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PROGRAM OPTIONS FOR INTELLECTUAL PROPERTY
IMPROVEMENTS IN SIX COUNTRIES OF THE ASIA
AND NEAR EAST REGION

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by

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ANE: Program Options for Intellectual Property
Improvements in Six Countries
by Edgar C. Harrell and Judith Bello

Introduction

The Omnibus Trade and Competitiveness Act (1988) and the ongoing Uruguay Round trade negotiations reflect the new level of concern in the U.S. business community regarding protection of trade-related intellectual property rights (IPR). The Trade Act highlights IPR enforcement as an important goal of U.S. trade strategy; the Uruguay Round uses the negotiating table as a point of leverage to develop IPR rules and require compliance. In light of IPR's new priority status, AID is undertaking a review of its assistance programs to developing countries, asking whether and in what ways such programs might contribute to efforts to improve IPR regimes.

The paper to follow takes a preliminary look at IPR and AID and the issues at stake, in relation to six countries which have been identified by the US Trade Representative (USTR) as IPR offenders. Section I focusses on the legal underpinning of the IPR issue, outlining the provisions of the 1988 Trade Act and measures taken by the USTR to date to monitor violations. Section II discusses AID's particular response to IPR; as a development agency rather than a trade or finance institution, AID has a different set of concerns from the USTR, OPIC, or the Export-Import Bank. Following on this theme, Section III looks at technology transfer from AID's perspective--economic development more generally, not trade alone--and how, for the developing country, IPR only becomes an issue at a fairly advanced stage in the passage from less developed to industrialized status. Evidence on this score from the six ANE countries is provided in detail in Annex I. Finally, in Section IV, the paper examines the implications of the Trade Act for three types of AID programs and outlines design options for strengthening IPR regimes in developing countries.

I. The Mechanics and Initial Implementation of Special 301 Provisions

The Omnibus Trade and Competitiveness Act of 1988¹ contains "Special 301" provisions² designed to facilitate adequate and effective protection by foreign governments of intellectual property rights. The means of achieving such improved IPR protection is negotiations with foreign governments. The United States leverage in such negotiations is provided by the credible threat of unilateral retaliation by the United States, if trading partners fail to reform currently deficient intellectual property practices.

Special 301 directs the U.S. Trade Representative, within 30 days after the issuance of the National Trade Estimate Report,³ to identify those foreign countries that deny:

--adequate and effective protection of intellectual property rights, or

--fair and equitable market access to U.S. persons who rely upon intellectual property protection.⁴

Special 301 further requires the USTR to name as "priority foreign countries" those countries:

--whose acts, practices, or policies:

- *are the most onerous or egregious, and
- *have the greatest adverse impact on the United States, and

--are not entering into good faith negotiations or making significant progress in bilateral or multilateral negotiations to provide adequate and effective protection of intellectual property rights.⁵

In identifying "priority foreign countries" pursuant to Special 301, the USTR must consult with the Register of Copyrights, the Commissioner of Patents and Trademarks, and other appropriate government officials.⁶

Within 30 days after the USTR identifies "priority countries," she must self-initiate investigations into the acts, practices or policies identified of "priority foreign countries."⁷ Once an investigation is initiated, it is subject generally to the rules for section 301 investigations, except that the deadline for USTR's unfairness determination (i.e., the decision whether the practice complained of is indeed actionable under Section 301) is due earlier than normal, within only six months of initiation (three additional months if the investigation involves complex issues or substantial progress is being made). If the Trade Representative determines that the foreign government fails to provide adequate and effective protection of intellectual property rights, and that such failure burdens or restricts U.S. commerce, she is authorized--but not required--to retaliate by increasing duties or imposing quantitative restrictions on imports.⁸

The Trade Representative may designate additional "priority foreign countries," as well as revoke such identification, at any time. In the event of revocation, the Trade Representative must provide a detailed explanation of the reasons therefor in its semi-annual report submitted under section 309 of the Trade Act

of 1974, as amended.⁹

While Special 301 compels the USTR to initiate Special 301 investigations of certain "priority foreign countries," it affords the USTR substantial discretion in determining which foreign countries engage in actionable activities, which such countries are priorities, whether a Special 301 investigation would be detrimental to U.S. economic interest, and what response to actionable activities, if any, is appropriate.

On May 25, 1989, Ambassador Carla A. Hills outlined the Administration's initial implementation of Special 301. Echoing the sentiment of Congress, she observed that inadequate protection of intellectual property rights not only harms the U.S. economy, but also "undermines the creativity, investment and invention that are the mainspring of American enterprise."¹⁰ She noted, therefore, that the Administration will use Special 301 "as part of its overall strategy to open markets and expand international trade."¹¹

USTR noted that significant achievements had been made since the enactment of Special 301, including, for example, a bilateral agreement on copyright protection with Indonesia, and the development of Indonesian proposals for a patent law, including product protection for pharmaceuticals.¹² However, USTR stressed that a great deal remains to be achieved, and noted that virtually no trading partner satisfies the standards on intellectual property protection proposed by the U.S. in the Uruguay Round multilateral trade negotiations.¹³

However, she then acknowledged that all the countries that could be designated as "priority foreign countries" are engaged in good faith bilateral or multilateral negotiations or are taking unilateral measures to protect intellectual property rights. Consequently, in light of the progress being made in ongoing negotiations on trade-related intellectual property (TRIPS), Ambassador Hills declined to identify any country as a "priority foreign country" under Special 301.

She did, however, create a "watch list" and "priority watch list," naming countries which are particularly lax in their protection of IPR or have imposed barriers to market access. Of the ANE countries which are the focus of the present paper, Egypt, Indonesia, Pakistan, and the Philippines are on the watch list, while India and Thailand are on the priority watch list.

The status of those countries on the priority watch list--including India and Thailand--remains under review. As result of the first review, completed on November 1, 1989,¹⁴ three countries--Saudi Arabia, South Korea and Taiwan--were transferred from the priority watch list to the watch list, based on "genuine progress" toward adequate and effective protection of

intellectual property rights.¹⁵ Moreover, USTR noted recent "disturbing developments" in Turkey and slow progress in negotiations with Malaysia; however, no action was taken with respect to these countries.¹⁶ USTR stressed that "particular attention will be given to [the] contributions and positions [of priority watch list and watch list countries] in the Uruguay Round TRIPS negotiations."¹⁷

Most recently, on January 24, 1990, Ambassador Hills dropped Mexico from the priority watch list, following the announcement of its "Industry and Trade Sectoral Plan" outlining the steps it would take to improve the protection of intellectual property rights.¹⁸ The design of Special 301 is to provide U.S. trade negotiators more leverage in their efforts to "persuade" foreign government to enhance substantially their IPR protection and enforcement. The leverage is the credible threat of retaliation under section 301 through increased duties on imports of products or services from the country concerned, or the imposition of quantitative restrictions.

The main implication of Special 301, then, is that the United States attaches so much importance to the achievement of adequate and effective IPR protection that it is prepared to use access to the U.S. market as a tool to achieve this goal. Thus, Special 301 increases the prospects for concrete achievements regarding the protection of IPR.

On the other hand, the main limitation of Special 301 is that actual resort to retaliation will not achieve enhanced IPR protection. In the end, the U.S. goal can be achieved only through negotiations in which foreign governments conclude that reforms to their IPR laws and enforcement practices are in their interest, as well as that of the United States.

The most important activity regarding IPR protection is not Special 301, but rather the Uruguay Round multilateral trade negotiations. Essentially, Special 301 serves as a sentinel, helping to prod otherwise reluctant foreign governments through the gates of the IPR negotiations in Geneva. The Geneva negotiations are the main event; Special 301 is a tool in persuading foreign governments to take a seat at the table and negotiate seriously.

