

Commission on Intellectual Property Rights

Country Case Study for Study 9: Institutional Issues for Developing Countries in IP Policy- Making, Administration and Enforcement

Vietnam

Mart Leesti

**Independent IP Consultant
Nepean, Ontario
Canada**

This report has been commissioned by the IPR Commission as a background paper. The views expressed are those of the author and do not necessarily represent those of the Commission.

OVERVIEW OF LEGAL AND INSTITUTIONAL FRAMEWORK

BACKGROUND¹

Legal system: Communist legal theory and French Civil Law

Population: 79,939,014 (July 2001 estimate)

GDP per Capita: US \$1,950 (2000 estimate)

GDP composition by sector:

- Agriculture: 25%
- Industry: 35% (food processing, garments, shoes, machine building, mining, cement, chemical fertilizer, glass, tires, coal, steel, paper.
- Services: 40%

Vietnam is a member of the following international conventions and treaties regarding industrial property:

- Paris Convention for the Protection of Industrial Property (since March 8, 1949);
- Madrid Agreement Concerning the International Registration of Marks (since March 8, 1949);
- Convention Establishing the World Intellectual Property Organization (since July 2, 1976);
- Patent Cooperation Treaty (PCT) (since March 10, 1993);

RECENT HISTORY

Vietnam is a developing country and also an economy in transition. The protection of intellectual property rights was established by the promulgation of the Ordinance on Innovation, Technical Improvement, Production Rationalization and Invention on January 23rd, 1981. This ordinance was similar to the laws that prevailed in other socialist countries with centrally planned economies and provided for moral rather than ownership rights of for creators. Government regulations were subsequently promulgated for trademarks (1982), utility solutions (1988), industrial designs (1988), and copyright (1986).

The transition of Vietnam from a centrally planned economy towards a market economy (along with an opening of the economy to foreigners) began in 1986. Among the early changes impacting IPRs was the promulgation of Decrees on Protection of Industrial Property Rights (February 11th, 1989) and Protection of Copyright (December 10th, 1994). Decrees provided

¹ CIA – The World Factbook 2001

higher levels of legal protection in Vietnam including, in this instance, the recognition of exclusivity of patent rights.

These Decrees were subsequently merged into the Civil Code of the Socialist Republic of Vietnam, passed by the National Assembly on October 28, 1995.

KEY ISSUES AND CHALLENGES

The most immediate issue facing Vietnam is the completion of the drafting and the promulgation of Circulars and directives to operationalize the Civil Code and the industrial property and copyright Decrees that flow from the Code. This will be immediately followed by what will likely be the greatest challenge: the enforcement of IPRs under the new IP regime.

Specifically, the new TRIPS-compliant IP regime will require:

- preparation and promulgation of Circulars and internal regulations for existing and new forms of IPRs;
- design and delivery of public education and outreach activities;
- training of enforcement agencies and authorities, and the judiciary;
- modernization of the National Office of Industrial Property (NOIP);
- modernization of the Copyright Office of Vietnam (COV);
- implementing (collective) enforcement of copyright and neighbouring rights.

LEGAL FRAMEWORK

The current intellectual and industrial property legislation flows from the Civil Code (the highest level legal text, along with ordinances) of the Socialist Republic of Vietnam which was passed by the National Assembly on October 28, 1995, and came into effect on July 1, 1996. Part VI, is entitled “Intellectual Property and Technology Transfer”. Chapter I of this Part covers Copyright and Chapter II covers Industrial Property. The Civil Code sets out general principles that are elaborated by subordinate legal texts including Decrees, Circulars and Internal Regulations and Guides of Agencies. On October 24 and November 29, 1996, the Government of Vietnam promulgated Decrees No. 63/CP and 76/CP guiding the implementation of provisions of the Civil Code on industrial property and copyright, respectively. Table 1 summarizes the existing and pending legislative, regulatory and procedural texts in Vietnam.

**MAIN PUBLIC SECTOR AGENCIES RESPONSIBLE FOR IP POLICY,
INFORMATION DISSEMINATION, ADMINISTRATION AND
ENFORCEMENT**

POLICY

Overall policy direction for the development of the IP framework, in the global and WTO accession contexts, is provided by a high-level committee in the Office of the Government, headed by the Minister of Foreign Investment and comprising senior officials from the Ministry of Foreign Investment, the Central Economic Board, and various departments of the Office of the Government itself. A special group established within the Ministry of Planning is responsible for guiding the process of WTO membership for Vietnam.

The Ministry of Foreign Affairs, Department of Multilateral Economic Cooperation Research, has the responsibility for leading discussion and guiding the national policy dialogue on the implications of globalization and international economic integration for Vietnam (e.g. in the APEC context).

The Law Committee of the National Assembly manages the legislative agenda by proposing legislative priorities and assisting legislators to understand the policy issues involved.

MOSTE has been designated by the Government as the ministry with lead responsibility with respect to WTO accession as regards both industrial property and copyright. The Law Committee of the National Assembly has ensured that representatives of the National Assembly and the Assembly's Committee on Science and Technology participated in the legislative drafting process from the outset.

The National Office of Industrial Property (NOIP), within the Ministry of State for Science, Technology and the Environment (MOSTE), has been assigned lead responsibility by the Government for the development of industrial property policies and legislation, in cooperation with other ministries and organizations, to ensure that the IP regime of Vietnam is TRIPS compliant. In the same way, the Copyright Office of Vietnam (COV) in the Ministry of Culture and Information (MCI) has lead responsibility with respect to copyright law, in cooperation with other interested ministries.

The Ministry of Justice reviews draft legislation (Civil and Economic Law Department) and assists in presenting this to the Government (Prime Minister, Vice Prime Minister and Ministers) which would then send the proposed legislation to the National Assembly by way of a policy and legislative review committee process. All affected and interested ministries and committees participate in the process.

ADMINISTRATION AND INFORMATION DISSEMINATION

Industrial property is administered by the National Office of Industrial Property (NOIP) under the Ministry of Science, Technology and Environment (MOSTE).

Copyright is administered by the Copyright Office (COV) under the Ministry of Culture and Information (MCI).

Industrial property and Copyright activities in cities and provinces are administered by the Industrial Property and Copyright Division under City's and Province's Department of Science, Technology and Environment and Department of Culture and Information, respectively.

IP Information dissemination activities are at developmental levels in Vietnam. Public education and awareness activities are carried out to a limited extent by both NOIP and the Copyright Office of Vietnam (COV). The Directors General and other senior officials of these organizations also address students at universities from time to time. Three patent information centers exist in Hanoi, Ho Chi Minh City and Da Nang, providing public access to over 16 million patent documents. Further activities to support the active diffusion of technical information from patent literature is being explored by NOIP.

ENFORCEMENT AND THE JUDICIARY

Enforcement of intellectual property rights (IPRs) in Vietnam is the responsibility of the People's Supreme Court and various other competent bodies. Civil and criminal² judicial procedures and remedies over disputes and infringement of IPRs fall under the People's Supreme Court of provincial and higher levels.

