

MODERNIZING JAMAICA'S INTELLECTUAL PROPERTY SYSTEM

• • • • • • • • • •

**A Report and Recommendations prepared by the
International Intellectual Property Institute under a
grant from the World Intellectual Property
Organization**



Executive Summary

In connection with meeting its obligations to implement the intellectual property provisions of the WTO Treaty, the Government of Jamaica requested assistance from the World Intellectual Property Organization (WIPO) in developing a plan to modernize its administration of the intellectual property rights system.

While this report addresses Jamaica's responsibility to meet its WTO obligations, it focuses on restructuring the national intellectual property system to support the growth of knowledge-based industries on the island.

A major premise of the report is that responsibilities for administration of the intellectual property system which are currently scattered among several ministries and agencies of the government be consolidated into a single, modern Intellectual Property Office in the Ministry of Commerce and Technology. And, that the new Office be equipped with the staff and technology necessary to deliver the highest level of service to the citizens of Jamaica.

The report also gives special attention to the role of the intellectual property system in making Jamaica's world-renowned culture, particularly its music, a more effective source of national economic growth.

The following summarizes the 25 specific action items recommended in the consultant's report.

- 1. Create a unified office for the administration of Jamaica's intellectual property system, including copyrights, neighboring rights and industrial property rights.*
- 2. Create an inter-agency committee chaired by the Minister of Commerce and Technology to coordinate government-wide activities recommended in this report.*
- 3. Design and implement a banderole system for copyright management and enforcement.*
- 4. Encourage the creation of a voluntary registry of copyright ownership in Jamaica.*
- 5. Design and implement an anti-piracy plan in cooperation with the Attorney General's Office and the Customs Service.*
- 6. Work with Jamaican recording artists to create a performer's collecting society to collect royalties due under the Rome Convention and the WIPO Performers and Phonograms Treaty.*
- 7. Support the rapid development of JACAP (Jamaica Association of Composers, Authors and Publishers), and the repatriation to Jamaica of royalties from foreign performances of Jamaican works.*

8. *Adopt and implement the WIPO Copyright Treaty and the WIPO Performers and Phonograms Treaty as soon as possible.*
9. *Design and implement a plan to build a robust music publishing industry in Jamaica.*
10. *Work with Jamaican authors and publishers to create a collecting society for the exploitation of mechanical and synchronization rights in Jamaica and abroad.*
11. *Promote the development of Jamaican brand identity for music, food and fashion through alliances among the tourism, music, garment and agricultural industries. Encourage joint marketing projects in foreign markets.*
12. *Design and implement a two-tiered fee system for trademark registration, apportioning costs according to the ability to pay.*
13. *Join the Madrid System for the international registration of trademarks.*
14. *Enact a modern industrial design law and adhere to the Hague Agreement for the Protection of Industrial Designs.*
15. *Design and implement a program to educate Jamaicans about how the benefits of intellectual property and how to protect and exploit the creations of their minds.*
16. *Enact a modern Patent Law consistent with the Paris Convention and the TRIPS agreement.*
17. *Provide adequate funding for patent services through a modern, two-tiered fee structure, which shifts costs to larger applicants with greater ability to pay.*
18. *Contract with a large foreign patent office for examination services.*
19. *Join the Patent Cooperation Treaty.*
20. *Develop and implement a government policy on patenting and licensing of inventions originating in government or government-sponsored laboratories.*
21. *Hire and/or train a patent agent capable of managing international prosecution of patent applications on behalf of Jamaican inventors.*
22. *Create a revolving fund to support payment of foreign patent agent and filing fees for Jamaican inventors.*
23. *Design and implement a policy for controlling foreign access to and exploitation of Jamaica's unique public domain folklore, traditional medicines and biological resources.*

- 24. Design and build a fully automated information infrastructure for the Intellectual Property Office, including an intra-office network, automated trademark and patent data-bases, a web site and internet accessibility for the general public.*
- 25. Obtain foreign or international public-sector funding of the capital costs associated with the establishment of the Jamaica Intellectual Property Office.*

TABLE OF CONTENTS

Introduction.....	6
Policy Context.....	6
The Unique Jamaican Context.....	7
Urgent Need for a Unified Organization to Administer Jamaica’s Intellectual Property System.....	8
Interagency and Private Sector Cooperation.....	8
The Role of the New JIPO in the Development of a Jamaica Centered Music Export Industry.....	9
The Advantages of a Banderole System, the Need for Enhanced Enforcement, and for a Program of Public Education about the Role of Copyright.....	10
The Advantages of Voluntary Copyright Registration.....	11
The Need for Authors’ Collecting Societies and a Stronger Music Publishing Industry.....	12
Trademark Registration and the New Jamaica Intellectual Property Office.....	17
Supporting Jamaica’s Technology Sector Through a Working Patent System.....	19
Supporting Commercialization of Inventions in Jamaican Universities and Government Laboratories.....	22
Protecting Folklore, Traditional Healing Arts and Indigenous Biological Assets.....	23
Financing the Intellectual Property Infrastructure in Jamaica.....	26
Financing Private Sector Initiatives.....	26
Information Technology Infrastructure.....	26
Diagram Showing Network Architecture.....	31
Chart Showing Projected Costs of Information Technology System.....	34
Proposed Structure for the JIPO.....	35
Overall Structure.....	36
The Executive.....	37
The Copyright and Related Rights Directorate.....	39
The Industrial Property Directorate.....	40
Law and Strategic Planning Department.....	43
The Facilitation Services Unit.....	44
Central Services.....	46
“Attachment A” (Chart Showing Organizational Structure).....	49
Implementation of Organizational Plan.....	50
Acknowledgements.....	51

MODERNIZING JAMAICA'S INTELLECTUAL PROPERTY SYSTEM

Submitted by Bruce A. Lehman¹

Introduction

The International Intellectual Property Institute (IPI)² has been retained by the World Intellectual Property Organization to advise the Government of Jamaica on the structure and functioning of a new Intellectual Property Office (JIPO) to be created in the Ministry of Commerce and Technology. As preparation for this report, Bruce Lehman, President of IPI visited Jamaica from December 15 through 19, 1999 to consult with a wide variety of government officials, members of the private sector, and academicians. The observations and recommendations, which follow, are solely those of IPI and Mr. Lehman.

Policy Context

Jamaica is a developing country. Although it is an island nation with a current population of approximately 2.6 million persons,³ it is the largest, independent, English-speaking state in the Caribbean region. Kingston, the capital, is the largest English-speaking metropolis in the Caribbean. As a signatory to the WTO treaty, Jamaica has an obligation to implement the section of that treaty known as TRIPS (Trade Related Aspects of Intellectual Property). The TRIPS agreement requires Jamaica and other signatory states to provide effective protection for patents, trademarks and copyrights within their national territories.

In connection with meeting its TRIPS obligations, the Government of Jamaica has decided to create a new Intellectual Property Office. This report has been commissioned to assist in that effort.

While this report deals with Jamaica's responsibility to meet its WTO obligations, the overriding principle guiding its author has been to use the legal and structural changes precipitated by TRIPS to create a national intellectual property infrastructure which benefits, first and foremost, the interests of the people of Jamaica.

Intellectual property rights are an important element in the optimal functioning of a modern, free-market economy. Effective protection of intellectual property rights should not serve the interest of foreigners at the expense of the nationals of any country.

¹ The author is President of the International Intellectual Property Institute. He served from 1993 through 1998 as Assistant Secretary of Commerce and Commissioner of Patents and Trademarks of the United States of America.

² IPI is a non-profit, nonpartisan organization dedicated to improving intellectual property systems around the world. The Institute was founded in 1998 by Bruce A. Lehman. For more information: <http://www.iipi.org>.

³ CIA World Factbook 1999: <http://www.odci.gov/cia/publications/factbook/jm.html>.

A fully functioning, modern system of intellectual property protection should promote both foreign and domestic investment, encourage native creativity and inventiveness and stimulate national economic growth. A nation's intellectual property policy, while meeting TRIPS obligations, should be designed to serve the national interest. Since each country has unique characteristics, resources and needs, its intellectual property policy should seek to comply with international standards while taking these unique qualities into account. The recommendations that follow have been made with the uniqueness of Jamaica in mind.

The Unique Jamaican Context

Jamaica is a small country with a limited industrial infrastructure and is overwhelmingly dependent on imports for manufactured products. Jamaica currently generates the wealth necessary to purchase these imports from tourism, mining, agriculture and service industries. Even with the wealth generated from these sectors, Jamaica runs an extraordinarily high current accounts deficit⁴. This imbalance between imports and exports is sustained largely by the flow into the country of wealth from expatriates – the “Jamaican Diaspora” – living in developed countries, principally the United States and the United Kingdom. Even with the inflow of wealth from its Diaspora, per capita income in Jamaica remains at the unacceptably low figure of \$3,300 U.S.⁵

The recommendations in this report are based on the assumption that the creative talents of Jamaicans can be more effectively harnessed to increase national wealth through more effective use of intellectual property rights. Therefore, while the report will recommend changes in government structures, it will also focus on ways in which government and private citizens can work together to enhance the value of the nation's knowledge-based assets.

Jamaica has obvious knowledge-based assets that are well known throughout the world. The most well known of these assets is the country's unique music. In addition to its music – and often associated with it – are its fashions, rich visual arts and literary traditions. Sadly, while these cultural assets are well known outside of Jamaica, too much of the economic activity surrounding their exploitation takes place off shore and does not contribute to the national economy. This report will address methods of correcting this unfortunate situation.

In addition to the obvious under-exploited knowledge based assets, Jamaica has other, less apparent intellectual property, which can be more effectively exploited. The author's week in Jamaica revealed a number of areas of intellectual strength that currently are being overlooked. This paper will also discuss how these hidden resources may be more effectively utilized.

⁴ Current account balance was -\$42 million in 1977, -\$401 million in 1997 and -\$323 million in 1998 according to World Bank statistics: <http://www.worldbank.org/data/countrydata/aag/jam-aag.pdf>.

⁵ Figure is 1998 estimate from the CIA World Factbook 1999.

The Urgent Need for a Unified Organization to Administer Jamaica's Intellectual Property System

At the present time administration of Jamaica's intellectual property laws is divided among several organizations. Copyright is handled by the Copyright Unit in the Ministry of Commerce and Technology. Trademark registrations are handled by the Registrar of Companies, an agency of the Ministry of Commerce and Technology. And, patent applications are submitted to the Ministry of Commerce and Technology but sent to the Attorney General's Chambers for determination and the Government Chemist and the Bureau of Standards for examination. As discussed in the body of this report, this fragmented system does not serve the interests of Jamaica's creative community, which needs a more service-oriented intellectual property infrastructure. The discussion below of the relationship of both copyrights and trademarks to the development of a robust Jamaica-centered music industry is an example of the linkage of the different types of intellectual property protection.

The author has had wide experience with the administration of intellectual property systems throughout the world, and would emphasize that the trend is in the direction of unified systems of administration. Indeed, WIPO, the specialized United Nations agency, which coordinates and administers the global system, has responsibility for all areas of intellectual property law, whether they are copyrights and neighboring rights or industrial property rights.

In addition, intellectual property administration requires the services of highly specialized experts and in most countries is supported by fees paid by users of the system, not by general tax revenue. Because of this, most countries have recognized the unique nature of intellectual property administration and have given their intellectual property offices greater administrative and fiscal freedom than is typical of tax-funded ministerial agencies. The author strongly endorses the decision of Jamaica's government to create a new Intellectual Property Office with the resources and mandate to provide specialized services in all areas of intellectual property administration.

Interagency and Private Sector Cooperation

Although the new Intellectual Property Office will have the expertise to develop plans and recommendations for a modern intellectual property infrastructure in Jamaica, such plans and recommendations will not result in the actual building of knowledge-based industries in Jamaica without the cooperation of other elements of Jamaica's government and its private sector.

Examples of the need for inter-agency cooperation are the need for the cooperation of the Ministry of Foreign Affairs and Jamaica's Economic Development Agency (JAMPRO) in obtaining foreign development assistance for the capital costs of setting up a modern and fully automated Intellectual Property Office. The Planning Institute of Jamaica (PIOJ) also may have a role to play in fully integrating knowledge-based industries into Jamaica's overall development strategy. Certainly the Attorney

General's Office and the Customs Service must be involved with enforcement and anti-piracy efforts. Therefore, the author recommends the creation of a permanent inter-agency committee, chaired by the Minister of Commerce and Technology, which would coordinate government-wide efforts to support and build Jamaica's intellectual property industries.

