embarked on developing tourism into its largest industry. This enterprise comes at a time when international leisure tourism is undergoing profound transformation—towards SUN PLUS. The *Plus*, which stands for the quality of a destination's natural and cultural attractions and the quality of the experience of these heritage attractions, is becoming the engine that drives international leisure travel and defines the competitive strength of the tourism offer. The multi-country initiatives of the Silk Road and the Maya World offer high-profile testimonies to the Sun Plus paradigm. These and other similar initiatives are redefining tourism products of entire regions around powerful heritage themes that no competitor can replicate. Amanresorts are the front runners in the hotel industry's endeavor to channel a destination's heritage into a unique image that is immune to imitation. The resort concept is at a crossroads: ecoresort is the new platform on which the resort hotel industry readies to enter the new century.

This SUN PLUS megatrend poses some serious challenges to the industry's control over product quality and investment security. Firstly, the tourism and hotel industry now has very little control over protection of the heritage attractions that have become the cornerstone of its products. That would change dramatically if the industry gained access to heritage resources endowed with conservation guarantees, and if it had the opportunity actively to fund these guarantees.

Secondly, the key business tasks of diversification and upgrading of the leisure tourism product are increasingly carried out at the level of diversification and upgrading of the experience of nature and culture. That confronts the industry with a great need for knowledge about the destination's heritage resources. However, generating such knowledge is not within the expertise of the tourism and hotel industry per se. Consequently, an option to enter into partnerships that would guarantee the industry access to existing knowledge and to future discoveries about the prospective attractions would be nothing short of a major economic incentive. There clearly exists a novel economic opportunity for transforming the world's number one industry into a major benefactor of both revitalization of traditional knowledge and advancement of modern research. What is most intriguing about this opportunity is that the value of knowledge that will boost the quality of heritage-centered tourism extends to agriculture, education, health, and other sectors of the host countries' economies.

Thirdly, relationships that exist among heritage attractions are a grossly under-appreciated component of the tourist value of these attractions. We have the opportunity in waiting to master plan tourism industries around prominent historical, ecological, cultural, and other linkages that tie together multiple heritage attractions across countries and regions. These ties will give each development the highly marketable advantage of being part of heritage themes that are unique to the destination. The Spanish parador network embodies this little appreciated concept for dramatically augmenting the drawing power and the economic impact of the tourism product. These historical monuments-turned hotels captivate tourists through fascinating stories of civilizations, religions, and arts that cannot be accessed during a stay at only one hotel, while spreading tourism-generated benefits throughout the country.

The SUN PLUS megatrend opens enormous opportunities for enhancing the quality, competitiveness and lasting appeal of the tourism products, and for hugely increasing the national and regional benefits of the tourism and hotel industries.

The Action Plan for the Development of the Tourism-Conservation-Research Strategic Alliance (TCR Action Plan), which I am honored to carry out for Panama and with Panama, targets these opportunities. It will forge the first national partnership among tourism, conservation, and research on the denominator of **value-added heritage resources** (i.e., resources endowed with conservation guarantees and access to research, and linked to heritage themes). The *TCR Action Plan* aspires to distinguish Panama as the first country that not only brings tourism, conservation, and research into a mutually reinforcing relationship, but also transforms that alliance into a catalyst for the national economy. As we wish to share with pride and excitement at this Conference, Panama is well positioned to set international precedents on multiple fronts.

Central to this daring effort is a themed valuation of the country's natural and cultural wealth via a network of **heritage routes**. As an unparalleled living laboratory of evolution, Panama has become legendary in the academic world, thanks to the edge-cutting research of the Smithsonian Tropical Research Institute (STRI) based in Panama. I am most grateful to STRI's Director, Dr. Ira Rubinoff, and many others among the Institute's scientists and staff. They have lent tremendous support to my vision of transforming the extraordinary web of geological, ecological, and cultural themes that pervade this living laboratory into the foundation on which to build the flagship TCR partnership. I am equally grateful to a renowned cultural expert, Dr. Omar Jaen Suarez of Panama's Interoceanic Region Authority, for charging this foundation with the hope of reviving Panama's rich legacy of cultural routes that gave rise to the nation's identity as the crossroads of the world. My thanks also go to the United Nations Development Program for supporting this groundbreaking teamwork.

I wish to offer a brief preview of this afternoon's premiere of a themed tribute to Panama's extraordinary patrimony. The remains of Panama La Vieja (The Old Panama) enjoy the unique legacy of being the first Spanish city founded on the Pacific shore of the Americas. Yet this potential treasure of Panama's largest industry-to-be stands unprotected and unprepared to pass its priceless legacy on to the modern world. The fort of Portobelo, which shares UNESCO's World Heritage recognition with the fort of San Lorenzo, echoes, on the Atlantic, the untapped potential of Panama La Vieja. A considerable investment will have to be at both sites if long-term protection of these jewels through quality tourism is to materialize. However, the rewards awaiting the investors will go beyond the rescue of two singular sites to the resuscitation of two landmarks of the legendary trans-Isthmian route—the *Camino Real.* Through the Camino Real the gold and other riches of the Inca Empire moved from South America across the isthmus on their way to Spain, contributing to the emergence of modern Europe.

The archipelago of Bocas del Toro has all the attributes necessary for being an "island paradise" and for competing with countless other island paradises that subscribe to that formula. Or, it could opt to become one-of-a-kind. It can take the visitor on a mind-boggling journey millions of years back in time, without denying the traveler the pleasures of a beautiful island setting. Sediments saturated with preserved marine faunas, dramatic coastal exposures, and many other fas-

cinating testimonies found in this archipelago offer the most complete history of the evolution of tropical life in the sea over the last 20 million years. As a sun-plus destination, Bocas del Toro could also be the terminus of a trans-Isthmian route, which spectacularly reveals the geological history and life zones from the Pacific to the Atlantic. Again, considerable investment is needed to develop the interpretive, accommodation, and other infrastructures that can transform these heritage treasures into a source of riches for the present and future generations. But the stakes are very high. It is nothing less than a value-added heritage product that is immune to competition, shares in the prestige of the Smithsonian, and is designed to keep appreciating in value.

Argentina, Bolivia, Brazil, Colombia, Ecuador, Chile, Paraguay, Uruguay and Venezuela have just joined the ever greater number of countries and regions that are devising multi-destination routes as new tools of tourism marketing. The originality of Panama's network of heritage routes is in that this network is not conceived as a marketing scheme, although it provides the overall framework for promoting Panama's leisure tourism product. Panama's route network is being fashioned as a blueprint for developing a highly competitive and sustainable tourism industry that systematically gains strength by aligning conservation and research priorities with tourism investment opportunities. The viability of this blueprint stems from its capacity to ensure that each new tourism investment heightens the returns on the existing investments for both the investors and the destination.

Panama has a unique competitive advantage in having yet to develop the bulk of its infrastructure for leisure tourism. It has the luxury of pro-actively addressing, across the entire nation, the ongoing merger of international leisure tourism and international ecotourism through planning and design. And now, Panama has the thrilling chance to capitalize on the genius of architect Frank Gehry, a man whose recent creation, the Guggenheim Museum in Bilbao, has been dubbed the architectural masterpiece of the 20th century. I am most grateful to architect Gehry for the interest and support he has given the TCR Action Plan, for delivering a keynote address, and for assembling and bringing to Panama an outstanding team of architects from Europe and the United States to help Panama make history. I wish to thank also the Interoceanic Region Authority for sponsoring this group's visit. About a month ago, I was honored by an invitation from the National Public Radio to give an interview together with Mr. Gehry. When asked by David D'Arcy, who is with us today, whether there is any great ecotourism architecture, I replied no, without hesitation. Then I added for clarity: yes, there are some examples of good architecture, but there is nothing in the league of greatness, excellence, and economic impact as defined by the works of Frank Gehry. I very much hope that we will launch the prototype in the arena of heritage tourism here in Panama.

That brings me to the infrastructural blueprint that is being advanced by the *TCR Action Plan*. Key to this blueprint are the original concepts of **TCR Staging Areas** & **TCR Benefit Zones**.

- The concept of staging areas replaces, in the tourism context, the traditional concept of development sites. It **complements** the requirement that a tourism or hotel project respects the site's carrying capacity and meets the environmental impact assessment by the requirement that the project also mediates a quality experience of the destination's nature and culture. An important criterion in pinpointing the staging areas will be the opportunities these areas offer

for interpretive exploration of one or more heritage routes. This approach aims at enhancing the effectiveness of planning, design, and management in making the visitor's exposure to the destination's heritage enjoyable, enriching, and beneficial to the destination.

- The benefits expected from leisure tourism catalyzed by staging areas are encompassed by the concept of benefit zones. The *TCR Action Plan* introduces three principal benefit zones (which are not exclusively spatial concepts):
  (a) The **Conservation Benefit Zone** will reflect the benefits of conservation sponsorship by tourism and hotel projects. The target is to set an international precedent in Panama by making patronage of Panama's heritage treasures a hallmark of the country's entire leisure tourism industry. The aspiration is to fashion the eminently marketable conservation sponsorship into an economic force that both drives and protects investment in Panama's leisure tourism. The heritage route network lends support to this aspiration, as a tool for systematically spreading the benefits of conservation sponsorship beyond the areas of tourist visitation, especially to ecologically fragile or culturally sensitive areas. The novel concept of the conservation benefit zone is energized by recent agreements signed between UNESCO and the World Tourism Organization (WTO), and by a "historical" agreement between UNESCO and the International Hotel and Restaurant Association, which calls on hotels around the world to become sponsors of heritage site safeguards. We are honored, at this Conference, by high-level representation of these three international organizations. Mr. Augusto Huescar is the regional representative for the Americas of the World Tourism Organization; Mr. Guillermo Rocha is the Director for Latin American Affairs of the International Hotel and Restaurant Association; and Mr. Alejandro Alfonso is UNESCO's Regional Adviser for Communication in Latin America and the Caribbean.
  (b) The **Knowledge Benefit Zone** will encompass the industry-sponsored advancement of research on the destination's nature and culture and revitalization of traditional knowledge. It will also include scholarships funded by the industry. The ambition is to distinguish Panama as the first country to prioritize excellence of experience-management in developing its leisure tourism. A goal is to transform the groundbreaking discoveries made by the Smithsonian Tropical Research Institute about the diversity and complexity of Panama's ecosystems into the never-the-same and impossible-to-imitate qualities of Panama's heritage product. We will strive to set a new standard of excellence for exploratory travel that fosters knowledge and fortifies conservation, as promoted by the National Geographic. I am delighted that Mr. Simons of the National Geographic Magazine has been able to join us for this landmark Conference.
  (c) The **Resource-Management Benefit Zone** will comprise employment opportunities for local communities in sustainable resource management. These opportunities will be generated and funded by the tourism and hotel projects

> located in the staging areas. The premise is straightforward. It is a business imperative that conservation and resource management engage and benefit the local communities—as an economic alternative to logging, to the harvest of endangered species, and to other unsustainable activities that are often driven by pressing social needs. Only if sustainable resource management is brought into the context of the tourism and hotel industry as a financial incentive and an employment opportunity will this industry deliver on its tremendous potential to become the engine of national and regional economies.

The *TCR Action Plan* is pro-active. Its central premise is to make the conservation, knowledge, and resource-management benefit zones an integral part of introducing a staging area to the market. The idea is to equip each staging area with a "menu" of sponsorship opportunities that will be defined through the expertise of the conservation and research sectors and with advice from the grassroots organizations. Backing this idea will be a new incentive scheme. The centerpiece of this scheme is the access the tourism and hotel industry will gain to partnerships that could guard the quality of leisure tourism products at the time when the industry's chief selling point is decidedly shifting beyond the hotel sites. This approach goes further than any existing approach in the assurances of product quality and investment security it offers to the investor, developer, or manager who seeks to channel the intrigue of the destination's nature and culture into the competitive strength of the tourism product. This approach also pinpoints a huge untapped reserve of tourism's excellence and multisectoral benefit, namely, experience-management.

Experience-management is a zoning tool, an instrument for transforming visitor satisfaction into funding for conservation and research, and it has many other functions. Therefore we have chosen Experience-Management as the content of the International Symposium that culminates this precedent-setting gathering of leaders from the tourism and hotel industry, conservation experts, prominent architects, and academic leaders. This will be a "brainstorming" event, involving broad-ranging expertise. I want to thank the co-organizers, with a very special "thank you" to the Panama Tourism Bureau headed by Mr. Cesar Tribaldos, which is also the principal sponsor of the Conference. The National Secretariat for Science, Technology and Innovation, the City of Knowledge, the American Association for the Advancement of Science, the Smithsonian Tropical Research Institute, and Cyber Tech, a corporation specializing in information management, are the other co-organizers of this conference. Warm welcome to all the experts and participants in this Symposium. We are extremely fortunate to have the wisdom and leadership of Dr. Theodore Panayotou, Director of the International Environment Program of the Harvard Institute for International Development. Theo, thank you for accepting my invitation to chair the symposium, which ensures that the economics of the TCR partnership will be given significant attention.

We already have tangible evidence that the TCR partnerships are opening formidable new areas of benefits and employment opportunities in conservation, research, and sustainable resource management. The enormous potential these partnerships possess for enhancing the quality of life and for fortifying the ecological security and economic viability of an area is hardly anywhere more obvious than in the heritage treasure-trove that surrounds the World Heritage Site of San Lorenzo, as it will be presented this afternoon.

The **TCR Pilot Portfolio**, whose main focus is on hotel projects including our host hotel—the Miramar Inter-Continental, is a remarkable demonstration of the potential of the TCR partnerships. The pilot portfolio has been assembled through personal networking in an effort to prove that the *TCR Action Plan* makes perfect business sense and to do so in the most contagious manner possible so as to trigger the Plan's implementation country-wide. The letters of commitment, here on display, demonstrate the seriousness with which the portfolio members have made their pledges to the TCR partnership.

The "Millennium Vision" of the World Travel and Tourism Council (WTTC) identifies the pursuit of sustainable development as a key strategy to move the industry forward, and it urges hotels to lead the way in developing this vision for the new century. But there is a condition involved. According to the Council's president, hotels need to look beyond the mere reduction in laundry loads to realize their full input into sustainable development. The TCR Pilot Portfolio is the first result of an orchestrated effort to pioneer, in Panama, internationally meaningful approaches to empowering the hotel industry to shape the sustainability of tourism development while energizing the sustainability of national development. I am very pleased that the World Travel and Tourism Council is represented at this Conference by Dr. Donald Hawkins, Director of the International Institute of Tourism Studies of the George Washington University.