In Vietnam, with both the economy and the legal system in transition, NOIP and COV have played an important role in enforcement of IPRs. Thus, disputes over the validity and scope of protection under IP certificates, as well as disputes over enforcement and infringement of rights, are settled by NOIP and COV. At the same time, both NOIP and COV play an important role in advising and counseling the various administrative authorities and bodies on the settlement of disputes and the handling of offences under IP laws. The advice most often relates to establishing the scope of protection to permit assessment of the degree of infringement that may be at stake.

Administrative appeals from decisions by NOIP are lodged with the MOSTE's Chief Inspector, who also participates in the (administrative) enforcement of IPRs in the marketplace.

² The Criminal Code sets out criminal liability and specifies penalties for certain acts of infringement of intellectual property rights, including deliberate, repeated or organized infringement, or infringement seriously detrimental to consumers or public order.

Provisional and final administrative procedures and measures, including the imposition of fines and injunctions, to resolve abuse of IPRs fall under the authority of competent Governmental authorities. Bodies competent to apply provisional measures in relation to administrative violations of intellectual property include:

- Market Control Department³ (under Ministry of Trade)
- Customs Offices
- Specialized inspection authorities such as Ministry of Culture and Information Inspection (printing and copyright of publications, newspapers, etc.), Ministry of Science, Technology and the Environment Inspectorate), etc.; Ministry of Health (counterfeit medicines, etc.); Ministry of Industry (priority industry sectors)
- Ministry of Agriculture and Rural Development (plant varieties)
- Economic Police (Ministry of the Interior)
- Border Security (military)
- People's Committees (administration) at various levels (e.g. centrally controlled cities, provinces)

Most enforcement actions involving alleged infringements of IPRs are taken under a Civil Procedures Code through the above competent bodies. This stems from traditional Vietnamese business culture and also the perceived high costs of litigation before the courts. As public understanding of court procedures improves and as the courts' knowledge of IP improves (e.g. through training of judges, etc.) and as the role of patent agents is strengthened, it is expected that the courts will play an increasingly important role in the enforcement of IPRs.

IP-RELATED COMPETITION POLICY

The issue of IP-related unfair competition has been addressed by characterizing it as “supportive” of the broader issue of competition policy. Thus, specific provisions for industrial-property related unfair competition are addressed in an IP Decree⁴, while the broader issue of competition policy, in the sense of marketplace framework legislation, rests with the Ministry of Trade. The Government, under the Ministry of Trade, has established an Interministry Compiling Committee of the Law on Competition and Anti-Trust, headed by the Vice Minister

³ The Market Control Department (MCD) controls enforcement of trade law and takes actions against the illegal importation of goods and against counterfeit goods that may (or may not) be protected by trade marks or industrial designs. This organization has not yet focused on enforcement of patent for inventions or utility solutions, as these are new and seen as being of more difficult “technical nature”, but intends to do so. The protection of consumers is considered to be first priority with protection of IPR producers and owners second (i.e. IPRs should be policed in the marketplace by their owners and violations should be reported to the enforcement authorities). The MCD has over 4,000 staff in 61 provinces across the country and maintains a close working relationship with the Economic Police.

⁴ Decree No. 54/2000/NS-CP was promulgated on October 3, 2000 and addresses industrial property rights for:

- business secrets
- geographical indications
- trade names, and
- industrial property-related unfair competition

of Trade. Legislation is expected to be submitted to the National Assembly for approval in 2002.

PUBLIC POLICY MAKING PROCESS AND ROLE OF PRIVATE SECTOR AGENCIES & NGOS IN IP POLICY DEVELOPMENT, ADMINISTRATION & ENFORCEMENT

PUBLIC POLICY MAKING PROCESS

IP policy development, and subsequent development of legislation, is generally initiated by the “concerned” or accountable agency. With regard to TRIPS compliance, MOSTE was assigned the lead responsibility. As such, it has fallen on the Minister of Science, Technology and the Environment to provide leadership in developing the policy and drafting (or coordinating the drafting) of new and amended IP legislation. NOIP plays a key role in this respect, as the responsible authority under the Minister.

The policy/legislative development process is iterative. Drafting generally begins with the concerned authority (e.g. NOIP for industrial property, MCI for copyright, etc.) and would continue in a drafting committee comprising many interested ministries, state organizations and NGOs, including the Supreme Court, etc. As legislation begins to take broad shape, various seminars are organized, starting with specialized law experts. A second level of seminars may then be held for example on issues of ownership and contractual relationships, relating to IP. These seminars generally involve invited participants who are considered to be competent in the relevant fields under discussion. Provincial input is solicited.

End-user views are taken into account by inviting and encouraging representatives (IPR owners and/or their agents) to participate in the developmental seminars, by solicitation of written views on draft legislation and by conducting of public surveys (these are conducted by the Standing Committee of the National Assembly as well as at Ministerial level). Finally, mass media are used to both inform the broad public and also to generate feedback on important issues.

The Office of the Government has the lead responsibility for ensuring that the national IP framework meets Vietnamese needs while complying with TRIPS requirements.

The Government recognizes the importance of creative activities and the application of innovation and invention to accelerating the economic development of the country. The domestic application rate for IP protection in patents, utility solutions, etc., is considered to be low overall (about 7% of all applicants). At the same time, the Government also recognizes that there is a shortage of funding needed to carry out such activities by individuals, businesses and research institutions. To address this situation, the Government has established funds for supporting inventive activities, including “young talent”, administered by the Central Committee of Ho Chi Minh Communist Youth Union, the Union of Science and Technology Associations, Vietnam Labour Union, etc.

PUBLIC POLICY MAKING PROCESS AND THE ROLE OF PRIVATE SECTOR AGENCIES AND NGOS

Generally private sector agencies, including industry associations, play a supportive role in IP policy making. Once the broad directions of policy have been established by the Government, legislative drafting is initiated by the responsible ministry (MOSTE, MCI, MARD, etc.). Private sector input is solicited at an early stage, after input from legal experts, by way of seminars designed to solicit the views of affected and interested parties in the private sector, the academic community, etc.

Key among business organizations that influence the development of public policy is the Vietnam Chamber of Commerce and Industry (VCCI). VCCI includes among its membership the majority of the country's large commercial and manufacturing (including state-owned) enterprises. Other state organizations, such as the Vietnam Union of Science and Technology Associations (VUSTA) also play a role in public policy (including IP) development through dissemination of information and the undertaking of research and training in various fields.

In general, information dissemination and enforcement activities of these private sector enterprises remain at low levels, largely pending the implementation of the new TRIPS-compliant Vietnamese IP regime.

