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THE POTENTIAL FOR PRIVATIZING
TELECOMMUNICATIONS SYSTEMS IN AFRICA:
THE CASES OF CAMEROON, COTE D'IVOIRE, KENYA AND SENEGAL

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**The Potential for Privatizing
Telecommunications Systems in Africa:**

The Cases of Cameroon, Côte d'Ivoire, Kenya and Senegal

September 1987

EXECUTIVE SUMMARY

This report addresses the prospects for privatization in the telecommunications sector of Africa. This preliminary survey looks at users needs as well as the current status of selected telecoms around the world. From the perspective of developing a overall strategy for privatizing telecommunications in Africa, the present telecom systems of four countries, Cameroon, Cote d'Ivoire, Kenya and Senegal, are then analyzed.

For each of the four African nations studied, the team took into consideration the legal and regulatory environment surrounding telecommunications, the distribution and composition of current systems, and institutional and/or legal impediments to eventual privatization of the telecoms. Also considered is the experience and interests of a number of U.S. telecommunications companies in providing, maintaining and investing in telecommunications in Africa and elsewhere in the developing world. From this assessment, the team developed a telecommunications privatization checklist (attached), intended to aid in preliminary assessments of privatization prospects of telecoms in developing countries.

The team found that although progress has been made, there is much that remains to be done, and that reforms will be necessary to insure the development of sound telecommunications systems. The average telephone density in Africa is 0.8 telephones per 100 inhabitants, while the goal for the United Nation's Transport and Communications Decade for Africa is 1.0 per 100.

One of the problems that recurs in the cases considered is a lack of comprehensive national telecommunications planning. The consequences of this include technically mismatched systems and equipment, shortages of spare parts and periodic disruptions of service, and a disproportionate development of telecommunications in urban centers, leaving rural areas largely unserved. Much of this stems from overregulation, legal impediments and resistance from management and labor in responding to the demands of the local market.

These same obstacles discourage significant foreign investment as well. There is little indigenous manufacturing of telecommunications equipment and a need to retain more sufficiently trained personnel, but foreign companies were unwilling or discouraged from investing their own resources in African telecoms. There has been considerable participation in the African telecommunications sector by United States firms in performing feasibility studies, training management and technical personnel, helping in planning, drafting equipment specifications and procurement guidelines, supplying and installing equipment, and providing architectural and engineering services. In general, however, many firms feel that though partial privatization of certain services (such as cellular radio systems) may be possible, privatization in Africa is untimely at present.

They cited as reasons the small number of telecommunications entities, economic conditions in host countries and their debt profile, political stability, reliance for the most part on guidance and equipment from the former colonial powers, and the weakness of the commitment by the governments to the privatization of telecommunications (considered by some to be a natural monopoly of strategic importance to the nation).

U.S. firms did, however, express a willingness to assist African telecommunications entities on a contract basis to achieve a level where partial or full privatization involving foreign investment is possible. Many of the experts consulted for this study felt that though bilateral and multilateral donors could provide initial capital for telecommunications development, the long-term viability of such development is tied to governments' providing an environment that is attractive to private foreign investment. One of the possible models for such investment, the so-called Build-Operate-Transfer (BOT) concept developed by Bechtel in Turkey, may be applicable to Africa.

More in-depth study will be needed to determine the prospects for applying lessons gleaned from the experience of other countries in the privatization of telecommunications. As a tentative conclusion, however, this preliminary study suggests that there are no insurmountable obstacles that would impede a concerted privatization effort by any of the countries examined.

Scope of Work - Telecommunications Study - Africa

Poor telecommunications systems in many developing countries continue to be a major impediment to attracting private sector business and investors. As a result, many of these countries are now looking around for innovative, viable schemes for improving and expanding their existing telecommunications capability. With the emergence of such schemes as the Build-Operate-Transfer (BOT) concept that was developed and promoted by the Bechtel Corp. in Turkey, the more determined Third World nations are also now aggressively seeking the most "cost efficient" alternatives and the criteria to evaluate those alternatives for privatizing their telecommunications network.

In order to assess the "state of the art" in approaches to the privatization of telecommunications, the Center proposes to contract with approximately three telecommunications experts to conduct a comparative survey of the telecommunications industry operations in the United States, Europe (U.K.) and Africa. The primary objectives of the survey would be:

1. To identify and compare common ownership patterns in the U.S., Europe (including Japan), and Africa;
2. To identify and analyze the minimum requisite conditions for private ownership;
3. Based on 2 above, to develop the Center for Privatization's (CFP) Enterprise checklist for specific use in the telecommunications industry (see attached);
4. To identify, describe in detail, and point out the pros and cons of a minimum of four private ownership models in Africa to private ownership models that would be appropriate in Africa: including a discussion of private ownership operation; lease to government with option to buy; franchise management and operation of government systems; and cellular, satellite, etc.;
5. Develop a "minicase" study of an actual telecommunications privatization that has occurred in Africa, if one can be identified;
6. Conduct a telephone survey of several U.S. private companies to (a) first determine their interest in telecommunications privatization in Africa and (b) to establish what their corporate criteria would be for participation in a telecommunications project in Africa;
7. To conduct a formal briefing session (CFP Privatization Dialogue) to present findings of this Privatization Telecommunications Survey to a selected group of State

Dept./USAID officials to be identified by CFP in conjunction with PRE.

Deliverables

- I. A written Survey Report consisting of: (a) review of telecommunication models; (b) minicase study of telecommunications privatization; (c) refined enterprise checklist; (d) list of U.S. firms interested in telecommunications privatization in Africa.
- II. Arrange for and conduct briefing session for selected U.S. State/AID officials and representatives from U.S. telecommunications companies o/a August 31, 1987.

1.0 BACKGROUND

1.1 Telecommunications in Africa

Most African countries gained their independence about twenty years ago. The telecommunication networks they inherited from their former colonial powers were imperfectly developed. The colonial requirement was communication from the colony to the colonial power's capital in Europe. Consequently, national telecommunications was not developed to any degree. Communication linkages to neighboring countries under the control of different colonial powers was discouraged. As an example, until a few years ago, in order to communicate from Accra, the capital of Ghana to Lome, the capital of neighboring Togo, a distance of approximately 100 miles the call was routed by HF to London then to Paris and finally to Lome, capital of the former French colony. It usually required booking two days in advance. When the connection was finally made, reception was often poor due to the transmission media. And, in addition, the revenues went to British Cable and Wireless and French Cable and Wireless. The international switch was in Europe.

Pan African Telecommunications (PANAFTEL) Network studies identified such a gap where the national systems were only 25 miles apart. A microwave link was installed which now connects the two capitals and their telecommunications administrations share the revenues. PANAFTEL Network implementation at this time is approximately 67 percent complete. The member nations are developing their basic infrastructure and a number have installed earth stations of the Standard A and Standard B models. The average telephone density in Africa is 0.8 telephones per 100 inhabitants. The objective of the United Nations Transport and Communications Decade for Africa is 1.0 per 100. Although progress is being made much remains to be accomplished. Training is a serious deficiency and is being addressed by multinational schools in Dakar, Senegal, Nairobi, Kenya, the U.S. Telecommunications Training Institute, and the Center for Telecommunications Development in Geneva. The overall purpose of the Geneva Center is "to strengthen and expand the scope and extent of advisory services and technical support to developing countries with a view to remedying, through innovative effort, the imbalance in the distribution of telecommunications in the world."

As a factor in social, economic and cultural progress, telecommunications is recognized as a tool for development, and the correlation of GNP to the numbers of telephones in a country is acknowledged. What is holding back telecommunications progress in Africa is underinvestment and managerial problems. Privatization is reviewed in this report as to its potential, where

suitable, as a mechanism to improve telecommunications entities.

1.2 The Nature and Elements of Privatization

Privatization is a complex political, social, economic, legal and technical phenomenon. It might be said that there are four principal categories of privatization action: Contracting out (management contracts); divestiture (sale); lease; and abandonment. In contracting out, the government is acting within the context of a basic contract performance regime, albeit one of a rather exotic breed: government contracting (or public sector procurement). The government is paying money for the services of a private sector vendor, and the rules governing service or management contracts are of primary concern. This sort of action is attractive to telecommunications operators who do not wish to make equity investments in developing countries.

In the sales category, the principle focus is on the rules of securities and stock transactions, since an owner (government) is selling a transferable piece of property to new owners. Tied into this, of course, are elements of contract law and property law.

The lease category is interesting in that it could be analogized to either of the two foregoing groups. Specifically, one sort of privatization might involve the government leasing property from a private owner (money outflow) and another have government property leased to private interests (money inflow). Here contract and property issues are of great interest.

Both sales and leasing present viable options in telecommunications, from the point of view of the governments, since, by turning over the ownership of the assets to an outside party, and by imposing performance criteria, the responsibility of keeping pace with rapidly evolving technologies can be transferred to a private firm's shoulders.

Finally, when government properties or programs are abandoned, interesting issues in the nature of public trust, stewardship, and basic issues of alienation of public property come to the fore. Abandonment, it should be stressed, is not an option in the telecommunications area.

1.3 Improvement of Telecomms via Privatization

The premise of the research and investigations underlying this report is that privatization is or could be a mechanism that could be very beneficial in addressing the problems noted above. The report that follows sets forth, in logical sequence, the principal facts as they have appeared during a short turnaround analysis in Washington, D.C.

First, what is the technical and administrative context within which the telecommunications systems of Cameroon, Côte d'Ivoire, Kenya and Senegal should be evaluated for privatization potential? This information is contained in Section 2.0, The Telecommunications Context. Then, knowing the context, one can look at the specific profile of each of the countries. The main areas of interest are the macroeconomic environment, the nature and ownership/operation of the telecommunications systems, and background on the legal and investment processes in place. These elements are part of Section 3.0, Review of the Four Target Countries.

Since a knowledge of the systems and context of the four countries provides an incomplete picture of the process, the next step is to survey the world and find examples of other telecommunications operations that can offer interesting and creative themes and ideas which might be applicable to the identified needs of the target countries. Many of the case studies related to systems with liberal elements, and four concern entities that have been or are being privatized. These are all included in Section 4.0, Ownership and Operational Patterns and Models in Other Countries.

The team, in an effort to discover the widest range of ideas and build a significant base of experience, contacted a number of telecommunications firms, and obtained their impressions of the situation as well as their ideas for moving ahead (see Section 5.0, Interests and Ideas of U.S. Telecommunications Companies).

At this point, the overall picture of opportunities available to the four countries, together with recommendations, is set forth in Section 6.0, Summary of Findings. Related closely to the process of framing conclusions and recommendations are the documents located in Appendices A Requisite Conditions for Private Ownership or Operation, and B Enterprise Checklist for Telecommunications Sector. Other background information is found in Appendices C through I.

What the report shows, then, is that privatization in telecommunications has worked elsewhere in the world, and that there are no insurmountable impediments to its taking place in the four target countries.

2.0 THE TELECOMMUNICATIONS CONTEXT

The Telecommunications Entities (TCEs) in Africa are government-owned operating under Ministries, PTTs or government-owned corporations. Consequently, the bureaucracy, largely overstuffed, attempting to modernize networks with new technology before even completing their national systems are faced with a tremendous task. Added to the difficulties are lack of trained technical personnel, AND in many cases no long-range fundamental plan for the rehabilitation and expansion of the systems. In some cases where the TCE is actually profitable, these earnings go to the government to finance other operations and the TCE has to request a budget allocation for its operation. The governments of the Less Developed Countries (LDC) have been slow to recognize the amazing growth of telecommunications technology. However, market and business demands are insisting on services which allow participation in the national and global markets. Of particular importance is access to information networks and data bases.

Another drawback is the lack of major telecommunications equipment manufacturing in Africa. There are small volume facilities for telephone cable, instruments and sub-assemblies. In the equipment area, the tendency is to look toward the equipment and guidance from the former colonial power. The controlling factor is still the source and terms of financing.

In some countries acquisition of central office switching systems, has come from as many as six suppliers from six different countries. One Director General of a government-owned telephone corporation referred to his network as a "fruit-salad" system. Interface problems for compatibility, the procurement of spare parts, training of personnel, documentation, tools and test equipment and support transportation present challenges.

A particular area of concern is the training and retention of technical and managerial personnel. Because of the low civil service salaries, personnel who have reached a level of competence through experience or training leave the country for better salary opportunities, particularly in the Gulf states. This retention problem is being addressed by considering the equivalent term of service in the TCE for state provided training or a bonus system for successful graduates. Standardization is another important issue which directly affects the operation and maintenance of the network. Another area requiring emphasis is an understanding of the supply cycle and the establishment of minimum levels of spare parts. When the sources of spare parts are thousands of miles away, and the credit status of the TCE is in doubt, replacement parts can take many months before delivery causing interruptions in service to subscribers.

Almost all of the TCEs have a large waiting list for telephone service of thousands of potential subscribers, who in many cases have made initial deposits and have been waiting for years. Exchange capacity is one of the limiting factors. Annual growth in African TCE exchange capacity over the last ten years ranges from zero to a high of 21.7 percent for Egypt. There is a gross imbalance in the distribution of telecommunications services with rural areas having the majority of the population and minimal or no facilities while urban centers and the national capital possess the bulk of the system. Billing and collections represent an activity requiring additional attention. Many TCEs have yet to introduce up-to-date practices and the benefits of automation. Governmental agencies and ministries are often the ones with the greatest delinquent accounts.

The level of planning and the development of short-, mid-, long-term system requirements vary greatly. Two illustrations are offered, one effort in Liberia, the other in Egypt. In both countries the request was for switching systems and the outside telephone plant. Neither country had a fundamental plan for the updating and expansion of their system, and the lending agency was unwilling to fund equipment procurement until such a plan was developed. Consulting contracts resulted in the development of such a plan along with organizational and operational change recommendations. Upon acceptance of the plans, Liberia obtained financing for portions of the system from U.S.A.I.D. and supplier credit from Japanese and Italian firms. In Egypt the fundamental plan required one year to develop. It resulted in U.S.A.I.D. financing for nine electronic stored program exchanges for a total of 255,000 lines and supplier credits of \$1.8 billion from the European consortium of Siemens Austria, Siemens West Germany, and CSF-Thompson of France addressing portions of the fundamental plan.

3.0 REVIEW OF THE FOUR TARGET COUNTRIES

In the following section, each of the four target countries, Cameroon, Côte d'Ivoire, Kenya and Senegal, is analyzed to determine the nature of the telecommunications system, the socioeconomic environment in which it operates, and the national investment and business climate. The information presented here represents the results of literature and documentary research in Washington, D.C., along with a limited program of interviews.

3.1 Cameroon

3.1.1 Economy

Cameroon's liberal but planned economy made moderate but steady progress between 1965 and 1980, with an annual average GDP growth rate of 4.9%. Cameroon achieved a 8.6% annual growth rate between 1980 and 1985. As a result of this rapid growth rate during the last several years, per capita GNP increased from \$460 to over \$800. Much of this growth, however, stemmed from the discovery of oil in Cameroon.

Agriculture is the dominant sector of the economy. It accounted for 21% of GDP in 1985, and employed about 70% of the labor force. Agricultural growth performance has been poor in Cameroon. Despite government efforts to stimulate the growth in agriculture, the agricultural growth rate has continued to decline during the 1970s and early 1980s. While agricultural production grew 4.2% annually during 1965-1980 period, its growth rate substantially declined to 1.3% per year between 1980 and 1985. The government has made agricultural development its primary objective for the remainder of the 1980s, and introduced new incentives to encourage production for both domestic consumption and exports.

Agricultural production in Cameroon is almost entirely made by small-scale family farmer units, which produce a combination of subsistence food crops and cash or export crops. Main export crops are coffee, cocoa, timber, bananas, rubber, cotton, peanuts, and palm oil. This diversified agricultural crop production has helped Cameroon to withstand the effects of sudden fluctuations in world prices.

Manufacturing sector's annual growth rate between 1965 and 1980 was higher in Cameroon compared to many other African countries, and averaged 7% annually. Manufacturing sector has gained significant momentum in recent years, and grew at an annual rate of impressive 18.4% between 1980 and 1985. Rapid growth in the 1980s is largely due to the developments in petroleum related industries. Cameroon became a modest oil producer in 1978. Discovery of oil had significant impact on

the economy. The share of industry (including mining and quarrying) increased from 17% of GDP in 1965 to 37% of GDP in 1985. Cameroon's oil production is enough to meet domestic needs as well as some for export. Oil accounts for nearly 50% of Cameroon's export earnings, but production is expected to begin declining steadily in the late 1980s. Cameroon derives almost all its export earnings from the export of primary commodities whose share was 97% in total exports in 1985.