As heritage-centered tourism goes mainstream, so must the ecotourism philosophy, which emphasizes proactive protection of the natural and cultural context of exploratory and enriching travel that, in turn, generates economic benefits for the local economy. I submit that all heritage tourism will have to embrace the philosophy of ecotourism if it is to become greener, more sustainable and, thus, competitive in the 21st century. I term this platform ECOTOURISM PLUS. I wish to use this prestigious gathering to invite the cruise-line industry, the airlines, the leaders of the banking sector, and other powerful players in the tourism industry and beyond to join in the launching of the flagship ecotourism plus economy. The support that Panama's private sector has already lent to distinguishing Panama as the country that would craft the road map for tapping this economic opportunity of the 21st century has been overwhelming. Our gratitude goes to the Panamanian Association of Business Executives (APEDE), Panama's Chamber of Commerce, and many others.

A tourism-conservation-research partnership, conceived as a public-private partnership, is the prerequisite of an ecotourism plus economy. There must be a mechanism in place that will establish and coordinate tourism, conservation, and research priorities. It will systematically pursue these priorities with consultation and engagement of the private sector and the local communities and will maximize the linkages between the quality of tourism and the strength of the host country's economy. Thanks to the great support the *TCR Action Plan* has received from the leaders of the public sector, Panama now has this mechanism. This afternoon, we will unveil the establishment of the **Committee of the Tourism-Conservation-Research Strategic Alliances**, a high-level committee ascribed to the National Council for Sustainable Development and, thus, positioned to become the generator of the strength and sustainability of Panama's economy. I am honored by and appreciate the endorsement of the Presidency for creating this novel cross-sectoral partnership, which gives a tremendous boost to Panama's chance to inspire a new course for tourism-driven economies. In this context, I also wish to express our gratitude to the law firm of Arias, Fabrega and Fabrega for their outstanding help with fashioning the legal foundations for this precedent-setting partnership.

Enhancing the effectiveness, long-term impact, and international prestige of Panama's model will be the **TCR International Advisory Circle**. I wish to recognize those who have already joined this prestigious circle. The American Association for the Advancement of Science, which is the world's largest federation of scientific and engineering societies, will be represented on the Advisory Circle by its chief executive , Dr. Richard Nicholson, who is also the publisher of the prestigious journal *Science*. Richard, my thanks to you for accepting my invitation to join the Circle, for the wonderful contribution that AAAS has made in co-organizing the highlight of this Conference—the Symposium—and for your willingness to give a keynote address on this Inaugural Day. I am grateful to Dr. Federico Mayor, Director General of UNESCO, for also accepting the invitation on behalf of his organization and for delegating Ms. Gloria Lopez Morales, UNESCO's Regional Director for Latin America and the Caribbean as the representative of UNESCO on the Advisory Circle. One more eminent expert on the Circle is Dr. Peter Raven, Director of the Missouri Botanical Garden, a member of President Clinton's Committee of Advisors on Science and Technology (PCAST) where he chaired the Panel on Biodiversity and Ecosystems, and a member of the Committee for Research and Exploration of the National Geographic Society.

We are also setting up the **TCR International Trustees Circle** as a tool for inviting and recognizing contributions and investments—by institutions and individuals, national and international—into implementing the model TCR partnership in Panama.

Synergy is the key word of the *TCR Action Plan*. A great contribution to this synergy is the presence at this Conference of prestigious international press. Thank you for coming. Your presence greatly energizes our effort and fills us with excitement over the prospect of spreading the seeds of this effort throughout the world. Your interest offers us invaluable help in proving that heritage tourism can be the centerpiece of national and regional strategies of sustainable development, in which conservation becomes a viable economic strategy for lucrative investment.

Ladies and gentlemen: I shared with you an ideal, and I alluded to its promise. The product is far from complete or perfect; these are just the first steps. But the enthusiasm is genuine, the commitment serious, and the next threshold clearly defined: an International Summit we wish to hold in Panama in December 1999. Our aspiration is to see Panama become a flagship Heritage Destination that will display compelling evidence of the central role that a partnership among tourism, conservation, and research can play in driving a nation's wellbeing. Geology has molded this bridge of the world; it is now up to the human mind and heart to make of it a bridge to the millennium. Let's together transform this unique opportunity in a historical reality, to the benefit of Panama and of the whole world.

DR. RICHARD NICHOLSON

Executive Officer and Publisher of *Science*
American Association for the Advancement of Science (AAAS)

I am truly honored to be a participant in this very unique meeting, which I hope will be looked back upon as an historic event in an effort to make progress while preserving biodiversity and sustainable development.

First of all I want to thank the other co-organizers and the sponsors of this meeting. I want to specially thank Dr. Ceferino Sánchez, the head of SENACYT. Dr. Sánchez has worked with AAAS in a number of collaborations, and we are glad to continue those collaborations here.

I also would like to congratulate the Government of the Republic of Panama, and particularly, I want to congratulate IPAT, the Panama Tourism Bureau, and Mr. Tribaldos, for their leadership in starting Panama in this unique path.

I specially want to congratulate Dr. Hana Ayala, because if it were not for Dr. Ayala, we would not be here. I have known Dr. Ayala for a number of years, both as a scientific colleague and a personal friend, and I know her to be an individual of intellect, great insight and tremendous energy. Those of you who know Hana know that this meeting exemplifies all those skills that she possesses.

In my brief remarks this morning I want to do two things: I want to tell you about AAAS, the organization I represent, and then I want to tell you why an organization like AAAS has chosen to be involved in an activity such as this.

AAAS was founded in 1848, in Philadelphia, in the United States, which makes it the oldest scientific society in that country. This year was our one hundred and fiftieth or "sesquicentennial" celebration. We started this celebration this year with a special meeting in Philadelphia that included important speeches by the President of the United States and many other dignitaries, both in the scientific community and in other fields. We are an organization that consists of about one hundred and forty-five thousand individual members and 300 affiliated societies around the world. About 20% of the membership of AAAS is from outside the United States, and those numbers make us the largest general scientific society in the world.

AAAS is best known around the world as the publisher of *Science* Magazine. *Science* was founded in 1880 by Thomas Edison, a North American hero, and AAAS has been the publisher of *Science* since around the turn of the century. *Science* is a weekly scientific journal that includes both scientific news and information about scientific research, and also original scientific articles. Many of the most important scientific breakthroughs that are being currently reported are published in *Science*.

AAAS is also well known for its annual meeting. Our meeting is unusual for its size and because

it represents all fields of scientific endeavor. At our annual meetings several activities in these fields go on in parallel, and the meeting is also very international in character. Because there is so much scientific information conveyed at the AAAS Annual Meeting, it attracts nearly 1,000 science journalists from around the world each year. That many science journalists covering a 5-day meeting make it each and every year the most reported scientific event in the world.

AAAS also has program activities that it conducts on behalf of the scientific community internationally to promote the progress and the advancement of science. These programs are in the area of science policy, education and human resources, and international activities. In the international area we have had for more than 25 years a set of activities focused on improving collaboration and interaction amongst scientists in the Western Hemisphere; in that regard, Panama and SENACYT have been involved in a number of these activities over a long time.

I hope that in these brief comments I have convinced you that AAAS is a major and prestigious scientific organization within the international scientific community. Based on that, one would ask why would a scientific organization like AAAS be involved in a meeting promoting tourism in Panama? Many scientists in fact would regard tourism as one of the predators that is reducing biodiversity in the world. So, how does it make sense that we are involved in such a meeting?

This meeting is really not about tourism per se, but it is about a very novel and strategic vision of how we might, as a world community, work towards ideas such as preserving biodiversity and achieving sustainable development.

This conference is about the TCR (Tourism, Conservation and Research) Strategic Alliance, a vision that makes scientists and the scientific community a part of the plan from the very beginning, so that science is incorporated into the planning of what TCR and tourism can be. It is an idea that we will be discussing during the next two days during the workshops, about how the industry could work to create win-win situations with government organizations, local communities and the research sector. And it is an idea that even perhaps offers the opportunity for the business community to support scientific research.

TCR is mostly about the goals of trying to achieve, in a realistic way, sustainable development. Because of their training, scientists understand the issues of biodiversity and sustainable development in a different way from many people. As scientists, we know that about half of the world's plant and animal species inhabit just 7% of the planet's surface, namely in the rainforest areas of the planet. Even in those tropical rainforests, there are very small subsystems that are ecosystems of their own, that contain species of plants and animals that exist no place else on Earth.

We know that the planet is losing about 42 million acres of tropical rainforest every year, that is 100 acres per minute or 700 or 800 acres since I started talking. Scientists estimate that the rate of extinction of species on this planet is about 50,000 per year or 140 per day. You may say, "why does that matter? There are a lot of species on Earth and they go extinct any way, does it really matter? Eminent biologists Paul and Mia Ehrlich have given a very good analogy by likening the loss of species on the planet to the continued loss of the rivets that hold airplanes together. Airplanes are held together by millions of rivets, and in the short run, the loss of some of those rivets does not make any difference. But over a long period of time, the accumulated loss of rivets on a plane is catastrophic, just like over time, the accumulative loss of species on our planet could be catastrophic for all of us.

My background is as a chemist. Chemists realize that many plant species have evolved over millions of years, and over that period of time they have devised synthetic pathways and made molecules of amazing structure and complexity, chemicals that are found and known no place else. Many of these chemical molecules have properties that are beneficial for humankind. For example, about 25% of the pharmaceuticals that are used in the United States today originated in rainforests. As these species are destroyed, chemists will forever lose the opportunity to discover some of these creations of Mother Nature that have occurred over millions of years.

The trouble is that just saying and knowing that is not enough; conservation for conservation's sake just does not work in the real world, where economic incentives exist. Altruism is not going to get the job done. That is why the TCR model is so intriguing, and why it makes sense for the scientific community to support this. The TCR model makes the point that ecotourism, just like the rivets on the plane, cannot survive in the long term if it does not in fact incorporate scientific knowledge and expertise in the very planning and management of our natural resources.

TCR recognizes the fundamental fact that economic incentives are mainly what make things happen in the real world. But we need to recognize that economic incentives can be used for good, creating win-win situations where all the participants can benefit. They create what Dr. Ayala has termed "the reciprocity of benefits". The TCR model also recognizes the value of partnerships in it. In the scientific community, partnering and collaborating is a part of how scientists work. Science is an international activity that values collaboration and partnering.

One of the reasons why it makes so much sense to start this in Panama is that you have one of the world's leading research facilities in the Smithsonian Tropical Research Institute (STRI). This is a world-class scientific operation that has been in existence for over 75 years. It is known by scientists around the world, it does world-class research and it attracts top scientists from around the world to Panama to be involved with its research activities. STRI is one of Panama's most valuable, most important and certainly most unique assets.

If it is possible, as TCR envisions, that ultimately the hotel and tourism industry might actually fund scientific research at an organization like STRI, that will be an amazing accomplishment and one that will be widely recognized by scientists around the world.

There are many other reasons why an organization like my own and the scientific community should support the TCR concept. To illustrate this, consider AAAS' objectives. AAAS has six strategic objectives contained in the constitution of the organization that have been with us for a long time and are intended not to change over time.

I will tell you those six objectives, both as a way of telling you a little more about AAAS, and so that you can see how well TCR fits in the support of the scientific community.

The first objective is to "further the work of scientists"; it is self-evident that if TCR succeeds as a model, then it will accomplish that.

Objective number two is to "facilitate cooperation amongst scientists", again as we have seen this morning, this is also an element of the TCR model.

Our third objective is to "foster scientific responsibility", so that scientists behave responsibly in the world community. This goes with the idea about having the scientific community at the table in the planning stage of the TCR model. Thus, it is essential for the community to be involved.

Our fourth objective is to "advance science education". If TCR is successful it will also do that. We know that the so-called "hands-on" is the best way for young people to learn about science, and some of the opportunities of sustainable tourism provide that experience.

The fifth objective is "for us to use science in the promotion of human welfare". If it succeeds, if the TCR idea can be a realistic way for us to maintain biodiversity, and for the world community to achieve sustainable development, that will meet AAAS' fifth goal very clearly.

The sixth goal is to "increase public appreciation of the promise of science in human progress". If the idea and the model that Panama has the opportunity of creating can be adopted on a global scale, then AAAS' sixth goal could be implemented on a scale that we scientists could not otherwise imagine happening.

For all those reasons, it makes sense for scientists and AAAS to support the TCR concept. That is why we have been one of the organizers of this Conference and why I am here.

On the Conference program, I was to be followed by two architects: Architect Henry Cobb was going to introduce architect Frank Gehry. Now that schedule has been changed, but I wanted to close by mentioning something that relates to architecture. AAAS has recently constructed and now occupies a new headquarters building in the heart of Washington, D.C. This is an award-winning building of very elegant design, great beauty and functionality. The building has set a new office building standard in the United States, for its energy efficiency and its environmental consciousness. Henry Cobb is in fact the architect who designed our building. Harry Cobb is a great friend of AAAS and he has become a great friend of science; it is a beautiful symmetry that people such as Harry Cobb and Frank Gehry are willing to participate in a Conference like this. Although Harry will not be able to be here with us, he is a great friend of science and mankind.

I want to thank you for your attentiveness to my remarks and, again, I hope that some day all of us will look back and think that we participated in an historic event that put the world on a slightly different course.

FRANK O. GEHRY

Design Principal, Frank O. Gehry and Associates

An expert in ecotourism I am not. However, ecotourism to me means respect for nature and respect for people.

There is a lot of interest in this Conference and in Panama. The reflagging of the Canal is something the world is watching. Everytime I told somebody involved with the press or media that I was coming here, they immediately said: "Can I come? Can I be there? I want to be there, I want to know about it!" You are being watched. So your intentions, as honorable as they might be, must bear fruit and be realized in the best of all possible ways.

I have been coming to Panama for twenty-four years now. My wife is Panamanian and she has a big family here. I suspect everybody Panamanian in this room is related to her.

I brought with me a group of architects, a "dream team". Our intent is to become involved and to bring attention to architecture. Architecture can help, can make a difference.