INTELLECTUAL PROPERTY LEGAL RESOURCES

There are some sixteen private sector firms of IP professionals in Vietnam, operating out of Hanoi and Ho Chi Minh City. Each of these firms generally has lawyers, engineers and patent and trade mark attorneys on staff. Many of these are former employees of NOIP and they are generally considered to be qualified and competent to represent applicants before NOIP. There are very few, if any, IP law experts in universities or other non-governmental organizations. Lawyers' societies are reportedly not active participants in enforcement training or the rationalization of procedures. Some IP expertise may be found among government officials who have retired from IP-related positions.

IP practitioners are increasingly becoming members of international IP associations and societies of practitioners, including the Asian Intellectual Property Association (AIPA), the International Trademark Association (INTA), the Asian Patent Attorney Association (APAA), the Fédération Internationale des Conseils en Propriété Industrielle (FICPI), the European Communities Trade Mark Association (ECTA), the International Chamber of Commerce (ICC), etc.

Many of these IP firms provide a broad range of services including: registration and enforcement (dispute resolution and litigation) of trademarks, patents, industrial designs; copyrights; research and investigation; advice on assignment and licensing; technology transfer; anti-counterfeiting, unfair competition, counsel on litigation and dispute resolution. Several firms also represent clients for registration of trade marks in Laos, Cambodia and Myanmar.

INDICATORS OF THE IP SYSTEM

ANNUAL NUMBERS OF IP APPLICATIONS AND GRANTS

See Tables 1 to 6 for Patents, Industrial designs and Trade Marks.

ANNUAL NUMBERS OF OVERSEAS IPRS GRANTED IN THE LAST THREE YEARS

See Tables 7 to 9 for IPRs applications and grants to residents and non-residents

LEVEL OF BACK-LOG IN PROCESSING IPR APPLICATIONS

There appear to be minor, but growing, backlogs in the processing of patent applications. These are caused mainly by the growing complexity of patentable inventions and the lack of appropriate scientific and technical skills available to examine such applications. This does not appear to be problematic at present since the great majority of applications filed in Vietnam enter via the PCT and arrive at national entry complete with search and examination reports from recognized International Search and Preliminary Examination Authorities. Potential difficulties may arise in the future with patent applications that are filed directly, most probably by nationals, in areas of technology where NOIP may not have skilled examination resources. Efforts are under way to explore options that would allow NOIP to seek the assistance of other national patent offices to deal with such eventualities.

Similar backlogs exist in trademark processing and are also attributable to a shortage of staff, including examiners.

MANAGEMENT AND LICENSING OF IPRS IN THE PRIVATE AND PUBLIC SECTOR

The transfer of inventions, innovations and utility solutions between Vietnamese nationals and between Vietnamese nationals and foreigners, is closely regulated by laws. Agreements involving patents and trademarks must be registered at NOIP. Failure to do so will result in non-recognition of the agreement in Vietnam and may result in fines.

Vietnamese laws stipulate who may obtain and hold patents in the case of government and academic research institutions and what benefits may accrue to the inventor from the licensing of such patents. Generally minimum royalty rates are prescribed by the state.

IPR PIRACY, INFRINGEMENT AND ENFORCEMENT

As noted earlier, most enforcement actions involving alleged infringements of IPRs are taken under a Civil Procedures Code through the numerous competent bodies. Most disputes are also settled amicably. It is therefore very difficult to quantify the extent of piracy and infringement based on availability of data. To the extent that NOIP has a responsibility to settle IP infringement (as well as entitlement) issues, 219 cases of alleged IP infringement brought to it between 1993 and 1996. Only 11 of these related to patents while the remainder related to trademarks and industrial designs. It is estimated that the number of alleged infringement cases brought before NOIP is a small proportion of the total that are settled administratively by the Market Control Organizations and Economic Police.

Between 1989 and 1996, only 25 IPR infringement cases have been settled by the Civil Court of the People's Court of Ho Chi Minh City. In addition, the Court allowed the withdrawal of petitions on 20 cases that were resolved through conciliation (the preferred method used by the Court). These numbers represent less than 0.1% of the total civil cases of the People's Courts from different districts and of Ho Chi Minh City. On a national scale, the percentage of IP case is considered to be significantly less than this, since Ho Chi Minh City is by far the most active area in the country in terms of IP disputes.

During the same period, administrative organizations charged with resolving IP infringement found that of the totals, approximately 96% of cases related to trademarks, 4% to industrial designs and 0% to patents.

In the copyright area, figures for piracy and illegal copying are not readily available. It is estimated that the large majority (over 60%) of books, videos, audio tapes and CDs on the market are illegal copies, many produced off-shore. Over a three-year period ending in 1999, only 4 copyright cases went to the courts. Nevertheless, complaints about the illegal copying of CDs, software, books and films appear more frequently in the media, and artists and other copyright owners are beginning to lobby government for greater protection of their interests. Vietnam has also recently initiated the process of introducing copyright collective societies. Regulations still remain to be drafted to guide the establishment, management and operation of any collectives.

COMPULSORY LICENSING

There are no provisions for the compulsory licensing of patents in Vietnam at this point in time.

KEY NATIONAL IP INSTITUTIONS, HUMAN & FINANCIAL RESOURCES & TECHNICAL/FINANCIAL ASSISTANCE

HUMAN RESOURCES

National Office of Industrial Property of Vietnam (NOIP)

NOIP is physically located in its own building in Hanoi and is in the process of developing an electronic workflow management system and database of Vietnamese patents. The possibility of establishing a branch office in Ho Chi Minh City is under consideration. The total staff of NOIP numbers just over 100, and includes lawyers, scientific and technical patent examiners, policy specialists and experienced staff dealing with the examination and registration of industrial designs, utility models and trademarks.

See Annex B for a detailed breakdown of NOIP functions and personnel.

Copyright Office of Vietnam (COV)

The COV is located in its own facilities in Hanoi and administers a voluntary system of copyright registration and is focusing its attention on strengthening the enforcement of copyright by enhancing public awareness and understanding of the negative consequences of illegal copying and piracy through seminars and workshops. COV also maintains a small office in Ho Chi Minh City.

The Office is headed by a Director General and a Deputy Director General, and includes a total of 15 professional staff plus 5 support personnel. The COV registers approximately 400 copyright certificates each year and maintains a computerized register.

The COV is actively preparing for Vietnam to become a Member of the Berne Convention for the Protection of Literary and Artistic Works, and the Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations.

OFFICE OPERATIONS

Patent (including applications under PCT as Receiving Office and utility solution) applications are examined for compliance with formalities requirements before being accorded a filing date. The accepted application is published after 18 months from the filing date. Upon receipt of a request for examination, within 42 months from filing date, the application undergoes substantive examination, by technically qualified patent examiners, for novelty, inventive step and industrial applicability. If the application meets the criteria for patentability it is granted.

Industrial design, trademarks (including Madrid applications) and appellations of origin are examined for compliance with formalities requirements before being accorded filing dates.