Cameroon has a relatively small manufacturing sector which made up only 12% of GDP in 1985. Except an aluminum manufacturing complex, the manufacturing sector consists of small manufacturing, processing and assembly plants producing consumer goods, mainly in the food sector. Several manufacturing facilities produce cables and wires, telephone instruments, pvc duets and radio sets.

Oil exports contributed substantially to the country's trade and current account balances. Cameroon experienced a trade surplus of \$1.2 billion in 1985. Although the current account balance yielded a deficit of \$165 million, it accounted for only 2% of GDP. Cameroon's external debt is also low compared to the other African countries. In 1985, Cameroon's outstanding external public debt stood at \$2 billion indicating a per capita external debt of \$200. Debt service payments amounted to 3.1% of GNP and 10% of exports of goods and services in 1985.

In recent years, the government has adopted an export-oriented strategy for both agriculture and manufacturing. The government is also committed to take appropriate measures to develop a market-oriented pricing system and to support private enterprise development. Privatization of several state-owned enterprises is being considered, and steps have been taken in this direction.

3.1.2 Telecommunications

Postal and telecommunications services in Cameroon are owned and operated by a single state monopoly. This telecommunications entity employs about 1,930 employees. Administrative staff accounts for about 80% of total employees, a relatively high percentage compared to other Subsaharan countries.

Although telephone services grew rapidly over the last 10 years, averaging a 9% annual growth for Direct Exchange Lines (DELs), this growth rate was far behind meeting the existing demand. It is estimated that existing demand for telephone services ranges around 150,000 main lines as opposed to about 31,000 existing lines.

In Cameroon, telephone density averages .6, and is strongly biased in favor of urban areas. While the number of telephone stations per 100 persons is 1.7 in urban areas, it is only .07 in rural areas. The distribution of telephone stations between urban and rural areas presents the same pattern. About 74% of total population in Cameroon reside in rural areas. However, only 10% of the total number of telephone stations are located in rural areas.

GOC has undertaken two major projects within the scope of its sixth five-year development plan: a national plan for the Improvement of Maintenance System, and a master plan for Telecommunications Development. The national plan entails evaluation of the current situation of the telecommunications network with an emphasis on maintenance problems, and preparation of a detailed maintenance plan for switching, local networks, transmission and power for the entire telecommunications network of Cameroon. The master plan for the Telecommunications Development includes an investment plan for network equipment, maintenance and operation (logistics, training, management systems, etc.). Problems with maintenance are due mainly to shortage of skilled personnel required to maintain the widely spread network of underground/aerial cables and overhead wires that form the local loop system.

For additional statistics see Appendix H, Chart 6.

The domestic telecommunications entity in Cameroon is operated as a department within the Ministry of Posts and Telecommunications, while the international operations are run by the International Telecommunications Corporation of Cameroon, a corporate entity. Among the basic responsibility of the telecommunications staff are:

- o The study, installation, operation and maintenance of telecommunications equipment;
- o The supervision of telecommunications installations put up by private industries or used by private persons;
- o The standardization of telecommunications equipment;
- o The issue of approval certificates for telecommunications equipment and proficiency certificates for mobile radiotelegraph and radio-telephone operators;
- o Technical liaison with INTEL CAM and other telecommunications organizations;

- o Ordering, accepting and managing technical equipment; and
- o The preparation of dossiers on technical equipment and the supervision of their execution.

On-going attempts to turn the operation into a government corporation - the first step toward eventual sale - have met with significant resistance, and the legislation has not yet been introduced. This situation bodes ill for chances to privatize the operation in the immediate future. It should be noted, however, that the impediments are more political than legal. The 1972 Constitution of Cameroon contains no requirements for keeping the telecommunications operation in the state sector, nor does it have restrictions on a mode of privatization. The furthest it goes into telecommunications is to establish the Ministry of Posts and Telecommunications and to charge that the Minister "shall be responsible for the organization of postal and telecommunications links inside and outside Cameroon. He shall, directly or indirectly, ensure their smooth functioning.

- o He shall study and see to the establishment of the appropriate equipment.
- o He shall see to the training of personnel within his sector.
- o He shall, in conjunction with the Minister of Finance, exercise supervisory powers over the Post Office Savings Bank.
- o He shall exercise supervisory powers over the Advanced School of Posts and Telecommunications, and the Cameroon International Telecommunications Corporation (INTELCAM)."

If anything, a reading of this language shows that there are few basic restrictions to privatization, and that the role of the Minister is very conducive to a regime of oversight of a private telecommunications system.

3.2 Côte d'Ivoire

3.2.1 Economy

In Côte d'Ivoire, growth rate of GDP averaged 6.8% between 1965 and 1980 which was a remarkable growth rate compared to other African countries. Ivorian successes were usually associated with its effective utilization of domestic and foreign factors of production. Liberal and pragmatic economic policies coupled

with political stability were instrumental in attracting capital and labor from abroad. Foreign ownership amounts to more than half of total equity in manufacturing sector.

Economic growth, however, faltered during 1980s and averaged a negative growth rate of -1.7% between 1980 and 1985. This was largely due to declining prices of main export crops (coffee and cocoa), high interest rates on international loans, and accumulated external debt. Côte d'Ivoire adopted stringent austerity measures supported by IMF to revitalize its economy.

Agriculture, the dominant sector with a GDP share of 36% in 1985, witnessed a negative growth rate of -1.1% annually between 1980 and 1985. Declining coffee and cocoa prices were most influential in this decline. Three agricultural products, namely coffee, cocoa and tropical woods account for more than two-thirds of the country's export earnings. In an effort to diversify agricultural production, the government has taken measures to encourage production of bananas, palm oil, coconuts, pineapples, cotton, rubber and sugar, the production of which has increased significantly in recent years.

The share of the manufacturing sector in GDP has steadily increased since 1960. It increased from 4% in 1960 to 17% in 1985. Textiles, food processing and construction are the main industrial activities. Textiles and apparel sector takes up about 25% of total manufacturing employment, and largely uses domestically grown cotton. Côte d'Ivoire has joined the ranks of oil producing countries since 1980, and now is almost self-sufficient in petroleum. Côte d'Ivoire virtually has no manufacturing plant producing telecommunications equipment. Despite predominance of import substitution, the government made efforts to promote outward oriented development both in manufacturing and agriculture. Annual growth rate of manufacturing sector averaged about 11% between 1965 and 1980. In the late 1970s, mainly due to limited size of the local market, decreasing purchasing power and external debt problems slowed down this impressive growth performance. Growth rate of manufacturing industry averaged -1.5% between 1980 and 1985. The government has increased its efforts to make the industry export-oriented and internationally competitive. Level of protection given to industries are being gradually reduced, particularly in the case of intermediate inputs.

Côte d'Ivoire has an outstanding external public debt of \$5.7 billion in 1985. The per capita external debt was close to \$600, which is one of the highest in the world. Debt service payments amount to 9% of GNP and 17.4% of exports of goods and services. As a result of tighter economic policies, Côte d'Ivoire experienced a trade surplus of \$1.2 billion and a current account surplus of \$105 million in 1985.

Although several parastatals were created to achieve ambitious economic plans during 1960s and 1970s, Côte d'Ivoire follows a policy of economic liberalism, based on private enterprise. Public sector contribution to total investment amounted to about 60% in early 1970s, and from then on it gradually declined. Over the years the share of private sector in total investment have changed significantly in favor of private sector. Private investment grew rapidly about 8% per year throughout the 1970s. A reform program adopted in 1980 also aims to transfer many of state-owned enterprises to private ownership. For instance, a state-owned trading company was successfully liquidated in 1986.

3.2.2 Telecommunications

Despite Côte d'Ivoire's liberal stand toward private sector and foreign firms, Côte d'Ivoire is no exception among other African countries. Telecommunication services are provided by the government as a separate entity from postal services. About 4,300 workers are employed by the telecommunications entity. Technical staff accounts for 52% of total employment.

Growth rate of telephone lines during the last ten years has been slow in Côte d'Ivoire. From 1976 to 1986, the growth of the number of DELs averaged only .3% annually. The number of DELs was 59.6 thousand in 1986. Not surprisingly, this performance has caused long waiting lists. Nevertheless, average telephone density in Côte d'Ivoire is higher than almost all Sub-Saharan countries, and is about 1.7.

Distribution of telephone stations between urban and rural areas is extremely biased toward urban areas. While only 17% of total population is urban, almost 99% of telephones are located in urban areas. This bias is also observed in the imbalance in telephone densities between urban and rural areas. While the number of telephone stations per 100 persons in urban areas is 5.4, it is only .014 in rural areas.

For additional statistics see Appendix H, Chart 6.

The current administrator of the telecommunications system in the Côte d'Ivoire is L'Office National des Telecommunications de Côte d'Ivoire (ONT). It came into being pursuant to a ministerial decision on July 1984, and was created out of the merger of the telecommunications function (Direction Générale de Télécom-munications) of the former Office de Postes et Télécom-munications (OPT) and the Société Internationale des Télécom-munications de (INTELCI - the government corporation controlling international services).

OPT, the predecessor, was created in 1974 and became an active "public enterprise of industrial and commercial character

(EPIC)." In other words, it was intended to be a public entity under the control of the "tutelle" body, then the Ministry of Posts and Telecommunications.

In the creation of ONT, most of the premises on which OPT operated were little changed. The current oversight body is the Ministry of Public Works, Construction, Posts and Telecommunications (MTPCPT), which also oversees the companion entity ONP (the postal analogue of ONT). ONT has a monopoly on public telecommunications services, which it delivers via a somewhat decentralized system. Headquarters provides overall control and supervision, policy creation and coordination, planning, construction and billing. The regional offices carry out the day-to-day operations and handle subscriber relations.

The fact remains, however, that like OPT, ONT was created as a government organization, and there is no provision for its outright sale, in whole or in part, to make the transition to a government-owned corporation with alienable stock. This could be accomplished by a law recasting ONT as a "Société d'Etat" or government corporation covered by Law 80-1071 of September 13, 1980. When this occurred, the organization would be governed by Articles 46 through 48 of the law. Specifically, "any statutory modification, merger, divestiture, transformation or dissolution of the entity is undertaken by a decree taken in the Council of Ministers based on a report by the oversight council." Further, the transfer of shares in the enterprise must be authorized by a decree in the Council of Ministers. It is also provided that when a transfer of shares or a capital augmentation places share ownership outside of public bodies, the entity becomes a mixed enterprise under law and is governed by the various public notice requirements of Société Anonymes.

The privatization of the ONT in the Côte d'Ivoire is a more distinct possibility today than it was even several months ago. Specifically, the government this summer drafted a provisional list of 105 state companies in which it plans to sell equity holdings, pursuant to a planning process that has been underway since 1980. While the government has not committed itself to a precise timetable, the early list represents a clear statement of the thought process of the decision makers.

Additionally, the government has applied to the World Bank for a program of financial assistance to rebuild the system. As part of the process, the Bank will be carrying out an extensive review program, one of the elements of which will be to determine the potential for reorganization under a corporate structure.

Because of this, the outlook for telecommunications is cautiously optimistic, since on the list are such analogous operations as the petroleum company, the airline, the mining

company, the maritime transportation company, the water company, and a range of agro-industrial firms. As this report is being prepared the final list has not been made available.

3.3.3 Investment

The basic legal system in the Côte d'Ivoire derives from the Civil and Commercial Codes of France, as modified in the twenty-seven years since independence. Among the French laws that have been kept in place in a substantially unmodified form are the laws and decrees relating to companies and the law on land titles. Further, French law has provided the model for the Ivorian system of civil procedure and its tax law.

The most likely modes of ownership and operation of a privatized entity in the Côte d'Ivoire would be as a "SARL" (Société à Responsabilité Limitée) or as an "SA" (Société Anonyme). The former is an organization of limited liability having some of the elements of a partnership and some of a stock company, and is governed by the French Law of 7 March 1925 and Decree of 19 November 1928. The Société Anonyme, on the other hand, is a close equivalent to the corporation, that is a limited liability company owned by its stockholders, and having none of the attributes of partnership. It is administered by the board of directors and chairman. Both of these are well established in Ivorian law and investors will have no problem in establishing or administering them.

In the Côte d'Ivoire parastatals and mixed enterprises (i.e., ownership jointly held by public and private interests) are controlled by the civil and commercial codes and laws which govern commercial companies. Additionally, special legislation exists to shape their administration and the specific nature of the Government's participation. Primary among these are Law 80-1070 of 13 September 1980 (relating to parastatals) and Law 70-683 of November 1970 (on mixed enterprises).

The constitution of the Côte d'Ivoire is Law 60-356 of 3 November 1960. While it contains no language which directly prohibits or encourages privatization, it does establish the fact that changes in the status of parastatals require enactments of law, not mere decrees or executive acts. Specifically, "The law establishes the rules concerning ... the creation of categories of public enterprises ... the general rules of the civil service ... and determines the basic principles ... of the divesting and management of the State's domain ... [and] of the transport and telecommunications sector." (Article 41).

An investor in the Côte d'Ivoire must seek the prior permission of the Office of External Finance and Credit (Finex) within the Ministry of Economy and Finance to make any equity investment

or loan from a source outside the franc zone; likewise, any increase, decrease or termination of such investments or loans must be based on the granting of permission.

The Côte d'Ivoire has a system of special licensing for certain key sectors (e.g., banking, business agents, insurance, advertising, and, notably, natural resource and transportation) and it is most likely that private telecommunications operations would fall within the requirement to be overseen by one or more agencies.

Under the Private Investment Code, Law 84-1230 of 8 November 1984, enterprises which are deemed to be of a priority nature can be granted a range of benefits, for example, tax exemptions and exemptions from customs duty and levies on certain imported machinery. Further, for some investments (over five billion CFAFR) deemed to have exceptional economic importance can be granted even greater benefits, as defined in a "convention of establishment," and lasting up to 15 years. It would be expected that telecommunications investments would fit into both of these categories.

In the Côte d'Ivoire, there are seldom requirements to have local equity participation, either minority or majority. It should be noted, though, that this applies to normal investments; the requirements (if any) being implemented in the current program of privatization will give a strong indication of the probable restrictions imposed on a telecommunications privatization.

Regarding the hiring of employees, Ivorian law requires that every local employee be hired through the Manpower Office of the Ministry of Labor and Ivorianization of Management (OMOCI), although practice has been fairly liberal about allowing the use of expatriates in senior or highly technical positions.

Foreign nationals can own property registered under the land title system and can lease property in commercial or industrial zones.

3.3 Kenya

3.3.1 Economy

Rapid growth of Kenya's economy at an annual average of 6.6% from 1963 to 1973 started slowing down in the second half of 1970s. Kenya experienced a 3.1% growth rate between 1980 and 1985. International economic events have had a profound impact on Kenya's economy. Increases in the price of imported petroleum, dramatic swings in prices of Kenya's key exports (coffee and tea), the collapse of the East African Community,

international recession and high international interest rates have all contributed to the slowing down of the Kenyan economy. A major constraint to the economic growth in Kenya is the world's highest population growth rate (4% annually), coupled with high rural urban migration and unemployment. In 1986, Kenyan economy showed improvement, as good weather, higher coffee prices, and lower oil prices helped improve the external terms of trade.

Agriculture is by far the most important sector in Kenya. It provides a livelihood for roughly 85% of the population that resides in the rural areas. Agriculture accounts for more than one-third of GDP and two-thirds of non-petroleum exports. Kenya's tropical climate, modified by topography and adequacy of rainfall, permits the cultivation of a variety of crops ranging from tropical to temperate. Major export crops are coffee, tea, pineapple, issa, pyrethrium, wattle, and cashew nuts.

The growth of agriculture has, however, averaged less than 3% since 1972, largely due to climatic conditions and decline in world agricultural prices. The major thrust of economic policy has been encouragement and promotion of industrialization, and has also been effective in tilting the incentive structure toward the manufacturing sector, to the detriment of agriculture. Rapid population growth and shortage of unexploited arable land threaten to create a serious imbalance between the domestic requirement for food and available supply.

Industrial development strategies since the independence of Kenya in 1963 have been characterized by import substitution. Kenyan manufacturing sector grew rapidly with an annual rate of 10.5% between 1965 and 1980. But, manufacturing firms operating behind protective import barriers against external competition have become high-cost, non-competitive, capital intensive and vulnerable to changes in terms of trade.

The manufacturing sector was increasingly oriented to the domestic market. The proportion of gross output exported declined sharply. Overall, the composition of imports shifted from consumer goods to intermediates. Manufacturing became more dependent on imported inputs and less capable of generating the exports required to pay for these imports. As possibilities for further import substitution became limited, the growth trend of manufacturing sector was only 3.8% between 1980 and 1985. At present, almost all manufacturing firms are small and engaged in food processing and assembly operations. There are a few small plants producing telecommunications equipment including telephone instruments, radio and TV sets.