The next statutory action-forcing event is the requirement for USTR to identify "priority countries" under Special 301 within 30 days of the issuance (by March 31) of the National Trade Estimates Report. By April 30, then, USTR must announce its selections--or why it chooses to make no selections this year.

This year, the overwhelming priority for USTR is to conclude successfully the Uruguay Round negotiations in Geneva. Last

year, many at USTR believed that they lost precious time in those negotiations as a result of the international outcry in response to U.S. "unilateralism" as reflected in the Super 301 and Special 301 announcements. This year, with only ten months remaining in the negotiations, USTR cannot afford to lose any time. As a result, it is widely expected that USTR again will not name any "priority countries" under Special 301, but rather will continue to try to use the watch list and priority watch list as means to hold trading partners' feet to the fire in the Uruguay Round TRIPS negotiations.

Of course, Special 301 is not limited in time by its terms; unless the Trade Act is subsequently amended, the USTR is required each and every year from 1989 through eternity to identify "priority foreign countries" and self-initiate investigations under section 301. However, it is at least possible that these provisions would be substantially revised in the omnibus trade bill drafted to implement any agreements negotiated in the Uruguay Round.

The same Trade Act establishing Special 301 also includes an amendment to the Foreign Relations Authorization Act providing that:

Federally supported international science and technology agreements should be negotiated to ensure that --

(A) intellectual property rights are properly protected....¹⁹

Moreover, the same Trade Act establishes specific negotiating objectives for the United States regarding intellectual property²⁰ and provides for the "fast track" implementation of any TRIPS and other agreements negotiated in the Uruguay Round.²¹

All three major provisions--regarding Special 301, federally funded S&T agreements, and the Uruguay Round TRIPS negotiations--reflect the central importance of adequate and effective protection of intellectual property rights to U.S. policy. The Uruguay Round and S&T agreements aim to improve IPR protection with a handshake; Special 301 aims to do so with a crowbar, if necessary (because foreign governments either refuse to shake hands on it, or they do so but then fail to observe their commitments). Obviously the U.S. is seeking to use the Special 301 "stick" as a means to facilitate negotiations, aimed to culminate in satisfactory Uruguay Round TRIPS and S&T agreements.

However, the apparent harmony of these particular provisions of U.S. law regarding IPR can be imperilled if and when the goal of IPR protection may conflict with other important U.S.G. policy goals. Most notable with respect to AID's mandate is any conflict between U.S. efforts to assist LDCs in further developing their economies, with U.S. insistence that they

adequately and effectively protect intellectual property rights-- whether or not such a program serves their best interests.

II. The AID Response: A Comparative View

AID has not to date formulated a coherent and consistent response to the Trade Act and its Special 301 Provisions. Several different positions might be taken. At one end of the spectrum, it could be argued that Special 301 has no implications for AID at all, that AID bilateral agreements negotiated pursuant to the Foreign Assistance Act have no impact on USTR's application of Special 301. From this vantage point, USTR attempts to involve AID in IPR could be viewed as purely tactical moves: that is, that USTR wants AID to focus on IPR to improve USTR's leverage on individual countries in the Uruguay Round or over the long term to reinforce agreements reached in the negotiations. If Special 301 has no implications for AID's Foreign Assistance Act agreements, AID by extension has the option of refusing to weigh in IPR concerns in its programs and projects. A second position might be that AID should decide on a case by case basis whether IPR protection is important to the success of its developmental strategy in a particular country and pursue the matter for this reason alone, irrespective of whether the project facilitates objectives under Special 301. Finally, at the other end of the spectrum it might be argued that AID bilaterals are in fact agreements as defined in the Trade Act and Executive Orders and that AID, which is at the forefront of promoting science and technology projects, must deal with the IPR issue head on.

In the absence of a defined position on Special 301, AID has until now reacted in secondary fashion to actions taken by USTR. India is a case in point. Section 5171 of the Trade Act provides, inter alia, that "Federally supported international science and technology agreements should be negotiated to ensure that intellectual property rights are adequately protected...." Negotiations between USTR and the Indian Government have not yet produced agreement on IPR protection. Reluctant to go the route of imposing trade sanctions, however, the State Department chose instead to set up an Interagency Working Group (under the National Security Council Policy Coordinating Committee on International Oceans, Environment, and Science Affairs) as a kind of watchdog to review and pass judgement on all proposals for new or expanded S&T projects with India. Given the priority currently given to IPR issues by USTR, AID anticipates that similar interagency groups may be established to monitor other country programs. In the case of the India Working Group, the State Department is represented by OES which chairs the group; AID is not a member. AID's response was to establish within ANE/TR its own internal review of all S&T projects, including those for India, for IPR implications. This would be consistent with Executive Order 12591.

The dilemma for AID, of course, is that it cannot relinquish control of S&T project decisionmaking and still be the lead economic development agency. Science and technology is at the heart of economic development. AID has over the years undertaken an array of programs to transfer technology to developing countries and to enhance their capability to use, adapt and develop process, product and service technologies. These programs are varied and encompass investments in people--e.g., financing advanced degrees in the sciences at U.S. universities and advisers or consultants to host country governments and institutions--and investments in institutions--e.g., the Appropriate Technology International (ATI), KAIST (Korea Advanced Institute of Science and Technology), and international agricultural research institutes. The types of technology-related programs that will be most effective for a country's economic growth depend on the country's stage of development and on its prior investments in technology (see ITMAF, "Scientific and Technological Constraints to Economic Growth and Equity," ANE contract 2049-C-000-8052-00). Few, if any, of the AID projects supported to date have dealt explicitly with IPR protection. Yet at a certain stage in the development process, IPR becomes a development issue not simply a U.S. trade issue. We will return to this point in the following section. Suffice it here to note that AID must formulate its views on IPR in the context of the economic development goals of the developing countries and the implications those goals have for overall U.S. foreign policy.

AID, in other words, has a different perspective on IPR protection from USTR, Commerce, and the Export-Import Bank, which are seeking to promote U.S. trade, or from OPIC, which is charged with expanding U.S. investments abroad. In the case of both OPIC and the Export Import Bank, clients are U.S. companies with vested interests in assessing the risks of IPR violations occurring in the developing country. In the offering at OPIC, for example, is a program of risk insurance on intellectual property for U.S. companies investing overseas. If this is implemented, OPIC could conceivably reject applications for coverage for U.S. firms in countries with unsatisfactory IPR regimes on the grounds that it is liable for payments to the insured in the event of infringements. Likewise, USTR has the statutory authority to deny access to the U.S. market for products and/or services from all countries, including developing countries, with inadequate IPR protection, where this results in a burden or restriction on U.S. commerce. In fact, IPR has come to the fore as a major issue precisely because of complaints from U.S. companies that inadequate protection abroad represents income foregone.

The other side of the coin has not been examined: the cost to developing countries of instituting IPR regimes similar to those of industrial countries such as the U.S. The assumption is that there will be short-term losses but long-term gains; this needs to be substantiated by a cost-benefit analysis done on a

country-by-country basis in several industries. Stage of development is an important factor in the calculation; experience suggests that the more industrialized the country, the greater the benefits of IPR protection.

III. AID, Technology Development, and the Issue of IPR

A developing country's own perceived need to introduce IPR legislation comes late in the process of moving from a "least developed" to a "more industrialized" stage. What happens is that as the country makes the technological advances required to move forward on the development continuum, an increasing number of companies within the country either knowingly or unknowingly begins to infringe on international IPRs. This happens first in book and computer software copyrights and trademarks, later in more complicated copyrights and sophisticated inventions--e.g., custom-designed computer software and synthetically produced drugs and medical instrumentation.