In gathering this group of architects, I went to the elder statesmen first. I called Henry Cobb, head of I.M. Pei Associates in New York, who could not be here but promised to be a resource in the future. And I brought Robert Tannen, from New Orleans, an architect-planner interested in transportation. Tannen is closer to my age and has worked with public officials and public agencies in New Orleans, a knowledge he could bring to bear in Panama.

We thought that the elder statesmen should be just a resource. I worked on a hereditary disease foundation for thirty years, where senior scientists were allowed in the room but not allowed to talk. The young post-doc scientists were the generating force of ideas and would treat the elder statesmen as a library that they could call upon.

I was thinking of that model when I thought of bringing some young architects from around the world. These architects include Greg Lynn and Sylvia Lavin, from the University of California, Los Angeles; Alejandro Zaera-Polo, from Spain; Ben van Berkel, from Holland; and Lindy Roy, from New York. We brought them together with Panamanian architects such as Erik Wolfschoon and the firm Arango, McGrath and Miro.

It is not our intent to criticize the Panamanian architectural profession. I believe that there is a lot more architectural talent in Panama than it has the opportunity to make real architecture. Architects can only make good and real architecture working for enlightened clients. For what I have seen over the last twenty years in Panama, there does not seem to be a lot of enlightenment.

Architecture can contribute. Some very old examples of this are the Eiffel Tower and the Sidney

Opera House. I am not suggesting that you build an Eiffel Tower or a Sidney Opera House in Panama, although a nice opera house could be a good thing here. I know Panamanians like the opera!

I know a lot about Panama. My wife's father comes from Anton and when I go to Anton we get *manjar blanco*. My wife's mother is from Las Tablas and when we go there we go to the Santa Librada Festival. And I know about the feud between Calle Abajo and Calle Arriba. I also love the *tamborito*.

There are public work projects that attract people, like the Golden Gate Bridge in San Francisco or the Hoover Dam in Nevada. The Great Wall in China or Machu Pichu in Peru. The Parthenon in Greece and Frank Lloyd Wright's works in New York. People still go there.

You can have small projects, at a modest scale, and still make great architecture. The amount of money to turn the corner from just ordinary to something great is not so big either. It just takes a willing client, somebody with the willingness to stand up and take the little extra time, and urge and nurture a talented architect to work, to make their best, real effort to do something special.

In Bilbao, I had an incredible client. On one hand, I had the Basque government, which had a business vision. The Guggenheim Museum was created for business reasons. The Basque government thought of architecture, art and cultural facilities as an opportunity to make Bilbao an important place. My client was also the Director of the Guggenheim Museum, quite a genius and an inspiration. He was very much with me, when I was lagging he would push me, when I gave him ideas he would interact and explore them, and was open and willing to make the project better.

I was given an industrial site. I loved the idea of being under a bridge, feeling the energy of the cars above us. When you are in the building you feel like the cars are coming right into the space. I engaged the building with the river Nervion and the bridge. Buildings can engage people's imagination.

One of the things that serve Bilbao is the necklace of green hills that surrounds the city. The entrance to the Museum is connected to one of the main streets; it is a cascade of stairs down to the river. Inside, there is a big atrium, a big public space. For the opening, they had choral groups singing in the atrium. It was just amazing.

This building has paid for itself already in its first year. A million and a half people visited it. That was not only because of the architecture, but also because of the feeling that made this building. It was the client, it was the Basque people, and it was the Guggengeim.

You cannot just say "come and do a thing like this to turn our place on". It must grow naturally out of the relationship with the people, with the client, and with the governing bodies.

That is why I brought this team of architects to Panama. They are really talented and interesting people. We are all here because of Hana's infectious energy and because we want to help. We want to be a part of it.

THE ROLE OF SCIENTIFIC KNOWLEDGE

Dr. Ira Rubinoff
Director, Smithsonian Tropical Research Institute (STRI)

Panama has a wealth of resources to interest heritage ecotourism, including rich, easily accessible tropical forests, spectacular coral reefs, and a very diverse cultural heritage. But Panama has another vital resource, one that is often overlooked, but which can also be a valuable tool for attracting visitors, and that is scientific knowledge. Panama has one of the richest heritages of scientific research of anywhere in the tropics. That heritage today is a resource that not only serves to attract foreign scientists to Panama, but can also serve as an attraction to tourists.

Panama was the focus of biological research as early as the 19th century. Several globetrotting expeditions from various European countries stopped off at the isthmus and collected specimens of plants and animals to stock the museums back home. But the first big stimulus for scientific research in Panama was the initiation of construction of the Panama Canal by the U.S. in 1903. A major problem that the canal builders faced was the control of mosquito-borne diseases such as malaria and yellow fever. The fight against these diseases led to a large influx of biologists, in particular entomologists.

In 1923, several of these scientists persuaded the Canal Zone governor to set aside Barro Colorado Island, the largest island in Lake Gatun, as a nature preserve. Barro Colorado thus became one of the first protected areas in the New World Tropics. For two decades after that, a consortium of research organizations, including Harvard University, the American Museum of Natural History, and the Smithsonian Institution, ran the station. It became a world-famous research site and attracted hundreds of visiting researchers.

A number of groundbreaking studies were carried out on Barro Colorado. Among these was the work by Ray Carpenter on howler monkeys, the first study of free-ranging wild primates, which long preceded the work of Jane Goodall on Chimpanzees and of Dianne Fossey on the Gorilla. Other landmark studies on tropical forest birds produced popular books about Barro Colorado with romantic titles such as *My Tropical Air Castle* by Frank Chapman that attracted many tourists to Panama during the 1930s. Barro Colorado was placed under the Smithsonian Institution's management in 1946. A permanent scientific staff was established. Short-term visitors had carried out most of the previous research. With researchers now living in the tropics full time, it became possible to document in detail tropical seasonality and to monitor changes that took place over periods of many years.

In the mid-1960s, the Smithsonian expanded its activities in Panama to include marine research, and established marine laboratories on both coasts, at Naos and Galeta. In addition to

its wealth of tropical forests, the peculiar geography of Panama presents unique opportunities for the study of tropical marine environments. The Atlantic and the Pacific shores of Panama present drastically different environments to marine life. Within the Pacific, the Gulf of Panama and the Gulf of Chiriqui are also quite different, so that in a very short distance marine biologists have the opportunity to study what amounts to three different oceans in ecological terms. On the Atlantic, there is a very small tidal range, dissolved nutrients are low, and the water is clear and warm all year round, all factors which have promoted the prolific development of coral reefs. In contrast, in the Gulf of Panama the tidal range is enormous, more than 6 meters. Dry season trade winds from the north push warm surface water away from the coast, allowing nutrient-rich cold deep waters to rise to the surface. These nutrients fertilize dense bloom of microscopic plankton, which in turn provided food for a host of shrimp, fish, sea birds, and dolphins. However, these cold waters also inhibit the development of coral reefs in the Gulf of Panama. In the Gulf of Chiriqui the environment is different once again. Here the high mountains of the west deflect the trade winds, so that cold water upwelling does not occur. Because of this, the area features the best-developed coral reefs of the eastern Pacific, but these contain species completely different from those of the Atlantic side.

Today STRI has a staff of more than 400. They work from facilities that include:

- The Tupper Center in Panama City, with modern laboratories, a conference center, and one of the most comprehensive libraries on tropical biology in the world.
- The nearby Ancon facility, which houses STRI's Center for Tropical Paleoecology and Archaeology.
- The Barro Colorado Island research station, which as part of the 12,000 acre Nature Monument, has undergone a major multi-million dollar modernization program which permits state-of-the-art research far beyond the dreams of the original founders. Here, an interpretive Visitors Center receives 2–3,000 tourists each year.
- Residences, teaching facilities and laboratories in the town of Gamboa, a base for research in the 54,000 acres of Soberania National Park.
- And also a small station near Fortuna providing access to the cloud forests of the Western Highlands.
- For marine studies, the Naos Marine lab offers access to the Pacific coast and the adjacent Culebra Marine Education Center receives 70,000 visitors per year.
- And the Galeta facility on the Atlantic provides access to fringing coral reefs and well-developed mangrove forests.
- A major new marine laboratory is currently under development in Bocas del Toro on the Atlantic coast.

Research at STRI today continues to be innovative and groundbreaking using as a base the facilities I have listed but working as well in many field sites throughout Africa, Asia, and the New World tropics. Some examples:

1. STRI has initiated innovative research in tropical forest canopies, one of the last frontiers on this planet, by pioneering the use of construction cranes to provide

three-dimensional access to the delicate outer branch tips where most biological activity takes place.

2. From methodology developed on a 50 Ha. Forest Dynamics Plot on Barro Colorado Island, our Center for Tropical Forest Sciences program has expanded to 14 nations where more than 2,500,000 trees of 6,000 species are being monitored. The need for these large-scale studies to understand the dynamics of tropical forests becomes apparent when you consider that in a single 2 Ha plot in the Amazonian region of Ecuador more than 960 tree species have been identified. This is more species that are been found in all of North America, where Canada and the United States combined have only about 700 species.
3. STRI developed the first molecular evolution laboratory in Central America in order to examine the evolutionary difference that has evolved in the marine species which where isolated when the Isthmus arose 3,000,000 years ago. This laboratory is uniquely suited to examine the process of speciation—the engine that drives the biological diversity of this planet.
4. STRI developed a Paleocology program, which examines all aspects of the history of the Isthmus from its tectonic origins 8,000,000 years ago to the development of agriculture by the human inhabitants during the last 5000 years. The understanding of the causes and rates of past changes are essential if we are to understand the calls to change economies in the face of perceived anthropogenic climate changes that many people believe we are experiencing.
5. STRI scientists along with colleagues from McGill University and the Department of Energy are currently installing the first Free Air Carbon Dioxide Enhancement Experiment in the tropics. If successful, it will enable them to predict the composition of future forests as atmospheric CO2 increases.

One of the most important results of the long history of scientific research in Panama has been the production of a large amount of information about Panamanian natural history. Over the years STRI has produced many thousands of scientific articles, books, and other publications, and STRI scientists and associates are currently turning out more than 250 publications per year. This very strong information base is an important factor in attracting scientific visitors to Panama. This is one of the few places in the tropics where researchers can come and have a good chance that they will not only be able to identify the organisms that they are interested in, but also that others may have worked on them previously and that there is already a substantial foundation of knowledge upon which they can build.

My scientific colleagues at STRI enjoy the luxury of unfettered research time at a well-equipped tropical laboratory. With the freedom and confidence we have always enjoyed from the Government of Panama, our permanent staff including scientists from 10 nations can afford to ask the big questions, engage in long term studies, and as a result make cutting edge contributions to science. Scientists at STRI, at Panama's universities and the hundreds who visit each year contribute to the enormous knowledge base of the natural history of the Isthmus. Additional colleagues employed at the City of Knowledge will soon join them. You will hear more about the City of Knowledge in Dr. Arosemena's talk that follows.

Aside from its role in attracting scientists, Panama's rich information base can be a valuable resource for attracting ecotourists as well. The local flora and fauna have been well enough studied so that most animals and plants a visitor will see (at least the larger ones) can be identified. But more importantly, it is possible to provide visitors with accurate, detailed and up-to-the-minute information based on ongoing research, about what they may observe on their trip. This capacity can be a very important factor in enhancing the overall quality of a visitor's experience.

Educated tourists interested in experiencing the natural and cultural resources of Panama are likely, as well, to be concerned with two issues, which will define the quality of our lives in the next century. I refer first to the concerns presented by the reduction in the biological diversity of our planet. Most of this diversity is found in the rainforests and coral reefs of the tropics—most of it is undescribed, and the many ways in which the various species contribute to the stability of the ecosystems where they are found is poorly understood. Consequently, we are unable to properly assess the cost of losing species or biological diversity at an ever-increasing rate.

Second, the climate of our planet is changing. It has always done so, but there is good evidence that the rate of this change may be increasing as a result of our increased consumption of fossil fuels and the associated accumulation of greenhouse gases. There is an important relationship between the accumulation of carbon dioxide in the atmosphere and the ability of rainforests and oceans to store this carbon.

Research in Panama is making important contributions not only to the two problems, which will pervade the economics of the next century but whose solution may, as well, be crucial in determining whether our species exists in the next millenium. Thus, tourists who select Panama as a destination will not only have the opportunity to experience its enormous natural and cultural diversity but they will also be able to become engaged with a variety of ongoing scientific research and developing issues that affect our lives.

STRI recognizes that there can be a bottleneck in the transfer of information from scientific research into a format that is accessible to a non-scientific visitor. Data in scientific articles and reports is usually highly technical, and often has to be interpreted so that its everyday significance is apparent. STRI is committed to help bridge this gap by recruiting the head of a new research-interpretation unit that will provide the link between scientific research and the information and programs that will be useful to the tourism industry. We are already engaged in a dialogue with some of the local hotel owners regarding many of the projects of which you will hear more about later this afternoon.

I will end by saying that all human progress has been fostered by basic research. At STRI we are committed to increasing knowledge of those processes that affect the evolution and ecology of life in the tropics and the way these systems interact with the rest of our planet. The natural processes of this planet do not respect the geographic boundaries drawn by generals at the end of wars in past centuries. We cannot afford to continue to concentrate most research efforts in the developed world. At STRI we are devoted to the success of the Tourism-Conservation-Research Action Plan as a means of fostering appreciation of the tropics by a wider audience and for the development of the economic use of natural areas that will prevent their conversion.

A CITY OF KNOWLEDGE FOR THE NEW MILLENNIUM

Dr. Jorge Arosemena
Executive Director, City of Knowledge Foundation
(Presentation at the conference was given in Spanish)

Since we are getting close to the new millennium, there is a growing perception that humanity is encountering a new period in its history in which questions and expectations are being analyzed. In Panama's case, this historical moment is imbued with great transcendence going much farther than just Panamanians' operation of the Panama Canal after the year 2000, an occupation which we have come to do in an efficient and responsible manner. We are talking about responding to a wide range of challenges as we undertake the job of knitting our national territory together, and positively integrating ourselves into a worldwide context that constantly becomes more global and competitive.

If one were to select a single characteristic that summarizes the most transcendent of the changes that identify this transition from the 20th Century into the 21st Century, we would not doubt the indications that are common place today. The technological revolution in communications and its impact on the generation and application of knowledge constitute the most conspicuous variable in today's world. Thus, the development of human resources becomes a strategic variable *par excellence*.