Kenya's outstanding external public debt amounted to \$2.9 billion in 1985, indicating a per capita external debt of about \$140. At the same time, debt service payments, one of the highest among other African countries, accounted for 6.9% of GNP and 25.5% of exports of goods and services. Kenya's external position started weakening during the 1970s. Exports grew very slowly and became more concentrated in a few commodities, notably coffee, tea and refined petroleum. The country experienced substantial trade and current account deficits, which in turn necessitated a major increase in external borrowing, much of it on non-concessional terms. As a result, Kenya's external debt increased more than eight-fold from 1970 to 1985. A structural adjustment program has been launched to revitalize the economy.

Kenya is one of the few African states in which government rarely intervenes in private sector activities. The government has taken further steps to avoid direct participation in the private sector, to manage parastatals more efficiently and streamline public investment requirements. There are presently more than 200 state-owned enterprises operating in Kenya with functions ranging from purely advisory to primarily regulatory to direct involvement in production, marketing and fiscal activities. Given severe financial difficulties experienced by a significant number of parastatals, the government formed a divestiture committee in 1983 and undertook the privatization of a state-owned enterprise in 1985. The divestiture of two more parastatals offered to public in 1986 is also about to be completed.

3.3.2 Telecommunications

GOK owns and operates the postal and telecommunications services. Telecommunications entity employs about 10,600 persons, 76% of which are technical staff.

The telecommunications services have grown rapidly over the last ten years. For instance, the number of DELs grew 12.3% annually between 1976 and 1986, to reach 118.4 thousand DELs. Telephone density in Kenya is also among the highest among sub-Saharan countries. In 1986, the number of telephone stations per 100 persons was 1.34. However, the rapid growth of telephone services has not been satisfactory in meeting the existing demand. The waiting list accounts for about 24% of the total number of existing telephone lines.

About 87% of telephone stations are located in urban areas where 13% of total population reside. Telephone density between urban and rural areas is also strongly biased against rural areas. While the number of telephone stations per 100 persons in urban areas is 8.5, it is only .19 in rural areas.

For additional statistics see Appendix H, Chart 6.

Kenyan telecommunications are carried out under the authority of the Kenya Post and Telecommunications Corporation Act, which took effect on December 31, 1977. Under this act, the undertaking of the East African Posts and Telecommunications Corporation in Kenya was vested in a new statutory corporation. In short, the government created a public body in corporate form to handle postal service, telephones, and telegraphy. The corporation closely parallels the form and powers of the British Telecom corporation established in the U.K.'s Telecommunications Act 1981, with the resulting potential for modeling that will be discussed in later sections.

The official name of the body thus formed is the Kenya Posts and Telecommunications Corporation, governed by a Board of Directors and managed on a daily basis by a Managing Director. The most basic government control flows from the nature of the Board, namely: a Chairman appointed by the Minister, the Managing Director, the Permanent Secretary of the Ministry overseeing telecommunications, the Permanent Secretary to the Treasury, and three others appointed by the Minister. Thus, the immense degree of leverage over the corporation held by the Government is apparent.

The primary responsibilities of the corporation are to provide postal and telecommunications services within Kenya and to foreign countries, and to regulate and control radio communications operated from or received in Kenya. To do this the corporation must provide "all reasonable facilities for ...communications by means of telephone and telegraph services," to see "that no particular person is given any undue preference or subjected to any undue disadvantage," and other requirements.

Reflective of governmental control, it is provided that the Board may "afford priority to the Government in the transmission of communications," and "afford priority to any class of person in the installation of telephone apparatus." In the area of management duties, the Board may "approve any minor alteration in the tariff of the postal, telephone and telegraph services provided" (subject to any directions of a general nature given to it by the Minister). At a higher level of control, the Minister may:

- o Give directions of a general nature to the Board relating to the operation of the undertaking of the Corporation;
- o In consultation with the Minister responsible for finance, approve any major alteration in the tariffs of the services provided by the Corporation;

- o Approve any major alteration in salaries, wages or other terms and conditions of service of employees of the Corporation; and
- o ...approve any capital work (exceeding a fixed value)...

With regard to telephone and telegraph services, the Corporation has great powers, laid out in a parallel fashion for the two subsectors. First, the Corporation has the exclusive privilege of providing telephone/telegraph services and of constructing, maintaining and operating telephone/telegraph apparatus within Kenya. In both cases the Managing Director can either exempt others from the application of the law (i.e., its multitude of prohibitions and punishments for violations) or can issue a license. Notwithstanding the ordinary rights of other operators and users, in the event of a public emergency or in the interest of public safety or tranquility, the Minister responsible for internal security may, by written order, direct any authorized employee of the Corporation to take temporary possession of telecommunications apparatus, and also permit the interception and disclosure of communications.

In short, the Government has vested telecommunications powers in a government corporation, one of many that Kenya has created over the years. The right of the government to do this flows from the general sovereign powers it possesses, rather than from any element of the Constitution. In fact, the Constitution does not require that telecommunications be carried out by the Government—a consideration of paramount importance in privatization. In fact, the sole constitutional concern in this area is the requirement that the pension and other vested rights of the civil servants employed by the Corporation must always be fully protected, a mandate which without doubt should be of great significance in a privatization action. This fact is made especially true by the high degree of unionization in Kenya.

3.3.3 Investment

The legal system of Kenya closely parallels that of the United Kingdom, a natural occurrence since the former was developed under British rule for many decades. Much of the law now in place in Kenya resembles that in effect in the U.K. at the time of independence, i.e., 1963. While British law has evolved during the intervening years, change has come much more slowly in Kenya, and many of the more recently developed theories, for instance, shareholder rights in corporations, are rudimentary at best.

In a legal sense, Kenya has the mechanism for operating the telecommunications system as a non-governmental entity. There are over 2,000 publicly traded limited liability companies (analogous to corporations) in Kenya, although only about 2% of these are listed for quotation on the Nairobi stock exchange.

Current law places few restrictions on the process of buying into such a corporation. There is no restriction on the importation of foreign capital, except in huge amounts. On the other hand, though, the export of capital is forbidden, with exceptions for repayment of foreign loans and grants and a repatriation concession to all foreign capital invested in an approved enterprise. This would aid some but not all privatization investors.

There are currently limited restrictions on foreign ownership of companies in Kenya, but preference is granted to companies having Kenyan participation in the range of 35-50%. Under the Foreign Investment Protection Act, 1964, the Minister of Finance can issue a Certificate of Approved Status (guaranteeing the right to repatriate capital, profits after taxes, and dividends) to foreign nationals who invest foreign assets or reinvest their profits in Kenya if this will be of "economic benefit to the country." In other words, the project will: (1) Lead to either an earning or saving of foreign exchange; (2) Result in a gain of technical knowledge to the country; or (3) Increase economic wealth and special stability by raising the national income or promoting the diversification of the economy.

3.4 Senegal

3.4.1 Economy

Senegal's economic performance since its independence in 1960 has been considerably poor compared to the other countries in Africa. Growth rate averaged only 2% from 1965 to 1980, and 3.3% between 1980 and 1985, while per capita GNP declined at an annual rate of -.6% between 1965 and 1985. The most important factor which has a profound impact on the economy has been a combination of successive drought years in the 1970s and 1980s, and declines in international prices of two major export crops (peanuts and phosphates). Continuous drought was most harmful to the two main food crops (millet and sorghum) cultivated mainly for subsistence consumption. About two-thirds of the population make their living from cultivation alone.

A reflection of subsistence production can be seen from the contribution of agriculture to the economy, agriculture accounted for only 19% of GDP in 1985. Growth rate of agricultural production was only 1.8% between 1980 and 1985. A

reform program has been adapted to diversify crop varieties and to make Senegal self-sufficient in foodstuffs by the end of the century.

Although farming techniques in Senegal are among the most advanced in Africa, poor soil quality has prevented production increases in agricultural crops, and led to cultivation of few crop varieties. Senegal derives its export earnings mainly from a single export commodity, groundnut oil, whose production is strongly influenced by climatic conditions contributing to radical fluctuations in export earnings.

The manufacturing sector in Senegal is heavily dependent upon processing of agricultural crops. Almost all firms are small and employ few people. Food processing made up about 50% of total manufacturing value added in 1985. Textiles is the second most important branch of manufacturing with a share of 22% in total manufacturing value added. Manufacturing in telecommunications equipment is limited to the production of cables and wires.

Senegal's industrial strategies have been based on import substitution, and a few large companies have been heavily protected from outside competition. Inappropriate labor laws, trade restrictions and monopolistic business practices have distorted and constrained industrial growth. Manufacturing sector grew at an average annual rate of about 5.4% between 1965 and 1985, a rate lower than most of the other African countries. At present time, manufacturing sector accounts for about 30% of GDP.

Senegal experienced successive trade and current account deficits. These deficits claimed 13.1% and 13.2% of GDP, respectively, in 1985. Senegal's external indebtedness also increased. External public debt disbursed and outstanding amounted to \$2 billion in 1985, indicating a per capita external debt of over \$300. Debt service ratios were 3.7% and 9% with respect to GNP and export of goods and services, respectively, in 1985.

In recent years, GOS has undertaken a structural adjustment program to reform the economic and financial structure of the Senegalese economy. The direct tax system has been simplified and tax rates have been reduced as a means to stimulate private sector expansion. A reform program has been initiated to progressively lower import duties and remove quantitative restrictions to imports. Plans for reductions of other non-productive agencies in the agricultural sector have been developed. Fertilizer distribution has been privatized. The regional development parastatals are left with a role limited chiefly to providing extension services. The result has been

more open markets, increased agricultural production and reduced financial imbalances.

The government intends to avoid intervening in market forces, and to decrease public sector participation in supply of goods and services. Divestiture of two major parastatals has been completed. Privatization program mainly targets divestiture of state-owned enterprises in banking and financial sectors.

3.4.2 Telecommunications

As in other African countries, telecommunications services are owned and operated by the government in Senegal. Postal services are managed by another state-owned enterprise. The telecommunications entity employs about 2,000 persons. Technical staff accounts for 63% of total employment in the telecommunications entity. Although existing telecommunications services are managed well, the growth of telecommunications services has not been satisfactory in Senegal. While the number of DEEs has grown 4.2% annually over the last 10 years to reach 23.5 thousand in 1986, telephone density has declined from about .60 in early 1970s to .46 in 1986. As a result, waiting lists have soared to account for 35% of the existing telephone stations.

Average telephone density is .46 in Senegal. In the mean time, distribution of telephone services is biased against rural areas. Only 12% of the total number of telephone stations are located in rural areas where 70% of total population reside. In addition, while the number of telephone stations per 100 persons in urban areas is 2.9, it is only .03 in rural areas.

GOS has taken steps to develop an entire range of new telecommunications systems and services on a profitable basis in urban areas, and extension of a basic viable telephone system to the rural areas. Increased access of rural areas to telephone services has been placed among the top priorities of the government.

GOS is considering the greater participation of private sector in the supply of telecommunications services. GOS has shown its readiness to examine the entire telecommunications sector to identify activities lending themselves to privatization so long as it is proved to be efficient and profitable. The government owned telecommunications company is at present a profit making company, and has considerable autonomy in planning and operation. However, GOS accepts that improvements and greater dynamism in the sector could generate revenues for reinvestment in telecommunications infrastructure development.

For additional statistics see Appendix H, Chart 6.

The original decision of the government of Senegal to reform the parastatal sector was made over ten years ago; this had three basic elements, namely: 1) Liquidation of non-performing companies, 2) Sale of others to the private sector, and 3) Implementation of a program of contract plans to shape the operations of the parastatal enterprises. The formal program of privatization now underway was begun in July 1985, when the President set the theme by declaring that "The smaller the state, the better the state."

The Privatization program has five objectives:

- o In order to reduce the crushing burden of the parastatals on the State's finances, the total or partial elimination of subsidies for these enterprises.
- o The autonomy and accountability of the management of the privatized enterprises.
- o The mobilization of private and public savings for the purpose of investment.
- o The centralization of the stock market.
- o The lasting renovation of the means of production.

These are to be implemented under the following criteria:

- o Strategic and non-strategic enterprises, the latter being viable for privatization while the former will continue to be held by the State.
- o Profitable enterprises, or soon to be profitable, must be the first to be privatized.
- o An enterprise which can offer a better product or service if it is privatized should go to the private sector.
- o If a product or service can be offered at a lower social cost by a private enterprise, the participation of the State should pass to the private sector.
- o All commercial enterprises are viable for privatization. However, certain non-commercial enterprises could also be privatized.

- o The enterprises whose activities have far reaching economical impacts such as certain banks or insurance companies are normally not acceptable for privatization.

Senegal is currently served by a telecommunications body which was created by the merger of two pre-existing entities. The organization is now known as the Société Nationale des Télécommunications du Senegal (SONATEL), a "Société Nationale," or government corporation. It is answerable to the Ministry of Communications, which oversees its operations.

SONATEL was formed in 1985, under the authority of Law No. 85-36 of July 23, 1985, which first carried out the simple step of declaring that the existing Société Nationale des Télécommunications Internationales du Senegal (TELESENEGAL) would henceforth be known as SONATEL. This was half the process, in that the desire of the government was to integrate domestic and international telecommunications services. The other half was accomplished by statutory folding in of the functions, rights, duties, and properties of the Office des Postes et Télécommunications (OPT) relating to telecommunications to SONATEL. OPT was what is known as a "Public Enterprise of Industrial and Commercial Character" - EPIC in French.

These two steps provided a ready-made, broad-based operation. A corporate charter was drafted and approved in Decree No. 85-947 of August 30, 1985. The two basic reasons for the existence of SONATEL are the provision of public telecommunications service, and the development of the domestic and international telecommunications sector. The Corporation has a broad range of powers to enable it to carry out the double mandate, including monopoly rights.

The government endowed the Corporation with a capital base of 3,500 million CFA Francs, and laid out extensive powers for mechanisms to raise further monies. Among the ways allowed are issuance of new stock or sale of existing stock, but the restrictions imposed on the process will prevent a simple privatization process.

Specifically, as a Société Nationale, there is a requirement that the government must hold at least 51% of the rights in the capital during the life of the corporation. Further, the other 49% must be held by either the government or a public body or organization of some kind. Thus, under the present law in Senegal, SONATEL is not sellable, in whole or in part, to the private sector. To accomplish this would require the enactment of another statute which would transform SONATEL from a Société Nationale into a stock corporation under normal commercial laws in Senegal; the stock in the latter, held by the government, then could readily be sold to private buyers.

4.0 OWNERSHIP AND OPERATIONAL MODELS IN OTHER COUNTRIES

4.1 General Issues

A study of the range of patterns of telecommunications operations throughout the world shows that many options possessing a wide variety of forms and elements exist and can be used in the four African countries targeted in this effort. Although the traditional approach to the delivery of telecommunications services has been a government-owned and controlled entity, the pervasive "PTT," many countries have moved away from it in whole or in part.

There are various levels of private involvement in telecommunications systems, for example:

- o Subcontracting
- o Network access and use
- o Private local services
- o Purchase or lease of franchise
- o Message telephone service
- o Leased channel service
- o Data transmission
- o Remote data processing
- o Video teleconferencing
- o Equipment supply

A recent World Bank report noted that there is a basic distinction among types of telecommunications offered, with the U.S. emphasizing the distinction between "basic" and "enhanced" services, Japan separating providers of "facilities" and "services," and France debating "open" and "closed" networks. The report notes, though, that "all approaches must address essentially the same issues:"

- (a) Which services or facilities should remain, on economic and/or political grounds, the exclusive preserve of the (telecommunications entity); and which should be open to other providers (instead of or in addition to the TCE);
- (b) What rules should govern interaction within the competitive sphere and between the monopoly and competitive spheres (e.g., conditions for entry, interconnection standards and prices, allowable competitive practices) so as to create a 'level playing field' and promote efficiency; and
- (c) What institutional arrangements should:
 - (i) monitor and enforce the rules;

- (ii) resolve disputes between parties; and
- (iii) review and amend (a) and (b) above as necessary with evolving circumstances.

The mechanism for choosing which of these is the most appropriate and efficient lies in the fundamental public policies of the nation. At the most basic level, the choice is first made as to whether telecommunications will be the exclusive province of the government, i.e., the most all-encompassing PTT, or in a more complex market structure. Examples of these are:

- (a) Government Monopoly - Ministry or department.
- (b) Government Monopoly - Public corporation.
- (c) Government Competition - Competing government and private operations.
- (d) Regulated Monopoly Exclusive private operation, government oversight.
- (e) Regulated Competition - Multiple private operations with licensing and related functions by the state.
- (f) Liberalized Entry - Absence of official government rules relating to market entry, structure or conduct along with complete reliance on private sector provision of goods and services.