The author has had direct experience with this sort of inter-agency cooperation in the Clinton Administration in the U.S. Early in his Administration, President Clinton authorized such a committee as part of the National Economic Council. The Committee was essential in developing government-wide support and compatible policies to support the growth of the nation's high tech and information industries – all heavily dependent on a robust and modern intellectual property system. The cooperative effort was extremely successful in achieving the President's goal of strengthening these sectors of the economy. U.S. policy regarding the TRIPS agreement and the WIPO Copyright and Performers and Phonograms Treaties are examples of government-wide policies which were developed by this inter-agency process.

In addition to inter-agency cooperation, the new Intellectual Property Office will have to develop a program of continuous consultation and cooperation with its non-governmental constituency. The legal profession, the business community, the entertainment and publishing industries and university laboratories are important parts of this constituency. In addition to receiving feedback on its own program, this private-public sector dialogue can serve as a forum for various elements of the private sector to communicate with one another, identify synergies and work together to build Jamaica's knowledge-based infrastructure.

The Role of the New Intellectual Property Office in the Development of a Jamaica-Centered Music Export Industry

In October 1998, UNCTAD economists Zeljka Kozul-Wright and local entertainment lawyer, Lloyd Stanbury, published a discussion paper on the Jamaican music industry.⁶ The paper quoted earlier studies estimating that while Jamaican music generated “in excess of US \$1 billion globally” in 1995, the total value” of Jamaican music exports that year amounted only to US \$1.4 million. Thus, “only a very small portion of this globally generated revenue is earned by Jamaicans or finds its way into the domestic economy.”⁷ The report concluded that, “government initiative seems absolutely necessary” if the Jamaican economy is to share more equitably in the global exploitation of its musical culture.⁸

The new Intellectual Property Office in the Ministry of Commerce and Technology can play a leading role in repatriating to Jamaican shores much of the business associated with exploitation of the country's music. This is because effective

⁶ “Becoming a Globally Competitive Player: the Case of the Music Industry in Jamaica” UNCTAD Discussion Paper No. 138. United Nations Committee on Trade and Development.

⁷ Id. at 19.

⁸ Id. at 33.

economic exploitation of music rests on the effective use of national copyright laws and rights under international intellectual property law treaties. If Jamaica is to benefit from the legal regime that supports the global music industry, it, like other nations with developed music industries, must have a strong governmental infrastructure that supports intellectual property rights.

The new Intellectual Property Office will incorporate the existing Copyright Unit of the Ministry of Commerce and Technology. The new Intellectual Property Office must be able to provide the following services:

- First, it should be the focal point for creating a copyright enforcement and industry development plan for Jamaica.
- Second, it must support high-level government partnership with the private sector to build in Jamaica a domestically based, world class music industry.
- Third, it must serve as the focal point for international development and cooperation in the field of copyright and copyright industries.
- Fourth, it must be capable of providing to Government and Parliament recommendations on keeping Jamaican law current with international norms.
- Finally, it should develop international intellectual property policy in connection with Jamaica's participation in international diplomatic conferences and trade negotiations.

The Advantages of a Banderole System, the Need for Enhanced Enforcement, and for a Program of Public Education about the Role of Copyright

A piracy-free environment is essential if Jamaica is to develop its copyright-based music industry. Music is an ephemeral product. The moment it is composed, the first time it is performed, broadcast or recorded it easily can be copied and recopied by anyone without regard to the wishes of the author unless it is protected by copyright law. This fact has long been recognized in nations with large creative industries. Without exception, these countries have effective enforcement of creators' rights and, consequently, low levels of piracy.

Piracy can take many forms. Plagiarism of another's musical composition is the oldest form of piracy, but any unauthorized reproduction, public performance, transmission, retransmission or "making available to the public" constitutes piracy.⁹

⁹ International norms governing what constitutes piracy of authors' works have long been uniform and recognized in a series of treaties, beginning with the Berne Convention in 1886. The most recent international treaties dealing with authors' rights are the WIPO Copyright Treaty and the WIPO Performers and Phonograms Treaty, promulgated in December 1996. These last two treaties recognize a new right of "making available to the public." This new right is intended to capture all uses of authors' works in a digital context.

Without effective control of piracy it is impossible to sustain viable commercial enterprises based on copyright.

It is the author's understanding that the existing Copyright Unit of the Ministry of Commerce and Technology is developing an innovative program to control the unauthorized duplication of sound recordings. This program would require that any record, tape, cassette or compact disc containing copyrighted music be sold with an encoded band affixed to it containing authenticating information certifying it as an authorized copy. Copies without this authentication would be assumed to be pirated. Further, the cost of this authentication system would be borne by copyright owners who would pay a modest fee for each authenticating band, known as a "banderole."

Rapid implementation of this system is essential to laying the foundation for a robust record manufacturing industry in Jamaica. However, the easy identification of authorized versus pirated copies of a sound recording will not in itself create a piracy-free environment. The new Intellectual Property Office in the Ministry of Commerce and Technology must oversee the development of a means to complement this copyright management technology with an effective system of civil and criminal enforcement by the Ministry of Justice, the courts and customs officials.

In addition, of great importance is the development and implementation of a public education campaign to explain to the public the reasons to respect copyrights in Jamaica. This campaign should make use of the print and broadcast media to reach the widest possible audience. In addition to officials of the ministry itself, well-known and respected members of the Jamaican creative community might be recruited to donate their time and talent to the project. While the costs of the public education project should be supported by the banderole fee system, the Ministry may wish to consider its regulatory oversight of broadcasting as a means of requiring broadcaster participation as one of the conditions for use of the public airwaves. In addition, the Ministry might consider using the postal system as a vehicle for sending to every household in the country reader-friendly print material explaining the new policies.

The Advantages of Voluntary Copyright Registration

The United States of America has long had a system for registration of copyrights and the deposit of copies of works with the Library of Congress. Prior to January 1, 1978, a work of authorship published without registration and deposit automatically went into the public domain. In 1978 the most onerous aspect of the system from the author's point of view was eliminated. Registration no longer was required as a condition of copyright protection, but was required as a pre-condition to an infringement action in the courts. Failure to register before the infringement took place, however, limited the amount of damages an author could receive. In 1989 the U.S. joined the Berne Convention for the Protection of Literary and Artistic Works and modified its system further. Because the Berne Convention prohibits mandatory registration, the U.S. made registration as a pre-condition to an infringement action applicable to U.S. authors only.

While no other countries have registration and deposit systems like the U.S., in many countries authors' societies have created voluntary, non-governmental registries of claims to copyright ownership. The purpose of such voluntary systems is to assist in enforcement of rights by creating a clear record of the author's interests so as to establish the evidentiary foundation for enforcement actions in the courts.

The Copyright Unit currently is considering collaboration with a private sector interest group that has taken the initiative to create a voluntary registration system for Copyright. This system is being structured to conform to the Berne Convention requirement that there be no formalities as a pre-condition to copyright protection. The system will provide copyright creators with a much needed and long-awaited facility for documentation and recordation of their original works for evidentiary and archival purposes. In an effort to control piracy and improve copyright enforcement, these types of initiatives should be encouraged.

The Need for Authors' Collecting Societies and a Stronger Music Publishing Industry in Jamaica

Creation of a piracy-free environment is only the first step in building a robust music industry in Jamaica. The new Intellectual Property Office must take the lead in developing a plan for the non-governmental infrastructure and institutions necessary to a Jamaica-based industry. This is a need identified in the 1998 UNCTAD discussion paper on the Jamaican Music Industry.¹⁰

The infrastructure for a modern music industry consists of multiple elements. First, since composers, lyricists and performers usually are self-employed individuals, the Government must encourage the creation of collective institutions to meet the educational, social welfare and commercial needs that are provided by employers in other sectors of the society. Countries like the United States have well-developed institutions which meet these needs. Examples are creative guilds that serve the interests of groups as diverse as authors in the print publishing industry, screen writers and directors in the film industry, songwriters in the music industry, and actors and performers in the film and broadcast industries. Guilds can operate as collective bargaining agents in situations where the creative individual is an employee, but they often provide critical services to self-employed individuals. These services include training and workshops for professional development, professional standard-setting, health and life insurance services, and networking opportunities.

In addition to guilds, creators in all countries with highly developed copyright industries have formed "collecting societies" to manage their rights to receive copyright royalties from various uses of their works. The oldest and best known collecting societies are those that collect royalties for public performances (including radio and television broadcasts) of musical compositions and lyrics. The American Society of Composers, Authors and Publishers (ASCAP) and Broadcast Music Inc (BMI) in the

⁵ *Becoming a Globally Competitive Player: the Case of the Music Industry in Jamaica*, supra at 30-31.

United States and the Performing Rights Society (PRS) in the United Kingdom are examples of music collecting societies.¹¹ Jamaica has made progress in recent months in developing its own music collecting society, known as the Jamaica Association of Composers, Authors and Publishers (JACAP). JACAP, like its counterparts in the US and the UK, issues blanket licenses for the public performance of musical compositions. The rights holders represented by societies like JACAP are composers, lyricists and music publishers.

Other rights and other creators are not covered by the licensing activities of JACAP. A very important set of rights for Jamaican creators is the performer's right. The adoption of the WIPO Performers and Phonograms Treaty greatly strengthens the rights of musicians and vocalists to receive compensation for the digital exploitation of their performances. At the present time it is uncertain how these rights will be exploited by Jamaican performers. A new collecting society, JAMRAS, has been created to represent the interests of record producers, but the scope of its activities appears not to include representation of the interests of performers.

In most developed countries of the world (except the United States) performers and producers who create sound recordings enjoy the right to receive royalties for public performance or broadcast of their works in the same manner as publishers and composers. And, in all developed countries recognizing these rights there are collecting societies, which represent recording artists (performers) and record producers. If Jamaica is to have a thriving music industry, the Ministry, through the new Intellectual Property Office, must take the lead in seeing that such licensing organizations—particularly those representing performers—come into existence and perform their intended functions.

The right of public performance in sound recordings is recognized in the Rome Convention for the Protection of Producers and Performers of Phonograms.¹² This treaty, unlike the Berne Convention, does not provide for national treatment of foreign performers and producers by states adhering to the treaty. Reciprocity is required. Therefore, Jamaican record producers and performers cannot receive royalties from the extensive foreign broadcast and performance of their recordings without a system in place in Jamaica to administer similar rights.

Lost income to Jamaica will increase significantly when the new WIPO Performers and Phonograms Treaty becomes fully operative. The new treaty gives performers and record producers rights to license their performances in new digital media, including any distribution or “making available to the public” of sound recordings through the Internet. Unlike the Rome Convention, the new treaty has the United States as a signatory. And, the U.S. is a significant market for the public performance of pre-recorded Jamaican music.

¹¹ For more information, please consult their web pages: <http://www.ascap.com/>, <http://www.bmi.com/>, <http://www.prs.co.uk/home>.

¹² The Rome Convention was adopted in 1961. Jamaica became party to the convention on January 27, 1994. <http://www.wipo.org/eng/ratific/doc/k-home.doc>.

While the new Phonograms Treaty does require national treatment of foreign artists, the new rights will only be exploitable by Jamaicans if there is a national collecting organization to represent them domestically and in foreign countries. Absent a Jamaica-based collecting society to administer these rights, Jamaican artists will have to seek foreign societies to represent them. Already royalties are being collected in the United States for certain digital broadcasts of music through cable systems, and there is no Jamaican organization to represent the country's interest in receiving this revenue or encouraging the development of Jamaican or Caribbean cable music channels in this evolving market. This means that a significant and growing part of the music business involving Jamaicans will take place off-island. This is not a result consistent with making Jamaica an international center of the music business. The rich opportunities of Internet delivery of recorded music will be lost to Jamaica unless it has its own collecting society for recorded music.

Music publishing is a significant part of any developed music industry. Music publishers are the companies that not only print and distribute sheet music, but also promote and market the works of composers and lyricists and license the synchronization and mechanical rights of copyright holders.¹³ In addition, the long recognized practice in developed countries is to split performance right royalty evenly between publishers and the individual authors of a song. Under this system, music publishers in the United States alone receive approximately one half billion U.S. dollars per year. Since Jamaica has no active music publishing industry it has no way of participating in this lucrative business when the works of its artists are broadcast or publicly performed abroad.