Substantive examination, by qualified examiners, is carried out on request and registration takes place if legal criteria are met.

Copyright applications (voluntary) are examined for formalities and registered. The Ministry of Agriculture will administer the system for registration of plant varieties.

The responsibility for registering Geographical Indications has not yet been assigned to any organization.

PROFESSIONAL EDUCATION AND TRAINING

Professional training and education for staff of NOIP, COV, enforcement agencies and private sector practitioners is not widely available. Very little training in IP is available yet from universities. Most domestic formal training in IP law, including what may be provided at universities, is delivered by executives and senior staff of NOIP and COV. Much of the professional training of Vietnamese IP officials in the past took place in the U.S.S.R. Today professional training is also provided by WIPO (regional seminars and in Geneva) and through study visits to foreign national IP institutions (e.g. Japan, Republic of Korea, Switzerland, etc.).

Training of officials of administrative enforcement agencies such as customs officers, is supported by analogous foreign and international organizations.

HUMAN RESOURCE CONSTRAINTS AND BOTTLENECKS

NOIP and the COV both are short of staff, particularly with respect to legal experts, examiners and informatics specialists. The numbers of experienced staff are relatively few, with the majority being relatively young and inexperienced. There is a shortage of foreign language skills, particularly English, which causes difficulties in reading and understanding patent specifications and search results.

Filing rates of applications for all forms of industrial property and copyright are expected to increase rapidly as conditions for obtaining and enforcing IPRs continue to improve and Vietnam becomes a Member of the WTO. At the same time, there will be more complex and new forms of IPRs to be administered and enforced, including higher life forms, integrated circuit topographies, plant varieties, trade secrets, etc. For NOIP and the COV, as well as other agencies and organizations, this will call for additional personnel with various scientific, technical and legal skills. These agencies will have to compete with each other and the private sector for such skill. Given that government salaries generally are lower than those in the private sector, the ability to attract and retain such highly skilled personnel may become a significant capacity constraint.

INSTITUTIONAL DEVELOPMENT IN RECENT YEARS

The Vietnamese system of intellectual property has undergone dramatic change in several stages, reflecting the country's shift towards a market economy and greater emphasis on the

development of industry. In 1989 an Ordinance on Intellectual Property Rights shifted the protection of inventions from a system of inventor's certificates to the international system of private ownership. Plant and animal varieties protection, methods of medical diagnosis and innovations relating to the prevention and treatment of disease continued under the system of inventor's certificates, where recognition was given to the inventor but the invention belonged to the state. As mentioned earlier, in 1996 the regulation of IP activities was placed under the Civil Code and basically brought up to TRIPS standards.

The NOIP and the COV have, and continue to change, in order to keep pace with the rapidly evolving IP regime itself. Among the significant changes impacting NOIP was the accession by Vietnam to the Patent Cooperation Treaty in 1993. This has resulted in an increased rate of patent filings from foreigners and, at the same time, has allowed NOIP to benefit from search and examination of such applications carried out under the PCT.

The role of the IP profession in the private sector continues to evolve. More practitioners are offering a broader range of services to both domestic and foreign clients, including representing client interests before administrative enforcement bodies. Their role as counsel to litigants in enforcement proceedings before the courts remains to be developed.

The overall pace of change now is driven by the national priority of becoming a WTO Member at the earliest opportunity. As mentioned above, the Government established in 1999 an integration committee including representatives of various ministries and agencies to coordinate the implementation of economic integration and accession to the WTO.

REFORMS BEING CONSIDERED

Administrative enforcement authorities (described above) and the People's Supreme Court are actively addressing their responsibilities and roles in Vietnam's rapidly evolving IP regime. As the various amended and new Decrees governing IP are detailed in Circulars and procedural texts, enforcement authorities and the judiciary will be faced with significant challenges to clearly understand the implications of the new national IP regime on them. Foreign technical assistance and support will be needed and is being solicited.

Vietnam is making preparations to accede to the Berne Convention on copyright. The COV presently administers a voluntary registration system for copyright and will need to determine if it should be maintained once Berne⁵ accession has been concluded. The establishment of copyright collectives in the private sector is being planned with the support of WIPO and CISAC.

A proposal has been made to combine the NOIP and COV into a single organization in the Ministry of Science, Technology and the Environment, thereby bringing together the responsibility for intellectual property matters.

⁵ TRIPS (and Berne) provide for copyright protection without any requirement for registration. Voluntary registration systems are popular in many countries because registration generally is accepted by courts and administrative bodies as *prima facie* evidence of ownership.

FINANCIAL RESOURCES

Annual Income and Expenditure in the past 3 years

The annual budget of NOIP is allocated by general expenditure items rather than by industrial property objects.

| | Total | Functioning | Reconstruction and Maintenance | Equipment |
|------|-------|-------------|-----------------------------------|-----------|
| 2001 | 8,600 | 6,600 | 1,000 | 1,000 |
| 2000 | 7,400 | 6,500 | 400 | 500 |
| 1999 | 6,300 | 5,500 | 300 | 500 |

Notes:

Units: 1,000,000 VND
1 USD = 15,000 VND

Projected Annual Income and Expenditure

Not available.

Financial Resource Bottlenecks and Constraints

Financial constraints impact the undertaking of capital projects for automation, accessing the Internet and the development of an IP information network in Vietnam.

What have been/will be the estimated costs of developing the IP system to comply with international IP agreements and undertakings, eg TRIPs? How long has this taken/will it take?

Details not available.

COST RECOVERY AND USER-CHARGES

Policy and Systems for Cost Recovery

NOIP and COV follow a policy of cost recovery from fees and user charges. All enforcement authorities operate on their own independent budgets.

Level of User Charges and Revenues from Cost Recovery last 3 years

Details not available.

Projected Level of User Charges tariff and Revenues from Cost Recovery Coming Years

Details not available.

TECHNICAL/FINANCIAL ASSISTANCE

Main Technical Assistance Programmes (1996-2000)

Main technical and financial assistance programmes included the following:

- WIPO – numerous seminars, conferences, symposia and expert advisory missions in Vietnam;
- UNDP – funding of several WIPO-executed expert advisory missions to Vietnam;
- European Community (under Euro-TAP Viet 1) – 1,000,000 Euro from 1999 to 2000 – strengthening of IP administration, enforcement and public awareness of IP - also EPO support for training seminars;
- Japan (Mutual Understanding on Cooperation in Industrial Property) – support from JICA and JPO – 4.5 million USD for modernization of IP administration;
- Australia (MOU on Cooperation in Intellectual Property) – several symposia on IP and trade organized – support from AIPO;
- France (Joint Commission on Industrial Property) –NOIP officials participated in training in Strasbourg, France – support from INPI;
- Switzerland (Special Programme of Cooperation –SPC) – 3 million SFr - three year project to assist Vietnam to modernize IP system;
- United States (under Bilateral Trade Agreement) – includes assistance to strengthen enforcement of IPRs in Vietnam – detailed Vietnamese technical assistance proposal has been sent to US side.