The patterns of usage of these various approaches can be seen to vary both by region and by nature of the legal and political system, thus, to a degree, simplifying the task of a developing country in selecting elements and mechanisms. This simplification flows from a natural facilitation in the selection of processes taken from a context much like its own. Examples of this regional grouping exist. For instance, most European states distinguish between control of the system/network and the content of the information/services; therefore PTT competition is not an issue. In the area of interconnections by foreigners or customer premises connections, the most often used mechanisms of control are government monopoly, government competition and regulated competition.

There are private systems in the U.S., Hong Kong, Puerto Rico, Barbados; Singapore is considering one. Italy and Spain have jointly owned systems, and Canada, Denmark, and Norway have mixed networks.

Among the most effective tools for liberalization is deregulation, either complete or partial. There are a number of distinct mechanisms available to a government in regulating telecommunications entity, among them:

- o Franchises;
- o Common Carrier Regulation;
- o Rate of Return Regulation; or
- o Price Control

As one reviews the worldwide examples of approaches to delivering telecommunications services, one can discern that each nation has established a system that falls somewhere along a discrete spectrum. At one end there are governmental departments serving multiple needs, such as post office, telephones, telegraph, radio/television, and other modes of communication. Akin to this are the separate departments for, e.g., telephony or telecommunications exclusively, followed by an independent board, public corporation or public authority, then by a wholly government-owned, privately chartered corporation, a privately chartered corporation with government interests, and finally by entirely private operations. Many variations exist on this theme, a number of which are noted by the World Bank report:

"For example, even a 100% government-owned corporation might well benefit from private-sector Board members sensitive to considerations of productivity, profitability, and marketing (the Delhi-Bombay corporation is looking for private sector Board members now; the Tanzanian TCE already has some). Bringing in private sector management is frequently as important as changing ownership; selling minority equity participation to the company supplying the management is a way of giving them an incentive to improve financial performance (this is the approach currently planned in Sri Lanka). On the other hand, even in a TCE with a majority private ownership, government could retain ultimate control through a "golden share," while leaving day-to-day management in private hands. These structural changes must not be superficial but must include major efforts to change the corporate culture (which is likely to require changing some personnel as well) and the government's attitude toward the TCE. Otherwise, they can be self defeating (e.g., one Telecommunications Department was converted into a Board, but all of the Board's decisions still had to go to the Ministry for a second approval).

Another approach, pioneered in France and the Netherlands, is to establish subsidiaries of the TCE to handle special or priority tasks (e.g., data networks, value added services) that need a more commercial orientation. This

is generally done because transformation of the TCE itself would take much longer, and face much greater resistance (e.g., from unions of other government agencies), and because the smaller subsidiaries can be more flexible and responsive."

Among the most central of the tasks of this effort is the identification of areas in which the four target nations can reduce the governmental role in the provision of telecommunications services. In a most general sense, the World Bank has identified five of these:

- (a) Provision of telephone instruments, PABXs and other subscriber equipment. A number of LDCs now allow these to be purchased by subscribers from outside suppliers, provided the equipment meets technical specifications;
- (b) Establishment of separate business networks to meet urgent demand and provide high quality voice and/or data transmission. Some TCEs (e.g., India) are considering setting up such networks themselves, while other LDCs (e.g., Turkey) are examining proposals from private investors. Because of their potential profitability and importance to business, such networks could attract private financing relatively easily;
- (c) Provision of value-added services, such as electronic mail and computer databases, inventory monitoring, banking networks. etc.;
- (d) Allowing operators of dedicated networks to offer services to others (e.g., one country is considering franchising a mining company to provide telecommunications service to the public in its under-serviced region);
- (e) Having TCEs contract-out more activities, especially civil works on outside plant (e.g., Indonesia, Ecuador and Thailand) and even subscriber connection, to relieve the major implementation constraint on rapid network expansion. One short-term approach is to have on contractor design and then on the TCE's behalf, supervise cable installation by a different contractor, until the TCE's design and supervision can be built up. Foreign contractors may also be needed initially, in joint ventures, to help build up the local contractors; installation capabilities. Other areas that can be contracted-out include construction and maintenance of buildings, vehicle

maintenance, phone directory production, and data processing.

In this study, we can profitably analyze two categories of country experience:

- (a) Countries where the structure of a system has some comparatively "liberal" elements (i.e., embodying rules and patterns that use or assist the private sector). These have evolved over a period of years, and a discrete act of "privatization" cannot be studied per se; however, each has some components that, standing by themselves, offer interesting ideas for incorporation into a revised system in the four target countries; and
- (b) Countries where the process of a privatization of the telecommunications system which has recently taken place or is now underway.

4.2 Telecommunications Systems with Liberal Elements

The following summaries of worldwide telecommunications operations will provide a number of interesting and useful themes for incorporation into a revision of the systems in the four target nations.

4.2.1 Australia

Australia is interesting in that the existing authority, the Australian Telecommunications Commission, was the subject of a major commission study. Among the far-reaching recommendations was that it be abolished in favor of Telecom Australia Ltd., a 100% government-owned corporation. The new organization would be a joint venture or form subsidiaries to operate systems. Equally important, ministerial powers would not extend to prices, company management or staffing, purchasing policies or contracts. Also under a recommended shift, there would be a transfer of the terminal equipment marketing function to other private entities in a distinct organization.

There would be a national telecommunications advisory council to guide policies and operations, and a degree of deregulation would be introduced. This would comprise the allowance of unrestricted use and resale of leased telecom capacity, the allowance of independent networks (subject to authorization) and removal of restrictions on class of traffic carried.

4.2.2 Bolivia

In Bolivia, autonomous telephone cooperatives have been successful as operating entities alongside the government authority. These cooperatives interact under the umbrella of the Asociacion Boliviana de Empresas Telefonicas (ABET) in La Paz, through which they are protected from onerous government control.

The process by which the first of these cooperatives was formed is instructive. Specifically, a commission (Consejo de Administracion) was formed by private interests in 1963, with the goal of representing about 2,000 shareholder members. The shares were for the most part distributed at the rate of one per phone line (with some key founders receiving more (20-30)). They eventually started the Cooperativa de Telefonos Automaticos de Santa Cruz de la Sierra Ltda (COTAS), a localized organization. It was followed by 11 other coops.

In these Bolivian organizations no profit is taken and surpluses are retained as reserves. It is important to note that the government of Bolivia provides no subsidy to them. There is a government oversight role, in that tariffs are approved by the government. These tariffs are flexible, and are based on the number of calls and electronic impulses.

4.2.3 Brazil

The basic system in Brazil is one of government ownership and operation, pursuant to the Telecommunication Law 4,117 of August 1962, which provided for a complete restructuring of the sector. Under its terms, beginning in 1967 the government of Brazil nationalized all interstate services under EMBRATEL which is 97% Federal Government owned. Intrastate services and urban services in major cities remained under the control of federal, state and municipal and private companies. All telephone companies came under the direct management supervision of Telecomunicacoes Brasileiras SA (Telebras), which has significant powers to regulate, standardize, plan and coordinate the operation of all telephone companies. These companies were later merged, nationalized or purchased to reduce the total number of companies to 25.

A marked deviation from the norm, though, involves rural telephone cooperatives, which buy and operate their own subsystems and interconnect with Telebras. They are subject to Telebras-imposed technical standards and user charges.

4.2.4 Canada

Canada has a telecommunications industry comprising a mix of private, governmental and joint private-governmental corporations and organizations, generally regulated by a single federal or provincial regulatory agency. Teleglobe Canada is the primary public telecommunications operator and is owned and subject to control by the federal government.

In general, federal and provincial governments determine telecommunications policy within their jurisdictions, and carriers apply to their regulatory agency for approval of the terms and conditions in which service is provided. This provides general review powers; the mechanism for the control is via the approval of carrier applications. In the case of the Canadian Radio and Television Commission (CRTC), the federal cabinet may overrule a decision, but this power is seldom used except in cases of important public policy.

Each of the telephone companies in the "prairie" provinces is owned by the local provincial government.

4.2.5 Chile

Chile offers an interesting example in Transradio Chilena Cia de Telecomunicaciones SA, which has provided telegraph and telex services in Santiago, Valpariso and several other areas since 1928. The majority of Transradio's shares have been held by foreign telecommunication companies, and the profits have been traditionally reinvested in Chile. The operations of Transradio have not used governmental subsidies, and prices of services are market-determined. Transradio's principal competition is with state-owned Telex Chile Comunicaciones Telegraficas SA, which became profitable when made a state corporation separate from the PTT. In 1986, the government resolved to privatize the telecommunications company and offered 51% of the stock to private investors. As of July 1987 38% had been subscribed. There exists a problem, however, of a lack of foreign exchange to fund equipment procurement.

4.2.6 Dominican Republic

One of the earlier privatizations on record concerns the Dominican telecommunications operation. The Compania de Telefonos C. por A. (CODETEL), which was established in 1930 and purchased by GTE in 1955. Operating under a concession approved by the National Congress, it provides long distance connections for eight small local systems. Its tariff structure is fixed by the government, which is paid 10% of gross receipts in taxes.

Among the problems it faced were that it made investments in U.S. dollars and made profits in pesos, exposing it to exchange rate fluctuations. Also, the tariff structures approved by the government do not adequately account for cost differentials. These problems have since been resolved, earnings are being repatriated with a portion used to upgrade and expand the network.

4.2.7 Hong Kong

Telecommunications in Hong Kong are governed by the Telecommunication Ordinance and the Telephone Ordinance. Under their terms, no person can establish or maintain a means of telecommunications in the territory without a license. The Postmaster General is the Telecommunications Authority, administering the Telecommunications Ordinance and governing the establishment and operation of telecom services; he also ensures a satisfactory local telephone service which is provided for under the provisions of the Telephone Ordinance.

Local telephone services are operated as a public franchise by the HK Telephone Co., Ltd. under the Telephone Ordinance, while international telecommunications services are provided by Cable and Wireless (HK) Ltd. under license.

There is a Telecommunications Board which is responsible for advising the Governor on all matters affecting the operation of internal and external telecommunications services in Hong Kong, and on measures necessary to ensure continued operations. The Telecommunications Branch of the Post Office ensures observance of the Ordinances and serves as advisor to the government; it monitors franchised company performances and does systems planning.

Pursuant to a lease signed in 1938 all public telecommunications services are provided by Hong Kong Telephone Co and C&W, HKT is a local public company whose shares are openly traded (one of the ten members of its board is appointed by the government); C&W is a locally registered company 80% owned by C&W PLC and 20% by the GOHK (recently purchased). Services outside the range of those under franchise, e.g., data transmission may be carried out by anyone under license.

4.2.8 Ireland

Pursuant to the Postal and Telecommunications Services Act of 1983, P&T services (previously under the jurisdiction of the Department of Posts and Telegraphs, a government department) are administered by two new state-owned companies. They came into being in January 1984 to take over the Postal and Telecommunications Services' day-to-day operations.

Bord Telecom Eireann, the Irish Telecommunications Board, is the telecom company. It is run by part-time directors appointed by the government. The Board is responsible for general policy matters and telecom issues involving the government. The Department of P&T has been abolished.

4.2.9 Italy

Telecommunications service responsibility in Italy is divided between the Ministry of Posts and Telecommunications (MPT) and the STET (Societa Finanziaria Telefonica p.a.) a group of quasi private companies. STET is about 65% controlled by IRI; there are over 45,000 shareholders. Overall policy regulation and supervision is by the MPT.

The MPT has an autonomous public corporation, Azienda di Stato per i Servizi Telefonici (ASST), responsible for planning, building and operating the primary Italian telephone network, and providing international telephone service. Also in the system are:

- o RAI - Radiotelevisione Italiana: microwave links, transmitter and relays for TV and sound programs.
- o SIP (IRI-STET): plans, installs, operates and maintains the local telephone networks and some inter-city links.
- o Italcable (IRI-STET): public intercontinental services such as telex, telegraphy, telephony data transmissions.

STET is the financial holding company for the STET Group, and it coordinates and supervises activities in accord with long range plans agreed upon with IRI. Finally, telephone service is provided partly by concessionaire companies and partly by the ASST.

4.2.10 Korea

Since 1948 the Ministry of Communications has had sole regulatory authority and jurisdiction over all telecom and postal services. The Korean Telecom Authority (KTA) was split off in 1962. Now MOC concentrates on formulating and executing plans, policies and programs designed to maximize the use of telecom services and to expand facilities. KTA is a fully government-owned corporation, and the exclusive provider of all telecom services in Korea.

The Data Communications Corporation of Korea (DACOM) was created in March 1982 to develop Korea's data communication network, design information policies, and to perform all data

processing for government and public utilities. It is a joint venture between government (33.4%) and private investors (66.6%). It is one of the two common carriers operating in Korea with a mandate to provide exclusively both basic transmission and enhanced data communication services. It provides public switched data networks, leased lines, and other value-added network services. DACOM and KTA have an exclusive lock on service provision.

4.2.11 Netherlands

The PTT is the Netherlands Pusterijen, Telegrafie en Telefonie, a quasi-autonomous state body responsible for the installation, maintenance and management of an undivided telecommunications infrastructure providing telecommunications services and postal services. It is administratively independent and has its own budget (subject to parliamentary approval). It was organized in 1915 into a state enterprise; in 1943 it came under the Ministry of Transport and Public Works.

The PTT has a de facto monopoly with respect to the provision of public telegraph, telephone, telex and data services, land mobile radio, paging, and coast and ship radio. In special cases concessions can be granted to third parties, with the interests of the PTT being taken into account in the application; one reason for a third party license is when the PTT is unable to offer a particular facility and if the service license does not compete with a presently existing PTT service.

Services other than the conventional, e.g., information-based ones, can be provided by other companies via the public switched PTT telecom network; however, the PTT can - under the same conditions as other companies - provide non-basic services.

A government commission recommended in March 1982 that the Dutch telecommunications system for the provision of conventional equipment and services remain a monopoly of the Dutch PTT, and that the PTT become more removed from the government. The recommendation was adopted and slowly implemented, resulting eventually in an increase in private sector participation in the provision of interconnected equipment and enhanced and information-based services. The PTT will enter into joint ventures as it becomes autonomous.

4.2.12 United States

The United States in 1986 had some 1500 separate telecommunications companies characterized by technical compatibility and extensive cross-subsidies. Each company is an independent corporate enterprise, each having its own Board of Directors responsible for directing the company's affairs. Stock

ownership by the public and private investors gives them a legal voice in the affairs of the corporation. Telecommunications in the U.S. is a product of the free enterprise system. The divestiture of the large Bell System in 1984 resulted in a number of newly created independent holding companies. The development of standards has been left to the private sector. The Federal Government controls all aspects of telecommunications which cross state lines whereas the State Governments regulate all intrastate communications including exchange service. However, if the same plant is used in both interstate and intrastate operations, Federal decisions determine many of the intrastate practices. There are three sets of tariffs: exchange, interstate and intrastate.

The United States, a nation without a public telecommunications administration, had a major challenge to provide telephone service to the rural communities. A part of the solution was the creation of the Telephone Sector in The Rural Electrification Administration which provides low-cost loans to finance telephone facilities. About 900 rural telephone systems, both independent and cooperative in 47 states have received these loans. The other input was the establishment of a pool of telephone revenues with an intricate formula so that the operating companies can receive from the pool sufficient revenues to maintain its basic cost of telephone service as "reasonable and affordable".

4.3 Ongoing or Recent Telecommunications System Privatizations

The discussions of the following countries were selected because recent or current programs of liberalization or privatization will prove to be especially useful to the four target nations as plans are made for privatization.

4.3.1 Argentina

The Secretariat of State for Communications has the responsibility for the planning and implementation of national telecommunications policy. It supervises the coordination and integration of the country's communications system. Among the duties are policy and planning, spectrum management, industrial R&D, telecommunications service operation, broadcast service operation, human resource planning, and international relations.

The Argentina National Telecommunications Authority (ENTEL) provides telecommunications services. It is a separate entity from the government, but is regulated by the Secretariat for Telecommunications, a branch of the Ministry of Public Works and Services. It has full authority in functional, technical and legal areas, pursuant to its organic statute (approved by

Decree No. 310 of 1956, amended by Decrees Nos. 23318/60, 4522/85, 4413/71 and 2748/78).