It is the author's understanding that JAMPRO has already developed a draft strategic plan for the Music Industry.¹⁴ This effort by JAMPRO must be complemented by the plan to be developed by the Intellectual Property Office. The author of this paper recommends that the plan include an effort to obtain funding from international aid organizations such as USAID, WIPO, the World Bank or regional development banks. The plan also should include a program of cooperation with music publishing companies in the United States and Europe. This cooperation could begin with a program to train Jamaicans in the business through an "internship" at the headquarters of an organization such as the National Music Publishers' Association in New York. Or, it could involve training with a major publisher of music in one of the industry centers such as New York, London, Los Angeles or Nashville. In addition to valuable training, such contacts could lead to foreign direct investment in the Jamaican industry. JAMPRO, Jamaica's economic development agency, should cooperate with the Intellectual Property Office and support efforts to attract direct foreign investment in Jamaican Music Publishing industry. The Intellectual Property Office will have the copyright industry expertise, but JAMPRO has the marketing experience and international economic development contacts necessary for the successful formation of international partnerships.

¹³ The synchronization right is the copyright owner's right to control the use of its music as a part of the soundtrack of a motion picture or other audio-visual work. The mechanical right is the right to make a sound recording of a musical composition.

¹⁴ Andrea Davis, *Draft Strategic Plan for Jamaican Music in the 21st Century*, 1999-2004, JAMPRO.

Jamaican composers, lyricists, and music publishers need a method of exploiting the mechanical and synchronization rights mentioned above. In some countries the same collecting society which licenses public performance rights also licenses these rights. In the United States there is a separate organization, known as the Harry Fox Agency, which performs this function. The Harry Fox Agency is owned by the National Music Publishers' Association. At the present time there is no entity within Jamaica to license mechanical and synchronization rights. JACAP, like its U.S. counterparts ASCAP and BMI, licenses only the public performance right. Therefore, as part of encouraging the development of a Jamaica-based music publishing industry, the Intellectual Property Office should work with Jamaican authors to set up a collecting mechanism like the Harry Fox Agency to administer the mechanical and synchronization rights system. Such an organization can enter into reciprocity agreements with similar foreign societies to assure that international use of Jamaican works in the mechanical or synchronization context is properly licensed and royalty revenue returned to Jamaican rights holders.

With the creation of Jamaica-based collecting societies and publishing companies, Jamaican artists and entrepreneurs will begin to have the skills, business contacts and capital to expand into the mainstream sound recording industry by developing Jamaica-based record labels with the attendant employment and business opportunities for residents of the island.

One of the most exciting changes occurring in the music business today is that we are on the threshold of direct digital delivery of sound recordings to consumers through the Internet. It is entirely possible, if not probable, that compact discs will soon join vinyl records as antiquated technologies. Press accounts of the recent merger announcement between AOL, the biggest U.S. internet access provider and Time-Warner, Inc., the biggest media company, have been filled with discussions of direct delivery of records to consumers over the Internet. It is now certain that such alliances among Internet access providers and record companies will soon lead to direct digital delivery to consumers for a fee. Consumer interest in such opportunities already has been created by the widespread practice of making "free" music available through the Worldwide Web using the MP3 format.

The rapid development of Jamaica-based collecting societies, music publishers and record labels is critical if Jamaica is to take full advantage of the opportunities for this new form of music distribution. It is possible to imagine Internet music "channels" or web sites dedicated solely to Jamaican or Caribbean product. At the present time the successful distribution of sound recordings requires links with thousands of record retailers in scores of countries. And, it is almost impossible to reach this vast retail market without going through one of the big international record companies headquartered in the United States or Europe. The Internet changes this paradigm. Using Internet delivery of their product, Jamaican talent would be able to reach a global audience instantaneously.

An additional advantage of Internet distribution channels devoted to Jamaican music would be linkage with other Jamaican cultural industries such as the visual arts,

film making and, of special importance, the tourism industry. Cultural tourism is a growing part of the international tourism business. And, Jamaica has a unique and attractive package to sell in this context. A highly visible Jamaican “content” presence on the Internet could provide an excellent way of attracting travel to Jamaica for attendance at live concerts and festivals. The recent, internationally televised Bob Marley concert at the James Bond Beach in St. Mary is an example of this kind of tourism draw. Cultural tourism not only builds the market for Jamaican music and art, but also means more guests at resort hotels and more passengers for Air Jamaica. And, combining the marketing campaigns of the music, hotel and travel industries results in costs savings to each of the elements over a “go it alone” approach.

The World Bank has recognized the importance of cultural industries to national economic growth and sponsored an international conference on October 5-7, 1999 entitled “Culture Counts.” The conference explored the relationship between culture and industries such as tourism. The author’s colleague, Dr. Michael Shapiro, presented a paper at this conference in Florence, entitled “Commerce, Culture, and Community – Museums and the Digital Future.” The Inter-American Development Bank is sponsoring a similar conference in New Orleans on March 25, 2000. IPI has been asked to participate.

Interestingly, Jamaicans living in the United States have recently banded together to attempt to promote the market for Jamaican cultural products in the U.S. Under the leadership of Margaret Reckford Bernel, editor of *Arts Jamaica Magazine* and wife of the Jamaican Ambassador to the United States, The Jamaica Artists Alliance has been formed. Its agenda includes “development and creation of networking opportunities for the [Jamaican] art community in North America, the promotion of greater art awareness in Jamaica, especially among youth, and the promotion and presentation of Jamaican and Caribbean art in North America and internationally.”

A final note, which is critical to any plan to develop an Internet-based global market for a Jamaica-based music industry is the importance of marketing. Recent unpublished studies by the U.S. Software and Information Industries Association have demonstrated that the simple act of creating a web site, even with outstanding content, will not draw visitors to the site. Serious marketing efforts are needed to acquaint consumers with the site and distinguish it from the tens of thousands of others available on the Net. Marketing requires capital, and any plan to build a Jamaica-based Internet music distribution business will have to consider ways in which such capital can be obtained. While it is possible that international public sector financing from institutions such as the World Bank or regional development banks can be sources of such funding, alliances with existing international music publishing and distribution enterprises will provide both credibility and additional sources of money. Seeking such alliances and investment must be a part of any development plan.

Jamaica already has a successful program to market its resort industry through the Jamaica Tourist Board. Possibly with the assistance of JAMPRO, this marketing experience could be used to support the marketing of Jamaica-based Internet music

distribution channels. As discussed in the section on trademarks which follows, this kind of joint marketing can assist in popularizing a globally recognized “Jamaica brand” for a wide variety of culture-based industries.

Trademark Registration and the New Jamaica Intellectual Property Office

At present, examination and registration of trademarks in Jamaica is a function of the Office of the Registrar of Companies, an agency of the Ministry of Commerce and Technology. During his visit to Kingston in December 1999, the author had the opportunity to see the physical plant of the Office of the Registrar and to interview officials responsible for trademark examination and registration. Typical of other impressions of Jamaica, the author was impressed with the enthusiasm and technical competence of the responsible personnel, but highly critical of the physical and technological infrastructure supporting their work. At the present time all trademark records in Jamaica are maintained in paper files. They are not retrievable by computer. The physical space in which work is done is antiquated.

Jamaicans should be encouraged to file trademark registrations covering goods they create and services they provide. Good business ideas, which prove themselves in one location, often have significant potential elsewhere. Growing a business from local to national to international markets is what economic growth is all about. Cultural industries rely on trademarks almost as much as on copyrights to protect valuable assets and exploit them in the marketplace. Witness the trend, started by companies such as Disney, to expand from film to theme parks and hotels to retail outlets selling licensed, trademarked products. Every major U.S. entertainment company now utilizes the trademarks on its products to expand into new areas of consumer demand. This is also true in the music industry.

In almost all developed countries the costs of trademark registration and examination are supported by fees, paid by applicants and registrants. Typically, there is a fee for the initial examination and registration, and additional fees paid at periodic intervals to keep registrations in force. The Paris Convention for the Protection of Industrial Property is the international treaty establishing international standards for trademark registration. The Paris Convention prohibits discrimination against foreign nationals in the registration of marks. Therefore, it is not possible, as a matter of law, to charge foreign applicants higher fees for registration than are required of Jamaican nationals. However, distinctions based on other criteria are possible. For example, in the United States small businesses of less than 500 employees or revenue of less than \$5 million annually, individuals and non-profit institutions pay half the fee level of large, private companies for patent services. It would be possible to make similar fee distinctions in Jamaica.

To encourage local individuals and businesses to protect their trademarks and to shift to foreign applicants the burden of financing trademark services, the author recommends the adoption of a two-tiered fee structure for registration of trademarks in Jamaica. While such a two-tiered system cannot directly discriminate against foreigners

it can be built on distinctions which would shift the costs of administration to foreign applicants and make it easier for Jamaican nationals to enter the system. Since most Jamaican applicants would be considered eligible for the subsidized rate in the U.S. Patent Office, while most of the foreign businesses filing in Jamaica would be considered applicants at the higher fee rate, establishing such a system in Jamaica would – as a practical matter – shift funding of trademark services to foreign registrants.

One important step Jamaica needs to take is to adhere to the Madrid Convention or the Madrid Protocol for Trademark Protection, mechanisms for multinational filing of trademarks. Adherence to the “Madrid System” will increase the Intellectual Property Office’s fee revenue by facilitating a larger number of foreign filings. Most importantly, however, it will make it easier for Jamaicans themselves to obtain protection for their exportable business ideas in export markets.

A good model for Jamaica is the U.S. city of Nashville, Tennessee, which has become the capital of “country western entertainment.” The thriving music industry businesses in Nashville began with a critical mass of talent – all sharing common cultural roots. This led to the establishment of music publishing companies, record labels, and live performance venues all marketing a “Nashville sound.”

One of the most famous products of the Nashville sound is “The Grand Ole Opry.”¹⁵ Initially a theater featuring live country-western performances, the Grand Ole Opry extended its trademark into syndicated television programming, theaters in other locations and hotels and tourism. The original Grand Ole Opry theater has expanded into a large resort complex known as Opryland. Opryland has hotels, shops and other amusements, which bring thousands of tourists to Nashville every year. Indeed, as this report is being written, Grand Ole Opry has announced construction of a resort hotel and entertainment complex in the suburbs of Washington, D.C. The new complex will represent several hundred million U.S. dollars of investment and will take advantage of Washington’s existing status as a tourist capital. The “Jamaican sound” is no less distinctive than the “Nashville sound.” If Nashville can spawn music publishing companies, record labels, franchise businesses and cultural tourism, so can Jamaica.

A key to expanding enterprises like the Grand Ole Opry is trademarking its distinctive features. When one ponders the success of geographically based businesses like Grand Ole Opry or Kentucky Fried Chicken (built on a regional cuisine), one can imagine the possibilities for exploitation of Jamaica’s unique, music, art, food and fashion. Somewhere in Jamaica is a future Kentucky Fried Chicken, but the local businessperson will never be able to franchise his unique asset unless he begins with securing trademark protection – first in Jamaica and latter in export markets.

In addition to trademarks, design protection is very important to culture-based industries, fashion in particular. As part of stimulating the growth of the domestic and export market for goods with a Jamaican look and feel, Jamaica should enact a modern

¹⁵ The web site of the Grand Ole Opry is <http://208.200.175.236/>.

design protection law and adhere to the Hague Agreement Concerning the International Deposit of Industrial Designs.¹⁶ It is the author's understanding that this work is in progress, but it is recommended that the project be completed as soon as possible so that the benefits can be made available to Jamaican creators as soon as possible. However, promulgation of a new design law and adherence to the Hague Agreement and Madrid System will only benefit Jamaican designers and business people if they know about these rights and how to use them.

To encourage Jamaicans to file trademark and design protection applications the new Intellectual Property Office can conduct a campaign of outreach and education in Jamaican communities to acquaint local business people with the opportunities that accompany trademark registration. This can involve a public education campaign similar to the one recommended above for copyrights. However, the Ministry of Commerce and Technology has at its disposal a special asset, which can expand knowledge of and use of the trademark system. This is the Jamaican Postal Service, which is part of the Ministry.

The Postal Service can help in several ways. First, it can be used to send printed material explaining the advantages of trademarks and design protection to small businesses all over Jamaica. Second, local post offices themselves can become places where citizens can learn about opportunities, educate themselves and apply for trademarks online. The Ministry should consider extending the reach of the Intellectual Property Office into postal cyberspace by locating a computer terminal in every post office in Jamaica, which can be used by citizens to file trademark applications and to interact with their government in general. It is the author's understanding that, as part of its continuing franchise in Jamaica, Cable & Wireless, Ltd. will be providing to the Government large numbers of personal computers which can be linked to the Internet and used in post offices for this purpose. In addition, such a project might be an excellent justification for development assistance from developed country and international aid agencies.

Supporting Jamaica's Technology Sector Through a Working Patent System

Like most developing countries Jamaica has not had a national consciousness that included domestic creation or improvement of technology. This is a direct result of Jamaica's colonial history in which the island's role in the British imperial system was simply to produce agricultural products and raw materials. Under this system, technology came from Britain. Therefore, it is no wonder that Jamaica's patent law is an 1857 statute imposed by colonial administration as an extension of the English legal system to the Empire.