The City of Knowledge is one of those projects through which Panama is confronting this great challenge, getting answers that reach out to and have a bearing on the whole region. In the following remarks I will try to summarize the vision of what has already begun and what will be fulfilled in the future as the CITY OF KNOWLEDGE in Panama. Afterwards, I will make a few comments about the role of this initiative within the plan of TCR.

The first public reference to the creation of the City of Knowledge was made by the President of the Republic at the Summit of Ibero-American Leaders, in Miami, in December 1994. On that occasion, he announced the decision of the Panamanian government to convert military bases into an international complex dedicated to the fostering and diffusion of higher education, science, technology, the humanities and culture. In February 1995, the City of Knowledge Foundation was formally created as a private, non-profit organization of public interest. First, it pulled together a Board of Trustees, which today is made up of representatives from the academic, scientific, technological, business, and labor sectors. Moreover, there is representation ex oficio of the National Government and the Legislative Assembly. In a comple-

mentary manner, the Foundation Statutes foresee the installment of an International Council of Advisors, composed by individuals from the scientific, academic, business and international organizational worlds. In the near future, we will be inviting some of the distinguished visitors here today in this Conference to form part of this Council.

In order to consolidate the basis and ensure the successful execution of the City of Knowledge, a legal structure for the project was created to regulate the relations between the Panamanian Government and the Foundation. After broad consultation, and relying on the support of various sectors, which constitute the Panamanian society, Decree Law #6 of February 10, 1998 was promulgated. Through this instrument, the Government transferred to the City of Knowledge Foundation, the initial foundational patrimony consisting of a 120 hectare block of land in what is today Fort Clayton, with all its buildings and facilities. Moreover, it established the mechanism for adding new areas to it in any part of the country, once the relationship with the activities of the City of Knowledge has been duly documented. The law also creates an immigration framework, with a special visa for students, researchers, professors, and businessmen participating in the various programs. In addition, it creates a system characterized by complete freedom from taxes for all the institutions, organizations, and participating companies, creating what some are calling a "Free Knowledge Zone."

During 1996, two basic studies were carried out to clarify the concept and analyze its viability. The first was the responsibility of the Academy for Educational Development (AED), headquartered in Washington, and the second focused on the initial formulation of a Strategic Plan and was done by experts from UNESCO, a United Nations agency which from the beginning until now has offered permanent support to the City of Knowledge.

Both documents concluded that the City of Knowedge is a place where academic formation, research centers, a technological park and prestigious cultural entities converge simultaneously. Moreover, to establish the viability of the project, the studies proposed 4 lines of action among which relationships will be developed characterized by sinergy: academic formation, scientific research, technological and innovation park, and forums. The specialists concluded that Panama enjoys several comparative and competitive advantages which make it attractive for the successful execution of such an ambitious regional project. They noted the geographic location of the country, its long experience in offering international banking, commercial, and insurance services. They also mentioned the use of the US dollar as legal tender, and Panama´s biological and cultural bounty as a place where diverse cultures combine. They added to this the availability of extraordinary installations and infrastructure on the military bases. All of this constitutes a solid base to develop a new international complex of specialized services.

It is worthwhile to note that beginning with the overview outlined by the mentioned studies, valuable cooperation has been received from such institutions as the European Union, which made a donation in terms of technical assistance to kickstart the Technological Park in the City of Knowledge. This donation was extremely valuable for the development of the project. In a similar manner, we have enjoyed support from the Inter-American Development Bank (IDB), and the Japanese government. Moreover, the Panamanian government has continually sustained its cooperation through the Autoridad de la Region Interoceanica (ARI), agency responsible for the inte-

gration of the areas formerly known as the Canal Zone into the national development plan.

From the beginning, manifestations of interest have come in from a wide range of institutions and companies. In the case of Tecnoparque Internacional de Panama (TIP), with the concurrence of the European experts, and together with the direct participation of Panamanian business people and scientists, the clusters of concentration have been clearly defined, taking into account the special characteristics of our country. These are: biology, information and communications, multimodal transportaton, and the restoration of historical patrimony.

With satisfaction we can say that we have a considerable number of companies committed to begin operations in the Technological Park once we have access to the installations, which shall take place during 1999 with the gradual departure of US armed forces from Fort Clayton, the future central location for the City of Knowledge.

Likewise, here are profiles of several initiatives, each one of them in different degrees of progress, to develope formation activities. As an example, and keeping in mind the theme of Tourism-Conservation-Research, we can mention the beginning in January of a program from the prestigious McGill University from Montreal, together with the Smithsonian Tropical Research Institute. They will offer courses on the Neotropical Environment. In the final phase of legal documentation is what will be the Panama International Maritime University, formed by the University of Texas A&M, the Escuela Nautica de Panama and the Universidad Santa Maria la Antigua. The Board of Directors has already been selected for the recently created Sistema Hemisferico de Educacion Agricola Superior (SIHDEA), under the auspices of the Instituto Interamericano de Cooperación Agrícola, a specialized agency of the Organization of American Statres (OAS). From May of this year, it will also operate from the provisional headquarters of the City of Knowledge, located in the old Albrook airbase, the Centro del Agua del Tropico Humedo para America Latina y el Caribe (CATHALAC).

Currently, various requests are being processed, notably among them, in the area of training for human resources specialties in tourism. Proposals have been presented by the Colegio Superior Suizo-Latinamericano de Administracion de Hoteleria y Turismo, the University of Balear Islands, and the University of South Carolina which are planning on offering, together with national universities, a Masters in Hotel, Restaurant and Tourism Administration. In the area of forums, looking ahead into 1999 is the "International Conference on Tourism Human Resources Development" under the auspices of the University of Houston. Their theme is "*Latin American Tourism in the New Millenium: Education, Investment and Sustainability.*"

On the theme of the environment and sustainable development one can also mention a proposal in the final stages of being approved for the creation in the City of Knowledge of the Regional Center RAMSAR for the study of Wetlands of International Importance in the Western Hemisphere. The School of Forestry of Yale University has presented a preliminary proposal to offer a Masters degree to prepare future leaders in the field of the environment. The acceptance of the Creation of a Sanctuary for Non-Human Primates on the Tigre Islands located in Gatun Lake in the Canal, through the initiative of Florida State University, together with Panamanian universities and national research centers, constitutes another project that enriches what Panama has to offer through the City of Knowledge. Special mention is due here for the efforts of various nation-

al universities, together with non-governmental organizations, and the City of Knowledge Foundation, to constitute an "Earth and Sea Foundation" which is working together with companies and organizations, both national and international to create a large center in the Province of Chiriqui where tourism and scientific research can coincide in what may be a town to be built during the construction of the Fortune Dam. The University of Tulane has proposed the creation of a Center for Disaster Management and Humanitarian Aid, having received a proposal for the future creation of a Center for Applied Research into the biogeochemistry of the Environment.

In other words, esteemed friends, through synergy, the City of Knowledge will prosper with the development of a national Tourism-Conservation-Research strategy. At the same time, it will be a place where visitors can participate in forums and conferences and have contact with companies that are developing and incorporating new technologies for the development of our countries. We invite you to accompany us in the achievement of this national strategy, which carries with it a profound pledge for regional goals and the integrated development of our countries.

PART B

PANAMA'S HERITAGE ROUTES

THE HERITAGE IDENTITY OF THE BRIDGE OF THE WORLD

Presented by Dr. Richard Cooke (STRI) and
Dr. Omar Jaén Suárez (Interoceanic Region Authority-ARI)
(Dr. Jaén's presentation at the conference was given in Spanish)

The Saga of the Isthmus

In the Chucunaque valley in the Darién and on the Burica peninsula, row upon row of geological sediments—now raised high above the coastline—call to mind a Jovian drama that had a profound impact on the world's climate and biological diversity: the collision of the Central American Arc with the Andes and the intersection of three tectonic plates.

Here and elsewhere in Panama, these strata also record the evolution of marine and terrestrial life before and after the Isthmus rose high enough to separate the Caribbean Sea from the Pacific Ocean. Scientists have shown how 20 million years ago there was no isthmus and how the ocean was then a kilometer deep in Bocas del Toro. By 12 million years ago an island chain of volcanoes had emerged. Inland from Colón dramatic exposures of 9 million year-old marine sediments recall the time when the isthmus was an archipelago. This 'Gatún Formation' contains hundreds of species of mollusks and huge shark teeth. Deposited above it—and visible between Fort Sherman and the Colonial ruin of San Lorenzo—lies the Chagres Formation. Myriad skeletonized plankton are mostly Pacific species, demonstrating that, at this time, the area where the canal now passes was a wide marine strait between the Pacific and the Caribbean.

Three million years ago the isthmus grew again—rising high enough to separate the Caribbean from the Pacific, dividing animal populations and creating new marine species.

Interpretive Centers at four palimpsests of Isthmian geology—Colón, Bocas del Toro, the Chucunaque valley and the Burica Peninsula—will serve as "staging areas" for another isthmian journey: the "Peaks of Natural Diversity".

The Peaks of Natural Diversity

This trans-Isthmian journey relates Panama's geology to the outstanding richness of life zones and species that can be found along a coast-to-coast transect. On the Burica Peninsula, visitors will observe the collisional phase of isthmian mountain-building; at Volcán in the Chiriquí highlands, the magmatic phase; and in coastal Bocas del Toro, the slow deposition of marine sediments packed with fossils.

Their journey will begin in Chiriquí's coastal mangroves. After crossing seasonally dry Pacific savannas and moon-like volcanic landscapes, they will pass through patches of montane rainforest before ascending to the páramo at the summit of the Barú volcano. Finally, they will walk down deeply incised and heavily forested valleys to the perennially humid Caribbean coastal lowlands. They will follow in the footsteps of the intrepid Victorian naturalists who first documented this extraordinary botanical and faunal diversity.

The Route of Gold and Mountain Gems

This route takes the visitor across Veraguas, the only province in Panama that stretches from sea to sea. It was on the windswept northern shore of Veraguas that, in 1502, Christopher Columbus tried unsuccessfully to found a settlement that would tap the golden riches of the local ruler, the Quibián. Columbus abandoned Santa María de Belén after four months, but later settlers *did* find gold, and have washed and mined it, off-and-on, for four centuries: at Santiago de Turlurlí, in the wettest forest in Panama; at El Remance, in the degraded savannas of the Pacific; and at Mariato, on the Pacific coast. Near Santa Fé—founded in 1559 to supply Santiago de Turlurlí's sodden miners with meat—the visitor will seek out the beautiful humming-bird known as the Mountain-Gem in nearby montane forests. The road from Santa Fé to the Gulf of Montijo on the Pacific coast passes by San Francisco de la Montaña, where friars once Christianized native peoples and whose brick and stone church houses exquisite polychrome carved altars, pulpits and screens.

The Harpy Eagle's Route

Our symbolic guide on this exotic journey through the Darién will be Panama's national bird—the Harpy Eagle. The harpy will lead us through lands that belonged to the pre-conquest Cueva people, whose fields and villages are in many places covered by dense forest. Balboa followed this route on his way to the Pacific shore. So did scores of pirates and gold-miners, surveyors and naturalists. This journey epitomizes the Darién oxymorons of isolation and migration, native and foreign, the soporific sounds of waterfalls and the boisterous clamor of macaws and monkeys. The Darién Highlands—islands long ago—have nurtured many endemic species. At the same time, both highlands *and* lowlands have been corridors for the passage of plants and animals between North and South America. The harpy's world is home also to Emberá and Wounáan—forest-farmers, fishers and hunters; and to small groups of Kuna, who remained in the Chucunaque and Tuira valleys after most of their brethren migrated to the San Blas coast.

Route of the Blue Marlin

This route explores the wealth of marine life that exists in Panama's two Pacific "oceans" and meets some of the cultural groups that have taken advantage of their bounty. In Panama Bay, seasonal upwelling lowers surface temperatures and stimulates abundant masses of tiny organisms and their fish and bird predators. In the Gulf of Chiriquí—protected from the northerly trade wind by the central cordillera—year-round warmth has favored coral growth.

Starting at Coiba—sport-fisherman's mecca and preserve of the Scarlet Macaw—the marlin's journey passes along the bay-bountiful southern coast of Veraguas, across the southern edge of the Azuero Peninsula with its secluded beaches and turtle nesting grounds, on to tiny, coral-fringed Isla Iguana, known for its white sands and raucous seabird colonies. It then moves eastwards across Panama Bay to the Pearl Islands where descendants of African slaves still ply the coastal waters in dugouts; and from there to Jaqué and the well-known sport-fishing lodge of Bahía Piña on the steep Darién coast.

The Coral Path

Extensive coral reefs are found along parts of Panama's Caribbean coast. Very different from the reefs in the Gulf of Chiriquí on the Pacific coast, they harbor a much more diverse fauna, which in wind-less months can be watched at ease in the clear, virtually tide-less Caribbean waters. Modern corals and their fauna can be compared with the geological record for past animal species, which is captured in exposed strata at various points along the coast. The many islands of Bocas del Toro and the tiny, steep-sided Escudo de Veraguas island provide insights into how species have diverged in the few thousands of years since rising sea levels split them off from the mainland. Abundant shipwrecks bear mute witness to the precarious maritime trade that once made Nombre de Dios, Portobelo and Bocas del Toro household names the world over.

The Bridge of the Quetzals

First-time visitors are often surprised to learn that Panama is quite mountainous. The Barú volcano—the highest peak—rises to more than 11,000 feet, while over half the country lies above 1,000 feet. In the cool, montane forests live many species typical of temperate climes. Some of these occur in both North and South America. Others are restricted to certain mountain ranges, and even individual peaks and valleys. The magnificent Resplendent Quetzal is easier to observe in Chiriquí province than anywhere in its Central American range. On the other side of the canal, its short-tailed congener the Golden-headed Quetzal extends into South America. Along this highland route are several volcanoes whose last eruptions took place thousands and even hundreds of years ago. Coffee, planted widely in mountain valleys, is picked by Ngobé and Buglé families who still live where their pre-Columbian ancestors built their pallisaded villages and fought the Spanish with spears and slings.