ENTEL has a monopoly over provision of basic and enhanced telecommunications services throughout virtually the entire nation. ENTEL owns 89% of the phone lines. The Ministry of Economic Affairs and the Ministry of Public Works and Services regulate all tariff rates.

Liberalization has just begun to take place in Argentina, in conjunction with a newly announced program of privatization in several sectors. (However, at the time of this report, it appears that dramatic electoral losses suffered by the government could have a slowing effect on the process.) Specifically, the Administrator of ENTEL, Nicholas Gallo recently (August 13) announced the call for tenders for private firms to come forth to allow the incorporation of private capital in the operation and expansion of the public telephone system. In a press conference in which the president of the Directorio de Empresas Publicas Enrique Olivera participated along with officials of the enterprise, Gallo stated that the initiative is part of the policy of deregulation and growth of the level of private participation that had just been announced by the government.

The call for tenders will be operative for 60 days, and the contract term will be ten years, with an automatic renewal of five years. It will relate to the areas of the Federal Capital, Gran Buenos Aires and La Plata. The contracting firm will be responsible for operating the public telephones network facilities for ENTEL and will be required to enlarge the number of telephone booths in no less than 60% of the existing areas.

There are currently 13,070 units that are targeted for operation by the private firm. ENTEL will provide the preventive maintenance and integral repairs at its shops at an estimated cost of A43 per month per unit. The contractor can install units in sets within the public telephone network (groupings of no less than 5 units) in places appropriate to each area, and there must be, without exception, a telephone for the handicapped.

4.3.2 France

France has long been a "traditional European" system; all service is provided by the Ministry of Posts and Telecommunications. Because France looks toward ultimate integration of the network, therefore it needs complete technical mastery of infrastructures involved to rule out duplication of effort and incompatibility between services and equipments. This means control by public authority.

Responsibility for French telecommunications needs and policies rests with the Direction Generale des Telecommunications (DGT), the telecom branch of the PTT (Postes, Telecommunications et Telediffusion).

Among the responsibilities of the DGT are:

- o Identify the needs of the French telecommunications system and provide the appropriate facilities, networks and services;
- o Determine technical standards;
- o Establish policies;
- o Provide technical assistance to foreign countries; and
- o Perform R&D via CNET.

The PTT operates the telephone network and buys products, with at least two suppliers for each type of equipment. No equipment can be installed or used except with Ministry authorization, subject to nondiscrimination and neutrality rules.

The legal system makes a distinction between legal monopoly and centralized authority; the state does not have a legal monopoly on telecommunications. All users are equally treated; there is neutrality in public service - the telccom authority does not control the content of the communications (as in Sweden). Program content is governed by the general public laws on information rather than by the telecom authority. Additionally, there is a guarantee of the permanence of the service (unions have never closed it down).

Private networks are allowed to use leased lines as long as they are used only for the user's internal data or voice traffic. The Ministry of PTT exercises supervisory powers as a representative of the state; the Minister can authorize third persons to act for him. In third party operations the PTT must guarantee identical treatment of users regarding permanent and neutral public service by the PTT; identical tariffs for all, common standards and continuous service can be offered for any given facility.

Networks are generally financed, constructed and managed directly by the PTT administration; certified equipment, e.g., private automatic exchanges and terminals have long been open to competition.

An interesting dispute is now being carried on in France, namely the determination of whether the relation between the DGT and the subscribers is under public or private law (an unusual and most intriguing variation on privatization). This is extremely important in that 300,000 invoices are disputed each year. The basic difference is the determination of who holds the burden of proof, now held by the subscribers under the prevailing public law theory. If the public law argument wins, the subscribers must prove that they are correct, since the premise is that they are wrong and that they must follow the orders of the DGT. On the other hand, if the private law argument is correct, the challenges will be deemed to be proper and the government will have to prove that its claims are well-founded. The potential for unpaid bills and crippling litigation is huge.

Notwithstanding the basic government orientation of the French system, there have been several significant moves toward liberalization. At the time of this report, however, there seems to be a marked lack of coordination in policy setting, with a resultant appearance of the government moving in several directions at once - which is, though, not unexpected in the "cohabitation" system of government practiced in France.

When the Chirac government came to power, a commission was established to find ways to introduce market forces into the DGT, including the possibility of a second carrier. The possibility of this more dramatic step now seems more remote than at the time of first discussion, and the government has backed off on most plans. The unions are worried about job losses; even though DGT, with about 163,000 employees, is one of the most streamlined operations in Europe.

Among the other reasons offered is the fact that the government uses the profits from the telecommunications system to pay other industrial subsidies. Last year the government took in FFr20 bn (\$3.3bn) of the DGT's FFr26.6 bn profit (on revenues of FFr100bn). This year it will take in FFr16.8 bn. The result of the process is that the DGT is cash poor to service the FFr113 bn debt.

Notwithstanding the importance of telecommunications revenue, however, the government recently cut phone rates and will introduce a VAT on calls after November 1, 1987. It is believed by some that the traditional requirement of strict equality in service and fees may be passing with the implementation of new pricing policies. These are more aggressive with regard to large enterprises, involving tariffs relating to the number of communications, on the model of the EDF in electricity. To accomplish this, the DGT has created "Traffic Plus" in which, for a subscription of FFr3,100 per line

(compared to FFr28-47 for a normal line) the user can obtain a reduction in rates of 20-50%. Currently the success is limited, since it is necessary for heavy usage to make the system profitable. This necessitates a use rate of four hours on interurban lines per day: prices are falling, though.

In a very recent and dramatic move toward further private participation in the system, the Minister of PTT has transmitted to the Commission Nationale de la Communication et des Libertes (CNCL) a draft of a telecommunications bill.

The gist of the effort is to open telecommunications to competition, and to confirm the will of the government to bring about the reform. In short, it breaks up a monopoly of 150 years, one believed by its sponsors to be inappropriate to modern technology and systems.

There are three principles in the text, which has no specifics and serves as a foundation for later elaboration. First, competition will be applied to all telecommunications activities. There is a distinction between a regulated sector (authorization required for third party networks and elementary services corresponding to signal transmission) and a totally free sector. There will be no legal monopolies in any core networks, including telephones.

In the second principle, there is a definitive distinction between the regulatory function and the operating function. The regulatory role of providing authorizations and control of the sector is transferred to the CNCL. The public officials maintain a decision power on industrial policy (material agreement, definition of interconnection conditions) and the control of opening competition in the regulated sector. The Minister also keeps the power of proposal (either a particular operator or type of service), and the CNCL makes the choice of operator through the competitive process. Also, it will guarantee that the competition is fair and will adjudicate disputes about the right of access.

The third principle is that the law establishes guarantees on the functioning of the public network and the systems attached to it. Thus, the DGT will continue to serve the whole territory, with the other authorized networks adding to it but not substituting for it. Users will have access to the public network under conditions of equality for all. And this same network will fill its research requirements, with the financial support of the totality of the authorized operations.

Finally, the DGT must have achieved the status of "société nationale" (government corporation) before December 31, 1992. This comes with two guarantees: the possibility for personnel to keep their status as civil servants; and a smooth evolution

of the status (minimum two years, and a maximum of four), contemplating two options: either the transformation in the service of the current Minister of PTT, or a variation on the PTT, in a public holding company which will oversee the Societe Nationale.

This would be a very important step toward full privatization, along the lines of the 1981 British Telecom legislation. Consequently, the sponsors expect a long approval process.

The PTT introduced its Minitel terminals in 1981 and by 1986 had installed 1 1/2 million with thousands of new subscribers signing up every month. The terminal consists of a black and white display and a fold-down keyboard. It is a "videotex" two-way communications system linked to the phone line which provides access to thousands of databases and services. Usage fees are charged while the terminal equipment is provided free. By 1986, the PTT had collected more than \$300 million from subscribers.

4.3.3 Japan

Historically, domestic telecommunications services in Japan were provided by Nippon Telegraph and Telephone (NTT); international services were provided by a single franchised private corporation, Kokusai Denshin Denwa Co., Ltd., (KDD) which connects with NTT at international gateways. NTT was established in 1952 under the Nippon Telegraph and Telephone Public Corporation Law (Law 250, 1952). KDD has been private since 1953; and its capital is held by NTT, large banks and insurance companies.

The public sale of NTT was recommended by a commission in 1980, which advised that NTT be sold and that the network be divided between competitive and monopoly services. Competitive services would be divested and provided by a private company in an unregulated environment; monopoly services would be provided by a regulated entity, which would be divided into local and long distance service companies; new service providers would be allowed to build long-distance facilities to compete with NTT; the provision of customer equipment would be completely deregulated except for technical standards, and NTT's equipment leasing and sales arm would be divested.

Subsequently, in July 1982 the Second Ad Hoc Commission on Administrative reform in Japan recommended that NTT be subdivided into a series of smaller, privately managed companies. A third commission offered refined recommendations which led to the sequence of events described below.

Prior to privatization, the telecommunications market in Japan was based on two monopolies, the internal monopoly held by NTT,

and the international monopoly of KDD. These monopolies were created for three types of reasons;

- o The need to rapidly develop the telephone system which required significant investments, especially in the creation of a network;
- o The need to standardize telecommunications products; and
- o The need to protect the private character of an important flow of telecommunications.

In the privatization of NTT, three reasons were advanced to justify the action. The first of these was the financial gain that would follow. Put simply, the government was very concerned about the need to reduce the level of the budget deficit and the public debt. This justification went far toward overcoming lingering objections to the sale of the "Patrimony." In fact, it was this budgetary fear that was a significant element of the third report of the DOKO commission charged with administrative reform.

Secondly, the public character of NTT has always been considered as temporary by the government. Since the creation of the entity, the Diet had explicitly indicated in official pronouncements that NTT was conceived and operated as a public body only so long as the need existed to do so. Finally, the appearance and development of ancillary technologies lessened the need for either a monopoly or a public organization.

When the privatization was carried out, there was a conceptual restructuring of the telecommunications market, specifically dividing it into two classes of organization. The first would be the entities that controlled the network, used it and leased it to others; the second would be the firms that would lease the lines and networks from the former organizations. In the first category fell NTT and KDD, although the ongoing lessening of the monopoly rights of these two has encouraged a number of other firms to enter and compete with them (e.g., Daini Denden Kikaku, Nihon Telecom, and Niher Isuchin).

Among the first steps in the privatization was the restructuring of NTT. It became what is known in Japanese as a "Kabushiki Kaisha," a special character enterprise such as Japan Air Lines or KDD itself. At this point, its strategic plan was submitted to the government. Important issues addressed were that the commercial code, fiscal regulations, and the bulk of private law had become applicable to the firm. Likewise, important employee rights were recast, such as employment security and preferential retirement. At the same

time, though, NTT became able to invest as it wished, and to invest its profits into value added services.

Also, the management of the treasury function was substantially modified. As a public body, NTT was obliged to deposit its funds with the Bank of Japan, drawing interest at the rate of 3%. The newly constituted organization was freed to follow the financial markets, and developed plans to borrow worldwide.

Another important issue confronting the government in the early stages of the privatization was whether to break up the company along geographic lines. After looking at the British and U.S. examples, a decision was made to retain the entire network in a single firm.

Upon the restructuring (April 1, 1985) NTT became a private enterprise that was 100% owned by the state. As NTT was introduced to the stock market, a number of significant shifts in its financial operations were necessitated. Among these were the changing of the date of accounting for bonuses, provision for retirements, and accounting for doubtful accounts payable.

The actual quotation of the NTT shares posed at least two significant problems. As far as the selection of intermediaries is concerned, it has been the custom in Japan to turn to the four major Japanese securities houses to sell the stock via "placements" to targeted buyers. In preparing for the privatization, though, the Diet left open the possibility of a public offering as was done with British Telecom. Secondly, it was the desire of NTT to offer up to 20% of its shares to foreign interests; this was rejected by the government.

A more minor problem related to the Stock Exchange requirement that a firm had to have at least five years of records to be listed; this was overcome by a special dispensation, and NTT was listed.

The sale of NTT stock is being carried out on the Tokyo Stock Exchange in a series of tranches pegged at about 10-15% of capital for each, to continue until the government's share levels off at 33%. The Japanese government has made no effort to achieve social goals through the sale, such as, for instance, the attempt of the Thatcher government to create a nation of small shareholders in the U.K. via low prices and special incentives. Rather, the NTT shares are being sold as fast as they are offered to large institutions and well-off individuals at prices exceeding \$U.S.10,000 per share. The NTT sale is by far the largest privatization in history, and the full resources of the largest stock market in the world (Tokyo) and many of the biggest brokers are heavily committed.

4.3.4 United Kingdom

The actual modality for the privatization of British Telecom is via a two-step procedure. In the simplest terms, the government agency was first turned into a government corporation, and that entity was later turned into a private corporation owned by the government, which was sold. A more detailed exposition follows.

Telecommunication services in Britain followed a classic European pattern. In 1911 the government absorbed the telephone and related systems of the entire country (except for Hull) and placed them within the Post Office, which administered the system for 70 years. Privatization began in earnest in 1981, though, as part of the Thatcher government's plan to return government holdings to the citizens.

In that year the British Telecommunications Act 1981 was enacted which transferred the rights and powers of a telecommunications system (including ancillary services such as data processing) to a statutory, government corporation - British Telecommunications. Since this was a government corporation (in reality an arm of the government configured to resemble a corporation), there was a significant amount of power and control vested in the government's ministers.

For example, the Secretary of State's powers with respect to the corporation, included the power to give general directions in the national interest or to secure the remedying of defects in its general plans or arrangements and power to give specific directions in the interest of national security and in the international field.

The Secretary of State may also give directions to the corporation requiring it to cease exercising undue discrimination in the terms and conditions relating to services falling within its exclusive privilege, if it appeared to be doing so, and to dispose of assets not required for the discharge of its duty.

Other requirements imposed on British Telecom as an arm of the state included compliance with public fiscal requirements and accommodation of the needs of the (well protected) civil servants who worked for it. On the other hand, BT was given rights to set rates, to condemn property and to control access to the network via approvals of equipment and practices. Because BT was a part of the government, there was no need to externalize a process of user protection or monopoly control; all was taken care of, in theory, internally.

The next big step in the privatization process occurred in 1984, with the enactment of the Telecommunications Act 1984. The two most important parts of the act are the creation of British Telecommunications PLC. and the formation of the Office of Telecommunications (OFTEL).

As noted above, British Telecommunications after 1981 was a part of the government, and consequently did not have a legal identity that would be sellable or buyable. Thus, the 1984 act effected a conversion of the government entity into a private one, by creating a public limited liability company (a "PLC") under the Companies Law -- British Telecommunications PLC -- with the stock fully owned by the government. The act then transferred the rights, properties and obligations of British Telecommunications to the new firm, with instructions to the appropriate ministries and departments to sell it to the public.

This was partially done in 1984, when 50.2% of the equity was sold to the public at a fixed price per share, raising almost L4,000 million. One very important consideration in this sale was on the minds of the drafters of the act, and it accounts for most of the text of the legislation; the need for a new outside force to meet the requirements for protecting the public from abuses of power by the company.

Hindsight has shown that the framers of the new system has a clear choice between creating a very competitive environment by breaking up the British Telecom monopoly, and increasing the share values by selling a monopolistic company. They opted for the latter, but in the process set up two parallel mechanisms to temper the power of the potential monopolist.

First, the act in fact states that by law there is to be competition, and provides for the licensing of Mercury and other firms to compete with British Telecom. In practice, there is little chance to overcome the power of British Telecom, and de facto monopoly is taking effect.

Secondly, the 1984 act established OFTEL to monitor British Telecom, and to ensure that it serves the nation well. In doing this, OFTEL is charged with a number of mandates, for instance:

- o Ensuring compliance with licenses;
- o Enforcing RPI-X rule (rates cannot rise faster than the retail price index minus an agreed upon percentage);
- o Promoting competition in industry;

- o Detecting anti-competitive practices;
- o Acting as conduit for consumer complaints; and
- o Responsibility for licensing new utilities.

OFTEL is headed by the Director General of Telecommunications (DGT), who is appointed for up to five years, and strives to meet the following objectives:

- o To secure so far as is reasonably practical telecommunications services that satisfy all reasonable demands for them, including emergency services, public call boxes, directory information, maritime services and rural services;
- o To ensure that any person who provides these services is able to finance them;
- o To look after the interests of consumers, purchasers and other users in the UK, particularly pensioners and the disabled, in respect of price, quality and sufficient variety of apparatus and services;
- o To maintain and promote effective competition between persons engaged in commercial activities connected with telecommunications;
- o To promote research and development;
- o To promote efficiency and economy;
- o To promote the provision of international telecommunications services by UK telecommunications companies; and
- o To enable UK telecommunications companies to compete effectively outside the UK (i.e., a duty to encourage exports of services and equipment).