In the twenty-first century, a nineteenth-century approach to technology will not support the rightful aspirations of the Jamaican people to the same standard of living enjoyed by people in the United States and the United Kingdom. Jamaica has always produced scientists, engineers and inventors. In years past Jamaicans with technical

¹⁶ The Hague Agreement on Industrial Designs was adopted in 1925 and amended in 1979.

ability – and the financial resources to do so – traveled to the U.K. or the U.S. to receive advanced education in the sciences and engineering. When they received their degrees these individuals generally remained abroad to practice their professions. They became part of the Diaspora of the Jamaican people. High technology industries in the United States would not be able meet their needs for talent today were it not for the constant supply of scientific minds from the developing world. Indeed, one of the final acts of the U.S. Congress in the closing hours of the twentieth Century was to amend U.S. immigration law to make it easier to recruit and keep foreign scientists and engineers in the United States.

In recent years Jamaica has begun to take steps to change the colonial paradigm of sending both its raw materials and best minds abroad in return for imported goods by creating the University of Technology to provide advanced training in technology at home. Together with the University of the West Indies, the University of Technology is establishing the educational infrastructure, which is the foundation for a technological society. It is now time to create the legal and business infrastructure to enable a high-tech industrial sector to plant roots in Jamaica. A system of modern patent law and administration is a basic building block of such an infrastructure.

Jamaica has many assets as a place in which to locate high technology business, especially those involving telecommunications and information technologies. Jamaica's tropical climate and extensive agricultural sector also would make it a good location for research in the area of biotechnology and plant varieties. The country has an extremely stable political system, strong tradition of the rule of law, and – not to be underestimated – an extremely pleasant climate and landscape in which to live and do business. Indeed, there is a direct correlation between these environmental and climatological factors and the geographical growth centers for high tech information industries in the United States and Europe.

Jamaica's patent system must be rebuilt from scratch. First, the 1857 patent law must be replaced with a modern statute compatible with the Paris Convention on Industrial Property and the TRIPS agreement. A major step forward was taken on December 24, 1999 when Jamaica joined the Paris Union. Jamaica also should adhere to the Patent Cooperation Treaty.¹⁷ Furthermore, as a nation rich in tropical flora Jamaica should enact a modern law for the protection of plant varieties and adhere to the International Convention for the Protection of New Varieties of Plants (UPOV).¹⁸

It is the author's understanding that steps already are under way to implement all of these recommendations.

The new Intellectual Property Office must include a patent section in its Industrial Property unit. The author strongly recommends that the patent section engage in administration of the patent system only, and that the actual examination of patents for

¹⁷ The Patent Cooperation Treaty was adopted in Washington, DC in 1970, amended in 1979 and modified in 1984.

¹⁸ UPOV was adopted in 1961 and last revised in 1991.

Jamaica be contracted out to a foreign patent office. Australia and Canada would be excellent options.

The new Jamaican Office should encourage both the filing of patents by foreigners in Jamaica and the filing of applications by Jamaican nationals. Filings by foreigners are a predicate to obtaining foreign investments and joint ventures involving Jamaica's technology sector. Filings by Jamaicans can help to boot-strap the creation of a local high tech infrastructure. However, increasing the number of filings in Jamaica by Jamaican nationals in itself is of limited value. The new Intellectual Property Office must become a focal point for encouraging and assisting Jamaican nationals to file in foreign jurisdictions as well, particularly in the large markets of its leading trading partners, the United States and the European Union. A single valuable invention can lead to comparatively large rewards for a small country economy like Jamaica's when the invention is exploited in far larger markets abroad.

At the present time there is not a single trained patent agent in Jamaica. This situation must be corrected. In addition, because the ability to file for foreign rights in valuable inventions is critical, Jamaican inventors need to have access to patent agents capable of managing multinational filings. The costs, both for agents' fees and for national filing fees in foreign jurisdictions, are substantial and beyond the means of most Jamaican inventors. Therefore, the author strongly recommends that the new Intellectual Property Office provide patent agent services directly to the public, and particularly to the academic and research institutions, and that a method of subsidizing foreign filings for worthy inventions be developed.

With regard to the need for a Jamaica-based patent agent, the author recommends that the new office identify a Jamaican with a degree in the sciences or engineering and send him or her to the U.S. or the U.K. for training. Training could begin with a course at an academic institution for education in the legal fundamentals of patent law. This should be combined with hands-on training in a host organization such as the National Institute of Standards and Technology, the Department of Energy or the National Institutes of Health in Washington, D.C. In fact, it would be advisable for the trainee to spend some time in multiple institutions where he or she could be exposed to the different protocols for filing in different fields of technology. An immediate and temporary means of providing this much needed service to Jamaica's inventors might be to recruit a retired patent agent from one of the U.S. government organizations listed above to staff the office in Jamaica.

The costs associated with training a patent agent, providing subsidized patent prosecution services to Jamaican nationals and subsidizing payment of foreign agent and filing fees for worthy inventions are substantial. However, because the Intellectual Property Office will generate fee income, it eventually will have a revenue base to support payment of these costs. In addition, domestic and international patent prosecution services supplied by the Office and its patent agent could be paid for by a revolving fund. Inventors could be required to dedicate a certain percentage of royalty

revenue from commercially successful inventions to the repayment of the costs of services provided.

Once Jamaica has adhered to the Patent Cooperation Treaty and has established a functioning patent office it will begin to attract larger numbers of foreign patent filings. As in the case in other countries, these filings can constitute a source of revenue for the office's funding. It is extremely important that the fee structure be considered very carefully. If fees are too high, foreign applicants will be discouraged from filing. If they are too low, they will not meet the budgetary needs of the new office and the ministry. The author recommends that fees of other nations be surveyed so that a fee level appropriate to a market the size of Jamaica can be determined. In addition, it is strongly recommended that there be a two-tiered fee system similar to that described for trademarks earlier in this report.

While the Paris Convention prohibits discrimination in fees based on nationality, it permits tiered fee structures based on the applicant's number of employees, revenue and profit-making status. As noted above, the U.S. has a two-tiered system under which nonprofit entities, individual persons, and profit-generating businesses of fewer than 500 employees and \$5 million in annual revenues pay patent fees at a level 50% lower than so-called large entities. If Jamaica were to use the distinctions of the U.S. system, it could legally shift the burden of financing its patent system to foreign filers. It might be advisable to establish an even greater discount for small entities than is the case in the United States.

Finally, it should be emphasized that the patent system has two roles. One is to stimulate innovation through providing exclusive property rights to inventors. The other, equally important role is to provide disclosure to the public at large of the latest technology. Often this latter role is forgotten. As a developing country, Jamaica's teaching, research and industrial organizations could benefit from a system that emphasizes the easy availability of patent information to the public. The new Intellectual Property Office should forge links with the Scientific Research Council, university laboratories and Jamaica's industrial sector to make patent information more readily available and to encourage – where appropriate – the licensing into Jamaica of technologies which would be useful to the country's development.

Supporting Commercialization of Inventions in Jamaican Universities and Government Laboratories

As is the case in most developing countries lacking a developed private sector technology industry, much if not most of serious technological skill is to be found in academia and in government-owned or supported research organizations. Jamaica has two universities where commercially viable research is being done. The Agriculture Ministry has research operations that support the sugar and other agro-industries in which Jamaica is a world-class player. The Bauxite Institute is another example. The research of scientists in these organizations undoubtedly results in patentable innovations.

However, at the present time there is no organized system to identify these inventions, secure patent protection in Jamaica and internationally, and to license the technology.

The University of the West Indies has developed a patent policy and is now actively attempting to identify commercially viable research. During the author's recent visit to Jamaica, he met with the university official responsible for this program and was advised that a major international pharmaceutical company had approached the University about licensing one of its discoveries. Unfortunately, due to the expense of international patent prosecution, the invention has not yet been patented and there was considerable fear about losing its value prematurely in a bad deal. This example points to the need for a comprehensive national policy to provide technology transfer expertise to Jamaica's universities and government laboratories. The author has written and spoken on the importance of strengthening the tech-transfer infrastructure in developing countries. Helping Jamaica to develop and implement a comprehensive national policy would be a logical area for additional WIPO-sponsored assistance.

The author's recommendation to hire a patent agent within the Intellectual Property Office is a key element of developing a larger university-government technology transfer policy, by providing the resources needed for government and university laboratories to secure transferable patent rights in their innovations.

Protecting Folklore, Traditional Healing Arts and Indigenous Biological Assets

There are certain national assets that cannot be directly or comprehensively protected or exploited under any of the existing systems of intellectual property protection. Examples are folklore, traditional methods of healing, and aspects of the ecosystem that can be used as "starting material" and then modified for use in biotechnological inventions. This does not mean, however, that Jamaica cannot create mechanisms to control their exploitation and require that Jamaicans receive compensation for their use. Indeed, the right to control unique biological assets is specifically recognized in the Convention on Biodiversity.¹⁹

As a sovereign state, Jamaica has the right to control access to its territory. Any visitor to Jamaica seeking to do research in the country's folk traditions, traditional healing arts or in its unique biology can be required as a condition of entry into Jamaican territory to agree to share the financial and other fruits of discoveries arising out of such research with Jamaicans. The Office of Intellectual Property should conduct a study of the legal options available to implement such a policy.

Financing the Intellectual Property Infrastructure in Jamaica

The use of a banderole system for copyright control and self-financing fee system for the industrial property unit (patents and trademarks) eventually should be able to finance the direct expenditures of the Intellectual Property Office. In addition, should the

¹⁹ The Convention on Biodiversity was signed in June 1992 and entered into force in December 1992.

Copyright Unit pursue a joint project for the further development of the voluntary registration system for copyright, the Government would stand to earn some revenue from this process. For example, it is already projected by the Office of the Registrar of Companies that Jamaica \$15,400,000 (US\$366,000) will be earned from trademarks operations alone in the financial year 2000/01 and a projected Jamaica \$17,500,000 (US\$416,000) in 2001/02.

In addition to Trademark operations, JIPO is also expected to earn an estimated Jamaica \$4,600,000 (US\$109,000) from the following activities in its first 12-18 months of operation. Some of these projections are conservative estimates:

- Industrial Designs Applications
- Geographical Indications Applications
- Patent Applications
- Utility Model Applications
- Sale of Banderoles for Copyright Recordings
- Copyright certifications

JIPO is also expected to earn an estimated Jamaican \$3,400,000 (US\$80,000) from the following additional activities in its first 18- 24 months of operations:

- Patent Cooperation Treaty applications
- Applications under the Madrid Protocol for Trademarks
- Royalties Under Licensing Arrangements

However, as can be seen in comparing the following projected costs to the expected revenue for the first 18 to 24 months of operations, the Office will not be able to run in the black in the near term. There will need to be significant capital expenditures on computers, office equipment and space, and it will take a number of years to amortize these costs. Further, it will take some time for the effects of policies such as modernization, joining the PCT, and a new fee structure to kick in and begin generating an adequate flow of revenue.

The following, in Jamaican dollars, are the estimated costs of operations of the new Jamaica Intellectual Property Office for the first 18 months after its creation.

<u>ITEM</u>	<u>ESTIMATED COSTS</u> (Jamaican dollars)
Compensation of staff:	20,000,000
Acquisition of Furniture & Office Equipment:	2,000,000
Automation of Office:	4,000,000
Accommodation:	2,500,000
Public Utilities:	1,000,000
Travelling for Government Representation:	1,000,000
Purchase of Anti-Piracy Devices and equipment:	500,000
Other project and programs:	4,000,000
<hr/>	
<u>TOTAL</u>	35,000,000

Therefore, the Office will need an initial injection of capital funds and early-years subsidization of operations to succeed.

The Government already has begun to explore funding possibilities for JIPO through the mechanism provided by its Planning Institute. The following are possible options:

1. Jamaica could seek assistance from developed country member states of the WTO that such states are obliged to provide under Article 67 of the TRIPS Agreement. The United States Agency for International Development is one such example.
2. Jamaica could seek assistance from development banks such as the Inter-American Development Bank, the World Bank and the Caribbean Development Bank. The revenue-generating capacity of JIPO makes it a particularly attractive candidate for low-interest lending from these institutions because JIPO will generate the funds to pay off the loans.
3. Jamaica should continue to rely on WIPO for technical assistance, including consultants, training, study visits, seminars, computer equipment, IP documentation, advice on laws and treaty accession as well as funding for participation in international meetings. Provision of an expert mission to establish the Anti-Piracy Unit and to launch the anti-piracy system, as well as ongoing training in the administrative procedures of the trademark, patent and designs systems, are areas where WIPO's specialized assistance is appropriate.