The Pre-Columbian Journey

Native Americans arrived in Panama at the end of the last Ice Age and have remained there ever since. Originally hunters of large extinct animals, they began to cultivate plants in tropical forests more than 10,000 years ago. Organized into small bellicose chiefdoms, they did not make grandiose temples and pyramids like their neighbors the Maya and Inca. Their creative energy was directed towards stone sculptures, engravings on rocks, goldwork and brightly colored pottery—all decorated with animals and people from the Natural and Supernatural worlds: the King Vulture,

the Crocodile Spirit and the Jaguar-Man. Some chieftains were unbelievably wealthy. When they died, they were buried wrapped in fine cotton mantles and with hundreds of pottery vessels and gold ornaments. Four foci of archaeological research will highlight Panama's rich pre-Columbian heritage: Panama Viejo, where a pre-Columbian village lies buried under the Colonial town; El Caño and Natá in Coclé province; Sarigua and Cerro Juan Díaz in Herrera; and Barriles and Volcán in Chiriquí. These will become regional Interpretive Centres. Active research programs—including extensive excavations open to the public—will demonstrate how archaeologists go about studying pre-Columbian communities in the humid tropics.

Mythological Landscapes and the Indigenous World

Seven Native American peoples now live within Panama's borders, each with its own language, history and customs: the Bribri, Naso, Ngöbé and Buglé in the forests and savannas of the western provinces; the Kuna, Wounáan and Emberá east of the Panama Canal. The architecture and layout of their communities reflect centuries-old adaptations to different tropical habitats. Their handicrafts fuse past and present traditions, intertwining myth and modernity; mythology and the natural world. They symbolize the close relationship between the artisan and the products of coast and forest. Ngobé and Buglé beadwork; Kuna molas; Emberá and Wounáan baskets and exquisite carvings of cocobolo wood and ivory palm attain the highest levels of artistic expression. Interpretive centers financed by the tourism and hotel industry—but managed by native communities—will summarize each people's history, art and way of life. They will promote the idea that the legacies of Panama's seven native peoples will be enriched and protected through sustainable development and natural resource management.

Route of the Three Oceans

Three million years ago, with the creation of the land bridge of the Panama Isthmus, the Caribbean and Pacific Oceans were separated, becoming two different oceans in terms of tides, climate, and marine fauna.

The Caribbean remained isolated as a closed sea of high temperature (28º C), small tides (1 meter), humid climate, and rich coral reefs.

Only 14 thousand years ago, the sea level around the world started rising by one hundred meters, as the great glaciers begun to melt. At this point, the Gulf of Panama and the Gulf of Chiriqui in the Pacific were created, separated by the Azuero Peninsula, with tides as high as six meters, drier climates and different fauna. The Gulf of Chiriqui would remain homeothermal (around 28º C throughout the year), with live coral reefs.

On the other hand, an upwelling was produced in the Gulf of Panama, with cold water rising from the bottom in the summer and surface temperature falling to 20º C. This process produces nutrients that become part of the food chain, which is richer here than in other parts and consists of fish, crustacean and marine mammal species. Thus, the Route of the Three Oceans is comprised of the Caribbean, the Gulf of Panama and the Gulf of Chiriqui in the Pacific.

Route of the Sanctuaries of Life

In the Panamanian Isthmus we find five major endemic areas, which are the natural habitat of terrestrial tropical animals, true sanctuaries of natural life. At the Western edge of Panama, the low lands of the Caribbean emptying at Bocas del Toro form a tropical jungle that is wetter in the area of Río Teribe and Changuinola, where the training site Panajungla is located and visited by astronauts. Immediately South of this zone we find the very wet and lush high lands of Chiriqui and Talamanca, where Volcán Barú (3,475 meters) is located, surrounded by Cerro Punta (2,200 meters) and Boquete (1,200 meters).

Further south, we find the low and drier lands of Western Chiriquí, their savannahs and tropical park surrounding David and Puerto Armuelles, with rich alluvial soils and a large area of banana plantations. It is here, next to the Pedregal mangrove, where the natural sanctuary Cerro Batipa is located.

Since mid Nineteenth Century, this trans-Isthmian route of life sanctuaries attracted the interest of European and American naturalists who collected samples and studied the natural environment, recording these experiences in various books and articles.

At the opposite corner of the country, to the East, we find the low lands of Darién, with its center at El Real, on the plentiful Río Tuira. These lands are drier and comprise both dry and humid forests. Near the low lands we find the high lands of Darién, with more rain and forests; their center is at Meseta de Cana (600 meters), in the mountainous area of Pirre, the natural habitat of the Harpy Eagle.

The Pearl Route

This is a fascinating route at the center of the Gulf of Panama where the old and eroded reliefs of the Islas de las Perlas (Pearls Islands) have stood out for 9,000–11,000 years due to their elevation relative to the Pacific Coast. The dominating central island, formerly known as Isla de Las Flores or Isla del Rey, is surrounded by the other 226 islands of the archipelago.

This region is full of history and charms as few others. These were the first islands in the American Pacific visited by the Spanish Conquerors of the New World in the 16th century, including Vasco Núñez de Balboa, who discovered the Pacific Ocean. In 1513, these conquerors found indigenous people diving to get beautiful pearls. These indigenous people told the conquerors about the wealth of Peru. Then, starting in 1510, more experts in diving and pearl fishing were brought in, including indigenous people from Margarita, Venezuela, and African slaves, since this activity had become very lucrative. For example, the famous pearls of the ceremonial crown of the Queen of England were found here. Even in the beginning of the 20th century, these pearls were still being sent to jewelers in Paris.

Small colonial towns in this region include Saboga, Viveros, Chapera, Cazaya, Pedro González, and Contadora, a beautiful island and meeting place for famous personalities, such as the last Shah of Iran (who lived here during part of his exile) and former US president Jimmy Carter, a frequent visitor.

Since the 16th century, Islas de Las Perlas have been the defenders of the trans-Isthmian route of treasures from Peru, as well as the Panama Canal during World War II. This place also became a frequent route for privateers and pirates that attacked ships leaving the Panamanian ports of Taboga and Naos, before these ships could reach the wide Pacific.

Route of Pirates and Secret Paths

This route runs parallel in time and space to the trans-Isthmian route, from the 16th century until the 19th century.

An illegal route in terms of transportation activities, this was also an alternative route full of secrets. It was used by pirates, smugglers, runaway slaves and road robbers that devastated Panamanian towns, lying passing people and their trans-Isthmian treasures in ambush, and favoring the opening of the Hispanic closed commerce on the coasts of the South American Pacific.

Some of the 16th, 17th and 18th century pirates that used this route include Mansvelt, Dampier, the feared L'Olonnois, Sir Francis Drake—who devastated Nombre de Dios and then died in front of Portobelo in 1597—and Henry Morgan—who took Portobelo in 1668 and the old city of Panama in 1671, leaving only its ruins in front of the ocean.

There are several written testimonies, pirate narratives, and stories by Leonel Wafer and Dr. Exquemelin about this route, describing the natural environment, people and culture of the Las Perlas Archipelago, the Panamanian Isthmus and Darién.

This route was used by Spanish and Creole smugglers working in coordination with English, Dutch, French and Jamaican merchants, facilitating the exchanges between the Caribbean and the Pacific and between Europe and South America.

And the route was also used by robbers that fell over masses of travelers to or from California in the 19th century, during the "Gold Rush" that started in 1845.

The Path of the Trade Winds

Very much related to the route just described, we find the Path of the Trade Winds. This is a very peculiar, 110 kilometers long, trans-Isthmian route. It was created between 1717 and 1747 in Coclé by smugglers based in Natá, site of the Alcaldía Mayor, the political capital of the central provinces and where one of the best colonial churches from the 18th century is located.

This route comprises several X-shaped paths, going from the ports of Río Grande or of Antón in the Pacific, to the mouth of Ríos Indio and North Coclé in the Caribbean, passing through Penonomé and the lower valleys of La Pintada or of Toabré. This route joins two flowings of the Panamanian Isthmus with different natural environments: the dry savannas of the Pacific in Llanos del Chirú and their rich pre-Columbian centers and wide mangroves in the South, and with the lush and rainy Caribbean high plains in the North, of great biodiversity in the mountains of Coclé, near the extinct volcano El Valle to the east, and with altitudes of more than 1,500 meters near Copé to the west.

Route of the Treasures of the Americas

This is the main route, the axis around which Panamanian history is articulated. It has offered, until now, the image of Panama as the "Bridge of the World". It comprises the legendary paths through which America's treasures have traveled: The Trans-Isthmian Camino Real (Royal Road), the Chagres Route and the Camino de Cruces.

We have taken advantage of the concurrence of three geographic phenomena to establish the route here: the narrowest portion of the continent, the presence of low reliefs, and the plentiful Río Chagres. This river is 195 kilometers long, and has dug a wide valley and hydrographic basin in the shape of a butterfly, with its open wings facing North. The basin has a surface of 2,600 square kilometers, and tributaries to the east—Gatún, Pequení and Boquerón rivers—and to the west—the Trinidad-Cirí system, which originates in the range of the extinct volcano El valle de Antón.

From there, and depending on the predominant means of transportation, there would be two routes until mid 19th century. The land route and the water route.

The first route is the trans-Isthmian royal road between Panama and Nombre de Dios-Portobelo. The trans-Isthmian royal road is the 80-kilometer land road that goes from the city of Panama, founded in 1519, to Nombre de Dios to the north, and Portobelo, since 1597—when it was created—until at least mid 19th century—when the city of Colon was founded in 1852.

The second route, the Chagres route, is comprised of the short Camino de Cruces, 25 kilometers long by land, from Panama until Cruces, founded in 1527 and then later on, starting in 1678, also Gorgona, ten kilometers further, to then continue on the larger water roads. First, there is the river road along Río Chagres, for 50 kilometers until its entrance in the Caribbean, in the castle-fort San Lorenzo and its little port town Chagres. Then, there is the maritime road, 45 kilometers along the coast towards the Northeast up to Nombre de Dios and then Portobelo, Panama's Atlantic port, surrounded by castles-forts, and their impressive colonial customs.

The trans-Isthmian route would then become, at least during the three colonial centuries, the royal road of America's treasures that allowed for mercantilism and the rise of Modern Europe. Nombre de Dios, famous for its annual fairs, was, due to the value of its merchandise, the first port of the American continent in the 16th century. Through the trans-Isthmian axis of Panama-Nombre de Dios/Portobelo passed 50 to 60 percent of all precious metals, gold and mostly silver, that arrived to Europe during the 16th and 17th century. In Portobelo, the celebrated fair lasted until mid 18th century.

Later on, in the 19th century, the Panamanian railroad was established. This was the first trans-continental iron road in the world, started in 1850 and finished in 1855, and built as a response to the California Gold Rush demand for trans-Isthmian transportation, until at least 1869, when the two U.S. coasts were linked by railroad. Departing from Colon, the journey took approximately four hours, stopping in several stations—Gatún, Muindí, Matachín, Culebra, Gorgona, Obispo, Emperador and Miraflores—located between the two port cities of Colon and Panama. Undoubtedly, this route preserves the greatest variety of attractions in the Panamanian Isthmus, both historic and current attractions, as well as natural attractions such as the rain and dry forests on both sides of the Panama Canal.

In the 20th century, two more components were added to this fundamental and central route: the Panama Canal, officially inaugurated in 1913, and the Pan-American Highway, linking the cities of Panama and Colon since the end of World War II in 1945.

The Passage of the Millennium

Looking towards the future, we have called this route "The Passage of the Millennium". The center of the American continent, Panama, was the site of the most important transformation made to the geographic environment by men in the history of the world. This transformation mobilized human, capital and technological resources, as well as land and rocks unknown until then, to build the Panama Canal. The Canal was the greatest effort in the history of humankind to transform, in such short time, such a large extension of land surface. All of this occurred during the 40 years of construction of the Panama Canal, initiated by the French in 1880, lead by Ferdinand de Lesseps, and continued by the North Americans starting in 1904.

The Panama Canal, an engineering masterpiece and the product of thousands of European, American and Caribbean workers, faces today the challenge of modernization to meet the increasing demand of transportation foreseen for the 21st century.

As the interoceanic canal has become the obliged route of more than 14,000 deep vessels—such as the 75,000-ton Panamax, it is expected that in the first two decades of the next millennium a third set of locks will be built for ships of up to 150,000 tons. This would imply the need to double our efforts to conserve the Chagres watershed and its capacity to provide water, as well as the rich biodiversity found there.

That way Panama, the gate to the Pacific in the Western Hemisphere, will continue to provide a considerable service to commerce and transportation, the globalization of economic development, and the approximation of continents and cultures in the 21st century.

Route of the Southern Sea

This is the first of all routes. Following a circular movement, we go back to the Route of the Southern Sea, the first interoceanic route, created in 1513, and the second most important geographic event in this continent after the discovery of America by Christopher Columbus in 1492.

During his trip across the Darién Isthmus and in a journey that took him ten days of effective march, Vasco Núñez de Balboa discovered, in September 25th 1513 and from the heights of Cerro Pechito Parado, the Pacific Ocean. This day marked the beginning of the union of the geography of the planet and the origin, since the 16th century, of the most unified history of the world.

Balboa's route is a variant of the Río Sabanas route, the latter being more of a straight line and originating in Río Sasardí in the Caribbean, near the Bahía de Caledonia. It was in Bahía de Caledonia where Scottish colonizers arrived from 1698 to 1700 lead by William Patterson, founder of the Bank of England. The Río Sabanas route is 60 kilometers long, with rugged and muddy land, and ends in the Gulf of San Miguel in the Pacific. This is one of the most studied routes by explorers in the 19th and 20th century for the project of a canal at sea level.

The final trans-Isthmian route, located on the border of the historic Darién and Panama's jurisdiction, is the shortest route of all routes in the American continent, since it extends for 50 kilometers between the mouth of Río Bayano in the Pacific and the Gulf of Mandinga in the Caribbean, going through the Cordillera de San Blas that here reaches heights of up to 800 meters.

Camino Real (Royal Road)

Next to the Trans-Isthmian Camino Real already mentioned (between Panama and Nombre de Dios and Panama and Portobelo), we find the longitudinal Camino real, 80 kilometers to the north and of approximately 560 kilometers from east to west. This Camino Real goes through the coastal plains of the Pacific, from Chepo to the border with Costa Rica. This route follows a biological route of savannas and tropical parks in front of the Pacific Ocean, which extends all the way up to Río Bayano, 80 kilometers east of the city of Panama.