EFFECTIVENESS OF TECHNICAL ASSISTANCE PROGRAMMES SO FAR AND PRIORITIES FOR FUTURE TECHNICAL/FINANCIAL ASSISTANCE TO THE COUNTRY IN COMING YEARS, INCLUDING DESCRIPTION OF MAIN PLANNED PROGRAMMES IN THE PIPELINE.

Technical Assistance programs to date have generally focused on increasing awareness of TRIPS and the intellectual property system. Numerous seminars and conferences have been sponsored and funded by WIPO, UNDP, the EC and Japan, as well as through bilateral cooperation agreements with others. These have been held mainly in Hanoi and Ho Chi Minh City to discuss the implications of the TRIPS Agreement in terms of obligations and opportunities for Vietnam. Other seminars have examined the role of IP in economic development, including how to

increase innovation, how to 'value' inventions, how to exploit technological information, etc. Others still, have focused on enforcement of IPRs.

Some Technical Cooperation agreements have addressed the administration of the IP system and have provided support to computerize operations, etc. Others, including TAs with the EC and Switzerland, address modernization and TRIPS implementation issues broadly, including modernization of laws, training of enforcement agencies, improving access to the IP system from all parts of Vietnam, etc.

The recently concluded Vietnam-US Bilateral Trade Agreement (BTA) sets out a broad range of support that will be made available to support the modernization of IP administration and enforcement in Vietnam

PARTICIPATION IN INTERNATIONAL RULE MAKING AND CO-OPERATION WITH OTHER ORGANIZATIONS

Level and Nature of Participation in WIPO, WTO, FAO, UNESCO

Vietnam participates actively in various international fora. Vietnam's WTO accession process is nearing conclusion and has been a main focus of government effort and has been and remains a major user of expert resources of both NOIP and the COV. Senior NOIP officials support and participate in WTO/TRIPS compliance working group meetings in Geneva.

Vietnam participates in WIPO meetings including Governing Bodies Meetings, Committees of Expert Meetings (PCT, Patent Law Treaty, etc.) and Diplomatic Conferences on Protection of Audiovisual Performances, Patent Law Treaty, etc. Vietnam's delegations to WIPO meetings generally include concerned IP officials from Hanoi. Vietnam also participates in UNESCO and UNCTAD meetings on matters relating to the protection of folklore and traditional knowledge and other development issues.

Level of Cooperation with other IP Offices

Vietnam is a party to bilateral cooperation agreements involving intellectual property with:

- ASEAN
- European Community (under Euro-TAP Viet 2), EPO and OHIM
- Japan (Mutual Understanding on Cooperation in Industrial Property)
- Thailand (Vietnam-Thailand Officials Meetings on Intellectual Property)
- Australia (MOU on Cooperation in Intellectual Property)
- France (Joint Commission on Industrial Property)
- Switzerland (Special Programme of Cooperation – SPC)
- United States (under Bilateral Trade Agreement)
- Russia

These bilateral agreements are broadly intended to: assist Vietnam to improve its legal and

regulatory framework; enhance the administration of the patent and trademark granting systems; develop human resources in the field of IP; improve public awareness of IP; and strengthen the IP enforcement system. Some of these may result in future assessment of the viability of Vietnam using search and examination reports produced by other IP offices on equivalent applications.

Involvement in Regional Cooperation on IP Policy, Administration and Enforcement

Vietnam is an active participant in APEC and the ASEAN, including the IP discussions in both and has expressed support for deeper regional cooperation for administration and enforcement of IPRs. For APEC, the Directors General of NOIP and COV are designated as central or coordinating contact points for IP matters.

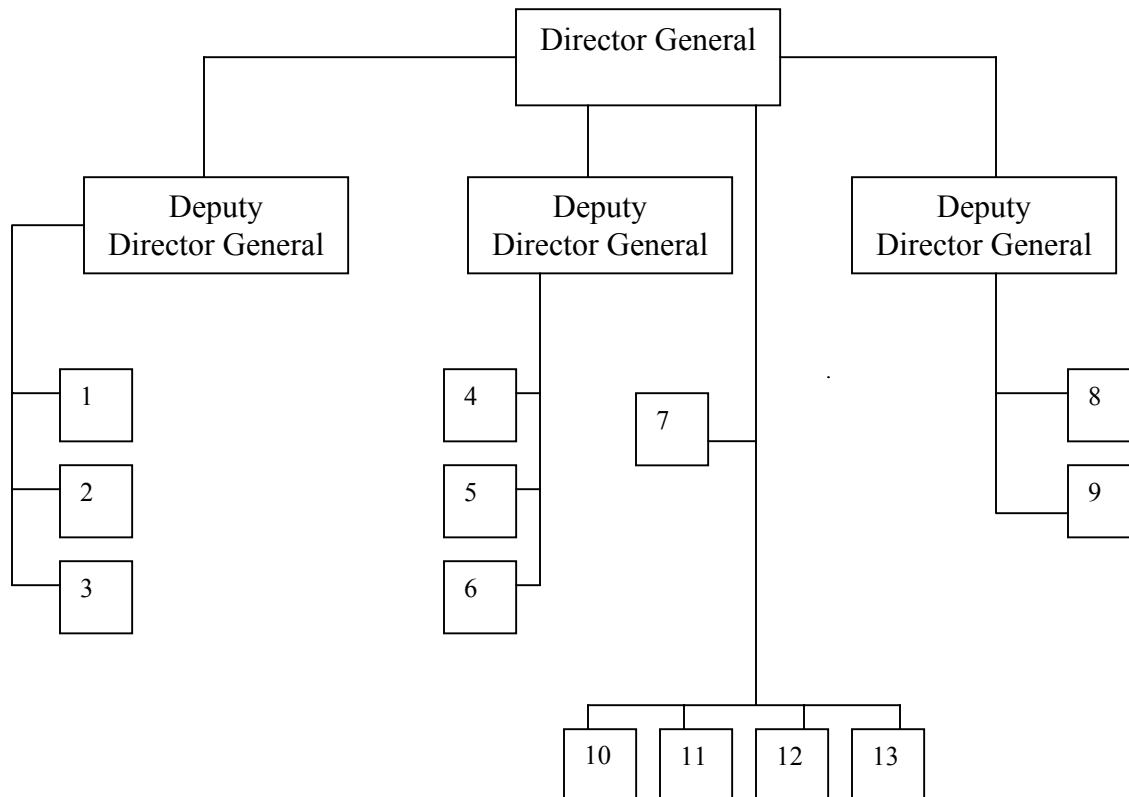
Vietnam is also actively involved with other IP offices in the ASEAN, having signed the ASEAN Framework Agreement on Intellectual Property Cooperation in 1995. It takes part in the meetings of the ASEAN Working Group on Intellectual Property Cooperation (WGIPC) on a regular basis.