In seeking international development assistance, project documents must be developed to justify the assistance. Examples of the subjects on which project documents will be needed are (1) the automation/computerization of the Office and administrative procedures; (2) hiring a Patent Agent; (3) implementation of the Anti-piracy system, and (4) public education programs.

In planning for the financial security of the new Intellectual Property Office it must be kept in mind that the projected fee revenue cited above is estimated, and most importantly will not be realized unless the following conditions are met:

1. Promulgation of the Trademark Rules and coming into force of the Trademarks Act 1999 by April 2000.
2. Enactment of the Patents and Designs Act and new fee structures by April 2000.
3. Enactment of the Geographical Indications Act by April 2000.
4. Accession to the Patent Cooperation Treaty by June 2000.
5. Cabinet Approval and implementation of the Banderole System by April 2000.
6. Cabinet Approval of a voluntary copyright certification system by April 2000.
7. Accession to the Madrid Protocol by August 2000.

It is the author's understanding that these activities are now being actioned by the Government through the Ministry of Commerce & Technology.

Financing Private Sector Initiatives

However, even if the Intellectual Property Office itself is adequately funded from fee revenue, these fees and accompanying foreign assistance will not produce enough to fund the much needed development of the private sector intellectual property infrastructure. Creating new publishing institutions (music, print and electronic), forming authors' and performers' collecting societies, and building scientific and technical research enterprises will require considerable financial capital. As in the case of funding the capital expenditures of JIPO, it is more than appropriate to seek foreign assistance to finance these activities. The Intellectual Property Office should play a lead role in developing a strategy for obtaining such foreign assistance in collaboration with JAMPRO and the Planning Institute of Jamaica (PIOJ).

Information Technology Infrastructure

Since JIPO must build an Information Technology (IT) infrastructure from scratch, it has the opportunity to capitalize on the lessons learned by other Intellectual Property Offices (JIPOs), WIPO, and related intellectual property organizations. It can take advantage of the "best IT practices" of those organizations. In order to establish a framework for detailed technical and resource planning, it is appropriate to identify major components of the envisioned JIPO environment and to identify major issues associated with building this IT infrastructure. Likewise, it is helpful to make a gross estimate of the resources necessary to initially establish and run IT operations.

JIPO IT infrastructure will include a local network, host computers and/or servers, desktop workstations, operating system and application software, miscellaneous ancillary components (such as printers, scanners, CD-ROM and DVD devices, tape backup units and possibly modems), security components, and network management and monitoring facilities.

Prior to attempting to estimate the resources necessary to support JIPO functions, it is necessary to profile the types of automated functions that will use these network, server, and desktop “platforms.”

Automated Functions and Services

A number of automated functions and services will be necessary to support daily operations of the JIPO. Some functions are pure overhead functions necessary to sustain operations, and some, such as patent and trademark filing and copyright registration processes, are mission-related. We will start off identifying those functions necessary to support daily operations of the Office.

Office Automation (OA) functions: OA functions such as word processing, spreadsheets, calendar, and file manipulations will be required. Functions such as word processing, spreadsheet, and business presentation graphics are generally provided by software running on desktops with connections to servers such that data can be saved from the desktop to a local file server and shared among those users with a bona fide need for access.

E-mail: Electronic mail is also a type of office automation function but it is a special kind. E-mail functions should be made available for all office staff and management that have a need to communicate within the organization and for those who need to interface with remote parties. E-mail is proving to be one of the most effective ways to communicate with other IP offices, with members of the general IP community, and potential customers and beneficiaries of IP protection. Both OA and e-mail functionality can be provided via commercially available software.

Internal administrative applications: Services such as time and attendance, travel support, budget functions, financial tracking and accounting, billing and collections, project management and reporting, and general management activities need to be provided. Many of these functions can be supported with commercial software, but some may have special requirements and will have to be developed locally by the JIPO.

World Wide Web (WWW) Access: Internal JIPO staff and management will need access to the World Wide Web. A moderate-to-high bandwidth connection will have to be established with an Internet Service Provider (ISP). Prices, types of services, level of support, robustness, etc. can all vary widely; however, it can be safely assumed that internal staff and management will need access to the Internet for both browsing and electronic mail functions. Later, as bandwidth and reliability improve, the Office can consider desktop video and distance learning applications. JIPO would do well to take advantage of the potential training courses planned by WIPO for Internet delivery.

Web-based publishing: JIPO will need to build a Web site that provides customers and others interested in IP subject areas and JIPO activities access to JIPO public information.

Web-based patent and trademark submission: Several of the larger IP Offices have established facilities for electronic filing. Additional on-line filing and status inquiry functions are being developed by the larger IPOs and WIPO is planning to develop Internet-based electronic filing systems. Likewise, JIPO should plan to deploy Internet-based filing capabilities. The software to support this capability will likely be freely available by the time JIPO is ready to undertake such a project. One important aspect should be considered, and that is the important question of what to do with the electronic records after they are submitted by customers. That is, the JIPO must also consider what additional electronic records processing capabilities it must have in place to handle electronic records once filed. This has not been entirely thought out by even some of the larger IPOs at this point but will soon emerge as a major point of concern on the international stage. In the interim JIPO may have to print these records after receipt and handle processing manually until such time as a fully automated process is available.

Web-based public access to JIPO IP data: JIPO should provide customers, as well as the general public, access to its IP holdings (i.e., published copyright records, trademarks, and patents). Facilities that provide this service can be established with readily available software. The limited number of IP holdings by JIPO can easily be introduced in database access form and included in web server databases for electronic searching by the public.

Newsletter, list servers, and subscription services: Web services that allow customers and the general public to sign up for electronic or postal delivery can readily be accommodated once baseline web services have been established. Customers and remote users can be provided an Internet-based service for sign-up and delivery, or can opt for classic postal mail delivery.

Business-to-business connectivity: Once it establishes its basic operational platforms and network environment, JIPO will be able to add closed access functions to universities, other government agencies and ministries, other IP Offices, WIPO, and its industry partners. This can be done using Virtual Private Network technology, separate point-to-point links, or by employing various encryption techniques.

Internal Trademark, Copyright, and Patent functions: Part of the day-to-day operation of the Office will include receipt, storage, retrieval, processing, publishing, and archiving IP records. A standard query language database needs to be established such that several types of functional access and processing can be supported. This is probably the most complex and challenging component of the application software category, since programs and systems are not readily available. Initially a combination of manual and automated processing steps may therefore be necessary.

In summary, although this list of functions and services is not intended to be a complete list, it does identify the major functional capabilities that need to be supported by the IT infrastructure. The following discussion addresses miscellaneous issue areas associated with building the IT infrastructure.

IT Architectural Considerations

The use of proprietary versus standards-based open systems approaches has long been a point of discussion. The predominant approach used today is to employ open systems interconnections protocols and use primarily WinTel PC platforms, at least for desktop workstations and perhaps for servers. However, not enough is known at this time to determine if all the servers should run vendor-specific operating systems, Unix, Linux, MS NT Server, or a combination thereof.

Detailed planning is necessary that addresses subjects such as:

- Network Protocols selection
- Firewalls
- Servers: file/databases, e-mail, Web
- Physical cable plan and distribution
- Topology design
- Network Control Center facilities
- Help Desk support

IT Security Requirements and Issues

An important aspect of the entire IT enterprise is security. A formal security management process needs to be established and certain basic security functions must be in place in order to provide customers and internal users confidence that a reasonable and prudent level of security is maintained. One of the most important elements in the security architecture is a firewall. A firewall is an access control policy enforcement device. There are a number of firewall vendors and each offers product lines rich in added features, such as virus filters, load balancing, point-to-point encryption, remote management and monitoring, and some level of intrusion detection capability. A formal access control policy needs to be developed as a prerequisite to implementing the firewall. The firewall is the key device that controls access to “zones” by internal and external users. Exhibit 1, Conceptual JIPO Network Architecture, provides a potential model for the IT security architecture. Notice the placement of the firewall in the diagram. In this exhibit, the firewall controls access to and from several “zones.”

Conceptual JIPO Network Architecture

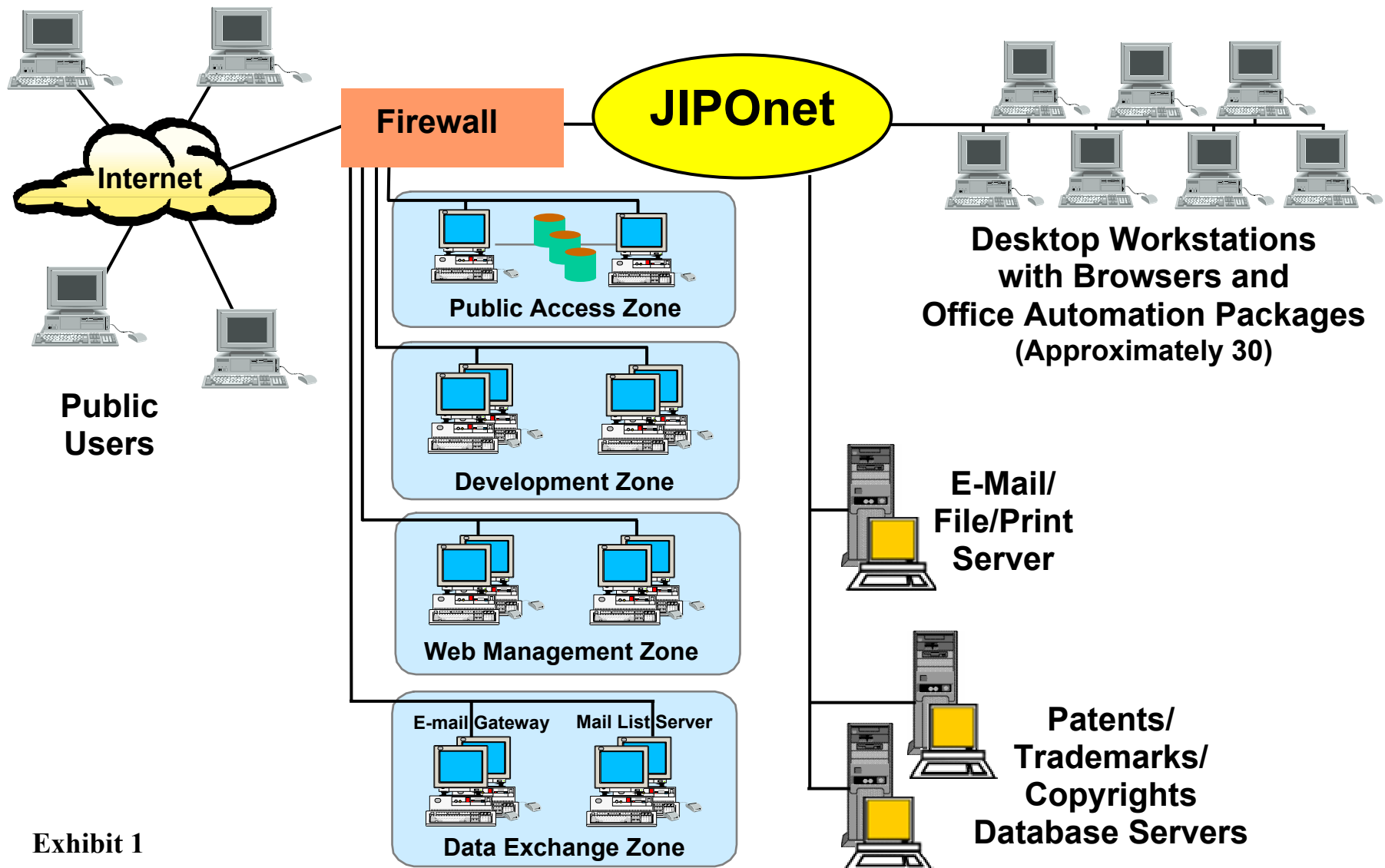


Exhibit 1

Other elements of the overall IT Security Program include, but are not necessarily limited to:

Access Control Mechanisms: Examples include UserIDs, Passwords, PINs, tokens etc.

Privacy: Encryption is most often used to ensure confidentiality.

Data Integrity: Encryption, hashing, and digital signatures can be employed to ensure integrity of stored or transmitted information.

Non-repudiation: Digital Signatures and/or Public Key Certificates can be used to ensure that users are who they say are or represent themselves to be in an electronic/network setting.

Virus Scanners/Shields: Virus detection software is available from several vendors. Products are available that scan all new files introduced at the desktop, files received as e-mail attachments, and data flowing through firewalls.