Along with this low level piracy, some national companies start to develop their own technologies and sell them abroad or try to protect them from imitation within their own markets. At this point--the transition stage between semi-industrial and industrial--the country has generated a positive, self-interest reason to improve its IPR regime, though this may involve only the small, most technologically-advanced part of the industry sector and this group may be less influential than the group that benefits from violating IPR. It is at this point that AID can be most helpful in boosting support for IPR improvements.

AID's focal concern, of course, is not IPR, but economic development, helping developing countries reach the semi-industrial/industrial transition stage. Before this stage, with the exception of copyrights and trademarks, whether the country has an IPR law or not will have little effect on the level, composition and effectiveness of investments in technological infrastructure or on U.S. IPR interests. As mentioned above, IPR emerges as an issue for both the developing country and the U.S. once the transition stage is reached. For example, of the countries cited for computer software violations by the U.S. Business Software Association--Taiwan, Mexico, Brazil, Thailand, the People's Republic of China, and Italy--the first five may be classified as transition stage countries. All have a low ratio of software purchases relative to hardware used.

The six countries in the present study--Indonesia, the Philippines, Pakistan, Egypt, Thailand and India--are about to enter or are at some point in this transition stage (which Weiss classifies as beginning with sub-stage 2a, Mastery of Conventional Technology--ANE Contract 2049-C-000-8052-00). With increasing investments in technology, these countries will become better trading partners with the U.S., better opportunities for

U.S. investors, less dependent on bilateral foreign assistance--also an objective of AID--and stronger advocates of IPR protection. The question is one of timing for these countries which have developed the capacity to be, and are, IPR violators.

Egypt, Pakistan, the Philippines, and Indonesia are examples of countries which have only limited and selective ability to reproduce and imitate foreign intellectual property. They are at the level of being able to copy books, data banks, computer software, and audio and videocassettes; to imitate trademarks; and, in a few industrial subsectors, to absorb, copy and adapt low technology inventions. These countries represent a potential IPR problem because they are large aid recipients and IPR is currently in the limelight, not because IPR protection is essential for their development or the absence of protection (other than for trademarks and copyrights) a major threat to U.S. trade or investment interests. As shown in Annex I, the current IPR regimes in these countries have serious deficiencies relative to international codes and/or U.S. objectives. Protection will increasingly become a thorny issue to them and to the U.S. as they industrialize and opportunities for U.S. trade and investment expand. This has already happened in the case of India and Thailand which are at the stage of having extensive capabilities not only to imitate technologies from abroad, but also to develop their own. Neither India nor Thailand, however, is a large recipient of U.S. foreign assistance.

Moreover, if the experience of the more industrialized countries such as Korea and Taiwan is any guide, India and Thailand will be under increasing pressure to change not only their IPR regimes, but also their investment laws in order to attract foreign investment. Both countries are reaching the stage of technological and industrial development at which foreign companies 1) become reluctant to license the next stage of technology required by the country to remain competitive, and 2) demand a greater share of the potential returns from that technology and better protection of it. At this point, the foreign investor generally seeks to secure a controlling interest in the company exploiting the new technology. Domestic companies will also begin making investments in venture capital funds, R&D limited partnerships and joint ventures in research and production in industrial countries, particularly the U.S., to gain access to technologies which are not available to them through licensing or joint venture investments in their own countries and too expensive for them to develop on their own.

From the standpoint of AID programming, what is needed is a mechanism for monitoring on a country-by-country, sector-by-sector basis the types of technology transfer taking place and the consequent requirements for improvements in IPR and changes in licensing and investment laws and procedures. It is a dynamic

and multi-faceted scene, difficult to track. For example, in the case of the transition countries described above, all forms of technology transfer are happening simultaneously: copying, licensing, reverse engineering, adaption and development, joint investing with foreign companies, licensing and joint venturing abroad utilizing its own technology and investing overseas in new technology acquisitions. Yet, only by monitoring the changing situation will AID be attuned to the implications for its investments in technological infrastructure and programs for IPR and the country to opportunities or impediments to furthering its own growth through implementing a technology and industrial strategy which would include changes in its IPR regimes.

IV. Implications for AID Programs and Options for the Future

In this section, we will first look at three traditional AID programs in light of IPR concerns: 1) Science and Technology (e.g., Science Adviser, Cooperative Research); 2) Trade and Investment (e.g., export promotion, investment promotion, intermediate financial institutions); and 3) Technology Transfer (e.g., PACT, training, IESC advisory services). We will then explore options for making IPR improvements a more explicit goal of AID programming.

1) Science and Technology

There are basically two types of S&T programs: those that focus on training people, and institutional building programs designed to improve a country's research and teaching capabilities. The former are appropriate at any stage of a country's development and do not involve IPR issues, or at least not in any monitorable terms. The latter are not an IPR concern until a country has achieved a certain level of technological sophistication. Examples are investments in institutions such as the Korea Advanced Institute of Science and Technology and cooperative grants under AID's Science Advisor's Office, which link university researchers in the U.S. with those in developing countries; and cooperative programs between faculties of U.S. and the developing country's universities. AID's main focus here has been to equip institutions, improve research programming, encourage wide dissemination of research results through publications and seminars, and to improve science and technology teaching. Although patentable ideas and products have sometimes resulted from such programs and university professors have started commercial companies based on research they conducted (in India and Thailand, for example), IPR has seldom been raised as an issue and has certainly not been a focus of AID interest. The universities and science and research institutions have to develop their own agreements with their facilities and employees on IPRs and exploitation of technology. These programs as well as AID's Science Advisor's Office cooperative research grants and

AID's grant assistance to international agricultural research institutions do offer AID an opportunity to raise IPR consciousness among the recipients by incorporating some wording in its agreements on ownership and exploitation of intellectual property developed through AID's assistance.

On the other hand, the new emphasis in AID in recent years on private sector development has brought IPR issues increasingly to the fore. More weight is being given in S&T project design to cooperation among universities, government laboratories, and the private sector in developing countries. For AID, commercialization is becoming a measure of the success of disseminating new research. The World Bank is also moving in this direction. In its recent industrial technology development project in India, the Bank established targets for participating research institutes (five public and one private) for percentage of revenue to be obtained from private companies. If the cooperative arrangement with the private sector entails only advice, training, testing, standards, calibration, quality control, and simple product and process modifications, intellectual property rights are not at risk. If contract research for companies or licencing of technology developed at the institute are the key elements in the arrangement, IPR may become an issue and changes in the country's contract and IPR legislation may be essential to the program's success. In the case of the India loan cited above, the Bank felt that the legal system was adequate to enforce contracts and trade secrets and the Indian government was not interested in having the World Bank undertake a study of intellectual property.

In the case of the U.S., R&D labs such as Battelle have developed explicit agreements with governments, private companies, and employees on ownership of technology developed, disclosure, and licensing rights. If AID is providing support to R&D labs in developing countries, government or private, AID would be prudent to review the adequacy of legal arrangements the labs have about protecting intellectual property and trade secrets. The absence of such agreements and of recourse through the judiciary system has severely limited private companies' use of R&D labs for contract research in developing countries, and the labs tend then either to do basic research or to develop technologies with little interaction and therefore knowledge about the market need or potential for their efforts. The World Bank is on the right track in its new industrial technology development project in India and AID\Bangkok has designed elements of this market orientation into its Science and Technology for Development project. I do not know to what extent the AID mission has reviewed the IPR implications of its program, but it would be prudent for it to do so.