This colonial Camino Real was used by the thousands of mules that were imported by land from Central America each year, and the cattle from the haciendas in the country's interior that would feed the population of the city of Panama. Numerous pedestrians between the two oceans, at least from the 16th century to the 19th century, also used the route. During those times, it generally took 15 days to travel the 500 kilometers of this royal road that separate the Isthmus capital and the border with Costa Rica. By the end of the 18th century, a traveler would spend the night during those 15 days in towns and villages such as Bugaba, David, San Antonio de Guaymí, Remedios, San José de Tabarabá, Las Palmas, Santiago de Veraguas, Santa María, Natá, Antón, San Carlos, Capira, La Chorrera and Cárdenas, before arriving to the city of Panama, meeting place with the trans-Isthmian path and the international world.

This colonial Camino Real is Panama's oldest population axis and, as all other royal roads that originated in Hispano-America, links very old towns loaded with rich Hispanic, Indian and African folklore.

From the area of Santa María in this Camino Real originates a 110-kilometer branch towards the south of Península de Azuero, which links the towns of Parita, La Villa de Los Santos, Guararé, Las Tablas, Pocrí and Pedasí, and to the interior of the hills, Macaracas, Pesé and Ocú, all of them showcasing colonial architecture and 18th century churches.

All of these small colonial towns established along the Camino Real form the deep, local and internal Panama, the other side of a dual, trans-Isthmian and international country. Both sides create what Panama is today, a nation that opens to the world its immense heritage, natural and cultural wealth.

PART C

TCR PORTFOLIO OF PROJECTS

TCR PORTFOLIO OF PROJECTS

Roberto Eisenmann Jr.
President, Coronado Hotel & Resort

Tengo el gusto de presentarles el "Coronado Hotel & Resort," de las primeras empresas que ingresan al Portafolio de Hoteles del Proyecto Turismo-Conservación-Investigación, adoptado e impulsado por nuestro país como propuesta para el desarrollo sostenible de la industria turística del Siglo XXI.

Nuestro establecimiento fue concebido originalmente con un carácter tradicional: ofrece golf, tenis, SPA, playa y sol. Desde el inicio realizamos esfuerzos por competir con todos los países que tienen una oferta similar, con la desventaja de que Panamá no alcanza a ser un destino turístico internacional.

El éxito moderado logrado en este marco de competencia, circunscrita al precio, se proyectaba insostenible para una instalación de categoría 5 estrellas, como la nuestra. Nuestra exploración en búsqueda de alternativas de mercados para un producto de calidad, que se compara favorablemente con los mejores del mundo, se vió compensada al conocer la tesis de desarrollo turístico para nuestro país, presentado por la Dra. Hana Ayala, distinguida integrante de la comunidad científica internacional.

Nos hizo sentir que había llegado la hora de pasar del éxito a la trascendencia, a un objetivo superior. Percibimos, repentinamente, que habíamos encontrado la gran certidumbre en nuestro camino, como industria y como Nación. Habíamos encontrado visión y claridad conceptual, lo que a su vez despeja la voluntad para la acción creadora.

Concordante con esta propuesta decidimos colaborar en la conservación del Parque Nacional y Reserva Biológica Altos de Campana ubicado entre los Distritos de Capira y Chame, y apoyar los proyectos de investigación científica que allí se adelanten mediante el otorgamiento de becas en hospedaje y alimentación a los científicos y estudiantes del Smithsonian Tropical Research Institute y de otras instituciones de igual naturaleza, con el compromiso de servir como naturalistas y compartir con los huéspedes—nacionales y extranjeros—los conocimientos e interpretación de la riqueza del sitio.

Además introduciremos la modalidad de invitar a nuestros huéspedes a incorporarse, mediante contribuciones voluntarias, a los programas de conservación e investigación que se llevan a cabo en el Parque. La propuesta de desarrollo turístico sostenible de la Dra. Ayala contenido en el Plan TCI incluye, en adición a la excepcional diversidad biológica del Istmo de Panamá por ser puente de

transición de toda la flora y fauna del continente americano, al patrimonio histórico y cultural de la Nación como componente de la oferta única y extraordinaria en el campo del turismo, lo que constituye la ventaja comparativa de la República de Panamá y que es el factor vinculante de los hoteles que se incorporan al Proyecto.

Las instalaciones del Coronado Hotel & Resort, que ocupan una superficie de aproximadamente 100 hectáreas, se encuentran ubicadas en el area geológica formada por las capas de lava solidificada y cenizas depositadas por el Volcán del Valle en su vertiente sur, próxima al litoral de Mar Pacífico, durante su período de actividad hace millones de años. En el area que hoy se conoce como Coronado se han encontrado evidencias arqueológicas que indican la presencia—desde hace más de 10.000 años—de poblaciones indígenas americanas que formaron parte de las migraciones que utilizaron al Istmo com puente entre las masas continentales.

A partir del primer cuarto del Siglo XVI los colonizadores españoles del Istmo establecieron, pasando por Coronado, la ruta del Camino Real que inicialmente se extendía entre la ciudad de Panamá La Vieja y la población de Natá, atravesando los territorios que hoy forman los Distritos de Arraiján, Chorrera, Chame, San Carlos y Antón, y que hace 500 años eran los dominios de los caciques indígenas Natá, Chame y Chirú. El Camino Real, con el avance de la colonización se prolongó al resto del Istmo de Panamá y Centro América, hasta Mexico.

El actual alineamiento de la Carretera Panamericana sigue en gran parte la ruta usada por los pioneros de la colonización, siendo Coronado un sitio que históricamente sirvió de posada a los transeúntes que viajaban a lo largo del Istmo de Panamá o que utilizaban las antiguas rutas del contrabando transístmico.

Las autoridades del imperio español radicadas en la ciudad de Natá otorgaron—durante el Siglo XVIII—los primeros títulos de propiedad del Istmo, propiedades conocidas como "haciendas reales," que eran grandes latifundios dedicados a la cría extensiva de ganado bovino, quedando comprendida el area de Coronado en la Hacienda La Yeguala, una de las más antiguas en la jurisdicción de Natá.

En adelante nuestro esfuerzo de negocios se hará con un objetivo nacional y universal superior como parte de un nuevo círculo virtuoso: hotelería-conocimiento-turismo-investigación científica-conservación.

Coronado Hotel & Resort y su equipo de gestión se siente muy orgulloso en formar parte del primer Portafolio de Proyectos junto a los demás compañeros hoteleros que han dado el trascendental paso de incorporarse y que nos acompañan hoy aquí.

Lorenzo Hincapie

Owner, Hotel Campestre

El Hotel Campestre fue fundado en 1944 y está ubicado en el Valle de Antón, sitio de gran atractivo turístico, localizado en el área montañosa de un antiguo volcán. Está a una distancia aproximada de una hora y media de la ciudad de Panamá y a una altura de 800 metros sobre el nivel del mar.

En el Valle de Antón tenemos un clima muy agradable, con una temperatura promedio de 18 grados centígrados, que favorece el crecimiento natural de plantas nativas como las orquídeas.

Dadas estas condiciones y nuestro decidido interés en participar activamente en la Alianza de

Turismo-Conservación-Investigación, el Hotel Campestre se ha comprometido a desarrollar un proyecto para el cultivo y estudio de distintas especies de orquídeas que se encuentran en esta área.

Con la asistencia técnica de reconocidos profesionales panameños en el tema de orquídeas, vamos a iniciar el proyecto con la construcción de un vivero en las instalaciones del hotel, para luego recolectar la mayor cantidad de especies y dedicarnos a su estudio y cultivo.

También proyectamos desarrollar un sistema de reproducción "in vitro" y posteriormente comercializar las orquídeas, permitiendo que los turistas nacionales y extranjeros tengan acceso a adquirir algunas de estas especies, sin que tengan que afectar el bosque natural.

El proyecto también comprende la capacitación de guías naturalistas, oriundos de El Valle de Antón, en la observación y clasificación de estas especies nativas y también en el conocimiento de los distintos atractivos naturales que ofrece esta área. Estos guías serán seleccionados de un grupo de jóvenes conservacionistas de El Valle de Antón, a quienes en la actualidad apoyamos y orientamos, con el objetivo de conservar nuestros recursos naturales.

También tenemos pensado patrocinar becas para estudiantes nacionales y extranjeros que estén interesados en el proyecto de orquídeas que pensamos construir.

Ya próximos al nuevo milenio, nos enfrentamos a un tiempo de rápidas transformaciones y nuevas ideas y experiencias, que nos conducirán de un modo integral a la continuidad de nuestro desarrollo. Por eso, nos hemos interesado y comprometido con este Plan de Alianza Estratégica que el Estado de Panamá ha impulsado para intentar fortalecer la industria hotelera y turística a la cual representamos.

Agradecemos sinceramente este esfuerzo de nuestro Gobierno y reiteramos nuestro compromiso de participar activamente.

Alfonso Jaén Conte,

Owner, Posada Cerro La Vieja

Desde 1979, en las faldas del Cerro La Vieja, ubicada en Chiguirí Arriba, Distrito de Penonomé, Provincia de Coclé, iniciamos una campaña de regeneración de bosques, reforzando con especies nativas como Laurel, Espavé, Ceibo, Criollos y otras variedades y dejamos que la madre naturaleza hiciera lo suyo en tierras privilegiadas por su altura y humedad. Fue entonces que con la recomendación de algunos amigos, empezamos a adquirir algunas pequeñas propiedades que comprendían extensiones entre el Cerro La Vieja y el Cerro Gaital, por un lado, y por otro lado, entre el Cerro La Vieja y la Serranía del Escaliche.

Este compromiso ambiental, que tuvo la aceptación y participación de las comunidades vecinas, lo bautizamos en aquella época "Corredor Biológico La Vieja" coincidiendo más tarde con la política ambiental y geográfica del Corredor Biológico Mesoamericano, con la primera ruta también propuesta por el Sr. Darío Tovar.

A pesar de que fue cambiada la ruta del corredor más hacia la costa Atlántica, nuestro proyecto puede considerarse aún como un brazo del Corredor Biológico Mesoamericano, al tomar como punto de referencia para su inicio, el Cerro Juan Lana, de la Cordillera Central, pasando por Puerto Frio, Vaquilla, Cerro El Viejo, Cerro La Vieja, Loma Grande hasta llegar a las faldas del Cerro Gaital en el Valle de Antón.

En 1992 se inaugura La Posada a las faldas del Cerro La Vieja, explotando turísticamente los innumerables atractivos naturales del área, buscando la integración y armonía del hombre con la naturaleza.

De ahí que nuestra misión dice "administrar con sostenibilidad turística la Posada del Cerro La Vieja y su entorno natural, ofreciendo a sus huéspedes las mejores condiciones para el contacto y disfrute respetuoso de la vida silvestre.

Desde hace seis años establecimos para los estudiantes graduados en las carreras de Biología o afin, dos becas anuales que consisten en el 20% de los costos del material para la elaboración de la tesis de graduación y además el hospedaje y alimentación en las instalaciones de La Posada, durante el tiempo que dure la investigación de campo de éstas, pidiéndole a los estudiantes que siempre dejaran una copia de sus estudios para que los huéspedes pudieran consultarlas.

Además hemos tratado de convertirnos en padrinos de una comunidad vecina que se llama Vaquilla, comprometiéndonos con una granja didáctica de agricultura orgánica que va a ser instalada el próximo año por la ONG Fe y Alegría y que tiene el respaldo de otras organizaciones.

También hemos sido intermediarios para que muchos de nuestros huéspedes sean donantes o se comprometan con algunas de las campañas sociales de los campesinos del área.

La Posada del Cerro La Vieja, hoy se compromete a seguir adelante con su primer compromiso y nos adherimos como empresa, al Plan de Alianzas Estratégicas Turismo-Conservación-Investigación.

Octavio Vallarino Arias

Project Counterpart, Marriott Hotel

Hace unos años atrás, cuando un grupo de inversionistas del cual yo soy parte, decidimos traer a Panamá a la Marriott, en esos entonces no existía la inquietud y el entusiasmo que hay hoy en día con lo que es el turismo ecológico, el turismo de investigación y hay que darle un gran aplauso de admiración a la Dra. Hana Ayala por habernos motivado a todos nosotros, al iniciarnos en esta nueva era de turismo que se nos aproxima. Al igual, reconocemos y admiramos el esfuerzo que los demás colegas han iniciado en estos momentos, la tarea de establecer en Panamá hoteles orientados en esa dirección.

A nosotros en el momento lo que nos toca es patrocinar esto, incentivando a nuestros huéspedes a que se queden unos días y que sigan visitando Panamá para que gocen de estas fabulosas facilidades que existen ya y otras que están por venir.

Nosotros, de hecho, estamos haciendo nuestras propias investigaciones alrededor del Archipiélago de Las Perlas, del cual tenemos una real y verdadera impresión favorable, no solamente de nosotros, sino muchas de las personas que hemos traído de afuera y que nos han ayudado hacer las evaluaciones del caso.

Pensamos que el Archipiélago de Las Perlas, constituido por 70 islas en el Pacífico y, como siempre hemos dicho, el Caribe está lleno de islas, pero en el Pacífico las pocas que hay las tenemos nosotros y hay que darles la importancia que se merecen. Por eso, estamos encaminando todos nuestros esfuerzos en explorar esa parte del Pacífico nuestro que hasta ahora no se le ha dado tanta importancia.

Nuestro patrocinio va a ir orientado hacia el ballet folklórico de Panamá y en ese sentido haremos todos los esfuerzos con el Instituto Nacional de Cultura (INAC) por engrandecerlo.

Herman Bern,
President, Gamboa Tropical Rainforest Resort

Para mí es un privilegio estar aquí esta tarde y presentarles nuestro proyecto Gamboa Tropical Rainforest Resort.

Este proyecto tiene un compromiso muy formal con la iniciativa TCI: Turismo-Conservación-Investigación, porque está precisamente dirigido a poder mostrarle al resto del mundo las bellezas naturales que tenemos en nuestro país y desde un primer momento acogimos con gran entusiasmo la iniciativa propuesta por la Dra. Hana Ayala, porque este proyecto del TCI, auspiciado por la Sociedad Panameña y patrocinado por el Estado, es la culminación de esa visión que hemos tenido en los últimos dos años, dándole forma a nuestro proyecto.