There is great discretion vested in the DGT in how he ranks these and applies the rules; the incumbent has chosen competition as his highest goal.

More important to the operator is the Public Telecommunications Operators (PTO) license - more than 50 conditions are included, including competition, universal service, discrimination in providing services, cross-subsidization, and regulation of price through the RPI-X rule. Also stipulated is the provision of services throughout Britain, including rural and international services, emergency services, directory enquiries, call boxes and certain facilities for the disabled,

the publication of standard terms for the provision of services, and uniform charges for installation and maintenance. It covers the connection of licensed equipment to the network, and precludes unfair favor to self in prices charged, as well as exclusive dealing arrangements and tie-in-sales.

If OFTEL wants to modify the terms of the British Telecom license it must refer it to the Monopolies and Mergers Commission; also, the Commission reviews the BT license when it is up for renewal.

5.0 Interests and Ideas of U.S. Telecommunications Companies

5.1. Contacted Telecommunications Companies

The following telecommunications companies were contracted to determine their interests in privatization in Africa. All of the firms have been or are active overseas or are just beginning to enter the overseas markets.

- o AT&T-International
- o GTE-International
- o CONTEL-International
- o ALLTEL
- o ITT-International
- o Pacific Telesis
- o Bechtel Corporation
- o Southwestern Bell

It is interesting to note that a number of the newly constituted regional corporations as a result of the divestiture of the Bell Telephone System are beginning to establish themselves in the international arena.

5.2 Responses from the Telecommunications Companies

AT&T-International: The company is currently pursuing two opportunities in Africa, in Egypt, a joint venture to produce digital switching equipment; in Kenya, the furnishing of digital transmission equipment. AT&T-I would be interested in management contracts for both operations and maintenance as well as network planning. However, there is no interest in taking an equity position in a telecommunications entity in Africa.

GTE-International: Current interest is in the Latin America Caribbean area and through their subsidiary, the Hawaiian Telephone Company, the Pacific Basin and Micronesia.

CONTEL-International: Depending on the financial arrangements would be willing to manage and operate but would not take an investment position. On a contract basis would engineer, furnish and install expansion or update to existing network.

ALLTEL: The company has been active in Thailand, Kuwait and Saudi Arabia. At the end of 1986, a corporate decision was made to cease international operations since they had not proven profitable to ALLTEL.

ITT-International: ITT-I has been selling a number of their operations overseas to the French company, C.G. Alcatel. They are presently installing an oil pipeline communications system in Egypt. The company has no interest in investment or in

managing a telecommunications entity in Africa. There is an interest in the engineering, furnishing and installation of equipment.

Pacific Telesis: Pactel would be interested in managing a telecommunications entity on a contractual basis. Its primary objective is equipment sales and installation with no investment. It has, however, taken an equity position in a paging system in Thailand.

Bechtel Corporation: It has been active in the construction of exchange buildings and microwave and relay systems. It relies on sub-contractors for the technical aspects of telecommunications. Not certain that the BOT model is applicable to telecommunications.

Southwestern Bell: This company has selected as its area of emphasis overseas Southeast Asia. It has no plans to take an investment position but rather is in the position.

5.3 Consensus and Concerns

To the question of what their criteria would be for participation in a telecommunications project in Africa, their response overall is that privatization has merit, that there is no case of an actual privatization of a telecommunications entity in Africa and that Africa is not yet ready for privatization. An estimate is that time is perhaps two to five years distant. Concerns voiced were the political stability of some African countries; the economic condition of the country and its foreign debt; the linkages which still exist in a number of cases to the former colonial powers for guidance and the provision of telecommunications equipment; in addition, the commitment of the governments to privatization since some view telecommunications as a national monopoly of strategic importance to the nation.

On a positive note, a number of U.S. firms would be willing, on a contract basis, to assist the African telecommunications entities prepare for privatization to the point where the entity would be attractive to the investment community either domestic or foreign or both. Specifically, managerial assistance would be provided in the following: development of a long-range and short-range fundamental plan and emphasis on immediate requirements; organization of the entity for effectiveness; personnel staffing; management of operations; management of maintenance; commercial operations, billing and collections; accounting; and personnel training in all its aspects.

There are attractive areas for privatization exploitation in data services, video conferencing, cellular systems both for

urban services and rural telecommunications development, the use of satellite systems to reach areas where the terrain prohibits the installation of a terrestrial system, paging systems. Several of the U.S. firms would be willing to develop these services for privatization consideration again on a contract basis.

Many examples of ownership and operational models have been listed in this report along with the legal and regulatory matters. There is no specific model for privatization in Africa. The concerns raised by the U.S. telecommunications firms are real and need to be addressed in any privatization consideration. Establishment of models considering complete divestiture, partial divestiture, partial privatization with the various options cannot be accomplished with a limited desk study as evidenced by the information accumulated. Such models are best developed when a specific country has been identified and a country visit is made as a phase two to this effort.

6.0 SUMMARY OF FINDINGS

6.1. Telecommunications Privatization in Africa

Privatization of telecommunications in Africa can be an important element in improving efficiency of service to all sectors. Partial or total privatization on a sound basis can help the countries adjust to the new technologies and meet the demand for basic telephone service. It is said that telecommunications serves as the "nervous system" of modern societies and economies; it is multi-purpose in use and pervasive in effect.

6.2 Summary of the Situation in the Four Target Countries

Special attention in this report has been given to the countries of Cameroon, Côte d'Ivoire, Kenya and Senegal. A Washington-based review of the available constitutions, laws and regulations of the four countries has turned up no insurmountable impediments to privatizing the telecommunications operations, or to facilitating the process of foreign investment into each of the countries. What is standing in the way of privatization in these cases is either inertia, in that no one has yet generated sufficient interest in the process to move ahead, or, in some instances, the political process.

6.2.1 Cameroon

In Cameroon, it appears that the reasons for holding up the evolution of the agency into a privatizable corporation are political, although the details of the situation as well as the texts of previously introduced legislation -- have not been studied. In a basic legal sense, Cameroon is not prohibited from moving to a private telecommunications system, or from contracting out the operation of a system kept under government ownership. More investigation needs to be done here.

6.2.2 Côte d'Ivoire

The immediate need in the Côte d'Ivoire is for a determination of where the current telecommunications body (ONT) fits within the ongoing scheme of privatization. The timing of the current project precluded this sort of investigation, but it is one that needs to be done early on. ONT is a government agency, which, if privatized, would have to be transformed into a stock corporation. There are 103 entities on a new list of privatization targets, some more serious candidates than others. The place of ONT on the list is a matter for political decision makers, and is not fully known at this time. However, the terms of reference of a World Bank funding application include a formal enquiry into private control. This must be

investigated further, as should related issues that are of historic importance in the Côte d'Ivoire, namely, the ability of the government to operate public services via leases and contracts with the private sector. Several institutions of a nature similar to ONT (such as SODECI, the water system) should be analyzed and precedents and ideas drawn from them.

6.2.3 Kenya

In Kenya, the telecommunications system is run as a government corporation. This gives it the ability to utilize private sector methods and processes, but makes it impossible to privatize, since the legal system will not recognize private ownership rights ("shares") in this sort of an entity. Since the current corporation is analogous to British Telecom after the 1981 Telecommunications Act, the next step in Kenya is to transform the corporation into a stock corporation, thus allowing for the sale of shares to the public. Since the law of Kenya is very much like that of the UK, there should be very serious consideration given to a detailed investigation of the ability of the government of Kenya to establish a regulatory regime to oversee the privatized operation. Especially in the area of protection from monopoly abuse, the British are now under fire for failing to control the actions of BT, and it is conceivable that Kenya would fall into the same trap.

6.2.4 Senegal

The Senegalese corporation now operating the telecommunications system is prohibited from private participation by its very nature. In the privatization process, it must be evolved into a Société Anonyme, which can be the subject of a stock sale. Among the primary issues that could not be resolved by the current study was the key question of whether the telecommunications system is so important and basic a public service that the government is not willing to consider privatization. If there is any possibility that the system, or any part of it, can be liberalized, immediate research ought to be done, since telecommunications should be a keystone of the ongoing Senegalese privatization program.

6.3. Recommended Follow-up

In the case of all four countries, there is enough potential for the privatization of all - or a part - of the telecommunications systems to press on with further investigations.

An important step is to inform decision makers in the four countries about their situations and the lessons they can learn from other systems which have been privatized before them. The precedents around the world are truly appropriate to the four

countries, and learning about them and how problems were solved should go far toward alleviating existing fears. Finally, during the course of this study, two surprising events occurred. The first was the introduction of a bill in France which would have the effect of ultimately privatizing the telecommunications system, and the second was report in West Germany which recommends vast changes in the German system. The French experience will be extremely helpful to African nations because of the similarities of background, and the German, since that country has long been regarded as the bastion of anti-privatization feelings in telecommunications. Both should be monitored closely and the lessons quickly passed on to the four targets.

The effort thus far was conducted from Washington and the team did not have access to many critical documents or officials. The next phase requires research on specific issues so that concrete answers may be obtained and the actual privatization process greatly facilitated. When a specific country has requested assistance in considering the privatization of its telecommunications entity, a team should proceed to the country to make a detailed study of the entity, the motivation for privatization, the possibilities for privatization, the legal and regulatory aspects, and the steps required to prepare the TCE for privatization.

APPENDIX A

Telecommunications Privatization Checklist

A critical element of the equation formulated to determine whether the privatization of a given telecommunications system can proceed relates to the conditions in a country as they have an effect on foreign investors or operators. The following discussion is intended to review the key points in an analysis of the environment.

1. The Policy Environment

(a) Government Commitment to Privatization

In a determination of whether a given investment in a telecommunications system is a worthwhile and potentially profitable undertaking, it is, at the very outset, essential that one determine whether the privatization program of the host government is built on a solid foundation of well-supported and firmly established policy, or whether the exercise of inviting outside participation is merely an expedient move to satisfy other pressures, e.g., World Bank or AID loan conditions. No matter how firm the compulsion may appear on paper, if the government itself is not acting with the full support of the legislature and public, the difficulties faced by the privatizing organization will be significant. They can range from costly delays in decisionmaking to ultimate revocation of any promises or agreements. It is advisable to seek written assurances, complete with detailed statements of the steps taken leading up to the privatization, so that the privatizer can compare them with known facts about the policy environment.

(b) Accessibility for Dialogue

Are the government leaders available for a process of discussions, or are arrangements made with lower level officials who can be readily overruled in cases of disagreement? The dialogue process is needed to ensure that there is a full "meeting of the minds" and that no issues are left unresolved when the privatizers begin to make investments. A dialogue will ensure that there is a continuing flow of information, and that changing circumstances will not become surprises to either party.

(c) Government Power to Implement New Policies

One must ensure that the desires of the government, no matter how pro-privatization, can be translated into binding and enforceable actions. There must be a constitutional and legal power to take certain actions, whether by mere fiat, formal

decree, or a smooth enactment of new law. It should always be borne in mind that no privatization action will ever run its entire course without some degree of change and accommodation to changing situations, or to correct agreements that were arrived at with an erroneous understanding of the status quo.

(d) Rule-making Mechanisms

The rule of "transparency" is applicable here, in that the government's mechanisms for rule making must be clear and apparent to all viewers. There are few situations that are more dangerous to investors and operators in a country than the governing body is able to secretly change the ground rules in mid-stream, thereby increasing costs or operating difficulties for particular firms. Likewise, a context in which the rule making system is overly onerous and complicated is also a great problem, since the privatizing firm will be burdened with compliance with rules that are inappropriate for the world in which they work, and suddenly arising needs cannot be met.

(e) Private Sector Influence on Policy Decisions

In the most desirable situation for privatization there is a strong private sector in the country, and it is able to impart the wisdom, experience and sensitivities of private needs to the government, and to ensure that they can be incorporated into policy decisions. This both strengthens the privatization program itself and also provides support for actions taken by the privatizing firm. If the government has incorporated the private sector in the policy-making and privatization planning process, one can be fairly sure that the appropriate types of input will be readily accessible to the firm when needed.

(f) Legal Barriers to Privatization

At the very basis of a successful privatization action there must be an assurance that there are no legal barriers to the taking of the proper steps to sell an entity or to bring in an outside operator. With a review of the statutory (and case-made) law, one can determine whether free action-taking is possible. This review must look beyond the mere statements about whether something called "privatization" is permitted. It must delve further and confirm that each of the requisite actions upon which a privatization is based is allowed. Can a foreigner own property? Can a certain type of bureaucrat execute a binding contract? Is it legal to sell the product of a privatized organization in certain ways? Many more examples exist.

2. The Economic Environment

(a) Economic Resources

The level and nature of the economic resources of the government or the nation are of primary importance in decisions about investing or operating. Does the country have the fiscal wherewithal to compensate the privatizing firm, or is it depending on outside aid? Does the population have the ability to purchase the products? Can the nation provide (from either the public or private sector) monies in the form of operating or investment funds in times of need? These questions must be answered in advance, so that a deal can be structured in a traditional way, with access to local capital, or in a more recently evolved manner, where the privatizer brings in funds (such as with the BOT, Build-Operate-Transfer model, see Appendix D)

(b) Infrastructure

There are few situations which are more likely to induce failure in a privatization venture than the need to operate in an environment lacking basic infrastructure. Developed country firms take for granted operational telephone, water, power, transportation, sewer, and refuse collection systems. If any or most of these are substandard or lacking the host country, the efficiency and cost-effectiveness of a privatizing operation can be absolutely predicted to decrease dramatically. The operator must import his own systems, must pay extra for inefficient substitutions, and must forego many of the basic elements of typical business, such as, for example, direct communications with suppliers or markets. In the case of telecommunications, the state of the existing system is a key determinant of the level of effort one must put in; does the new operation merely "patch in" or must one start from scratch?

(c) Industrial Composition

A review of the composition of the industrial sector of the host is needed. There is no "right" or "wrong" profile, but rather combinations and gradations that are of varying degrees of value to a particular firm. Operating a telecommunications system in a high-tech community is different from operating one in a primary industry area, and different still from doing so in an agrarian economy.

(d) Major Exports and Imports

While the major exports and imports of a country are of indirect importance to most privatizations, a knowledge of them is still of significance in the planning process. One area of concern is that the nation may depend too heavily on products

for which export markets are diminishing, or for which suppliers of imports control incoming flows and prices. In these situations, sudden financial shocks suffered by the country can readily be translated into shifts in government policy, and have real effects on privatization operations. These effects can be as direct as changed government priorities, or unavailability of material inputs. Naturally, if the production of the privatized entity is in a priority export sector, the work of the entity will be firmly supported. In one particular case, the enthusiasm of the government for telecommunications privatization can be closely tracked to the unmet needs of importers and exporters for telecommunications services.

(e) Economic Outlook

A most basic issue in investment review relates to the economic outlook for the host country. When conducting long-term planning, few considerations are more important than the issue of whether the nation faces a future of growth and strength, or one of weakness and industrial failures. Privatization can be a positive force in either case, but the process will be doomed to failure if it is structured around a faulty premise regarding the economic future.

(f) Availability of Capital

One of the most basic and unalterable needs of a private operation is for capital, the monies required for operations and expansion. What is the availability of capital in the host country? How much is available? From what sources must it be obtained? At what terms? Privatizing in developing countries is often more difficult than similar endeavors would be in the developed world, and capital availability is among the paramount reasons for this. Does the government make the funds available for selected industries? Does it come directly from development institutions? Or must the privatizer find sources in other countries? The answers to these questions must be in hand before financial planning can proceed beyond the earliest stages.

(g) Economic Policies Including Price and Credit Controls

A privatization is like most other investments in a country in that the private sector is operating a business and has a real and continuing need for the power to make decisions and secure funds for its products/services, or capital for its promises (i.e., credit). A detailed and accurate understanding of the economic policies of the host is imperative in the investment decision. Are prices the domain of the seller, the government, or some other non-market force? Can the operator deal with a willing lender and meet its capital needs, on mutually agreeable terms, or must the government interject its controls?

What are the underlying rationales for, or forces compelling, certain policies? Are they appropriate or counterproductive, and can they be improved? The answers to these questions will go a long way in defining the potential for success of any privatization program.

(h) Convertability of Currency

A basic question arises as to the utility and transferability of the currency of the host. This has several serious ramifications. First, if it is not freely convertible, the privatizer's entire planning and pricing process must be altered to account for an income stream that will be of little or no use outside of the country. Must hard currency be brought in for investments? Are there any mechanisms, such as debt/equity swaps that should be used? Further, how does the government deal with the non-convertibility of its currency? Will the privatizer be forced to deal with the government in an artificial and costly game of "official" exchange rates as it allocates limited foreign exchange? In sum, few considerations have killed as many foreign investment initiatives as non-convertible currencies.