In the case of U.S. universities, it is common practice for universities to undertake only generic research financed by

private companies. The university files the patents and licenses the technology to contributing companies on an exclusive or non-exclusive basis. Contract research for private companies is done by faculty members as individuals, not as the university, and the agreements on confidentiality and disclosure are between the company and the faculty member. Again, to the extent that AID is financing or encouraging interaction between universities and private companies, they should be reviewing IPR implications. As in the case of R&D labs mentioned above, the success of the project may depend on adequate contract and IPR protection and recourse through the judiciary or administrative system in cases of violations. The World Bank noted that the labs they included in their recent loan to India had filed 18 claims for violations of intellectual property and won 17.

2) Trade and Investment

AID has supported programs to 1) increase U.S. investments in developing countries and trade from these countries to the U.S., and 2) improve developing countries' institutional capabilities by financing advisory services to boards of investment (BOI), lines of credit for export financing and the establishment of export trading companies, and loans and grants for small business lending programs. In the first case, IPR has generally not been an issue. In the second, particularly in regard to assistance to BOI activities, there exists an opportunity to strengthen IPR regimes.

In programs to increase U.S. investment in a developing country and exports from that country to the U.S., the principal U.S.G. inducements are OPIC insurance and preferential access to the U.S. market; e.g., GSP, sugar quotas. AID may finance visits by U.S. companies, but the principal agencies concerned with IPR would be OPIC and Commerce. The Caribbean Basin initiative is a good example of this approach.

In financing intermediaries to on-lend for investment or trade, the sub-borrower could be violating a U.S. company's intellectual property right (copyright, trademark, patent). This would be a rare case and not worth the administrative cost to the intermediary to examine each sub-loan for potential IPR violations. Sub-borrowers could be required to state in a signed application to the intermediary that they are not violating protected intellectual property, the recourse being that the intermediary could call the loan for documented infringements by the sub-borrower. The intermediary could exclude industries prone to violate U.S. intellectual property rights, e.g., firms that rent and distribute videocassettes, from qualifying for sub-loans. However, I do not think such measures would result in much change in attitudes or laws governing IPR in developing countries.

Advisory services to Boards of Investment or to government ministries responsible for approving investments and technology licensing agreements do provide opportunities to AID to improve IPR regimes. This is particularly the case in countries in transition from semi-industrial to industrialized and in countries that want to increase U.S. investment and technology transfer. As discussed earlier, at some point in this transition, IPR protection will be important to gaining access to technology and markets that is beyond the country's capability to develop itself and not available to them without IPR. Companies with the technology may insist on transferring it through direct investments which they control. At this juncture investment and IPR laws and regulations cannot be separated. Many countries' governments are not sensitive to when this point is reached, because of insufficient monitoring and analyzing of patent, investment and technology licensing applications. They have to improve their data collection capability and AID could help them in this effort. The IFC provides advisory services on foreign investment laws, regulations, incentives and procedures which could be expanded to include IPR considerations.

3) Technology Transfer

Apart from training programs which do not lend themselves to IPR monitoring, AID finances such technology transfer programs as ATI and PACT (PACER). These programs could contribute to greater awareness of IPR issues and to strengthening IPR regimes. In these types of programs, AID provides financing to intermediary institutions which in turn furnish funds to private groups, companies and individuals, to modify, develop and transfer technologies, some of which may be patentable. Certainly in the case of PACT and PACER the companies involved would consider the technology developed proprietary and seek ways to protect it. This should be explicit in the agreement between the collaborating companies, but can be influenced by the intermediary financed by AID.

AID has the option of holding residual rights to technology developed through financing by the institutions it supports. ATI has such a provision in its sub-contracts (PACT and BIRDF do not) because the emphasis is on dissemination of the technology, not financial return, and AID is the principal source of funds. (PACT and BIRDF have cofinancing by private companies.) In the case of PACT, private investors contribute 50% of the financing and the agreement on commercially exploiting the technologies developed, including the filing of patents, is between the U.S. and Indian firms. AID could prohibit the use of its money for collaborative technology development in areas where intellectual property protection is not available--e.g., medicines, chemical substances, pharmaceuticals in India--on the defensible grounds that the return to AID's investment is based on royalties on sales, and protection of intellectual property developed is an

important determinant of sales potential and thus returns to the intermediary, if not AID.

In the case of India, the counter argument is that the Indian government would not approve the use of bilateral aid funds in programs with such restrictions, and AID's objective was to experiment with a technology transfer process, not to change the IPR laws. However, well-established U.S. companies will not collaborate with Indian firms on development of technology which cannot be protected in India unless they have a market outside India and they have the right to file patents for the technology developed in other countries. In the case of BIRDF, this has not been an issue. This is because Israel has internationally accepted intellectual property laws; well-established U.S. companies are involved in the collaborative research; many projects take the form of collaboration between a parent company and its subsidiary in Israel; and the executive director of the program has a background in U.S. high tech industries. The BIRDF application form for financing also requires a statement describing what is innovative about the technology to be developed and a summary of the results of a patent search. Battelle, in its technical review, performs some of these functions for PACT; PACT's Advisory Board is also in a position to raise questions about IPR in its review process. PACT-like programs provide many opportunities to get the IPR issue on the table; in some circumstances, they can be used to influence changes in inadequate patent and copyright protection in the developing country.

IV. Options, Criteria, and Methodology

As discussed in the opening section, AID has not yet determined a policy response to the Trade Act in general and its Special 301 in particular. One possible type of response might be characterized as "defensive-passive." The assumption here is that AID bilaterals are not vulnerable to the Trade Act scrutiny and, further, that IPR concerns are not important to the success of AID strategy or to development generally. This is not a defensible position, particularly with respect to new projects in semi-industrial countries such as Hungary and Thailand, and especially difficult to support if the Uruguay Round is unsuccessful or if some countries--e.g., India--decide not to join a GATT agreement.

A second option for AID would be to take a "semi-active" approach along the following lines: AID could define in its own terms what constitutes a science and technology project and what elements have IPR implications. It could then determine in which countries IPR protection is needed and inadequate (many criteria: for the country's development, for the success of a science and technology project, for U.S. IPR protection or to increase U.S. investment and technology transfer to that country) and reach

agreement with other U.S. agencies as to which projects in which countries should be exempt from interagency review before signing. AID could increase IPR awareness in the country through the design of projects and programs, but in a low-key way such as incorporating provisions on ownership of intellectual property in agreements between intermediaries it finances and recipients of grants and loans from these intermediaries. Since USTR already surveys implications of IPR regimes for U.S. trade and investment, AID could focus on the development criterion, although foreign trade and investment may be an essential part of the developmental criterion.

A third option for AID would be an "active-dynamic" approach, accepting that AID-financed S&T projects have IPR implications, and, therefore, that provisions to facilitate IPR protection and enforcement have a place in AID's science and technology project agreements. If AID were to take the lead in this fashion, it would require substantial intellectual and administrative inputs. However, it would also afford AID the opportunity to reaffirm the importance of science and technology to development, creatively engage the U.S. private sector in the effort, define the applicability of IPR regimes in particular developing countries to the success of the overall program, and incorporate conditional guidelines in bilateral S&T projects to foster changes in a country's IPR regime.