Annex A**Acronyms**

| | |
|-------|---|
| ASEAN | Association of South-East Asian Nations |
| AIPA | Asian Intellectual Property Association |
| APAA | Asian Patent Attorney Association |
| APEC | Asia Pacific Economic Cooperation |
| COV | Copyright Office of Vietnam |
| CISAC | International Confederation of Societies of Authors and Composers |
| ECTA | European Community Trademark Association |
| FICPI | Fédération Internationale des Conseils en Propriété Industrielle |
| ICC | International Chamber of Commerce |
| INTA | International Trademark Association |
| MARD | Ministry of Agriculture and Rural Development |
| MCD | Market Control Department |
| MCI | Ministry of Culture and Information |
| MOSTE | Ministry of Science, Technology and the Environment |
| NOIP | National Office of Industrial Property (of Vietnam) |
| PCT | Patent Cooperation Treaty |
| VCCI | Vietnam Chamber of Commerce and Industry |
| VUSTA | Vietnam Union of Science and Technology Associations |

Annex B

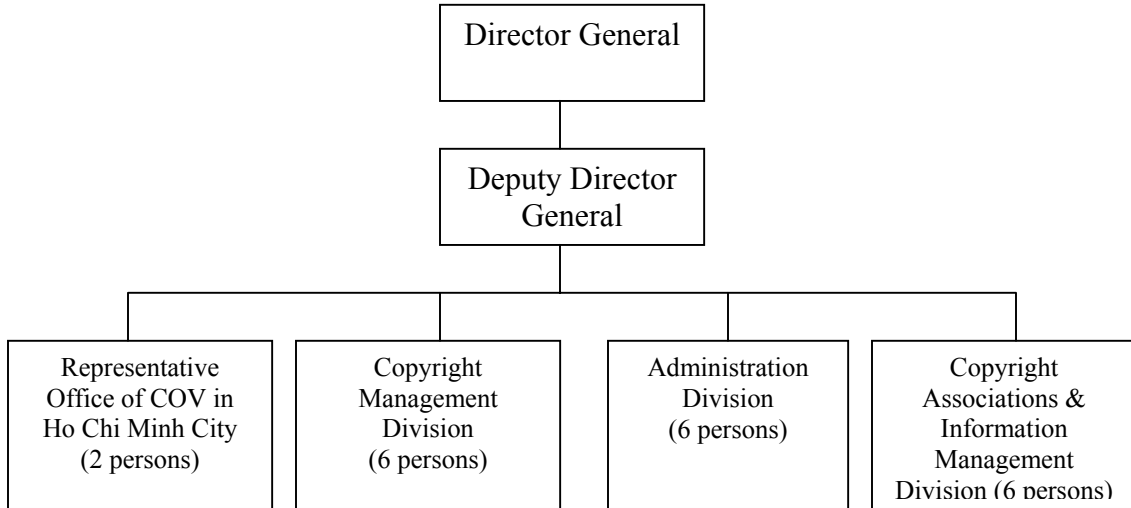
NOIP Organizational Structure



| | <u>Staff</u> | <u>Professional</u> | <u>Support</u> | <u>Total</u> |
|-----|---|---------------------|----------------|--------------|
| | Executive | 4 | - | 4 |
| 1. | General Administration Dept. | 12 | 14 | 26 |
| 2. | International Relations Division | 4 | 1 | 5 |
| 3. | Trademark Division | 14 | 3 | 17 |
| 4. | Legislation and Management Division | 4 | 3 | 7 |
| 5. | Industrial Design Division | 7 | - | 7 |
| 6. | Registration Division | 6 | 9 | 15 |
| 7. | Training Division | 2 | 1 | 3 |
| 8. | Invention and Utility Solution Division | 15 | 7 | 22 |
| 9. | IP Information and Documentation | 12 | 4 | 16 |
| 10. | Personnel | 1 | - | 1 |
| 11. | Trial Board | 2 | 1 | 3 |
| 12. | Computer Service 1 | 1 | - | 1 |
| 13. | Project Management | 3 | 5 | 8 |
| | Total | 87 | 49 | 136 |

Annex C

COV Organizational Structure



Annex D

Current IP Legal Framework in Vietnam

The hierarchy of legal texts in Vietnam is:

- Civil Code and Ordinances
- Decrees of Government
- Circulars of Ministries
- Internal Regulations and Guides of Agencies

Civil Code

The Civil Code of the Socialist Republic of Vietnam was passed by the National Assembly on October 28, 1995 and came into effect on July 1, 1996. Part VI, is entitled “Intellectual Property and Technology Transfer”. Chapter I of this Part covers Copyright and Chapter II covers Industrial Property.

Decrees of Government

Government Decrees set out detailed regulations concerning copyright and industrial property.

- Decree No. 76-CP was promulgated on November 29, 1996, and addresses copyright.
- Decree No. 63-CP was promulgated on October 24, 1996, amended⁶ as of February 1, 2001 and addresses industrial property. Government Decree No. 06/2001/ND-CP of February 1, 2001 amended and supplemented some sections of Decree No 63/CP.
- Decree No 12/1999/ND-CP was promulgated on March 6, 1999 and addresses the handling of violations of administrative regulations on industrial property.
- Decree No. 54/2000/ND-CP was promulgated on October 3, 2000 and addresses industrial property rights for:
 - business secrets
 - geographical indications
 - trade names, and
 - industrial property-related unfair competition
- Decree No. 13-2001-ND-CP was promulgated on April 20, 2001 and addresses plant varieties.

⁶ Government Decree No. 06/2001/ND-CP of February 1, 2001 amended and supplemented some sections of Decree No 63/CP.

Circulars of Ministries

Circular No. 3055-TT/SHCN of December 31, 1996, of the Ministry of Science, Technology and Environment (MOSTE) which guides the implementation of the regulations on procedures for establishing industrial property rights and other procedures set out in Decree No. 63-CP.

Circular No. 23-TC/TCT of May 9, 1997, of the Ministry of Finance, sets out details for the implementation of provisions on industrial property fees.

Circular No. 27/BWHTT of May 27, 2001 guides the implementation of the regulations on copyright set out in Decree No. 76/CP of November 29, 1996.

Various circulars set out details to be followed by administrative bodies and agencies for enforcing IPRs and executing administrative procedures relating to exercising the authorities and carrying out the duties of those agencies.

Circulars are being (or will be) drafted to set out rules regarding:

- patenting of microorganisms;
- protection of plant varieties;
- protection of business secrets;
- protection
- burden of proof in the case of process patents;
- detailed provisions on enforcement of IPRs (civil, criminal and administrative procedures, border measures, market control measures)

Internal Regulations and Guides of Agencies

Below Ministry Circulars are various regulations, guides and directives relating to operations and procedures to be followed in the National Office of Industrial Property and the Copyright Office of Vietnam, as well as other ministries and organizations.