PIN/Password administration: A central administration process needs to be established, duties assigned, and procedures written.

Network Intrusion Detection/Prevention: Multiple vendor products are available. However, they are not inexpensive. Intrusion Detection Systems provide the capability to identify and react to unauthorized access attempts by hackers and or people interested in financial gain or malicious intent, for a variety of unauthorized data manipulation activities.

Contingency Planning: Formal planning of responses to abnormal conditions ranging from small events to disasters needs to be done.

Backup and Recovery: Backup procedures are part of normal day-to-day operations. Recovery of files, entire servers, or databases needs to be planned for, and procedures developed.

Risk Management/Mitigation: Managing overall risks is an on-going requirement that needs top management commitment and support. Users, systems administrators, and senior management all need to be aware of their security roles and responsibilities. A Master IT Security Plan would help guide JIPO in this area. Since multiple examples are available from other IPOs, industry, Internet organizations and academia, such a plan can be developed in a moderate time frame.

Sources of Software

The JIPO IT environment will require a combination of Commercial Off-the-Shelf (COTS) packages, application programs or whole systems provided by WIPO and other IPOs, and applications developed by JIPO. In addition, shareware consisting of

free or nominally priced software may also be necessary. Each type of software is briefly discussed below.

COTS software, in the form of operating systems and application functions, is readily available from multiple vendor sources. Most vendors offer site license packages.

Some application programs and/or entire systems can likely be obtained from WIPO and other IPOs, such as the USPTO, the European Patent Office, the Canadian Patent Office, and the Japanese Patent Office. Some of these programs may need to be tailored to the particulars of the JIPO IT environment. Such software is generally well documented and augmented with training material, operational procedures, and user guides. Some of this documentation may have to be tailored to the JIPO IT environment as part of the migration process.

Shareware is available via Web sources. Shareware is often a rich source of specialized tools not available from commercial vendors. However, it is not formally supported and as such it is not intended for, or appropriate to, core business functions.

JIPO will likely have to develop a limited number of programs and systems. For example, JIPO may find that it needs payroll functions, financial transactions, human resources database functions, time and attendance tracking, and other internal automated processing capabilities not available via other means in order to tailor its IT services to the particular needs of the JIPO.

In addition to commercial, shareware, and internally developed software, Commercial Data Base (CDB) services are also available for functions such as searching prior art and legislative and regulatory documents. However, since it is anticipated that examinations will be outsourced, little or no CDB service support will be necessary.

Software Maintenance Considerations

Maintenance is normally available for commercial software packages. Maintenance fees are generally about 15% per year of the original purchase price of software. Vendors often offer several levels of support and structure their pricing accordingly. JIPO would not likely require immediate specialized vendor support; therefore, premium level support costs are not anticipated. Maintenance on shareware is normally not available. Upgrades, fixes, patches, enhancements, and other routine changes for software obtained from WIPO and other IPOs would be available via the original source(s). However, JIPO would have to obtain, review, install, test, deploy, and implement these types of maintenance items at its own expense. It is difficult to estimate the costs for such activity but it can be assumed that it will likely necessitate ongoing support of a programmer-analyst on a half-time basis. The balance of this staff person's time would likely be devoted to maintenance of JIPO-developed application programs.

IT Resource Requirements

Exhibit 2, IT Resource Estimate, provides an estimate for the initial startup hardware and software costs, activities and milestones, and on-going Operations and Maintenance activities for the first few years of operation.²⁰

All figures expressed in US Dollars						
IT Components	Year 1	Year 2	Year 3	Year 4	Year 5	Ext
Network Components	10,000	2,000	2,000	2,000	2,000	18,000
Servers - approx. 5 initial	25,000	4,000				29,000
Server Software	15,000					15,000
Server Software Maintenance Fees		2,000	2,000	2,000	2,000	8,000
Desktop Workstations - 30 initial - \$1,500 @	45,000	6,000	3,000	1,500	1,500	57,000
Desktop Software	10,000	2,000	1,000	1,000	1,000	15,000
Peripherals (printers, tape drives, etc.)	10,000	2,000	1,000	1,000	1,000	15,000
Firewall	10,000					10,000
Fire Maint. Fees		1,500	1,500	1,500	1,500	6,000
Intrusion Detection/Network Scanner	10,000					10,000
IDS Maintenance		1,500	1,500	1,500	1,500	6,000
Misc (power strips/cables, UPS, Tapes, CDs, etc)	2,000	500	200	100	100	2,900
Supplies and Consumables	3,000	2,000	2,000	2,000	2,000	11,000
Activities and Tasks						
Initial startup - Outsourced consulting	50,000	10,000	10,000			70,000
Data acquisition	2,000					2,000
Database population	2,000					2,000
Web site design and development - Outsource	30,000					30,000
User/Administrator Training - Outsource	10,000					10,000
Program/System Development - Outsource	IBD	IBD	IBD	IBD	IBD	—
Totals	\$234,000	\$33,500	\$24,200	\$12,600	\$12,600	\$316,900

IT Master Plan

An Information Technology Master Plan needs to be developed that incorporates all of the subjects identified above. This plan should have sufficient detail to guide the initial deployment and implementation of the internal network, file/database servers and/or host computers, desktop workstations, World Wide Web server(s), e-mail and office automation servers, and private communications links to WIPO, other IPOs,

²⁰ The cost estimate in this table does not take into account current information technology that might be utilized by the new office. It should be borne in mind that the current Trademarks Section under the Registrar of Companies already has received allocations of computers and other equipment from WIPO. The Copyright Unit also has existing computer equipment. The absorption of these resources into the new IT infrastructure would significantly reduce the potential cost of automation.

Jamaican industry partners, and other agencies/ministries. The IT Master Plan should also provide sufficient information to form the basis for initial operation of the IT Infrastructure.

Proposed Organizational Structure for the Jamaica Intellectual Property Office (JIPO)

Intellectual Property has been described as an esoteric form of law and is so illusive and intangible in the nature of its rights that a relatively high degree of competence and specialized training is often needed for effective policy development, administration and implementation. At the present time there appears to be no comprehensive curriculum on intellectual property law and related disciplines in the higher education (tertiary) institutions of the Caribbean. And, there is little academic expertise in this area.

With the help of WIPO Training Courses, Jamaica has already trained some personnel in the areas of copyright and trademarks, and progress has been made. But, there is room for improvement. If Jamaica is to maximize its potential for growth and development, even more personnel will have to be trained and the training of existing personnel will have to be kept up to date.

Because of Jamaica's out-dated or non-existent laws in the area of geographical indications and plant variety protection, there is a dearth of expertise or experience in the administration of these intellectual property rights. Some trained personnel in the area of patent information already exist in the Scientific Research Council and could be drawn on as a resource for the new Intellectual Property Office in the area of patent information services. However, a modern and effective system of intellectual property administration will require that the current systems be revamped. And, new staff will need to be trained in order to carry out effectively legal and administrative functions required under the new laws and treaties. The new Intellectual Property Office should be structured in such a way as to attract the knowledgeable, trained personnel required to administer a modern, world-class intellectual property system.

In the recommendations that follow, consideration has been given to the above factors as well as to the critical need for the Government to provide services that facilitate public- and private- sector partnerships in the development, exploitation and commercialization of intellectual property rights. Central Intellectual Property Offices which exist all over the world provide a basis on which to model an intellectual property office for Jamaica which is specifically designed and equipped to carry out these tasks and achieve the country's developmental goals.

In developing a plan for the administration of the new Intellectual Property Office the author is grateful for the collaboration of Ms. Dianne Daley, internal consultant to the Ministry of Commerce and Technology, who developed the following structure for implementation of the recommendations contained in this report. The author concurs in Ms. Daley's recommendations.

The following is a proposal for the overall structure of the new Intellectual Property Office, as well as staffing requirements and job functions.

Overall Structure

It is proposed that the Jamaica Intellectual Property Office (JIPO) be comprised of:

- An Advisory Board
- An Executive
- A Copyright and Related Rights Directorate
- An Industrial Property Directorate
- A Law & Strategic Planning Department
- A Facilitation Services Unit
- Central Services

The JIPO Advisory Board will be appointed by the Minister of Commerce and Technology. The Board shall comprise of thirteen persons, including a senior representative from the University of the West Indies, the University of Technology, the Scientific Research Council, the National Commission on Science and Technology and some Private Sector Concerns.

The Executive will be made up of the senior management team of JIPO and shall be responsible for the day-to-day running and operations of JIPO towards the fulfillment of its Mission.

The Copyright and Related Rights Directorate shall deal with the administration of non-registered intellectual property rights, i.e., copyright and related rights and the layout designs right, and the implementation of systems for the reduction of piracy and the better management of IP rights.

The Industrial Property Directorate will deal with the registration of industrial property rights, including trademarks, service marks, geographical indications, industrial designs, patents and utility models, and new plant varieties, in accordance with applicable national laws and international treaties and agreements.

The Law & Strategic Planning Department will devise policies that are geared towards achieving the overall mission of JIPO and that determine the possible role, response and involvement of government in intellectual property matters at the national and international levels. The department will address legal queries directed to JIPO, as well as new and emerging issues concerning intellectual property rights.

The Facilitation Services Unit will facilitate Government and its research and academic institutions in the acquisition, management and commercialization of intellectual property rights. The FSU shall also coordinate and implement projects and programs undertaken

by JIPO and assist with the implementation of private and public sector projects and initiatives on IP.

Central Services will provide office services essential for the day-to-day functioning of JIPO, including:

- Office Management and HRD
- Information and Documentation Center and Registry
- Information Technology and Systems Services
- Finance and Accounts
- Customer Service
- Information and Documentation Center and Registry
- Transportation and Delivery
- Cleaning and Maintenance

Detailed Staffing Requirements and Job Descriptions

A. The Executive

The Executive will be comprised of an Executive Director, two Deputy Directors and an Administrative Manager. The Executive Director will head the Executive. One Deputy Director will act as the Legal Advisor to JIPO and will be in charge of the Law and Strategic Planning Department and Facilitation Services Unit. The other Deputy Director will act as the Registrar for Industrial Property and be in charge of the Intellectual Property Directorates. The Administrative Manager will be in charge of the central Operations of JIPO.

The Administrative Manager and an Executive Secretary will support the Executive Director. The Deputy Directors will report directly to the Executive Director and will both be supported by an Executive Secretary.

➤ The Executive Director

The Executive Director will be responsible for all aspects of the running of JIPO and for the progressive development and achievement of the mission of JIPO. The Executive Director will review the recommendations and work of the members of the executive and the staff of JIPO and make decisions on the running of JIPO. The Executive Director will report directly to the Minister of Commerce and Technology and directly to the JIPO Advisory Board. The minimum qualifications for the Executive Director shall be:

1. A Senior Attorney-at-Law admitted to practice law in Jamaica (minimum eight years)
2. Post Graduate Degree in intellectual property law or related area
3. Eight years work experience
4. Extensive knowledge in all aspects of intellectual property law

5. Extensive experience in representation of Government at the international level in negotiations and consultations concerning intellectual property
6. Extensive experience in policy formulation in the area of intellectual property
7. Four years experience in Government administration
8. Publications on intellectual property issues
9. Proficiency in computer applications

➤ **Deputy Director/ Legal Advisor**

The Deputy Director, Law and Strategic Planning will be in charge of the Law and Strategic Planning Department and Facilitation Services Unit and also act as the Legal Advisor of JIPO. This officer will have the following minimum qualifications:

1. An Attorney-at-Law admitted to practice law in Jamaica (minimum six years)
2. Post Graduate Degree in intellectual property law or related area
3. Five years work experience
4. Good knowledge of intellectual property law
5. Experience in representation of Government at the international level on intellectual property issues
6. Experience in policy formulation in the area of intellectual property
7. Proficiency in computer applications

➤ **Deputy Director/Registrar**

The Deputy Director, Intellectual Property Administration will be in charge of the Copyright and Industrial Property Directorates, will act as the Registrar of Industrial Property, and will carry out such functions as required of the Registrar by the applicable laws. This officer will have the following minimum qualifications:

1. An Attorney-at-Law admitted to practice law in Jamaica (minimum 6 years)
2. Post Graduate Degree in intellectual property or related area
3. Five years work experience
4. Good knowledge of intellectual property law
5. Experience as an intellectual property legal practitioner or IP administrator
6. Proficiency in computer applications
- 7.