If either the "semi-active" or "active-dynamic" approach is taken, AID would need to carry out a kind of IPR impact assessment. This would involve selecting a series of indicators to measure a developing country's stage of development technologically and the adequacy of its IPR regime by each of the four criteria above. Based on this assessment, AID could determine reasonable and workable interventions to remedy IPR deficiencies. The following sections suggest the kinds of indicators that might be included in the technological/IPR measurement instrument, illustrate how the assessment might be used to decide whether and how to intervene in IPR, and offer examples of program options that might be appropriate for semi-industrial countries:

1) Indicators of Technological Development

--Size of industrial sector, technology intensiveness, relative importance of private/public sector--the higher the figures, the greater the potential for IPR

--Openness of the economy as measured by exports/GNP, foreign investment/total investment levels--the higher the figures, the greater the potential for IPR

--Size of Market: GNP and GNP/capita--the higher the figures, the greater the potential for IPR

--Technological capacity (see ANE Contract 2049-C-000-8052-00)--the greater the capacity, the greater the potential for IPR

--S&T strategy: the more emphasis placed on science and technology in a country's strategy, the more that country should be concerned about IPR. The potential will be greater if the private sector plays an important role in this strategy.

2) Indicators of Current IPR Status ("adequacy")

- Patents Applications: foreign, domestic and total by sector
- Patents Approved: foreign, domestic and total by sector
- Time for processing applications: foreign and domestic
- Trademark Application: foreign, domestic and total
- Trademark Approved: foreign, domestic and total
- Number of patent lawyers and examiners reviewing applications
- Number of court cases involving copyright violations
- Number of patents being commercialized
- Production in technology intensive industries with and without IPR protection

3) Decision Path on AID Intervention Options

--Is an IPR program relevant?

	<u>Importance of IPR to:</u>		
	<u>Development</u>	<u>U.S. Interests</u>	<u>Domestic Industry</u>
Country X	yes	yes	yes
	Introduce IPR awareness or protection program		
Country Y	no	no	no
	Drop country from consideration		

One can suggest many combinations of answers to these three objectives, but if it is "yes" to development, a program of some kind is warranted.

--Is the country's IPR regime adequate? For example, what constraint is lack of IPR protection putting on economic development? This must be viewed in the context of its stage of development, using above indicators. If the answer is "no," go on to next question.

--What are specific IPR deficiencies?

--Would country cooperate with AID on an IPR program? If no, public awareness programs, training and experimental programs with leading sector industries might be all that AID can do. If "yes," go on.

--Is there a group within the country (e.g., engineering association) AID can work with? If the answer is "yes," develop an experimental program with that group.

--Is change in IPR regime critical to the success of the program? There will be very few AID programs that fit into this category. The more important question is: Can AID establish guidelines and benchmarks for changes in the IPR regimes as a condition for undertaking the program? If "yes," put them in. If "no," public awareness and experimental programs are suggested.

--Would government make changes in IPR if evidence suggests it is in their interest? If "no," only public awareness programs and burden for change falls on USTR.

--Can AID effectively undertake the program? Remember, patent lawyers and examiners are expensive and AID has little prior experience in this field. This may require AID funding an intermediary institution to provide technical and research assistance to Missions in implementing IPR related programs, the kind of role the Land Tenure Center (University of Wisconsin) plays relative to land reform issues.

4) Illustrative IPR Programs: Emerging Semi-Industrial Countries

--Countries like Pakistan, Indonesia, Egypt and the Philippines. Countries are entering a semi-industrial status in which low-technology manufacturing is a relatively important part of GNP and process technology is improving in many industries. Technological infrastructure is generally weak, but the country places a great importance on improving it (Indonesia). U.S. business concerns primarily directed at copyrights and trademark violations, but internal markets are large and growing and inadequate patent protection will be growing concern for U.S. companies. Except in a few industries, the country is not capable of developing its own technology for sale abroad. AID programs are large (except Indonesia) and influential, but little leverage (except Egypt). Business communities are large, but government controls a relatively large portion of industrial output and business is highly regulated (Pakistan and Egypt).

--Suggested IPR Interventions:

a. Seminars, training, advisory services: raise public awareness.

b. Look at rights to technology in current S&T programs and recourse, if any, in subloans from AID-supported financial intermediaries and experiment with wording in each case to see what is legally and culturally acceptable.

- c. Invest in technological infrastructure--e.g., standards, quality control, calibration services and other services to private companies.
- d. Work with the IFC advisory services on investment laws and procedures to Indonesia, the Philippines and Pakistan and incorporate IPR advice as part of the program.
- e. Work with appropriate government office to more systematically collect relevant information on applications for patents and licensing, foreign and domestic, and rate of approvals by sector by foreign versus domestic.
- f. Finance studies by local economists to undertake studies on the effect of IPR on the country's development.
- g. Provide guidance to AID missions on how to incorporate IPR into their country strategy papers. This can be done by providing them with an analytical framework and indices prepared by expansion of work undertaken by ITMAF (ANE Contract 2049-C-000-8052-00).
- h. Experiment with a PACT-like project in the sector with the highest level of technological sophistication and best management and encourage at least application for utility patents.

5) Illustrative IPR Programs: Semi-Industrial Countries

--Countries like Thailand and India which are semi-industrial and in which higher technology manufacturing is expanding, both in processing and product development. Country can compete in world market in a wide range of manufactures. Technological infrastructure is generally strong. Internal market large and growing. Some companies develop and sell technology abroad. U.S. business interest extends to inadequacies of patent protection and enforcement. AID programs are small, but in the case of Thailand, very influential. Very active and politically influential private sectors.

--Suggested IPR Interventions (mainly for Thailand)

- a. Technical assistance directed at IPR improvements: laws, application procedures and enforcement. Training would be an important element of this program.
- b. IFC collaborative program ref above.
- c. PACT program open ended in terms of sectors, but exclude industries with poor IPR protection from applying for finance. Require patent search as part of application procedure.
- d. Work with OPIC on an experimental program to include insurance

coverage of intellectual property in industries where the country provides good IPR protection and enforcement.

e. Work with universities to increase their services to industry and to undertake contract research (for Thailand see ITMAF paper on Thailand, Harrell, ANE Contract-2049-C-000-8052-00). Include in agreements and contracts culturally acceptable protection on trade secrets and intellectual property.

f. Offer cooperative programs between country and PTO, Department of Commerce for training of patent examiners, Library of Congress on copyrights and a law school such as Franklin Pierce on training patent lawyers.

g. Undertake a program of technology cooperation between U.S. and Thailand such as computer software program between companies in Massachusetts and companies in India. This provides many opportunities to strengthen intellectual property protection in the industry chosen. This could be a part of an AID-initiated science and technology agreement as part of its phase-out strategy. Pick an industry in Thailand that is capable of developing its own technology for protection.

V. Recommendations and Next Steps

The IPR issue will not go away for AID. Irrespective of Special 301, which is probably not applicable to AID at all, as AID incorporates more in the way of government services to private companies, collaborative government-private company-university research, and commercialization of technology into its science and technology projects, contract and intellectual property issues must be part of the project's design. Moreover, as AID increasingly designs and administers programs with semi-industrial countries--e.g., Hungary, Poland, Thailand--IPR protection may be important not only to the success of the AID project, but also to the long-term development of the country. Science and technology is central to development and forms an important part of AID's overall program and project portfolio. AID should adopt either a "semi-active" or an "active-dynamic" strategy in dealing with the IPR issue.

This paper has outlined some options for AID and indicated further research required to implement either a semi-active or active-dynamic strategy. The next steps should start with a workshop including Judy Bello, Chuck Weiss, Ed Harrell, and ANE/TR to (1) discuss the strategy options presented in the paper, (2) discuss the feasibility of further refining the IPR

impact assessment outlined in preliminary fashion in pages 15-18 above, (3) develop criteria for ANE to use in reviewing S&T projects for possible IPR implications, (4) draft guidance to ANE Missions on how to incorporate IPR issues into their country strategy papers and (5) review AID research grant agreements with international agricultural research institutions and under the Science Advisor's program on ownership and exploitation of patentable ideas.