TABLE 1**Patent Applications**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 37 | N/A | 30 | 37 |
| Non-residents | 42175 | 35748 | 27410 | 22206 |
| TOTAL | 42212 | 35748 | 27440 | 22243 |

TABLE 2**Patent Grants**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 13 | N/A | 0 | 4 |
| Non-residents | 477 | N/A | 111 | 57 |
| TOTAL | 490 | N/A | 111 | 61 |

TABLE 3**Utility Model Applications**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | N/A | 2 | 24 | 41 |
| Non-residents | N/A | 58 | 42 | 38 |
| TOTAL | N/A | 60 | 66 | 79 |

TABLE 4**Utility Models Registered**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | N/A | 1 | 8 | 5 |
| Non-residents | N/A | 15 | 12 | 6 |
| TOTAL | N/A | 16 | 20 | 11 |

TABLE 5**Industrial Designs Applications**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 899 | N/A | 997 | 1519 |
| Non-residents | 137 | N/A | 156 | 127 |
| TOTAL | 1036 | N/A | 1153 | 1646 |

TABLE 6**Industrial Designs Registered**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 729 | N/A | 266 | 852 |
| Non-residents | 98 | N/A | 57 | 74 |
| TOTAL | 827 | N/A | 323 | 926 |

TABLE 7**Trademark Applications**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 2382 | N/A | 1645 | 2323 |
| Non-residents | 4138 | 2838 | 6185 | 6117 |
| TOTAL | 6520 | 2838 | 7830 | 8440 |

TABLE 8**Trademark Registrations**

| | 1999 | 1998 | 1997 | 1996 |
|------------------|-------------|-------------|-------------|-------------|
| Residents | 1299 | N/A | 979 | 1383 |
| Non-residents | 4516 | 2534 | 4195 | 5232 |
| TOTAL | 5815 | 2534 | 5174 | 6615 |

TABLE 9**Annual Number of Patent Applications by and Grants to Foreigners****Notes:**

1. The numbers on the first row represent total applications and registrations (i.e. PCT designations plus direct national applications and grants) filed by foreign applicants in Vietnam. The numbers on the second row are applications and grants via the PCT.
2. 1998: National (direct) applications data and patents granted (registered) data not available.
3. 1999: data not available

| | 1999 | | 1998 | | 1997 | | 1996 | |
|------------------|------|-----|------|-----|------|-----|------|-----|
| | App | Reg | App | Reg | App | Reg | App | Reg |
| Argentina | N/A | N/A | | N/A | | | 2 | |
| | | | 1 | | | | 2 | |
| Austria | | | | | 147 | 4 | 129 | |
| | | | 210 | | 146 | 3 | 129 | |
| Australia | | | | | 741 | 7 | 697 | |
| | | | 890 | | 736 | 6 | 689 | |
| Belgium | | | | | 193 | 1 | 173 | |
| | | | 298 | | 190 | 1 | 173 | |
| Bulgaria | | | | | 8 | | 6 | |
| | | | 9 | | 8 | | 6 | |
| Brazil | | | | | 41 | | 19 | |
| | | | 46 | | 41 | | 18 | |
| Canada | | | | | 762 | 4 | 632 | |
| | | | 950 | | 761 | 4 | 628 | |
| Switzerland | | | | | 561 | 1 | 528 | 7 |
| | | | 644 | | 555 | | 522 | 2 |
| China | | | | | 136 | | 94 | |
| | | | 279 | | 127 | | 89 | |
| Czech Republic | | | | | 21 | | 15 | |
| | | | 29 | | 21 | | 15 | |
| Germany | | | | | 1415 | 3 | 999 | 2 |
| | | | 1991 | | 1374 | | 969 | |

| | | | | | | | | |
|----------------|--|--|------|--|--------------|---------|--------------|----|
| Denmark | | | 578 | | 595 594 | | 531 531 | 1 |
| Spain | | | 190 | | 139 139 | | 126 125 | 1 |
| Finland | | | 939 | | 664 664 | | 503 503 | |
| France | | | 1376 | | 938 924 | 6 | 743 730 | 1 |
| United Kingdom | | | 3202 | | 2677 2673 | 7 4 | 2251 2247 | 2 |
| Greece | | | 14 | | 15 15 | | 12 12 | |
| Hungary | | | 81 | | 63 63 | | 53 53 | |
| Ireland | | | 125 | | 83 82 | 1 | 85 85 | |
| Israel | | | 579 | | 363 359 | | 154 154 | |
| India | | | | | 1 | | 3 | |
| Italy | | | 523 | | 442 437 | 2 2 | 319 315 | |
| Japan | | | 1125 | | 1149 966 | 20 2 | 854 642 | 6 |
| Rep. of Korea | | | 172 | | 140 129 | 11 | 94 86 | 11 |
| Liechtenstein | | | 9 | | 7 7 | | 9 9 | |
| Luxembourg | | | 46 | | 29 29 | | 15 15 | |
| Mexico | | | 17 | | 14 14 | | 8 8 | |
| Netherlands | | | 891 | | 677 677 | 3 | 643 639 | 1 |
| Norway | | | 348 | | 318 318 | 4 2 | 251 250 | 6 |

| | | | | | | | | |
|-------------------|-------|-----|-------|-----|-------|-----|-------|----|
| New Zealand | | | 165 | | 158 | 1 | 145 | |
| | | | | | 158 | | 145 | |
| Poland | | | 10 | | 3 | | 3 | |
| | | | | | 3 | | 3 | |
| Portugal | | | 4 | | 3 | | 6 | |
| | | | | | 3 | | 6 | |
| Romania | | | 8 | | 55 | | 6 | |
| | | | | | | | 6 | |
| Russian Fed. | | | 178 | | 173 | | 121 | |
| | | | | | 173 | | 121 | |
| Sweden | | | 1826 | | 1393 | 2 | 1052 | |
| | | | | | 1393 | 2 | 1050 | |
| Slovakia | | | 16 | | 10 | | 8 | |
| | | | | | 10 | | 8 | |
| Turkey | | | 21 | | 24 | | 2 | |
| | | | | | 24 | | 2 | |
| United States | | | 16820 | | 12561 | 18 | 10350 | 13 |
| | | | | | 12524 | 7 | 10301 | 4 |
| South Africa | | | 16 | | 8 | 2 | 7 | 7 |
| | | | | | 7 | | 7 | |
| Other Counties | | | 1122 | | 733 | 14 | 558 | 6 |
| | | | | | 695 | | 503 | |
| TOTAL | 42175 | 477 | | N/A | 27410 | 111 | 22206 | 57 |
| (PCT) | 41951 | 292 | 35748 | | 27044 | 33 | 21796 | 6 |

TABLE 10**Annual number of Industrial Design Applications and Registrations by Foreigners****Notes:**