➤ **Administrative Manager**

The Administrative Manager will be responsible for managing the office, dealing with all human resource and personnel matters, assisting the Executive Director in the carrying out of administrative functions, and coordinating administrative functions carried out in the Directorates and Departments of the office. This officer should have the following minimum qualifications:

1. University Degree
2. Post Graduate Degree in HRD

3. Experience in office management
4. Good managerial skills
5. Five years work experience in a related field
6. Excellent interpersonal skills
7. Proficiency in computer applications

B. The Copyright and Related Rights Directorate

This Directorate will be comprised of:

1. A Director of Copyright (Legal)
2. A Copyright Legal Officer
3. Two Secretaries
4. Two Anti-Piracy Officers

➤ The Director of Copyright

The Director of Copyright will be a legal post. The Director will have the responsibility of running the directorate and will report directly to the Deputy Director, Intellectual Property Administration.

The Director of Copyright will be in charge of the administrative matters of the directorate, including the program, budget, and operations of the directorate. This Officer will review and recommend legislative implementation and amendments in the area of copyright and related rights and layout designs rights, including the implementation of an anti-piracy system and alternative dispute resolution mechanisms. This officer will also undertake personnel duties by way of staff appraisals, leave recommendations for the staff supervised and will work closely with the Customer Relations Manager, the Facilitation Services Unit in relation to public education in copyright and related rights, public relations and the commercialization of the Government's copyrighted material. The Director of Copyright should have the following minimum qualifications.

1. An Attorney-at-Law admitted to practice law in Jamaica (4 years)
2. A Post Graduate Degree (Master of Laws in copyright or related areas (an asset))
3. University Level Courses and/or specialized training in copyright or related area
4. Four years work experience
5. Excellent knowledge in copyright and related rights
6. Proficiency in computer applications
7. Good skills in administration

➤ Copyright Legal Officer

The Copyright Legal Officer shall report to the Legal Director of Copyright. This officer shall be in charge of the Anti-Piracy Unit of the Copyright Directorate and monitor anti-piracy procedure and the work of the Anti-Piracy Officers. The officer will be the secretary to the Copyright Tribunal. This officer will also address legal issues that arise

in carrying out the Unit's function, manage copyright documentation in the Directorate, and prepare reports and papers on the implementation of the relevant laws for public dissemination. The Copyright Legal Officer should have the following minimum qualifications:

1. An Attorney-at-Law admitted to practice law in Jamaica (1-3 years)
2. A minimum of one year work experience
3. Undergraduate courses or specialized training in copyright
4. Good knowledge of copyright and related rights
5. Proficiency in computer applications

➤ **Anti-Piracy Unit**

The Anti-Piracy Unit will be attached to the Copyright and Related Rights Directorate. This Unit shall be comprised of two part-time Anti-Piracy Officers. One Anti-Piracy Officer will be a Customs Officer and responsible for carrying out the administration of the anti-piracy system, such as receiving applications for security devices and issuing them to importers and other applicants. The other Anti-Piracy officer will be an Enforcement Officer responsible for networking with other members of the force to enforce anti-piracy regulations.

C. The Industrial Property Directorate

The Industrial Property Directorate will be comprised of the following 16 posts:

1. Director of Trademarks/Deputy Registrar, Trademarks
2. Director of Patents/Deputy Registrar, Patents
3. Senior Patent Technician
4. A Patent Information Officer
5. Supervisor, Trademarks Registration
6. Three Registration Officers for Trademarks
7. Three Registration Assistants for Trademarks
8. Three Examination Officers for Patents
9. Two Data entry clerks

➤ **Director of Trademarks**

The Director of Trademarks or Deputy Registrar for Trademarks will report directly to the Registrar of Industrial Property. The Director of Trademarks will coordinate the activities of this Directorate in relation to the registration of trademarks, service marks, designs and geographical indications and shall supervise the staff dealing with these aspects of industrial property. This will involve checking and approving applications, conducting hearings, and handing down of written decisions.

The Director will review and recommend changes to legislation, policy, procedures and systems pertaining to these aspects of industrial property administration in accordance

with applicable laws. This officer shall also be in charge of the administration matters of the directorate as they relate to trademarks and geographical indications, including the program, budget, and operations, and will undertake personnel duties by way of staff appraisals and leave recommendations for the supervised staff. The Director should have the following minimum qualifications:

1. An Attorney-at-Law admitted to practice law in Jamaica (minimum four years)
2. A Post Graduate Degree (Master of Laws in industrial property (an asset))
3. University level courses and/or specialized training in industrial property
4. Three years work experience in related area
5. Proficiency in computer applications
6. Good skills in administration

➤ **Supervisor, Trademarks**

The Supervisor will monitor and supervise the work of the Registration Officers and Registration Assistants and will liaison with the Customer Relations Officer in relation to the operations of this section of the Industrial Property Directorate. This officer will also make submissions to the Deputy Registrar for approval of new applications and amendments of trademarks and geographical indications. This officer should have the following minimum qualifications:

1. Four years work experience in industrial property administration, supervisory capacity
2. Specialized training in related work
3. University Degree
4. Working knowledge of relevant computer applications

➤ **Registration Officers, Trademarks**

These officers will examine applications for trademarks and geographical indications, and facilitate customer registration. They will also maintain and update registers and monitor Gazetted advertisements. These officers should have the following minimum qualifications:

1. Two A Levels
2. Six subjects at the GCE or CXC General Proficiency Level
3. Working knowledge in the relevant computer applications
4. One year related work experience
5. Specialized training in related work (an asset)

➤ **Registration Assistants, Trademarks**

These officers will assist in the registration of trademarks and geographical indications through the conducting of searches, reviewing of new applications, and the maintenance of files and records. These officers should have the following minimum qualifications:

1. Four subjects at the GCE or CXC General Proficiency Level
2. Working knowledge in the relevant computer applications
3. One year related work experience

➤ **Director of Patents /Deputy Registrar for Patents**

The Director of Patents will coordinate the activities of this Directorate in relation to the application for patents, utility models and new plant varieties, supervise the staff dealing with these applications, and advise customers on these aspects of industrial property. The officer will approve applications for and amendments to registration and perform quasi-judicial functions, including conducting hearings and handing down written decisions. This officer will also be in charge of the administration matters of the directorate as they relate to patents, utility models and new plant varieties, including the program, budget, and operations, and will undertake personnel duties by way of staff appraisals and leave recommendations for the staff supervised. This officer should have the following minimum qualifications:

1. An Attorney-at-Law admitted to practice law in Jamaica (minimum four years)
2. A Post Graduate Degree (Master of Laws in industrial property (an asset))
3. University level courses and/or specialized training in industrial property
4. Four years work experience
5. Proficiency in computer applications
6. Good skills in administration

➤ **Senior Patent Technician**

The Senior Patent Technician is responsible for the technical aspects of patent, utility model and plant variety applications and will liaison with the Ministry of Agriculture and the Facilitation Unit's Patent Attorney and Patent Information Officer. This officer will review applications for patents, utility models, and plant varieties and make recommendations to the Deputy Registrar of Patents for action. The officer, in collaboration with the Director of Patents, will recommend changes to legislation, policy, procedures and systems pertaining to these aspects of industrial property administration in accordance with applicable laws. The officer will also handle applications under the Patent Cooperation Treaty with Jamaica as a receiving office. This officer should have the following minimum qualifications:

1. Qualified Scientist or Engineer
2. A Post Graduate Degree (an asset)
3. Four years work experience
4. Specialized training on patents and the patent system
5. Good knowledge in industrial property, in particular patents
6. Proficiency in computer applications

➤ **The Patent Information Officer**

The Patent Information Officer shall administer the Patent Information Service System and devise systems for the dissemination of information through the relevant channels. This officer should have the following minimum qualifications:

1. Undergraduate Degree (Science, Computer Programming or Engineering Background)
2. High proficiency in information technology and computer skills
3. Good knowledge of industrial property
4. Three years work experience in related field

➤ **Examination Officers, Patents**

These officers will examine applications for patents, utility models, and new plant varieties, as well as amendments and modifications thereto. They will also facilitate customer registration, assist in the recordation of patents, utility models, and plant varieties through the conducting of searches, reviews of new applications, and the maintenance of files and records. They will also maintain and update registers and monitor Gazetted advertisements. These officers should have the following minimum qualifications:

1. Two A Levels
2. Six subjects at the GCE or CXC General Proficiency Level
3. Working knowledge in the relevant computer applications
4. One year related work experience
5. Specialized training in related work (an asset)

C. The Law & Strategic Planning Department

The Deputy Director, Law & Strategic Planning and Legal Advisor, JIPO shall have responsibility for the Law & Strategic Planning Department, which will be comprised of:

1. A Director of Law and International Relations
2. A Director of Research and Economics
3. A Secretary
- 4.

➤ **Director, Law and International Relations**

The Director, Law and International Relations will be responsible for maintaining relations with international affiliations of JIPO, WIPO, and other foreign organizations concerned with Intellectual Property. This officer shall also make recommendations to the Legal Advisor, JIPO on legal matters referred by the Intellectual Property Directorates to the Unit for attention. This officer should have the following minimum qualifications:

1. Attorney-at-Law (minimum two years in practice)
2. Undergraduate Degree in International Relations (an asset)
3. Knowledge of intellectual property matters
4. Two years work experience
5. Proficiency in computer applications

➤ **Director, Research and Economics**

The Director, Research and Economics will be responsible for research and consultations in relation to policy and private sector participation as well as research on new and emerging issues of intellectual property rights and the possible role and involvement of Government. This officer shall conduct analysis in the area of intellectual property rights and its impact on the private and public sector, and shall advise on economic issues that relate to policy, the role of government and the implementation of JIPO's mandate. This officer should have the following minimum qualifications:

1. Undergraduate Degree in Economics
2. Post Graduate Degree an asset
3. Specialized training in Economics
4. Excellent research skills
5. Three years work experience in a related area
6. Proficiency in computer applications

D. The Facilitation Services Unit

The Facilitation Services Unit will be comprised of:

1. A Patent Agent
2. A Legal Secretary/Paralegal
3. A Director of Programs
4. A Special Projects Officer
5. A Communications Officer
6. One Secretary

➤ **The Patent Agent**

The Patent Agent will be responsible for filing special patent applications on behalf of the Government and its research and academic institutions. The Patent Agent will be supported by a Legal Secretary or Paralegal with a minimum of three years work experience. The Patent Agent should have a university degree in engineering, chemistry, biology or the physical sciences that would be recognized as meeting the minimum requirements necessary to be admitted to practice as a patent agent before the United States Patent and Trademark Office.

➤ **Director of Programs**

The Director of Programs will be responsible for the implementation of all public education programs in JIPO and will facilitate the Directorates in discharging the function of education and dissemination of information on intellectual property. In this connection, the Director will be responsible for the organization of seminars, workshops and other events and the production of brochures, manuals and other documents. The Director of programs will have oversight responsibility for the coordination of special projects, and will be the liaison for private sector initiatives, public relations and the interface of JIPO with media. The Director of Programs will be supported by a secretary. The Director of Programs should have the following minimum qualifications:

1. Experience in intellectual property administration or related field
2. Experience in communications and media
3. Four years work experience in both or either of the above areas
4. Undergraduate Degree in law or related area (an asset)
5. University level courses and or specialized training in intellectual property
6. Proficiency in computer applications

➤ **The Special Projects Officer**

The Special Projects Officer will report to the Director of Programs and shall be responsible for coordinating the projects undertaken by JIPO and the development and participation by JIPO in other projects and will liaison with The Planning Institute of Jamaica (PIOJ) and external funding agencies. This officer will assist with the development of projects for the commercialization of national IP, the implementation of private and public sector projects and initiatives, and will liaison with the Law and Strategic Planning Department in this connection. This officer should have the following minimum qualifications:

1. University Degree in arts, social sciences or related areas
2. Specialized training in marketing
3. Good managerial skills
4. Experience in project management
5. 3 years work experience in related area
6. Proficiency in computer applications

➤ **The Communications Officer**

The Communications Officer will be responsible for implementation of all public education programs and campaigns, seminars, conferences and workshops that involve JIPO. This officer will also be responsible for the interface of JIPO officials with the media, the development of news releases, advertisements, documentaries, literature and other forms of publications. This officer will also update the JIPO web site periodically in liaison with the Systems Administrator. This officer should have the following minimum qualifications:

1. University Degree in Communications
2. Proficiency in information technology and computer skills
3. Three years work experience in related field
4. Excellent writing skills
5. Proficiency in computer applications

E. Central Services

Central services of JIPO will be comprised of the following:

1. Office Management and HRD
2. Finance and Accounts
3. Information Technology & Systems Services
4. Information and Documentation Center & Registry
5. Customer Service
6. Transportation and Delivery
7. Cleaning and Maintenance

➤ Office Management and HRD

The Administrative Manager will be in charge of managing the office and central operations, dealing with all human resource, training and personnel matters and will be supported by a secretary.