February 24, 1990

References

1. Pub. L. No. 100-418, 102 Stat. 1107 (1989).
2. Id., S. 1303, 102 Stat. 1179-81.
3. The National Trade Estimate Report is required by the Trade Act of 1974, as amended, S. 181, 19 U.S.C. S. 2241 note.
4. Trade Act of 1974, as amended, S. 182(a) 19 U.S.C. S. 2242(a).
5. Id., S. 182(b), 19 U.S.C. S. 2242(b).
6. By statute, USTR is required generally to seek the advice of an interagency organization composed of the Secretaries of Commerce, State, the Treasury, Agriculture and Labor, in addition to the Trade Representative. The Trade Representative is authorized to "invite representatives from other agencies as appropriate..." Trade Expansion Act of 1962, as amended, S. 242(a) (3), 19 U.S.C. S. 1872(a) (3).

In practice, USTR consults with other agencies as well, including the Office of Management and Budget; Council of Economic Advisers; Departments of Defense, Energy, Interior, Justice and Transportation; the Assistant to the President for National Security Affairs; and the Director of the U.S. International Development Cooperation Agency. Executive Order No. 12,188, S. 1-102, 3 C.F.R. 131 (1980).

7. Trade Act of 1974, as amended, S. 302, 19 U.S.C. S. 2412.
8. Id., S. 301, 19 U.S.C. S. 2411.
9. Id., S. 309, 19 U.S.C. S. 2419.
10. Statement of Ambassador Carla A. Hills, United States Trade Representative (May 25, 1989) (on file at USTR) (attached at Tab 3, along with the USTR Fact Sheet).
11. Id.
12. Id.
13. Id. The key objectives of the U.S. proposal in the Uruguay Round are to reach a multilateral agreement that will establish minimum adequate substantive and enforcement standards, and effective dispute settlement procedures and remedies. Topics set forth in the U.S. proposal for negotiations of substantive standards include copyrights, patents, trademarks, trade secrets, and semiconductor chip layout designs.

14. The statutory deadline for action under Special 301 is within 30 days of issuance of the next National Trade Estimate report, due March 31 in 1990 and subsequent years. The November 1st review was a self-imposed, administrative deadline, presumably timed to facilitate negotiations in Geneva and to generate Congressional support for the Administration's implementation of Special 301.

15. Office of the U.S. Trade Representative, Hills Announces Results of Special 301 Review (on file at USTR) (attached at Tab 4).

16. Id. at 4.

17. Id. at 5.

18. The Mexican plan would: (1) lengthen patent coverage to 20 years from the date of filing; (2) limit "compulsory licenses" in which a foreign patent-owner could be forced to give up a patent to a domestic firm or the government; (3) offer patent protection for alloys, chemicals, pharmaceutical products and biotechnology processes; (4) strengthen the protection for trade secrets; and (5) improve protection rules for trademarks. Office of the US Trade Representative, Hills Announces Mexico to Be Removed from Priority Watch List (Jan. 24, 1990) (on file at USTR).

19. Omnibus Trade and Competitiveness Act of 1988, S. 5171, amending the Foreign Relations Authorization Act, S. 502, 22 U.S.C. S. 2656b(5).

20. Id., S. 1101(b)(10), 19 U.S.C. S. 2901(b)(10).

21. Id., S. 1103, 19 U.S.C. S. 2903.

STATUS OF IPR PROTECTION IN ANE COUNTRIES

I. Egypt

Egypt has been a member of the Berne Convention for the Protection of Literary and Artistic Works ("Berne Convention") since June 7, 1977. In 1978, Egypt also became a member of The Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms ("Phonogram Convention"). In addition, Egypt adheres to the Paris Convention for the Protection of Industrial Property ("Paris Convention"). Finally, Egypt is not a member of the Universal Copyright Convention. Egypt is eligible for Generalized System of Preference ("GSP") treatment.

A. Copyrights

Egyptian piracy affects all categories of works. Motion pictures (in videocassette format), sound recordings, printed matter (notably medical textbooks), and computer software are especially vulnerable. U.S. industry sources claim revenues lost to videocassette piracy alone total \$125 million each year.

Several deficiencies have been identified in Egypt's copyright law. First, no copyright protection exists for collective works such as databases. Second, there is a compulsory license for broadcasting works in theaters and other public establishments. Third, there is a limitation of exclusive translation right into Arabic to five years from publication. Finally, there are both inadequate penalties and an unclear basis for protecting new technologies like software.

Copyright reform legislation covering audio and video-cassettes has been introduced in the People's Assembly and redrafted several times. Work is also progressing on a new law to protect computer software. However, it is unclear whether protection would be under copyright or its own legislation:

The United States and Egypt recently began bilateral consultations on copyright issues. Talks covered the implications of the U.S. accession to the Berne Convention, which establishes bilateral copyright relations. The International Intellectual Property Alliance believes that Egypt must confirm that U.S. works copyrighted prior to U.S. accession to the Berne Convention are protected in Egypt; amend its copyright law expressly to cover computer programs, print and electronic compilations and cable retransmissions; and increase criminal penalties. In addition, Egypt should adopt a law regulating audio and videocassettes and substantially strengthen its anti-piracy enforcement unit.

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B. Patents

There are several deficiencies in the Egyptian patent law. Article 2(b) of the applicable Egyptian patent statute prohibits patents for substances prepared or produced by chemical processes if such products are intended for food or medicine. Article 12 limits patent terms to 15 years from the application filing date. A five-year renewal may be obtained only if the invention is of special importance and was not adequately worked so as to indemnify the patentee for his efforts and expenses.

Under Article 30, a compulsory license may be granted if the patent is not worked for three years or is inadequately worked. The law does not provide for the alternative period of four years from the date of filing, as the Paris Convention, as revised, requires. Under Article 36, a patent may be forfeited for nonworking two years after the first compulsory license's issuance. The act does not define infringement to include the use, sale or importation of a product made using a process patented in Egypt.

It has not been possible to estimate U.S. exports lost due to deficiencies in this law. The United States will begin bilateral consultations with the Egyptians on these issues.

C. Trademarks

In Egypt, trademarks can be registered for ten years and renewed under Trademark Act 1939-56. No major problems were found with this law.

II. India

India does not provide adequate and effective protection for U.S. intellectual property rights. The United States has discussed intellectual property protection with India in many formal and informal meetings during the past few years. Indian government officials have not responded positively to repeated U.S. proposals for changes to India's patent, trademark, and copyright laws. India is a member of the Berne Convention, the Universal Copyright Convention, and the Phonogram Convention. Also, India has a bilateral copyright agreement with the United States. However, India is not a member of the Paris Convention, nor does it have a bilateral patent agreement with the United States. The United States is pursuing these issues bilaterally and in the Uruguay Round negotiations on intellectual property protection. India is eligible for GSP treatment.

A. Copyrights

In 1984, India amended its copyright act (the Copyright Law of 1984) to provide stronger remedies against piracy and to protect computer software. Under Article 63, the minimum penalty

for first infringements is six months in prison plus a fine of 50,000 rupees (about \$4,000). For subsequent offenses, the minimum penalty is one year in prison and a fine of 100,000 rupees (about \$8,000). However, the law still contains deficiencies in the areas of compulsory licensing and overly broad exemptions from liability for certain unauthorized uses and public performances.

Piracy of copyrighted materials, particularly popular fiction works and certain textbooks, is a significant problem in India as a result of a notable lack of enforcement in the copyright area. Video, record, and tape piracy have been reported. The Motion Picture Export Association of America, Inc. ("MPEAA") reports unauthorized performances of pre-recorded videocassettes are widespread. Also, unauthorized non-theatrical public performances of American films are occurring in major hotels in India; video libraries are well stocked with pirate videocassettes of American films; and pirate videocassettes of American films are also being dubbed in Hindi.