Como todos ustedes saben, Panamá siempre ha sido ruta obligada por donde pasa el comercio mundial y esto ha sido así desde los tiempos de la colonia española, especialmente el paso por el Camino de Cruces y el Camino Real.

Nuestro proyecto, Gamboa Tropical Rainforest Resort, ha adoptado el Camino de Cruces, que se encuentra justamente frente al proyecto, como parte de la iniciativa TCI, para ayudar a restaurar este camino, que es parte de nuestra historia.

Además, como compromiso con TCI y necesidad obligante del propio proyecto, tenemos el compromiso ineludible en los próximos meses, iniciándose realmente a partir del próximo mes de enero, de iniciar el entrenamiento de los guías, historiadores, y personas que van a mostrarle a nuestros turistas todas las bellezas que tenemos en el área de Gamboa.

Tenemos un plan de entrenamiento muy dinámico, con un gran apoyo de diversas entidades como Smithsonian, Ecological Society y otros grupos con los cuales estamos conversando para armar un equipo multidisciplinario para la enseñanza de nuestros guías.

En el área de Gamboa se encuentra una cantidad increible de destinos patrimoniales. Estos recursos son entre otros, el Canal de Panamá y el Río Chagres. La ubicación de nuestro resort es la confluencia del Río Chagres con el Canal de Panamá, el histórico Camino de Cruces, el pueblo de Cruces, el Parque Interpretativo que es parte de nuestro proyecto, el Parque Nacional Soberanía, el camino del oleoducto y el poblado de Gamboa.

Gamboa Tropical Rainforest Resort tiene una concesión con la ARI (Autoridad de la Región Interoceánica) para la utilización de 137 hectáreas de bosques y de áreas donde antiguamente existió un Club de Golf.

En las márgenes del Río Chagres y el Canal de Panamá, todo rodeado por el Parque Nacional Soberanía, está situado a escasos treinta minutos (siempre pendiente del tráfico) de la ciudad de Panamá pero una vez que salimos de la ciudad, estamos alrededor de 20 minutos del centro; equidistante de ambos océanos, de manera que podemos recibir visitantes tanto del Caribe como de la ciudad de Panamá.

Este será un resort de cinco estrellas con un alto nivel de servicio y calidad, pero a la vez donde se va a conjugar la historia, la aventura, el servicio, la seguridad y sobre todo una conciencia ambiental para todos nuestros visitantes.

Nuestra filosofía incluye en primer lugar un enfoque en la ecología, la investigación científica y la conservación del medio ambiente.

Tendremos un parque ecológico muy bien diseñado, con atractivas e imaginativas actividades, entre ellas un teleférico sobre la montaña para poder apreciar la belleza del dosel del bosque.

Nuestro proyecto está dirigido a la educación, por lo tanto el programa de educación científica, a todos los niveles y para todas las edades, es punta de lanza de nuestro proyecto.

Finalmente, tenemos que tener una fuerte alianza con todas las organizaciones científicas, ecológicas y conservacionistas del mundo, así como una muy fuerte presencia en Internet, como parte de nuestro programa de mercadeo.

Estamos rodeados de miles de hectáreas de bosque tropical primario, que ha sido protegido de la deforestación porque es parte de la cuenca del canal y por lo tanto área protegida y parte de un parque nacional.

En nuestros planes está un centro de visitantes, un museo histórico, tiendas y centros interpretativos, así como exhibiciones de diversas especies que normalmente no se pueden ver en la naturaleza.

Además contamos con una villa científica que estamos en este momento en plena renovación, que tiene 100 apartamentos con aproximadamente 140 habitaciones y que estará lista en el mes de marzo de 1999, en la cual vamos a alojar a científicos, estudiantes y todas aquellas personas que se estén entrenando como guías.

Tenemos la gran suerte de que muy cerca del Resort y dentro del Parque Nacional Soberanía, también existe una villa de indígenas Emberá, con la cual vamos a tener una relación muy estrecha, para que ellos sean parte integral de nuestros atractivos y sean parte de nuestros guías y entorno.

El monumento natural de Barro Colorado, dirigido por el Instituto Smithsonian se encuentra a escasos kilómetros del Resort y esperamos conjuntamente con el Smithsonian poder visitarlo en la medida en que sea factible para ellos.

Muy cerca del Resort también se encuentra el camino del oleoducto, por lo tanto vamos a traer vehículos especiales para hacer excursiones para observación de aves.

Para aquellos que conocen Gamboa, están viendo fotos de la realidad hoy en día de lo que es un terreno muy especial, son 37 hectáreas de "landscape", área que ha sido muy bien mantenida y que vamos a crear aumentando la cantidad de flora al construir nuestros jardines botánicos.

Al hacer una revisión de los conceptos arquitectónicos que queríamos emplear para este proyecto, decidimos tomar el tema histórico de lo que antiguamente fue el Hotel Tívoli. Si ustedes ven la foto del Hotel Tívoli, que fue construido para la visita de Teddy Roosevelt alrededor de 1912, en nuestra arquitectura estamos adoptando muchos elementos de esa arquitectura tradicional de principios de siglo, para que nuestro edificio sean un museo lleno de memorabilia de detalles que recuerden la época. Eso incluye también todo el mobiliario y el diseño de interiores que será hecho, en la medida de lo posible, de acuerdo con la época de principios de siglo. Y esto es un tema para nosotros muy importante, porque recientemente logramos adquirir una hermosa colección de una persona que había por muchos años coleccionado historia, fotografías, cartas originales de gente de esa época, y tenemos esto con nosotros para que forme parte de la exhibición que va a ser el edificio principal del hotel.

Nuestros programas educativos forman una parte fundamental de este proyecto porque tenemos que tener un sofisticado programa en geología, pre-historia, historia, ecología, antropología y conservación.

Nuestro centro de visitantes tendrá todo tipo de exhibiciones interpretativas, para que cada paso de nuestros visitantes sea una lección en las ciencias naturales e historia. También vamos a contar con una biblioteca especializada en los temas, porque estamos seguros que nuestros visitantes van a ser personas muy educadas, que han estudiado, que se han preparado para venir a Panamá y queremos que ellos tengan la fuente de información que necesiten.

La villa científica, que está en estos momentos en plena renovación, consiste de 25 edificios que tienen cien apartamentos. Algunos inclusive estarán disponibles a partir del próximo mes de enero. Ya los estamos también amueblando y serán una parte fundamental de la cooperación entre el Resort y la Comunidad Científica. Esta villa se utilizará como parte del entrenamiento y alojamiento de nuestros visitantes y científicos. Por sugerencia del Smithsonian, cada uno de los edificios que tenemos en la villa científica, será dedicado a un científico mundial panameño, norteamericano, alemán, etc. que de alguna u otra forma haya contribuido en el último siglo a la investigación científica de los trópicos.

El Instituto Smithsonian de Investigaciones Tropicales es uno de los más importantes centros mundiales de investigación sobre la ecología tropical. Conjuntamente con ellos estaremos trabajando día a día, colaborando y a su vez aprendiendo del trabajo que ellos están haciendo en nuestro país.

Gamboa es una mezcla de muchas cosas. Es recreo y descanso, es pesca en el Río Chagres y el Lago Gatún, excursiones por el Camino de Cruces, historia y cultura, estudio de la biodiversidad de la flora y fauna del área, observación de aves, paisajes naturales, cultura indígena, aventuras, tales como una excursión por el Río Chagres de noche para observar cocodrilos y, por supuesto, el Canal de Panamá y su historia.

El Río Chagres es muy famoso por su belleza y por sus actividades acuáticas. Es reconocido por la pesca de Sábalo, de Róbalo y lo que llamamos Sargento. El Camino de Cruces se encuentra aproximadamente unos 300 metros de nuestra orilla del Resort y es parte importantísima de la presentación a nuestros turistas.

También el camino del oleoducto es famoso por ser un área para observación de aves; hay más de 400 especies de aves reconocidas por la Sociedad Audubon que se han visto en el área de Gamboa.

Queremos que el proyecto de Gamboa sea no solamente un hotel sino un museo de todas aquellas riquezas que tenemos en nuestro país y que muchos panameños tampoco conocemos.

El mercado de cruceros es un mercado que abandonó Panamá por razones políticas y económicas hace muchos años y estamos hoy en día tratando arduamente, el gobierno y la empresa privada, de que regresen a Panamá.

Ya estamos en Internet y estamos listos para abrir nuestras puertas, inicialmente desde el mes de enero con algunas villas que vamos a estar usándolas para nuestro personal de entrenamiento y luego a partir del mes de mayo o junio de 1999, estaremos ofreciendo giras al público, a las personas que se alojan en los hoteles de la ciudad.

Nuestro compromiso con la conservación es firme y tenemos que hacer un gran entrenamiento de personal pues es uno de los grandes retos que tenemos, pero estamos en buen camino y con muy buenos asesores.

Eva Martínez,
Marketing Director, Sheraton Grand Park Hotel

Para el Sheraton Grand Park Hotel es un verdadero placer identificarse plenamente con el Plan de Alianzas Estratégicas, en patrocinar la conservación y mantenimiento del Parque Natural Metropolitano, mediante el apoyo que asistiremos a través de expediciones guiadas por naturalistas expertos, a los turistas locales como extranjeros que se alojen en nuestro hotel.

Igualmente deseamos mencionar la intención de patrocinar una beca para estudiantes con el fin de realizar estudios dirigidos hacia el Parque Natural Metropolitano.

Para darles una breve descripción del Parque Natural Metropolitano, podemos informarles que el área que ocupa hoy el parque formó parte de la antigua Zona del Canal. En 1983 estas áreas boscosas revirtieron al Gobierno de Panamá, a través de los Tratados Torrijos-Carter en el año 1977.

Bajo la presión ejercida por el constante crecimiento de la ciudad de Panamá y la necesidad de construir importantes vías a través del área recreativa, se hizo necesario elaborar un anteproyecto de ley, mediante el cual fue aprobada la ley en 1985, creándose así el Parque Natural Metropolitano, primera área revertida a Panamá con un plan específico de manejo.

El parque se encuentra ubicado en la ciudad de Panamá, Corregimiento de Ancón, llamado por muchos el pulmón de la ciudad. Comprende una extensión de 265 hectáreas de las cuales 192 están cubiertas por bosques secos tropicales, un ecosistema que casi ha desaparecido en otras regiones del país.

Los turistas podrán ser testigos, durante su recorrido al parque, de la diversidad de más de 200 aves, a lo largo y ancho de sus cuatro senderos, además de familias de monos Tití y Gato Solo, entre otros animales propios del lugar.

El Parque Natural Metropolitano es el área natural protegida más cercana para los habitantes de la ciudad capital. Igualmente es el único bosque tropical, dentro de un centro urbano en Centro América, por lo que se puede catalogar como un parque singular.

Ninguna otra área en la región cuenta con bosques protegidos tan cercanos y de fácil acceso desde una ciudad para la población capitalina y visitantes nacionales e internacionales, de manera que presenta grandes oportunidades de esparcimiento al aire libre, de educación ambiental e investigación científica, realizadas actualmente por el Instituto Smithsonian, como el Estudio del Dosel del Bosque en grúa y la concentración del CO_2 en las plantas.

Podemos mencionar también que el Parque Natural Metropolitano es parte del Corredor Biológico Interoceánico. Sus bosques se comunican con el Parque Nacional Camino de Cruces, que está conectado al Parque Nacional Soberanía. Estos tres parques conforman un cordón contínuo de bosques que se extienden a lo largo de la ribera Este del Canal de Panamá, lo que garantiza el funcionamiento del canal y la diversidad biológica.

Finalmente, uno de los objetivos del patronato encargado del Parque Natural Metropolitano, es mantener en la ciudad de Panamá, un área natural que contribuya al equilibrio ambiental de las zonas urbanas, a fin de prevenir la contaminación, propiciar un ambiente sano y proveer de educación a los habitantes y turistas que lleguen a visitar el parque.

Por todo lo anteriormente expuesto, pero sobre todo el mantener un área de uso exclusivo, donde los animales y las plantas se reproduzcan y vivan sin los riesgos que enfrentan en otros lugares del país, es que el Grand Park Hotel apoyará la gestión de los miembros del patronato del Parque Natural Metropolitano y de esta manera fomentar el turismo ambiental.

Raul Arias de Para

The Canopy Tower

I have a confession to make. On August 22, 1996 I fell in love with a building. It was not a regular, run-of the-mill glass and concrete building; it was a steel structure, a radar tower built by the United States Air Force in 1965. It was not a spring chicken either. How can anybody in his right mind fall in love with this metal structure that looks so forbidding and which has been described by someone as resembling a gigantic beer can?

It defies logic. In any event, it was love at first sight not only with the tower but also with its location, right in the center of Soberania National Park. As with all relationships based on first impressions, there was a lot of imagination involved.

I imagined the view from the top would be fantastic and it is! you can even see ships traversing the Culebra Cut, the narrowest part of the Panama Canal.

I imagined it would be easy to see beautiful birds and mammals and I turned out to be right.

I imagined I could transform the tower into a unique lodge with rooms opening at the level of the treetops and I did. This metamorphosis from an abandoned radar tower to a mini-lodge took two years, lots of money and more sleepless nights than I care to remember. I call it the ultimate recycling project, from a military installation to a bird watching center… and what can be more peaceful than bird-watching?

The biblical passage of turning swords into plowshares acquires a new meaning and it is represented perfectly in this case. It also shows that we, Panamanians, are perfectly capable of utilizing in a rational, sustainable manner the properties being transferred to us by the US government in compliance with the Torrijos-Carter Treaties. In particular, those properties located in the vital watershed of the Panama Canal.

Sometime during this metamorphosis along came a lady from the United States, our dear friend Hana Ayala with her revolutionary ideas about linking tourism with conservation and research. I had always thought that ecotourism should be an instrument of conservation, more than an end in itself. But Hana went farther: tourism in general, the biggest and wealthiest industry in the world, should be a patron of conservation and research, two activities that are essential for human development in its broadest sense, but that are usually short of funds. And this link would not be merely because of civic-minded reasons but because it is also good business. Needless to say, I readily enlisted in her crusade to transform tourism in Panama and here I am an enthusiastic proponent of this new strategy.

