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**PUBLIC-PRIVATE PARTNERSHIP
IN AFRICAN URBAN DEVELOPMENT**

by

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January 24, 1986

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1

SUMMARY

Public Service Provision

Experience in Africa and throughout the world shows that involving the private sector in provision of urban water, sewerage, public transit, and refuse disposal services can reduce subsidies and increase coverage. Private sector involvement in public service provision through operation and maintenance contracts with government can improve service quality and quantity in the four public service areas. Smaller scale contracts for specific subactivities can be equally helpful.

Outright responsibility for public services by private firms is rare even in the developed world, but examples exist in Africa. Indeed some of the most successful African water authorities (Ivory Coast) are privately run under government oversight, and private contracts to operate and maintain public fountains in Kenya and the Ivory Coast have proven successful. Similarly, some of the most reliable and convenient transit systems are largely privately operated and publicly regulated (Liberia). Elsewhere, many of those at the lower end of the income scale often buy water and transit services at premium prices from illegal private providers.

Government responsibility for public service provision, and private sector efficiency and flexibility in operation and maintenance provide an ideal basis for a public-private partnership in water and transit. Lack of demand for sewerage and refuse disposal limits the ability of private providers in this sector, although contracting with private donkey-cart owners to collect garbage has been shown to cut costs (Sudan).

Private Enterprise Development

Economic growth is not easy in sub-Saharan Africa under the best of circumstances. Profitable opportunities often only develop through patient public and private nurturing. Government can stimulate and increase the success of private investment in economic growth by improving the development climate, increasing the availability or reducing the cost of necessary inputs, and providing subsidies.

Activities that sometimes are appropriate include: reform of national macroeconomic policies, establishment of a single local location where businesses can apply for all necessary approvals and licenses; business visitation programs and needs surveys; support of private capital markets and assistance to small firms in accessing capital; banking of industrial land; and

development of public buildings, often with some shared equipment or services, to house markets or new enterprises.

Issues Facing This Conference

The key issues for this Conference to discuss--based on the experiences of the countries present as well as ideas that have been evolving--about public-private partnerships in urban development include:

- How to create successful public-private partnerships in urban services.
 - What are the constraints in African countries that inhibit a partnership between government and the private sector? What are the legal, cultural, bureaucratic, or other impediments? Are these amenable to change, and, if so, how?
 - What private sector roles are appropriate in the delivery of water, sewerage, public transit, and refuse removal services?
 - Given national context and the constraints, what kinds of experimentation might assist governments to determine the viability and advantages/disadvantages of private-public partnerships? Can these be attempted on a small scale to provide policy guidance to decisionmakers?
- How to improve the climate for promoting private enterprise development in African cities.
 - What are the roles that public institutions should play in private development?
 - How can subsidies be minimized while maintaining government promotion of private investment? What types of subsidy can assist private investors, place a minimal burden on government, and provide incentives that promote efficient subsidy use for the agreed purposes?

- How can the effectiveness of government subsidies be traced and evaluated? Do they result in workable ventures? How can success be assured?
- What steps are needed to achieve better allocation and use of capital?

INTRODUCTION

Throughout the world, people are learning that neither government nor the private sector has enough money and skill to go it alone in urban development. The public and private sector can achieve much more as partners. The best partnerships intimately involve all those interested in urban development--central government, local governments, financial institutions, large corporations, small businesses, and local residents.

Public-private partnerships offer strong advantages over a largely public approach to both service delivery and economic growth. By committing their capital and management resources to a common goal, the public and private sectors can more easily assemble the critical mass of resources needed for success. Conversely, when the two sectors work at cross-purposes, they waste scarce resources.

The majority of this paper discusses urban infrastructure service delivery. When public services are unable to keep up with rapid population growth, the private sector often steps in to fill the gap. This has occurred in much of Africa and much of the developing world despite concerted efforts by central governments. When private service enterprises are illegal, it makes them riskier, but it rarely stops the informal sector from operating. Informal operations, of necessity, charge higher prices to cover their higher risks and are less readily held to account for low quality than formal enterprises are. To the extent that informal providers can be formalized and held accountable, the public, and especially the urban poor, will benefit. One of the key areas for discussion at this conference is how to achieve more formal private involvement in infrastructure service delivery given the many vested interests, both public and private, in the current systems.

Private sector activity is the central component of urban development and economic growth, yet many governments do not create a fertile environment for business growth and job generation. They impose costly regulations, cause unnecessary delays for private developments, and reserve some activities for parastatals. Hostile development climates are a problem for cities in the developed countries at least as much as they are in

Africa. Developed and developing countries also share confusion about how a city with limited resources can best encourage private enterprise development without jeopardizing public objectives. A second key area for discussion at this conference is how to improve the climate for and promote private economic development in African cities.

URBAN INFRASTRUCTURE SERVICES

African cities are growing very quickly, often three to five times as fast as rural areas. Urban population in sub-Saharan Africa is expected to increase from 89 million to 262 million between 1980 and 2000. This rapid growth often will overwhelm local capacity to expand infrastructure service delivery.

Why a Public-Private Partnership

Soaring demand for infrastructure services is forcing African governments to make some hard choices, especially in those countries where the public sector traditionally has handled all service delivery. The key problem is that capacity expansion requires major investments of capital and skilled personnel, but these resources already are stretched thin in the public sector. The private sector potentially can help fill the gap. The limited experience to date with formal public-private partnerships for infrastructure service delivery in Africa suggests that the private sector is willing and able to help meet infrastructure service demands. Several recent evaluations of service provision in Africa support this conclusion (Cowan, 1984; Hanke, 1984; Marceau, 1985; and Roth, 1985).