B. Patents

The grant of an Indian patent under the Patent Act of 1970 entitles the inventor during the life of the patent to exclude others from using, manufacturing, or selling the invention. The patent term in India is exceptionally short compared to other countries. The term is 14 years from the date of filing of the complete specification.

India's Patent Act prohibits patents for any invention claiming substances intended for use or capable of being used as a food, medicine or drug or relating to substances prepared or produced by chemical processes. Many U.S. invented drugs are widely reproduced since patent protection is not available. Processes for making such substances are patentable subject matter, but the patent term for these processes is limited to the shorter of five years from the patent grant or seven years from patent filing. This is usually less than the time needed to obtain regulatory approval to market the product.

When the Indian patent law was revised in 1970, the provision relating to compulsory licenses was so extreme that patent protection became virtually meaningless. The holder of a voluntary license can apply for a compulsory license -- a serious disincentive to licensing technology into India. The Controller of Patents is also entitled, when he considers it appropriate, to issue an order barring even the patent holder from using the invention. A compulsory license may also be granted even if the product is only to be imported into India, not manufactured there. In addition, the grounds for obtaining a compulsory license are very broad in scope and give considerable discretion to the Controller. Finally, the royalty allowed to the patent holder on grant of compulsory license is generally minuscule and subject to tax.

Licenses of right can be secured on the same grounds as compulsory licenses. Moreover, in the case of inventions relating to pharmaceuticals, chemicals, foods, veterinary products, and pesticides, licenses of right can be secured merely on request at any time after three years from the date of the patent grant. The royalty payable to patent holder is determined by the Controller, with a maximum of four percent of the net ex-factory price subject to tax.

C. Trademarks

A key obstacle to foreigners wishing to do business in India involves the severe restrictions placed by the Indian government on the licensing of foreign trademarks to Indian users. In the letters of approval for foreign collaboration, the government generally introduces a condition that the use of a foreign owned trademark will not be permitted in relation to goods for sale in the domestic Indian market. Also, government policy typically denies a foreign trademark holder the ability to collect trademark royalties. In addition, section 49(3) of the Trade and Merchandise Marks Act of 1958 places no restrictions on the central government's right to reject a registered user application or to set arbitrary conditions for the acceptance of such application.

Some foreign companies have resorted to common law licensing arrangements, which is risky because such usage does not benefit the licensor. This exposes the trademark to rectification, charges of trafficking and dilution, and possible misappropriation by the licensee. In certain instances, the Indian government has allowed the usage of foreign trademarks, provided they are used in conjunction with an Indian owned trademark.

Indian trademark law provides that a trademark registration is vulnerable to cancellation for nonuse. Due to severe import restrictions on foreign trademarked goods and the general inability of a foreign trademark licensor to get registered user recordal, foreign trademark owners typically cannot demonstrate market place usage to support their registrations. This is somewhat relieved by section 46(3) of the Trade and Merchandise Marks Act of 1958, which provides that non-use may be excusable when it is shown to have been due to special circumstances in the trade and not any intention to abandon the trademark.

India has no formal recognition of internationally famous trademarks. Therefore, famous international trademarks which are not registered in India, or are registered in India but are not in use, are subject to cancellation and vulnerable to piracy.

The trademark registration process in India takes up to four years. The condition of the trademark office records often

1. makes it difficult to get up-to-date trademark search information. In addition, the bringing of an administrative trademark action, or a trademark suit in the courts, is typically a very lengthy, complex process that can take many years to resolve.

III. Indonesia

Indonesia is a member of the Paris Convention, but is not a member of any other convention concerning intellectual property rights. In April 1989 the United States and Indonesia signed a bilateral agreement on copyrights. Indonesia is eligible for GSP treatment.

A. Copyrights

In September 1987 Indonesia enacted amendments to its copyright law, which largely bring the law into conformity with international standards for copyright protection. Enforcement of copyright protection has improved since the 1987 law was passed, although copyright infringement still poses a particularly serious problem for U.S. recording and motion picture industries.

The amendments also extend protection to foreign works as long as Indonesia has a bilateral agreement with the country in question, or Indonesia and that country are members of the same international convention. Indonesia does not now adhere to an international copyright convention.

B. Patents

Indonesia does not have a patent law. Inventors are allowed to file patent applications under a 1953 Indonesian Department of Justice decree to create a priority claim for the applicant once a patent law is passed. This procedure provides no immediate protection. A draft patent law that may offer prospects of improvements was submitted to Parliament in February 1989.

C. Trademarks

Trademark registration in Indonesia is covered by Law No. 21 of 1961. Problems with Indonesian trademark laws include unreasonable licensing requirements, import restrictions that do not justify nonuse, and inadequate civil remedies. Past enforcement of trademark protection has been a problem for foreign trademark holders. Counterfeiting and infringement remain widespread. However, Indonesia is now in the process of drafting a new trademark law. Several 1987 court decisions have favored U.S. and other foreign trademark owners, but problems for U.S. trademark owners persist.

IV. Pakistan

The United States has consulted with Pakistan on numerous occasions on the need to improve intellectual property rights protection, including during February 1988 meetings in Washington, D.C. The United States will continue to seek amendments to Pakistan's law and will bring up specific industry problems in high-level discussions with Pakistani officials.

Pakistan has repeatedly indicated it is reviewing possible amendments to its intellectual property laws but has given no assurances these amendments will alleviate U.S. concerns. Pakistan has given no indication when these amendments would be made or whether interested parties will have an opportunity to comment.

Pakistan is not a member of the Paris Convention or the Phonogram Convention. However, the U.S. Treaty of Friendship and Commerce with Pakistan guarantees national and most-favored-nation treatment for patents, trademarks and industrial property rights. In addition, Pakistan is a member of the Berne Convention and the Universal Copyright Convention. Finally, Pakistan is eligible for GSP treatment.

A. Copyrights

Copyright infringement in Pakistan is an area of great U.S. concern. Although Pakistan is a member of the Universal Copyright Convention, U.S. companies (e.g., book publishers and video film producers) have complained that Pakistan's copyright law enforcement is ineffective and penalties for violation extremely weak. The extent and economic cost of pirated U.S. works are unknown.

B. Patents

Pakistan's patent law provides for process, but not product, patent protection for pharmaceuticals and agrichemicals. Proving infringement of a process patent is difficult and such patents are easily circumvented. Pakistani law does not have any provision for reversing the burden of proof in cases involving products made by a patented process. In addition, compulsory licenses may be applied for at any time by anyone dissatisfied with the availability and price of the patented invention.

C. Trademarks

In the trademark area, well-known marks can only be protected through registration as defensive marks. Pakistan has no provision for registering service marks.

V. Philippines

The Philippines is not a member of the Paris Convention or the Phonogram Convention. Also, the Universal Copyright Convention status of the Philippines is undetermined. The U.S. Copyright Office considers that Universal Copyright Convention relations do not exist. The Philippines does adhere to the Berne Convention and has a bilateral copyright agreement with the United States. Also, the Philippines is eligible for GSP treatment.

Philip Morris International Inc. and the Prudential Insurance Company of America both have reported encountering problems with respect to intellectual property rights protection in the Philippines. The Philippine National Internal Revenue Code provides that cigarettes manufactured in the Philippines bear an excise tax of 50 percent if a foreign trademark is used, in lieu of the standard tax of 40 percent applicable if a Philippine owned trademark is used. Prudential Insurance Company of America contends that the Philippine government excludes foreign insurance companies from doing business and uses such a ban as a basis for protecting domestic trademark infringers.