And what is the role of The Canopy Tower in conservation and research? We are located deep within Soberania National Park, at the entrance of Old Plantation Rd. This is an easy graded dirt road that passes through a mature forest for about four miles connecting to the legendary Las Cruces Trail.

It is called Plantation Rd. because it used to lead to a cacao plantation owned by the Panama Canal Company in the early days of the former Canal Zone, more than 50 years ago. You can still see some of the old cacao trees with their peculiar fruit growing straight from the trunk. It is hard to believe that the elegant, gold plated boxes of Lady Godiva chocolates come from this humble tree. This is also one of the best areas in Panama for bird-watching and hiking through the rainforest. We are committed to keeping this road clean and to helping in its surveillance, helping the park rangers of the environmental authority, which, unfortunately, total only 8 for an area of 20,000 hectares, approximately 43,000 acres.

To help us in this task we have an unexpected ally, a former poacher who is now in our staff and who knows the forest as well as the palm of his hand. He is also a great guide, for he knows the behavior of animals very well and has a particularly uncanny ability to spot them within the dense foliage of the underbrush.

Perhaps his eyesight is so good because he did not spend his childhood days glued to a TV screen!

Every night he spends at the Canopy Tower means one more day of life for a deer, a paca or a pecary.

His name is Segundo, we call him the "eco-poacher", a perfect oxymoron.

The Canopy Tower is one of the observation points from which Dr. George Angher of STRI, in collaboration with Dr. Sid Gauthreaux of Clemson University and with the support of the U.S. Department of Defense Legacy Program, is monitoring the migratory hawks and vultures that pass through Panama every year.

Virtually the entire North American populations of three species, the Turkey Vulture, Broad-winged Hawk, and Swainson's Hawk, numbering millions of birds, pass through the isthmus en route between their breeding grounds in North America and their wintering grounds in South America.

These birds rely almost entirely on soaring, rather than flapping flight, during their migration. They take advantage of the rising warm air currents, thermals, produced by the sun's rays during the day in order to gain elevation. Then they glide for many miles, slowly losing altitude, before they need to find another thermal and rise again. By this means they are able to complete a migration of many thousands of miles expending very little energy.

Because these birds require rising warm air to soar, they are unable to migrate at night or on rainy days. At these times they require roosting sites in the forest to rest. One of the objectives of this study is to determine the importance of the existing forests of the Panama Canal Area as overnight roosting sites for these migratory birds.

The actual count is done by expert birdwatchers from the Panama Audubon Society and the University of Panama, who have been trained by Dr. Angher. Guests of the Canopy Tower will be invited to participate. This study will contribute valuable information on the population sizes of migratory raptors as well as the value of Canal Area forests in the preservation of the world's biodiversity.

In closing, I would like to add two comments:

First, I must thank my wife Denise for believing in this project from day one, actually for believing in my dreams and me.

I would also like to invite you all to come and visit the Canopy Tower and fall in love with it.

I am not jealous.

Dr. Nicolás Ardito Barletta

General Administrator, Interoceanic Region Authority

New Protected Area of San Lorenzo

Let me try to explain how we envision the development of Sherman in a sustainable TCR context. I would like to give you the framework within which development around the former Canal Zone is taking place. The private and public sectors, non-governmental organizations, and all Panamanian citizens are working in the development of the former Canal Zone.

First, we have a regional plan that covers the whole Canal watershed. The Canal lives on water and the biodiversity around it, so we have a very updated professional plan, which guides the process in relation to the watershed. We also have a general plan that brings together the different sustainable development aspects of zoning in the former Canal Zone.

In effect, within fifty miles of the Canal we have urban, economic and social development, environmental protection, and the functioning of the Panama Canal. The challenge for us Panamanians is to put this together over the next fifty to one hundred years, in a harmonious and sustainable way, so that we can service the international economy through the Panama Canal, sustain the magnificent biodiversity in the area, and improve the lives of Panamanians. The plan has been developed thus, taking into account all of these criteria.

The economic and international aspect of this strategy is to create a larger international business hub serving the international economy, integrating the Americas, and enhancing the well being of Panamanian people. The project will join the Canal, the Free Trade Zone, and the banking center, and it will promote maritime development, manufacturing for exports, tourism, more trade communications and transportation, and the City of Knowledge, making this part of Panama a little like Singapore or Rotterdam.

Let me focus on Fort Sherman, located on the Atlantic side nearby Colon City. Sherman is located only twenty minutes from a major urban center with a lot of economic activity. It is like finding the Amazon, which would take you three to four days to access, next door to you. The objective is to convert what General McCarthy (former head of the Southern Command of the US Armed Forces and now Drug Adviser to President Clinton) called the number one military training center in tropical areas into the number one ecological tourism conservation and research center in the world.

There are ten thousand hectares of jungle in Fort Sherman that we want to protect for research and ecological tourism, and to help improve the lives of the local people. This beautiful jungle is unspoiled and next door to an urban center.

The objectives we have for Sherman are conservation of biodiversity and national beauty, scientific research, tourism development, maritime development, Canal maintenance, community participation and benefits, the protection of the Meso-American biological corridor, and the physical integration with the rural coastal area. Development opportunities can be combined harmoniously according to a plan where the private sector community and the government can participate.

The first opportunity is the development of tourism, because of all that is already available there, just next door to where the cruise ships go by, twenty minutes away from Colon City, hotels and airports. Secondly, scientific research opportunities have already started to materialize with the

participation of STRI. Third, maritime development is a great opportunity because of the proximity to the Canal area, where some shipyards are going to be located away from the jungle area that we want to protect.

The action plan is currently being developed in coordination with the National Environment Protection Institute and ARI. The plan establishes a conservation and maintenance program, including an ecological evaluation of carrying capacity, the criteria and parameters to guide development, and administrative systems that will combine government, private sector and community activities.

We have ten months to get there. We have begun and are moving fast. The expected project results are within the sustainable development goals of the TCR alliance, including private sector investment to protect the environment and support scientific research, economic development within carrying capacity limits, and community participation, all within the guidelines and policies defined by our government.

Help us make Sherman a reality, help us make it one of the great environmental tourism centers in the world. We welcome your advice and support.

PART D

EXECUTIVE DECREE NO. 327

Mr. Olmedo Miranda, Minister of the Presidency, presented Executive Decree No. 327. Signed by the President of the Republic of Panama, Dr. Ernesto Perez Balladares, this decree establishes an international precedent in Panama through the creation of the Tourism-Conservation-Research Strategic Alliance Committee. The Minister of the Presidency, who has delegated Dr. Ceferino Sanchez, National Secretary for Science and Technology, as the Committee's President, will govern this high-level committee, ascribed to the National Council for Sustainable Development. In addition, this Committee will involve representatives of IPAT, ANAM, INAC and STRI as well as a representative of the hotel association, tourism operators association, non-governmental organizations and indigenous organizations. The full text of Executive Decree No. 327 is included below, as announced at the end of the first day of the conference.

Decreto Ejecutivo No. 327

30 de Noviembre de 1998

Por el cual se crea el Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" como un organismo adscrito al Consejo Nacional para el Desarrollo Sostenible.

EL PRESIDENTE DE LA REPUBLICA

En uso de sus facultades constitucionales y legales,

CONSIDERANDO:

Que según las tendencias actuales del turismo mundial, los principales destinos turísticos son aquellos que permiten al turista experimentar la riqueza natural y cultural del destino.

Que Panamá cuenta con riquezas naturales, culturales e históricas que pueden ser de gran atractivo para el turismo nacional e internacional, asi como para personas y entidades interesadas en el estudio de dicho patrimonio.

Que la industria del turismo tiene el potencial de convertirse en una de las principales actividades económicas del país.

Que dentro de los objetivos que está llamado a cumplir el Consejo Nacional para el Desarrollo Sostenible, creado mediante el Decreto No. 163 del 25 de noviembre de 1996, está el de impulsar una estrategia para el desarrollo de la industria del turismo y la conservación del patrimonio natural y cultural, en la que se conjugue la participación de las instituciones gubernamentales, del sector privado y la propia comunidad.

Que para la puesta en marcha de esta estrategia, se estima necesaria la integración de un organismo de alto nivel, que dependerá funcionalmente del Consejo Nacional para el Desarrollo Sostenible y que deberá integrar los sectores del turismo, conservación e investigación, y a las comunidades en un sistema de alianzas que permitan el desarrollo del turismo patrimonial sostenible.

DECRETA

ARTICULO 1: Créase un organismo administrativo de alto nivel denominado Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación", que funcionará adscrito al Consejo Nacional para el Desarrollo Sostenible, que será responsible de diseñar, fomentar, promover y ejecutar un plan nacional para el desarrollo de la industria turística del país, a través de un sistema de alianzas entre los sectores del turismo, la conservación del ambiente y el patrimonio, la investigación científica, cultural e histórica y las comunidades en general.

ARTICULO 2: El Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" estará integrado por los siguientes miembros:

1. El Ministro de la Presidencia o el funcionario que éste designe, quien lo presidirá;
2. El Administrador General de la Autoridad del Ambiente o el funcionario que éste designe;
3. El Gerente General del Instituto Panameño de Turismo o el funcionario que éste designe;
4. El Director General del Instituto Nacional de Cultura o el funcionario que éste designe;
5. Un miembro escogido de ternas presentadas por la Fundación Ciudad del Saber y el Smithsonian Tropical Research Institute;
6. Un miembro escogido de ternas presentadas por la Asociación Panameña de Hoteles y la Asociación Panameña de Operadores de Turismo Receptivo;
7. Un miembro escogido de ternas presentadas por las Organizaciones No Gubernamentales Ambientalistas y las Organizaciones No Gubernamentales Indígenas.

Los miembros del Comité que representen asociaciones u organismos de carácter no gubernamental, serán designados por el Ministerio de la Presidencia.

ARTICULO 3: El Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" tendrá las siguientes funciones:

1. Promover y ejecutar un Plan Nacional para el desarrollo del turismo patrimonial sostenible del país, mediante la creación de alianzas estratégicas entre los sectores involucrados en el turismo, la conservación e investigación del patrimonio natural y cultural y las comunidades, con el objeto de conservar y estudiar dicho patrimonio y facilitar la promoción y desarrollo de actividades turísticas relacionadas con el mismo;
2. Identificar las rutas temáticas patrimoniales que pueden ser objeto de alianzas estratégicas y fijar los criterios aplicables para el desarrollo de actividades turísticas en las mismas;

3. Promover, en coordinación con el Instituto Panameño de Turismo y otras entidades del Estado, inversiones destinadas al desarrollo de proyectos turísticos en las rutas temáticas patrimoniales que identifique el Comité, las que gozarán de los incentivos fiscales o de otra naturaleza previstos en la Ley;
4. Impulsar la integración y coordinación entre las entidades gubernamentales encargadas de la conservación del patrimonio natural y cultural, las organizaciones no gubernamentales y las comunidades, lo mismo que con organismos privados, nacionales y extranjeros, que tengan dentro de sus objetivos el desarrollo del turismo, la conservación y la investigación;
5. Incentivar la creación de patronatos y asociaciones de carácter no lucrativo para que participen con su patrocinio en los programas de turismo, conservación e investigación que desarrolle el Comité;
6. Impulsar políticas y mecanismos de coordinación entre las distintas entidades gubernamentales a cargo de la promoción del turismo, de la conservación del medio ambiente y del patrimonio cultural, con el objeto de promover políticas tendientes a agilizar los trámites para la expedición de permisos, licencias y autorizaciones requeridos para incrementar y ejecutar los proyectos contemplados en las alianzas estratégicas;
7. Elaborar un reglamento interno de funcionamiento;
8. Las demás que le asigne el Consejo Nacional para el Desarrollo Sostenible.

ARTICULO 4: Los interesados en la ejecución de proyectos para el desarrollo de alianzas estratégicas de turismo, conservación e investigación podrán presentarlos al Comité que, a su vez, se encargará de coordinar su evaluación y aprobación por las entidades correspondientes.

ARTICULO 5: Para el desarrollo de las funciones que le confiere el presente Decreto, el comité contará con la asesoría del "Círculo Internacional de Asesoría", integrado por instituciones e individuos, nacionales e internacionales, comprometidos con el desarrollo sostenible de las riquezas naturales y culturales mediante alianzas estratégicas de turismo, conservación e investigación.

ARTICULO 6: Así mismo, el Comité promoverá la creación de un Círculo Internacional de Patrocinadores", integrado por instituciones e individuos, nacionales e internacionales, que contribuyan de manera significativa a las tareas del Comité.
Los miembros del "Círculo Internacional de Patrocinadores" y del "Círculo Internacional de Asesoría", serán designados por el Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" y prestarán sus servicios en forma ad-honorem.

ARTICULO 7: El Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" tendrá un Secretario Ejecutivo, nombrado por el Organo Ejecutivo, por recomendación de los miembros del Comité.

ARTICULO 8: El Secretario Ejecutivo del Comité tendrá las siguientes funciones:

1. Coordinar y dar seguimiento a la ejecución de las políticas, programas y acuerdos que establezca el Comité para el cumplimiento de sus objetivos;
2. Administrar los recursos asignados al Comité, bajo principios de transparencia, economía y eficiencia;
3. Presentar al Comité informes periódicos sobre su gestión;
4. Servir como ente de comunicación y coordinación entre los miembros del Comité, los organismos asesores al mismo, las entidades públicas y privadas vinculadas con la actividad turística y las comunidades;
5. Ejercer las demás funciones que le señalen los miembros del Comité.

ARTICULO 9: Las aportaciones, donaciones, legados y herencias que personas naturales y jurídicas hagan a nombre del Comité de Alianzas Estratégicas "Turismo-Conservación-Investigación" se considerarán, para los efectos del artículo 697 del Código Fiscal, como gastos deducibles a favor de los contribuyentes en el cálculo del impuesto sobre la renta.

ARTICULO 10: El presente Decreto Ejecutivo empezará a regir a partir de su publicación en la Gaceta Oficial.

COMUNIQUESE Y PUBLIQUESE

Dado en la ciudad de Panamá, a los treinta (30) días del mes de Noviembre de mil novecientos noventa y ocho (1998).

Firmado:

ERNESTO PEREZ BALLADARES
Presidente de la República

OLMEDO DAVID MIRANDA, JR.
Ministro de la Presidencia