(i) Role of Development Banks

What role do the development banks play in the host country? Are they active? This has both a plus and a minus side. Inactive banks mean that there is one less set of overseers and bureaucrats involved, but by the same token, it means that the decisions made by the government are often without the benefit of expert advice from the banks. It also means that the "comfort" provided by the availability of funds is absent and that the privatizer is often dealing with cash- and expertise-short governments. It also means that there is a lack of a core of knowledgeable professionals backstopping the process outside the country, for instance, in Washington.

(j) Inflation Rate

The rate of inflation within a country targeted for investment or operations is a key element in a financial profile. Being able to predict with some accuracy the future value of money and property means being able to forecast financial conditions, to accommodate changes and to make a profit -- not unimportant planning considerations.

(k) Nature of the Private Sector/Role of the Informal Economy

The private sector in a country is the provider of a backdrop for privatization activities, a source of encouragement and support, and, perhaps most importantly, the provider of goods and services to the operation. A strong private sector means

that the conditions in the country are favorable for private operations, and one can feel confident that new operations would also thrive. The nature of the private sector is important. In many parts of Africa, for example, the organized, "official" private sector is rudimentary at best. This means that there are few chambers of commerce, few banks, and little demand for legal and other protections that would also serve the privatizer. A widespread informal, or parallel, economy -- found widely in Africa -- is not as helpful to the privatizer, since its resources are not easily available, it provides no voice in support of activities, and it is indicative of conditions unfavorable to new start-ups.

3. Policies Toward Investment

(a) Investment Screening Mechanisms

Does the government have a system of evaluating and selecting investments? Is it rational, or can the potential investor see mechanisms that can be used to his disadvantage? This is important in that most governments that are encouraging privatization have several incentives they can offer, but seldom enough for all comers. The sophistication and usefulness of a screening system will go far in determining the help the privatizer receives.

(b) Sectoral or Geographical Preferences or Restrictions

Are there sectoral or geographic restrictions on the types or magnitudes of investments the government will encourage or disallow? Examples might be rural encouragement and urban prohibitions. If they are tuned in to the needs of the privatizer (which, hopefully, they would be in a viable privatization program), they are helpful. If they are not, one might think again about making the investment. Further, it is good to look at the entire range, since restrictions that foreclose investment to ancillary operations, such as suppliers or purchasers, can have indirectly bad effects.

(c) Rules on Acquisitions, Takeovers, and Reinvestments

The privatizer is operating a business, and consequently has a range of needs that can well include an acquisition, a takeover, or a program of reinvestment. The rules of the government (if any) should be analyzed to ensure that there is maximum freedom to conduct these activities in the normal course of business with minimal interference.

(d) Policy on Repatriation of Earnings

Few, if any, investors are prepared to go into a foreign country without the ability to move the earnings of the operation to the owner, to other related operations, or to other locations to meet business needs. In the not-too-distant past there was widespread pattern of restricting the abilities of foreign investors to send profits out of the country of operation. Dramatic examples of how this killed the flow of foreign investment have lately served to induce changes over the years, and now there is general willingness to allow free (or at least approved) repatriation. A well-conceived privatization program without this as an element is unlikely, unless there is a serious intention of restricting participation to local entities.

(e) Tax Treatment of Foreign Firms/Individuals

The nuances and details of tax systems are much too complex to attempt to review here, but one can note in general that a fine-tooth review of the system by a tax expert is an absolute prerequisite for a decision to move ahead. Few powers of governments are so well entrenched, and so capable of destroying private operations as this. Each situation should be reviewed in terms of the local law, the law of the home country, and the bilateral tax treaties in place between them. International tax planning is an exercise that must include a review of the effects induced both at home and overseas, and, in the case of large corporations, in third countries.

(f) Intellectual Property Protection

The protection of an entity's patents, copyrights, trademarks, and secrets is of great importance, and should be planned for. Especially in a higher technology area like telecommunications, the investor must strive to ensure that by operating or doing business in a place, it is not opening its secrets to all, nor is it being forced to license or teach all comers how to compete with its own technology.

4. Investment Incentives

(a) Tax Deferral

Tax deferral, for instance, for a period of years covering a start-up operation, is a very popular incentive to encourage new investment. The privatizer should be sure to study the terms for qualification, and structure the new operation so as to receive such a benefit.

(b) Tax Waivers

Likewise, for many new investments, governments are prepared to forego taxes of some types, since they see public benefits of other types flowing to them. Qualification is a highly desirable goal.

(c) Access to Special Credit

At times, special credit facilities are made available to certain investors in targeted sectors or regions, whereby special pools of money are made available at sometimes concessional rates. Good investigations should be made to determine the degree of qualification.

(d) Access to Property

One of the more popular forms of incentive has recently been preferential access to property. Regarding real property, governments often hold prime land available for certain types of investors, and make it available at low lease costs. A similar pattern exists regarding equipment and movables owned by the government. With regard to non-government property, an interesting fact exists in the field of telecommunications. Specifically, no privatization in the area can succeed if the agreement with the government does not include a strong and fully enforceable right to condemn, in the name of the government, the rights-of-way or other property rights needed to lay cables or lines, or to erect facilities.

(e) Training, etc. of Labor

Governments in developing countries often have access to, or control over, significant pools of labor with varying levels of skill. As an inducement to investors, many offer a training program to create a number of potential employees for the operation. In the case of the privatization of an existing parastatal or agency, there is invariably a large number of soon-to-be affected employees, many of whom are skilled, but inefficient in their current roles. The degree to which the government will assist in providing expensive training will be a factor in planning for new operations.

5. Trade Policies

(a) Embargoes and Restrictions

Are there any inputs into the newly privatized operation that cannot be acquired because of governmental restraints on imports? If these are not resolved beforehand, the privatizer could find himself confronted with a non-functioning plant.

(b) Boycotts

Likewise, if the government is boycotting any particular countries, there could be a number of problems. First, a group of potential privatizers from the country, or doing business with the country can find themselves unable to secure the contract or purchase the entity. Further, some of the markets for the products of a privatized entity will be eliminated. Also, from the point of view of U.S.-related privatizers, compliance with a boycott, or failure to report discussions of it, can open a firm to legal prosecution in the United States.

(c) Duties on Imports

Are the imports required to conduct the privatized business subject to import duties which will have a significant financial effect on operations? This relates to both production inputs, and to the elements of the operation, both new capital goods, and spare parts. These can be determined and proper adjustments made.

(d) Export Fees

A similar problem occurs when exports of the products of the operation are subject to fees or taxes.

(e) Export Licenses

Likewise, the requirement for government permission to export - which is often denied for political reasons or bureaucratic bungling -- can be an expensive headache.

(f) Non-tariff Barriers

Non-tariff barriers, such as labeling, packaging, documentation, or performance-related issues, have started to be as popular in the developing world as they are in the developed. These should be carefully scrutinized if the privatizer intends to work internationally.

6. The Legal/Regulatory Environment

(a) Nature of Legal System

What is the nature of the legal system? Is it based on one of the primary European systems, such as the French or British? In Africa, one often comes across unusual issues flowing from Belgian or Portuguese law, or, more recently, from concepts of Islamic or "African" law. The investor must get good advice and be knowledgeable about what he is getting into. The easiest situation is one in which the country has a vibrant legal system of the same origin as the home system. It is more

complicated when the local system has devolved from the basis over the years, and much more complex when the system has partially collapsed, as has been the case in a number of African nations.

(b) Clarity of Laws

The laws that are to be applied must not only be firm, they must be clear to all the parties. What is the effect of a "law," and "ordinance," or a "decree?" Where are they written down, if at all? How fast are they amended, either by fiat or by legislation, or by judicial interpretation? By what laws are the parties to be bound? Understanding of the governing requirements is a necessity before, during, and after a privatization.

(c) Availability of Expertise and Assistance

Who is available to interpret and guide the investor through the legal maze? Are there good lawyers available who can be trusted for sound advice, often against the interest of their government? Can imported counsel play a role, or are they forbidden to take part in the actions?

(d) Performance Requirements

What are the criteria by which a privatized operation is judged by the government? The manner and form by which a government controls the output of the private operator goes to the very heart of the privatization process, since it is the means by which the state assures that the interests of the community -- and the fears of the opponents are addressed. Performance requirements are very effective and fair, provided they are properly conceived and well administered. It is one of the most elementary of the tasks of the privatizer to scrutinize, evaluate, test and approve such requirements before executing an agreement. Not to do so beforehand will cause immense aggravation, and likely failure, later.

(e) Dispute Resolution

In a contractual or other relationship between a company and a sovereign government, the "deck is stacked" against the former, especially when the firm is operating in the country and depends on the continuing support of the government for its success. It is a given that there will be differences of opinion in every business relationship, and it is imperative that long before the deal is consummated, there be a clear understanding of the pathways and mechanisms for resolving these potential problems. Popular methods are arbitration, mediation, and sometimes litigation in the courts of one of the countries, or a neutral third location. It cannot be stressed

strongly enough that no deal should go forward until both parties are 100% in agreement as to the terms and application of a viable dispute resolution mechanism, nor until the privatizer is sure that the laws and practice of the country will allow it to be compelled to follow such agreement. The fact that one is dealing with a sovereign should stimulate extra diligence.

(f) Stock Ownership Requirements

Especially important in privatization are the requirements and restrictions on who can own the stock of a corporation. Many developing nations have limits on foreign ownership, and some have limits on ownership based on ethnic or other similar grounds. Certain nations boycotting other nations have constraints based on connections with the target. Most privatization programs will have sorted out non-complying owners at the beginning of the process, but the restrictions are important for future expansion or capital-raising needs.

(g) Stock Sale, Alienation Requirements

Likewise, when a privatizer seeks to sell stock for any of a number of reasons, it is against his interest to have the government prevent or hinder his actions. All such restrictions should be known in advance.

7. Labor Issues

(a) Labor Availability in General

A good investment review will take cognizance of the availability and skill level of the labor force. The primary reason is to plan for and utilize workers, but a good secondary reason is to get a feeling for the nature of the community so as to judge the markets for the goods or services being provided, as well as to predict the ability of the country to supply inputs for the processes.

(b) Special Types of Labor

Special types of labor are always needed in privatized operations (and generally the lack of these people is a prime cause of parastatal or agency failure). Are they readily available? Trainable? In a case like telecommunications, most developing countries have a core of good people who are underutilized in the state enterprise, but at the fringes there is a lack of others. They must be trained or imported.

(c) Training

What is the educational/vocational training system like? Can the privatizer depend on the country to turn out good employees, or must that cost be borne out of the enterprise's budget? Often there is an admission from the beginning that the latter is the case, and the terms of the privatization are structured to account for the privatizer's liability to train personnel. Sometimes a sophisticated program will also require the training of personnel beyond the needs of the firm, to help the community.

(d) Government Approval Requirements

Many nations have requirements that all local hires be sought from a government labor exchange, where they are pre-screened. Further, parallel rules require that expatriates be approved by the government before they can begin work. These requirements can sometimes be waived, but adequate planning can allow them to be met.

(e) Free Movement of Workers

There should be a strong guarantee that the privatizing investor has the right to bring in and send home expatriate workers to meet the needs of the operation, not the whims of the government. Further, the operation should be allowed to draw workers from the country as needed. Such freedom is often curtailed, and the restrictions should be well-known, as constrained movement can be fatal to an operation.

(f) Labor/Management Relations

Taking a page from the European book, many developing country governments have set up systems very favorable to the workers, by interjecting the laws and the government into labor/management relations. One must determine the degree of freedom from approvals or mandatory patterns of behavior in the country, so as to be allowed to act with maximum freedom from the very beginning of operations. To start off with the wrong balance of rights and powers is to condemn the operation for its entire life.

(g) Termination Policies

Similarly, some governments have requirements that give employees significant rights on termination, at the expense of the employer. In privatization this is magnified, since one deals with the potentially terminated government employees and later the employees of the private operation. The rules are unlikely to be changed, but negotiations beforehand can sometimes induce the government to bear part of the burden.

(h) Controls Over Compensation and Working Conditions

What requirements does the government impose in these areas to protect the workers? To grant waivers to a single new organization would have widespread societal implications, so the privatizer is better off learning about them and factoring compliance into the operating program.

8. Accounting and Finance

(a) Nature of Accounting System

As with the legal system, the accounting systems found in developing countries are derived from several in use in the developed world, and have been modified (or atrophied) over the years. Close inspection of the requirements, and on the impact on home-country requirement compliance, is essential.

(b) Reporting and Disclosure Requirements

It is generally the case, and even more so in privatization, that the local government will mandate extensive reporting and disclosure of operations. This is a fact of life and accommodation should be made for it.

(c) Availability of Expertise and Assistance

Accountants and financial experts are much rarer in developing countries than in home nations. Unlike legal regimes, accounting principles are somewhat transportable, so it is easier to find specialists throughout the world who can be of assistance. These people are, however, often restricted in working in the country if they are not local citizens, and the privatizer should be prepared to use locals and comply with local requirements.

APPENDIX B

Enterprise Checklist for the Telecommunications Sector

NAME OF ORGANIZATION: _____

COUNTRY: _____

FACTORS

CURRENT STATUS AND TRENDS

- A. Extent of Privatization
- Complete divestiture
 - Partial divestiture
 - Contracting out
 - Partial privatization
 - Other options
- B. Planning & Goals
- The National Plan and the role of Telecommunications
 - The Telecommunications Fundamental Plan
 - . Near term
 - . Short and Long Term
 - . Enhanced Services (Cellular, ISDN, Fiber Optics, etc.)
 - . Quality of Service
 - . Forecast Demand
 - Distribution of Services
 - . Urban
 - . Rural
- C. Economic Viability
- Financial Records of last three years
 - Accounting system
 - Subsidy Element
 - Domestic market
 - International market
 - Protection Element
 - Source of materials & equipment
 - Organizational Structure
 - . Personnel Staffing
 - . Administrative
 - . Technical
 - . Operational

- o Wage & Salary Structure
 - . Retirement Provisions, Union Contracts
 - . Employee Stock Option Plan - if any
- o Debt
- o Taxes
- o Telecommunications services provided

D. Assets

- o Central Office Exchange Equipment
 - . Number of Access Lines
 - . Manufacture and Date of Installation
- o Outside Plant System (transmission)
 - . Aerial
 - . Underground
 - . Microwave
 - . Troposcatter
 - . Satellite
- o Buildings and structures
 - . Exchanges
 - . Office
 - . Warehouses
 - . Repair Shops
 - . Repeater/Relay stations
- o Vehicles
 - . Administration
 - . Installation and Maintenance

Training

- o Management and Administration
- o Operations
- o Maintenance
- o Commercial
- o Training Institutions

F. Other Factors Affecting "Do-Ability"

Acceptance of Privatization

- o Ministerial Level and Below
- o Public
- o Social & Economic
- o Telecommunications Viewed as natural monopoly of strategic importance
- o Legal and Regulatory

APPENDIX C

Experience of U.S. Telecommunications Companies in Africa

U.S. firms have and are participating in the telecommunications sector in Africa by performing feasibility studies, management, counterpart and technician training, development of fundamental plans, equipment specifications and procurement, supply and installation of equipment, and architectural and engineering services. Some firms and countries in which they have been active are the following:

AT&T-International: Egypt: central office switching equipment; Nigeria (Western Electric, Inc.) A&E consulting services.

ITT - Federal Electric Company: Egypt: Engineer, furnish and install a microwave system across the Sinai peninsula.

GTE-International: Liberia: Development of 20-year plan, management assistance, counterpart training, establishment of a Telecommunications Technical Training School with curriculum development and instruction; Chad-Cameroon-Nigeria; installation of the 145 mile microwave link connecting the three countries national networks as part of the Lake Chad Basin Commission activities. The Chad terminal installation has been delayed due to civil strife. GTE has also installed a number of satellite earth stations in Africa.

Continental Telephone Co. (CONTEL): Egypt: Developed a 20-year fundamental plan, a short-range five year plan and an immediate "get well" plan in preparation for the long-range plans. Egypt: A&E Consulting Services for the implementation of initial contracts for switches and outside plant.

Ford Aerospace & Communications, Inc.: Liberia: outside plant for a number of exchanges, a coastal microwave and troposcatter system, marine radio transmitter and receiving equipment. Egypt: Outside plant cable and fiber optic cable for exchanges in Cairo and Alexandria.