The laws and regulations of the Republic of the Philippines require that all license agreements between foreign licensors and Philippine licensees involving the licensing of intellectual property rights be submitted to the Technology Transfer Registry ("TTR") for approval and registration. The regulations governing the operations and procedures of the TTR contain detailed rules and restrictions regarding the commercial terms which such license agreements may contain. For example, royalties for the license to use a trademark cannot exceed one percent of net sales of the licensed product. Other parts of the TTR regulations allow the TTR to substitute its own judgment for the commercial judgment of the parties to the license agreement and to determine, among other things, the amount of the royalty which the foreign licensor may receive, subject to the one percent limitation.

A. Copyrights

While the Philippine government has been aware since 1985 of the U.S. government's position with respect to the protection of U.S. copyrights, that government has failed to take the necessary actions to improve the situation. Inadequacies with Philippine copyright protection laws include burdensome substantive or procedural formalities, unclear protection for some U.S. works, overbroad exemptions, compulsory licenses, and inadequate term for sound recording and motion pictures. Losses due to piracy have increased substantially in the last four years.

Enforcement of the Philippine copyright law is deficient. Problems include inadequate criminal and civil

penalties, inadequate training and resources for enforcement, and an unreasonably slow enforcement process. However, the Video Review Board has been very effective in enforcing the copyright laws with respect to videocassettes.

A 1977 presidential decree lets Philippine publishers reprint educational, scientific, and cultural books if they are priced at more than 35 pesos (about \$1.66). A requirement that limits Philippine publishers' royalty remittances to two percent of the foreign list price has significantly cut U.S. book sales to the Philippines.

B. Patents

The chief problems in the Philippine patent law include unreasonable licensing requirements, including special licenses for pharmaceuticals, and unreasonable working requirements. Under the technology transfer laws, both voluntary and compulsory patent licenses are subject to a royalty cap and may not include prohibitions on exports. Also, enforcement of the Philippine patent laws is weak.

In addition, the Philippine Congress is considering legislation that would reduce the term of protection and exacerbate the compulsory license problems. The United States is monitoring the progress of these bills and has informed the Philippine government that enacting such legislation would constitute a serious weakening of patent protection.

C. Trademarks

Enforcement of the Philippine trademark law is deficient. Problems include inadequate civil remedies and inadequate training and resources for enforcement. Also, U.S. companies producing or attempting to market products in the Philippines have difficulties with unauthorized local firms registering their trademarks. Philippine law requires use of the mark, or justified nonuse, to avoid cancellation of the registration. However, the Philippine Bureau of Patents, Trademarks and Technology transfer has issued guidelines requiring nonuse to be totally beyond the control of the registrant.

VI. Thailand

Recently, petitions seeking modification of Thailand's benefits under the U.S. Generalized System of Preferences were filed. In response, the President determined that Thailand does not adequately and effectively protect intellectual property rights ("IPR"). The Thai government has agreed to continue discussions with the United States on intellectual property issues. Thailand is not a member of the Paris Convention, the Universal Copyright Convention, or the Phonogram Convention.

However, Thailand is a member of the Berne Convention and has a bilateral copyright agreement with the United States. Thailand is eligible for GSP treatment.

A. Copyrights

Thailand's copyright statute -- The Copyright Act, B.E. 2521 (Dec. 11, 1978) -- grants protection to Thai nationals or persons "who stay in [Thailand] at all time or most of the time during the creation of the work" (sec. 6). If a copyright is made under the laws of a state that is a signatory of a copyright convention and that state grants reciprocal copyright protection to Thailand, that work will enjoy protection under this Act subject to conditions made by royal decree (sec. 42).

The Act defines "work" as "a creative work in the form of literacy, dramatic, artistic, musical, audio-visual, cinematographic, sound and video broadcasting work, or any other work in the literacy, scientific or artistic domain" (sec. 4). The owner of the copyright has an exclusive right of: reproduction or adaptation; publication; granting benefits accruing from the copyright to other persons; and granting license to other persons (sec. 13). A copyright is granted for the life of the author and 50 years after the author's death (sec. 16). A copyright for photographic, audio-visual, cinematographic or sound and video broadcasting work is granted for 50 years from the creation of the work (sec. 18). Copyright infringement is subject to a fine of from 5,000 baht (about \$200) to 100,000 baht (about \$4000) (secs. 43 and 44).

U.S. accession to the Berne Convention will permit Thailand to fulfill its commitment to protect U.S. copyrighted works under a series of bilateral agreements going back more than 60 years. The Thai government has also provided assurances that "preexisting" U.S. works still under copyright protection in the United States will now be protected under Thai law. Thailand has not agreed to provide explicit protection for computer software under its copyright law, but will await an interpretation of the law by the Thai courts.

Other concerns with Thailand's copyright law include inadequate penalties for copyright infringement, public performance exceptions and a 10-year limitation on translation rights. Also, enforcement of the copyright laws remains a problem. As a result, piracy of U.S. books, records, and movies is extensive.

B. Patents

The principal statute relating to patents in Thailand is the Patent Act, B.E. 2522 (March 16, 1979), as currently revised and implemented. Patents are granted on application and after examination by the Director General of the Department of Commercial Registration of the Ministry of Commerce. Regular

patents must be for inventions applicable to industrial uses and expire 15 years from the date of application. Product design patents have a seven-year life.

Patents in Thailand are subject to annual maintenance fees beginning with the fifth year of the patent term (sec. 43). Also, a patent may be subject to lapse proceedings if there is no production or sale in Thailand or if sales are at exorbitant prices within six years of grant (sec. 55).

A patent will be subject to compulsory license proceedings three years after grant if, without sufficient reason, production or sales in Thailand are insufficient to meet the demand of the public or if sales are at exorbitant prices (sec. 46). A patent may also be the subject of compulsory license proceedings if it would not be severely damaged, and the later invention is of great commercial importance and cannot be otherwise efficiently worked (sec. 47). In addition, a patentee may not impose conditions, limitations, or royalties that tend to damage or obstruct industrial, manufacturing, agricultural, or commercial development.

In Thailand, a patent holder has the right to forbid all other persons from producing, selling (or possessing for sale) any patented product. A holder of a process patent has the right to forbid the process from being used by any other person. Infringers are subject to fines and/or imprisonment.

Thailand's patent law denies product patent protection for food and beverages, pharmaceuticals and pharmaceutical ingredients, and agricultural machinery. Other concerns include an insufficient term, overly broad compulsory licensing provisions, and the requirement that the patent holder work the invention in Thailand to avoid compulsory licensing or patent cancellation.

Thailand has accepted the principle of patent law reform, but has not provided adequate assurances that it will amend its patent law to meet U.S. concerns.

C. Trademarks

The principal trademark statute in Thailand is the Trade Marks Act, B.E. 2474 (October 4, 1961), as amended and implemented. Thailand is considering a new trademark law. The present law provides a registration system for trademarks. Trademark rights are created by registration and consist of the exclusive right to use it for all the goods of the class or classes in respect of which registration has been granted (sec. 27).

Registrations are for 10 years and are renewable for a 10-year period (sec. 35). A trademark right may be cancelled for nonuse (sec. 42). Action for infringement of unregistered trademarks may be based on passing-off or unfair competition

theories. Section 420 of the Thai Civil and Commercial Code provides for compensation for acts of infringement.

Thailand's current trademark law does not protect service, certification, and well-known marks. Penalties for infringement are also considered to be too low, and enforcement itself remains a problem. As a result of low penalties and poor enforcement, imports and local sales of counterfeit goods continue to erode the value of the trademark protection available. Thailand has indicated it will address these concerns by seeking amendments to its trademark law in the next session of Parliament.