1. 1998: data not available
2. 1999: data not available

| | 1999 | | 1998 | | 1997 | | 1996 | |
|------------------|------|-----|------|-----|------|-----|------|-----|
| | App | Reg | App | Reg | App | Reg | App | Reg |
| Argentina | N/A | N/A | N/A | N/A | | | | |
| Austria | | | | | | | | 1 |
| Australia | | | | | 3 | 1 | | |
| Belgium | | | | | 1 | | | |
| Bulgaria | | | | | | | | |
| Brazil | | | | | | | | |
| Canada | | | | | 2 | | | |
| Switzerland | | | | | 10 | | 2 | 2 |
| China | | | | | 4 | | | |
| Czech Republic | | | | | | | | |
| Germany | | | | | 3 | 8 | 12 | |
| Denmark | | | | | | | | |
| Spain | | | | | | | | 1 |
| Finland | | | | | | | | |
| France | | | | | 16 | 3 | 12 | |
| United Kingdom | | | | | 8 | 3 | 4 | 1 |
| Greece | | | | | | | | |
| Hungary | | | | | | | | |
| Ireland | | | | | | | | |
| Israel | | | | | | | | |
| India | | | | | | | | |
| Italy | | | | | 6 | | | 8 |
| Japan | | | | | 17 | 5 | 32 | 13 |
| Rep. of Korea | | | | | 17 | 1 | 5 | 2 |
| Liechtenstein | | | | | | | | |
| Luxembourg | | | | | | | | |

| | | | | | | | | |
|----------------|-----|-----|-----|-----|-----|----|-----|----|
| Mexico | | | | | | | | |
| Netherlands | | | | | 7 | 2 | 5 | 9 |
| Norway | | | | | | | | |
| New Zealand | | | | | | | | 1 |
| Poland | | | | | | | | |
| Portugal | | | | | | | | |
| Romania | | | | | | | | |
| Russian Fed. | | | | | | | | |
| Sweden | | | | | | | | |
| Slovakia | | | | | | | | |
| Turkey | | | | | | | | |
| United States | | | | | 42 | 21 | 39 | 25 |
| South Africa | | | | | | | | |
| Other Counties | | | | | 20 | 13 | 16 | 13 |
| TOTAL | N/A | 137 | N/A | N/A | 156 | 57 | 127 | 74 |

Table 11**Annual number of Trademark Applications and Registrations by foreigners****Notes:**

1. (M): applications and registrations effected through Madrid Agreement designation
2. 1998: Madrid data only available, national data not available
3. 1999: data not available

| | 1999 | | 1998 | | 1997 | | 1996 | |
|----------------|------|-----|------|-----|------|-----|------|-----|
| | App | Reg | App | Reg | App | Reg | App | Reg |
| Argentina | N/A | N/A | | | 3 | 2 | 4 | |
| Austria | | | | | 46 | 41 | 56 | 53 |
| (M) | | | 51 | 49 | 44 | 40 | 55 | 51 |
| Australia | | | | | 124 | 16 | 57 | 105 |
| Belgium | | | | | 9 | 8 | 12 | 8 |
| Bulgaria | | | | | 9 | 9 | 4 | 4 |
| (M) | | | 7 | 5 | 9 | 9 | 4 | 4 |
| Brazil | | | | | 2 | 2 | 1 | 2 |
| Canada | | | | | 27 | 12 | 23 | 26 |
| Switzerland | | | | | 488 | 404 | 521 | 459 |
| (M) | | | 482 | 432 | 440 | 389 | 490 | 438 |
| China | | | | | 202 | 139 | 123 | 75 |
| (M) | | | 83 | 75 | 121 | 113 | 61 | 54 |
| Czech Republic | | | | | 11 | 10 | 14 | 12 |
| (M) | | | 16 | 15 | 11 | 10 | 14 | 12 |
| Germany | | | | | 788 | 710 | 857 | 743 |
| (M) | | | 765 | 684 | 726 | 646 | 774 | 691 |
| Denmark | | | | | 13 | 5 | 12 | 25 |
| Spain | | | | | 71 | 49 | 97 | 84 |
| (M) | | | 91 | 84 | 62 | 49 | 96 | 82 |
| Finland | | | | | 2 | 4 | 8 | 3 |
| France | | | | | 808 | 721 | 884 | 757 |
| (M) | | | 568 | 508 | 738 | 660 | 742 | 671 |
| United Kingdom | | | | | 279 | 107 | 194 | 200 |
| Greece | | | | | 2 | | | |

| | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|
| Hungary | | | | | 24 | 28 | 22 | 12 |
| (M) | | | 15 | 13 | 20 | 20 | 14 | 12 |
| Ireland | | | | | 1 | 6 | 8 | 2 |
| Israel | | | | | 1 | 2 | 8 | 5 |
| India | | | | | 22 | 20 | 40 | 35 |
| Italy | | | | | 406 | 339 | 365 | 329 |
| (M) | | | 288 | 255 | 377 | 326 | 346 | 304 |
| Japan | | | | | 381 | 193 | 356 | 330 |
| Rep. of Korea | | | | | 131 | 73 | 128 | 93 |
| Liechtenstein | | | | | 48 | 25 | 25 | 14 |
| (M) | | | 16 | 13 | 23 | 22 | 12 | 12 |
| Luxembourg | | | | | 1 | 4 | 4 | 2 |
| Mexico | | | | | 5 | 1 | 3 | 6 |
| Netherlands | | | | | 30 | 23 | 59 | 52 |
| Norway | | | | | 7 | 4 | 7 | 3 |
| New Zealand | | | | | 19 | 8 | 9 | 6 |
| Poland | | | | | 11 | 10 | 5 | 3 |
| (M) | | | 27 | 23 | 10 | 10 | 3 | 3 |
| Portugal | | | | | 10 | 9 | 5 | 4 |
| (M) | | | 5 | 4 | 10 | 9 | 4 | 4 |
| Romania | | | | | 2 | 2 | | |
| (M) | | | 2 | 2 | 2 | 2 | | |
| Russian Fed. | | | | | 15 | 12 | 23 | 20 |
| (M) | | | 51 | 41 | 15 | 12 | 23 | 20 |
| Sweden | | | | | 46 | 11 | 19 | 24 |
| Slovakia | | | | | 2 | 2 | 4 | 2 |
| (M) | | | 3 | 3 | 2 | 2 | 4 | 2 |
| Turkey | | | | | 2 | | | |
| United States | | | | | 913 | 446 | 938 | 722 |
| South Africa | | | | | 8 | | 1 | 4 |
| Other Counties | | | | | 1216 | 738 | 1221 | 1008 |
| (M) | | | 368 | 328 | 410 | 369 | 357 | 324 |
| TOTAL | 4138 | 5815 | N/A | N/A | 6185 | 4195 | 6117 | 5232 |
| (M) | 2349 | 2030 | 2838 | 2534 | 3020 | 2688 | 2999 | 2684 |