Page Communications Engineers (CONTEL): Liberia: A&E Consulting Services and preparation of bid documents for outside plant and coastal system. Sudan: microwave link from Khartoum to Port Sudan, satellite earth station at Umm Haraz.

Arthur D. Little International: Egypt: A&E Consulting Services, preparation of bid documents for the exchanges and associated outside plant in Cairo and Alexandria.

MORCOM Systems, Inc.: Ghana, Chad, Cameroon, Nigeria, Niger, Cape Verde Islands: Telecommunications feasibility studies. Cape Verde Islands: A&E Consulting Services for central office exchanges. Ivory Coast: A&E Consulting Services. Lake Chad Basin Commission: A&E Consulting Services.

T-CAS America: Nigeria: feasibility studies and A&E services for the telecommunications authority.

Teleconsult, Inc.: Ghana, Togo: Consulting services and specification preparation for the Ho-Palime link, Benin-Feasibility study for the Bohicon-Parakou microwave link.

Raytheon Corporation: Egypt: Digital microwave junction systems connecting exchanges in Cairo and Alexandria with an extension to Ismailia.

Harris Broadcast Corporation: Sudan: Domestic satellite system consisting of 14 sites throughout the country.

Comsat General: Satellite earth station installations in Africa and around the world.

APPENDIX D

Experiences in Privatization

CONTEL: As a private company, it owns and operates the Barbados Telecommunications System. It performs planning, procurement, installation and maintenance. Taxes are paid to the government of Barbados. CONTEL used to do the same in Jamaica and Grenada until those governments nationalized the companies.

Cellular Radio Corporation: CRC has installed a Phase 1 demonstration cellular radio system in Zaire in a joint venture with another company and the government owned Post Telephone and Telegraph Department. The joint venture will operate, manage its expansion and provide service and equipment to subscribers. The system will service rural areas and consists of "fixed-station" users. After completion of the 18-month demonstration period and its successful acceptance, the plan calls for serving 25 areas with linkages to each. At that time, the government of Zaire has been offered the option of becoming a 20 percent participant in the system.

Cable & Wireless (a British company): A contract with the government of Botswana to manage the telecommunications organization from 1980 to 1992. Initially C&W is to provide 22 percent of the staff personnel decreasing to two percent at the end of the contract. Throughout the period of the contract counterparts are to be trained.

ITT - Indonesia: Constructed and managed an earth station (PT Indosat) which was very profitable and which was sold to the government of Indonesia in 1980.

ITT - Philippines: Sold 60 percent of its wholly owned subsidiary. Globe-Mackey Cable and Radio Corporation to local business owners, employee interests and veterans' association. The international communications operation is still managed by ITT and it is a profitable enterprise with annual revenues of approximately \$15.0 million. Virtually all of the employees are Filipinos.

Philippines Long Distance Telephone Co. (PLDT): A privately owned company which connects a number of private telephone systems and government operations to its PLDT network. It is a profitable operation and its stock is listed on the American Stock Exchange.

GTE - International: A franchise operation in the Dominican Republic. The telephone company, CODETEL, was purchased in 1955 and its concession to operate until the year 2010. The

firm employs 1,900 locals. A portion of the profits are used to improve and expand the network and the balance repatriated. CODETEL also provides long distance connections for eight local systems.

AT&T - International: A ten year consulting contract with Puerto Rico to assist in network planning. A contract with the government of Korea to provide all the telecommunications requirements for the upcoming Olympic games. AT&T-I is competing for a joint venture contract with the Egyptian Telephone Company to manufacture digital switching equipment. If successful, it will take an equity position. AT&T-I already has joint venture manufacturing operations for telephone exchange equipment in Korea and in Taiwan. AT&T-I has entered into joint ventures and alliances to sell products, services, systems, and components abroad and has established offices in London, Brussels and in Italy.

Chile: Decision made by government to privatize the telephone company by offering 51 percent of the shares to the investment community. A large number of the shares has already been subscribed. A problem exists in that there is not enough inflow of foreign exchange to permit the purchase of updated equipment from foreign suppliers.

Jamaica: A private teleport operation has been established by a Japanese/U.S. joint venture in the Montego Bay Export Free Zone providing data and video services and video conferencing primarily between Jamaica and the U.S. It uses a satellite earth station and it is linked to the local telephone network. It has created employment opportunities and is earning foreign exchange.

U.S. West: Applied Communications, Inc., a subsidiary of U.S. West has signed a five-year agreement with the Australia and New Zealand Banking Group, Ltd. to provide hardware, software and support services for a nationwide computerized point-of-sale network in Australia. An estimated 60,000 computer terminals are involved.

Pacific Telesis: An equity position has been taken in a paging system in Bangkok, Thailand and all the equipment has been furnished. The agreement runs for 15 years after which the Pacific Telesis investment will be transferred to Thai investors. To assist Pacific Telesis in the international arena, it has acquired the telecommunications consulting firm, Teleconsult, Inc.

Bell South International, Inc.: A contract with a branch of India's Department of Telecommunications to provide training and technical support on communications has been signed for one year to include on-site training, technology orientation and

network studies. In addition, a two-year consulting contract with GUATEL of Guatemala has been signed to provide technical assistance for telephone switch and line installations.

APPENDIX E

Privatization of Other Enterprises

Gabriel Roth in his book The Private Provision of Public Services in Developing Countries (Oxford University Press, 1987) discusses the electricity sector in North Yemen where private sector companies in 1981 generated 66 percent of the power while the government entity generated 34 percent. The private sector continues to increase its share predominantly in the rural areas. Rural cooperatives for electricity distribution have been quite successful in the Philippines and in Pakistan. Water and sewerage systems in LDCs are considered primarily as natural monopolies and run by the governments. In the Côte d'Ivoire a French firm with 47 percent interest in SODECI, the water supply firm, which is 49 percent private and four percent state owned, manage the water supply system. SODECI is paid a fee based on the volume of water sold. The fee is set to reflect total costs fully, resulting in consumers paying the bills rather than taxpayers. In the urban transportation sector, Roth states there is ample opportunity for the private sector with the government setting safety standards and contracting out uneconomic services considered essential for social or other reasons.

The Build-Operate-Transfer (BOT) model, which is addressed in detail in Appendix C, is another way for private sector participation in state owned enterprises. The Bechtel Corporation in association with other private investors is competing to build, finance, manage and operate a thermal power plant in Turkey and after a period of time, usually 15 years, sell it to TEK, the Turkish state electricity authority. The project will bring in foreign investment and skills with a joint venture in which TEK will have a minority interest. Application of the BOT concept to telecommunications warrants further investigation.

In Togo, the government decided to liquidate eight state owned companies and to privatize 18. One of those privatized was a steel mill. An American investor signed a ten-year lease to run the mill. He owns 51 percent of the company set up to operate the mill. In three years, the mill was operating profitably with 1986 production of 9,000 tons of reinforcing rods. The company pays taxes and rent to the government, provides employment and contributes to Togolese exports.

APPENDIX F

Build-Operate-Transfer (BOT) Model

In recent years, a great deal of publicity has been given to privatization of traditionally state-owned activities and subsequently to an investment model known as BOT (Build-Operate-Transfer) model. Turkey has taken major steps in both directions since the early 1980s, and acts as a pioneer in BOT model application. International circles are anxious to follow the recent developments in BOT model application, yet not much has been written about it, largely due to limited publicly available information about it. A study on BOT will necessarily require extensive personal contacts and access to individual BOT project documentation.

Nevertheless, some general characteristics of the BOT model can be outlined. The BOT model is neither unique nor original to Turkey. Similar examples can be seen in other countries such as the U.S., Northern Ireland, Jamaica and Pakistan, particularly in power projects. What is significant is its timing and the ingredients that it promises to bring together. Under conditions of foreign exchange difficulties in financing large projects and heavy financial burdens incurred by the government to subsidize state-owned enterprises, Turkey's search for alternatives has apparently produced an attractive solution, the Build-Operate-Transfer model.

The BOT model also happens to be an effective way for greater private sector participation in areas traditionally under government monopoly. With increasing emphasis on privatization of state-owned enterprises all over the world, the BOT model has found support from international banks, some of which have been short of creditworthy customers, and contractors whose overseas business has shrunk due to developing countries lack of foreign exchange. Export-import credit authorities of the U.S., the U.K., France, Japan and others have become increasingly interested in exploring the types of support which can be provided to projects implemented under the BOT model.

The BOT model essentially involves foreign contractors in joint venture with domestic partners to set up a project company by taking a majority share to build, finance, manage and operate this company over a period of usually 10 to 15 years. Subsequently the foreign company is encouraged to transfer its equity or the entire firm to another private or public entity. The BOT model has an inherent advantage for the government which would normally allocate limited capital budget funds and scarce foreign exchange to implement a specific project. Such public investments are now substituted by foreign investment. Foreign investors have vested interests in ensuring the

profitability of the entire operation, since the return on investment will largely depend on how well the enterprise functions. Many governments of low and middle income countries have complained that foreign contractors complete a project, hand over the keys and leave the country with no concern about the future efficiency, operation and profitability of a project. The BOT model introduces considerations of cost efficiencies and return maximization on project participants from its inception.

The BOT model offers additional advantages. Projects implemented under this model will bring much needed foreign management skills and investment. Loan appraisals by foreign banks extending credits to such projects are more often favorable relative to projects managed totally by domestic companies. The BOT model enables government to keep its own capital budget resources for other projects that are high in "social benefits" content but low in revenue generation. The model is also a way of transferring traditionally state-owned enterprises to the private sector. Privatization of these operations relieves the government of the financial burden of heavy subsidies usually given to state-owned enterprises, and thus creates additional resources for new investment projects. It is also an efficient way to bring government and private sector together in large investment projects with long term objectives.

Although the BOT model is applicable for a large variety of projects, the Turkish government is negotiating with foreign contractors to apply the model initially to power and transportation projects. These projects are revenue generating projects, and a supply shortage already exists for the output to be provided by the project companies involved in the implementation of these projects. For instance, in case of power plant projects, the Turkish Electricity Board, a state monopoly, agrees to buy electricity from the project company at guaranteed prices. Prices are determined in such a way that revenues obtained from the sale of electricity will be sufficient to pay for all operating costs, service debt and equity, and provide a fair return on investment.

The BOT model, however, raises some issues which need to be carefully addressed. The life-time of a BOT project is long and fraught with constraints, which may even become frustrating for foreign investors. Concerns have been raised that although foreign investors are prepared to take risks in construction and operation of the project company, they are not prepared to take country risks over such long periods. Such questions as how to assess political, financial and regulatory risks associated with being exposed to a foreign country over a long period of time are still pending. Several technical complexities have to be sorted out before a foreign company fully commits itself to the project. Many foreign firms willing to

invest in Turkey are waiting to see the types of contractual agreements to be reached between the Turkish government and foreign contractors in the first applications of this model. Additional government assurances and guarantees may prove to be critical to the success of the BOT model.

A second major issue arises in the case of projects with considerable social benefits. For instance, how can a project which aims to develop the underdeveloped region of a country be profitable to foreign investors when its costs exceed the revenues from "reasonable" user charges during most or all of its 15 to 30 year project life? Will these projects remain within the domain of the public sector in underdeveloped regions as opposed to being a private operation in developed regions? As appropriate solutions are found, BOT model may also be effectively used in much needed development of underdeveloped regions.

The BOT model promises to spread far beyond Turkey. The success of BOT projects in Turkey will open new avenues for developing countries to benefit from foreign technology, know-how, management skills and investment. It will provide sound reasons for increased private sector participation in the economies of developing countries. Successful BOT projects in developing countries will create new business opportunities for foreign firms, and facilitate further integration of the world economy. The success of the BOT model in Turkey may set new standards for the international business community. In the near future, it is expected that the international business community will be following in the footsteps of the BOT experience in Turkey.

APPENDIX G

Visits or Telephone Contacts

Agency for International Development

Mr. Julius Coles, Office Director, West African Countries
African Countries.
Ms. Nedra Huggins-Williams, Kenya Desk Officer.
Ms. Helen Vaitaitis, Senegal Desk Officer.
Mr. Rudolf Thomas, Ivory Coast Desk Officer.
Mr. Paul Guild, Cameroon Desk Officer (Acting).
Mr. Lou Faoro, Bureau for Private Enterprise.

Department of State

Mr. Clark Norton, Bureau of International Communications &
Information Policy.
Mr. Robert Bulawka, Bureau of International Communications
& Information Policy.
Mr. Nick Murphy, Bureau of International Communications &
Information Policy.

IBRD (World Bank)

Mr. Bjorn Wellenius, Senior Economist, Industry Dept.
Mr. David Lomax, Telecommunications, Africa.
Dr. Gbetibouo Mathurin, Economist, Ivory-Coast.
Mr. John Schwartz, Côte d'Ivoire

Teleconsult, Inc.

Dr. Eitel Rizzoni, President.
Mr. Andres Bonde, Executive Vice President.
Mr. Richard Brown, Vice-President Planning.

MORCOM Systems, Inc.

Mr. Thomas Moriarty, President.

Export - Import Bank

Ms. Annamarie Emmet, Loan Officer.

National Telecommunications & Information Administration (DOC)

Ms. Jane Hurd, Office of International Affairs.

International Trade Administration (DOC)

Mr. Theodore Johnson, Trade Specialist.

A.T. & T. International

Mr. Richard Lisle, Vice-President, Assistant Treasurer.

ITT - Federal Electric

Mr. Anthony Basile, International Operations.

GTE - International

Mr. Mike Frischkorn, Vice-President - Marketing.

Northern Telecom. Inc.

Mr. Wesley Saunders, Washington Representative - Marketing.

Pacific Telesis International

Mr. David Mitchell, Vice-President.

Southwestern Bell, Inc.

Mr. James H. Hopson, International Division.

CONTEL -International

Mr. Randolph Halvorson, Vice-President - Government Systems.

Mr. William French, Vice-President, Marketing.

Mr. James McCloud, Manager, Engineering.

Mr. Robert Andrews, Manager, Planning.

Communications Systems Engineering

Dr. Sulin Ling, President.

ALLTEL, Inc.

Ms. Mary Mielcarek, Vice-President - International Operations.

Bechtel Financing Services, Inc.

Mr. S. A. Taubenblatt, Executive Consultant.

Center for Privatization

Dr. Andrea J. Love.
Mr. David Levintow.

Televerket - Southern District - Arendal, Norway

Jon M. Sorland - Engineering Head

Chart 1

OWNERSHIP AND OPERATING PATTERNS

- Wide Range
- Core Issues
 - Exclusivity in Public Sector / Other Providers
 - Competition and Monopoly
 - Institutional Arrangements

TELECOMMUNICATIONS MECHANISMS

1. Government Monopoly	Ministry or Department
2. Government Monopoly	Public Corporation
3. Government Competition	Competing Government and Private Operations
4. Regulated Monopoly	Exclusively Private: Private Operation with Government Oversight
5. Regulated Competition	Multiple Private Operations with Licensing and Related Functions by the State
6. Liberalized Entry	Absence of State Control with Complete Reliance on Private Sector Provision of Goods and Services

Chart 3

REGULATION IS ESSENTIAL

- Franchises
- Common Carrier
- Rate of Return
- Price Control

Chart 5

LEGAL STATUS OF TARGET COUNTRIES

No Legal Impediments to Privatization

	<u>Ownership</u>	<u>Law</u>
• Cameroon	Ministry	French & British Law
• Ivory Coast	State Agency	French Law
• Kenya	State Corp.	British Law
• Senegal	State Monopoly	1984 Law

Chart 6

SELECTED TELECOMMUNICATIONS STATISTICS - 1986

	Cameroon	Ivory Coast	Kenya	Senegal
Population (millions)	10.4	9.0	20.3	6.5
GDP per capita (\$)	910	596	210	340
Direct Exchange Lines (thousands)	31.6	59.6	118.4	23.5
Exchange Capacity	41.0	83.3	181.6	33.2
Annual Growth Rate over 10 years (%)	9.0	0.3	12.3	4.2
Waiting List (thousands)	7.0	6.6	64.6	7.9
DEL Density per 100 Inhabitants	0.3	0.7	0.6	0.4
Total Employees	1,930	4,313	10,604	1,995
Technicians per 1,000 DELs	12.3	37.8	67.8	53.6
Telephones in Urban Areas (%)	89.8	99.9	86.8	87.5
Population in Urban Areas (%)	26.0	17.0	12.6	30.4
DEL Density/100 Urban Inhabitants	1.7	5.4	8.5	2.9
DEL Density/100 Rural Inhabitants	0.07	0.014	0.19	0.03

Source: ITU Report ATDC/87/No. 052-E, December 22, 1986

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