➤ Finance and Accounts

A Financial Controller will be in charge of all the accounts, budgets, disbursement of cash, salaries and balance the accounts of JIPO. The Financial Controller will report to the Administrative Manager and the Executive Director, JIPO. The Financial Controller will be assisted by an accounts officer and will supervise one cashier and an accounting clerk. The Financial Controller should have the following minimum qualifications:

1. A qualified accountant
2. Four years work experience in accounts and finance
3. Experience in government administration (an asset)

F. Information Technology Unit

The Information Technology Unit will be comprised of:

1. A Systems Administrator
2. A Systems Clerk

➤ **Systems Administrator**

The Systems Administrator will be responsible for automation of JIPO, networking computers and the maintenance and upgrade of the network, the monitoring of all technological systems in place for the operations of all aspects of the office, and the management of JIPO's web site. A systems clerk will support the Systems Administration. The Systems Administrator should have the following minimum qualifications:

1. University Degree in Computer Sciences or equivalent
2. High proficiency in information technology
3. Three years work experience as a systems analyst or administrator

G. Customer Service

The Customer Service Officer will be responsible for all matters relating to the public as a customer of JIPO. This officer will oversee the work of the receptionist and the cashier in this regard and will process any complaints or commendations by the public as to the service of JIPO. The Customer Service Officer should have the following minimum qualifications:

1. Two A Level Subjects
2. Seven CXC Subjects
3. Training in customer service
4. Three years related work experience
5. Excellent interpersonal skills

H. Information and Documentation Center and Registry

This Center shall be comprised of:

1. An Information Specialist/Librarian
2. Records Manager
3. Registry Clerk
4. Two Vault Attendants

➤ **Information Specialist**

The Information Specialist will be a qualified librarian and will be responsible for the Library and Documentation Center, subscriptions, the binding and filing of reports, presentations and other documents produced by JIPO and public access to material in the center. The Information Specialist will report to the Administrative Manager.

➤ **Records Manager**

The Records Manager will be responsible for the filing system and internal files of JIPO as well as the Registries of Industrial Property. The Records Manager will report to the Information Specialist.

➤ **Registry Clerk**

The Registry Clerk will be responsible for the internal office registry, involving the dispatch and delivery of correspondence from and to JIPO. The Records Manager will have oversight responsibility for the Office Registry.

➤ **Vault Attendants**

The Vault Attendants will deal with documents in the Industrial Property Registries.

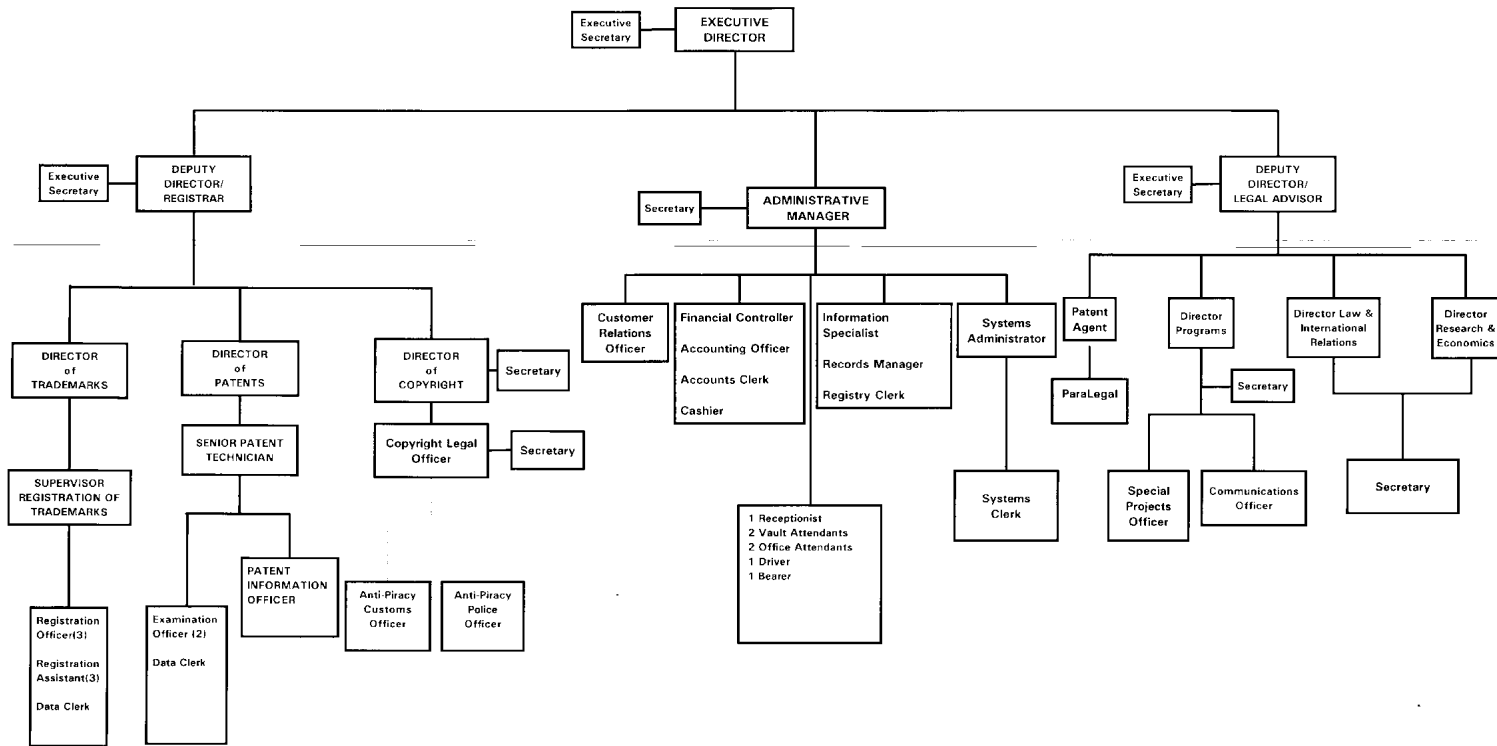
I. Transportation and Delivery

These functions will be carried out by a Driver and a Bearer assigned to the Registry. The Driver will report to the Administrative Manager. The Bearer will report to the records manager.

J. Cleaning and Maintenance

Cleaning and Maintenance will be carried out by two office attendants, one in charge of serving meals and meetings, and another in charge of manning the photocopy machines and other equipment used in the common area.

Attachment A



Implementation of the Organizational Plan

In order for the Government to benefit from its sparse reserve of human resources in Intellectual Property, it is recommended that the new Intellectual Property Office recruit competent staff from the existing organizations with the appropriate expertise. The Copyright Unit and the Intellectual Property Branch of the Office of the Registrar of Companies already carry out functions that will repose in the new JIPO. These personnel also are best prepared to deal with the new functions which must be undertaken to meet Jamaica's bilateral and international obligations and to implement the new and revised national intellectual property laws. Therefore, it is recommended that the organizational restructure be undertaken immediately so that the current work of the trademark section will not suffer from any breaks in service and the personnel can begin to work together as a team to build JIPO.

The additional staff contemplated in the organizational structure recommended above can be recruited over time as the necessity for each post arises and resources become available.

It is also recommended that the entire Intellectual Property Office be housed in one location and that physical accommodations for the Office be as modern as possible and able to accommodate the telecommunications and information technology infrastructure recommended in this report.

As the implementation of these recommendations will require several tasks to be undertaken simultaneously in an expeditious manner, it is also recommended that the process be guided by a transition unit. The Government already has in place a competent local coordinator. However the implementation will require more than one person dedicated to the tasks. Therefore, the author strongly recommends that the Government appoint immediately a small unit of competent persons who will implement WIPO's recommendations for the creation of JIPO.

Acknowledgements

WIPO International Consultant Mr. Bruce Lehman and Local Counterpart Dianne Daley, held discussions and consultations with the following forty-eight government officials and private sector representatives (listed alphabetically):

Ms. Sandra Allen, Assistant,
Budget Section,
Corporate Services Division (CSD),
Ministry of Industry and Investment
(MII)

Mrs. Merlene Bardowell,
Director, Information and
Documentation,
Scientific Research Council,
Ministry of Commerce &
Technology (MCT)

Ms. Ann-Marie Bonner,
Principal Director,
Policy Analysis and Review
Division,
Office of the Cabinet,
Office of the Prime Minister (OPM)

Mrs. Beverlyn Brown,
Patent desk officer, MCT

Merrick Brown,
Finance & Administration Executive,
Office of the Registrar of Companies
(ORC), MCT

Mr. Victor Brown,
Public Sector Modernization Project,
Office of the Cabinet, OPM

Mrs. Shirley Carby,
Chairman,
Jamaican Copyright Licensing
Agency (JAMCOPY)

Dr. Lucette Cargill,
Government Chemist
Government Chemist Department

Hon. Roger Clarke,
Minister of Agriculture

Mrs. Andrene Collins,
Director of Commerce,
MCT

Mrs. Cheryl Dash,
Development Office,
University of the West Indies (UWI),
Mona Campus

Hon. Dr. Carlton Davis,
Cabinet Secretary & Permanent
Secretary
OPM

Ms. Grace Dunn, Director,
Human Resource Development,
ORC, MCT

Mr. Albert Edwards,
Deputy Chief Parliamentary
Counsel,
Office of the Chief Parliamentary
Counsel

Mrs. Gloria Edwards,
Intellectual Property Manager,
ORC, MCT

Ms. Ann-Marie Feanny,
Attorney-at-Law and Member,
Intellectual Property (IP) Sub-
Committee,
Jamaica Bar Association

Hon. Fenton Ferguson
Minister of State,
Ministry of Agriculture

Ms. Nicole Foga,
Legal Advisor to the Minister of
Commerce & Technology

Mr. Peter Goldson,
Attorney-at-Law
Chairman, IP Sub-Committee,
Jamaica Bar Association

Ms. Vilma Gregory,
Chairman, Vilcom Services,
Head, Multimedia Centre,
University of Technology

Mr. Neil Hamaty,
Acting Crown Counsel,
Attorney General's Chambers

Mr. Hector Henry,
Management Development Division,
Office of the Cabinet, OPM

Ms. Aldith Hilton,
Intellectual Property Manager,
ORC, MCT

Mrs. Denise Irving,
External Cooperation Division,
Planning Institute of Jamaica (PIOJ)

Mr. Tony Laing,
Director of Membership,
Jamaica Association of Composers,
Authors and Music Publishers
(JACAP)

Ms. Sasha Lawla,
Jamaica Film, Music and
Entertainment Commission,
JAMPRO

Mrs. Dianne Mitchell,
Registrar,
University of Technology

Mr. Desmond Molton,
Administrator,
JACAP

Mrs. Claudette Morgan-Greeves,
Registrar & CEO,
ORC, MCT

Mrs. Dolores Nelson
International Trade & Negotiation
Division
PIOJ

Ms. Carol Newman,
Administrator, JAMPRO

Mr. Aaron Parkes,
Permanent Secretary,
Ministry of Agriculture

Hon. Phillip Paulwell,
Minister of Commerce and
Technology

Mrs. Beverley Pereira,
University Counsel,
UWI

Mrs. Hilary Phillips, Q.C.,
Chairman, Copyright Tribunal

Mr. Roland Phillips,
Director of Technology,
MCT

Mr. Courtenay Rattray,
Special Advisor to the Minister of
Industry and Investment

Mr. Mark Redwood,
Ministry of Finance and Planning

Mrs. Camella Rhone,
Director General,
MCT

Carol Robinson,
Copyright Officer,
Copyright Unit, MCT

Mrs. Beverley Rose-Forbes,
Divisional Director, MII

Mr. Christopher Samuda,
Deputy Chairman,
Copyright Tribunal

Mrs. Pat Sinclair,
Director,
Public Sector Modernization Project,
Office of the Cabinet, OPM

Mr. Glenroy Stewart
Budget Officer
CSD, MII

Ms. Marcia Thomas,
Foreign Service Officer
Foreign Trade Department,
Ministry of Foreign Affairs and
Foreign Trade

Dr. Elaine Wallace,
Director,
Information Division, OPM

Mr. Ashton Watson,
Group Director,
Bureau of Standards,
MCT

Mrs. Joan Wood-Rattray,
Attorney-at-Law and member,
IP Sub-Committee,
Jamaica Bar Association

In addition to the list above the author is grateful for the assistance of Mr. John Ward, President of ISI INFOSEC Services, Inc. of Bethesda, Maryland, USA, for contributing the section on Information Technologies.