The public and private sector both have drawbacks as service providers, and neither is likely to be an ideal provider on its own. Only public sector providers generally will consider equity or address needs that benefit the community without contributing to profitability. They also will not overcharge for services where there is no competition. On the other hand, private service providers are not restricted by civil service regulations and bureaucratic administrative structures. Private providers, especially in systems with competition, also have the greatest incentives to be efficient and keep down costs. In the United States, for example, private operating costs to supply water are 25 percent below public costs because of higher labor productivity and more efficient utilization of capital (Crain and Zardkoohi, 1978; Morgan, 1977). In Africa, the commitment of many governments to keeping rates stable, even if costs and subsidies are rising, further discourages cost control.

Involving the private sector in infrastructure service provision, thus, can increase efficiency and population coverage

while reducing unit costs (Hanke, 1984). Particularly promising possibilities are the use of the private sector to cover expanding service areas, and contracting out of activities requiring specialized skills.

Parastatal organizations often can improve the efficiency of their operation by adopting market principles and competing with private firms. This implies linking expenditures to revenues and establishing production incentives for management and technicians. Such reforms can improve the financial health of these governmental institutions and reduce their reliance on subsidies.

Legalizing activity of private individuals and firms is a first step in "privatization" of public services. The public sector then can set standards and oversee activity and possibly pricing. The combination provides the best of both worlds: the incentives for high value from the private sector and the equity and access demanded from government. However, this approach requires dropping restrictions on the private sector and regulating it effectively.

A source of reluctance in opening up public service provision to private firms is concern over pricing policies. Governments have been sensitive to the needs of low income households and have priced services accordingly. If services go private, how will it affect lower income families? First, given evidence detailed below in water and public transit, low income households are willing and able to pay for services they deem necessary, and will pay a premium to obtain them. Especially in water and transportation, black markets and informal service providers thrive in low income areas in Africa because cheaper public services are unavailable or involve unacceptable time and waiting costs.¹ Furthermore, "free" services in any society are paid for by taxpayers; if only the upper classes are receiving water and sanitation services, the poor subsidize their consumption. The inherent inequities in most public services call for alternatives that will lower costs and extend coverage. A public-private partnership will foster that objective.

Roles of Public and Private Sectors in Urban Development

The private sector usually allocates resources efficiently and produces at the lowest cost where markets exist and competition is flourishing. Where "market failure" occurs, government often can fix the problem. For example, where a natural monopoly exists, that is where costs will be higher if more than one firm is involved, government can regulate activity in the sector to keep prices down and maintain quality standards. A good example is that it is inefficient for two

firms to put redundant water pipes in a single area. Generally services like telecommunications, water and wastewater pipe networks, and electrical lines also can benefit from economies of scale--it is cheaper to expand a network than to build a small, independent network--so that dividing up the market is determined by both efficiency and cost.

Private firms usually can provide services to private individuals more efficiently than the public sector, largely because their survival depends on meeting the needs of consumers. Flexibility, cost savings, and judicious pricing are essential to survival since competitive forces drive out firms that are sloppy, unresponsive to demand, or greedy. Thus, a competitive environment creates strong efficiency incentives.

Where government has suppressed competition through legal action and the public system is not serving some residents, a black market often flourishes. Examples in public transit (Kenya, Sudan, etc.) and water supply (Senegal, Kenya, Benin, etc.) point to the high demand and inadequate public supplies that support an informal sector response. Best documented is the vast underground economy in Peru that has emerged as government regulation and control have strangled activity through formal channels (Roth, 1984).

Where the public sector will not or cannot meet public service needs, or where cost considerations require alternative delivery, public oversight can ensure that government objectives of fair pricing and equal coverage are met. Government can meet its objectives of equity through parallel efforts in taxation, subsidies from the better off to the less well off, and requirements imposed on design and delivery of services. For example, government can subsidize the water sold to distributors serving lower income populations, and subsequently regulate prices, as is done in a number of Latin American countries. Similarly, surcharges on piped water that only serves middle and upper income households can finance the subsidized water.

Thus, a number of alternatives involve the private sector while still meeting public objectives. These imply a public-private partnership. How a partnership should be structured is a function of the public service area and conditions in country, although the nature of the service provided and the commonality of conditions that exist in various sectors of developing countries do provide some guidelines.

The following sections detail the current structure of public service provision in water and sanitation, public transit, and refuse collection. In each, the apparent strengths and problems are detailed, followed by discussions of the extent of

private sector activity, constraints thereon, and ways a public-private partnership could be implemented to reduce the problems.

WATER AND WASTEWATER

The private sector's role in water and sanitation occurs through direct government endorsement of private activity, through contract and leasing arrangements with governments, and by default where public authorities have been unable to supply water to some residents. The public sector currently supplies water to urban residents in developing countries, but often is unable to cover many lower income households. In response the private providers, operating outside the law, supply many of these households. This section argues that public-private partnerships in water supply will benefit society, lower costs, and raise the quality of water supplies.

Background

Developing Countries. In the developing countries, public authorities have committed themselves to providing water to urban dwellers. Sanitation, although a necessary complement to water supply, has been neglected due to low demand by residents and the high costs of installing a permanent pipe network and associated treatment facilities.

Table 1 shows how much of Africa's water supply needs the public sector has met. Between 1970 and 1980, the proportion of the population covered by water supply services in most African countries rose considerably. Especially notable are places like Lesotho and Senegal where the percentage covered doubled or tripled even though the population grew rapidly. Overall, coverage in Africa rose from under 20 percent to almost 29 percent of the population.

Data from 1980 suggest that public water provision in Africa is almost exclusively urban. Urban coverage ranges from 35 percent in Cameroon to 90 percent or more in Uganda and Burundi. In Africa, access is most likely to be in the form of a water standpipe. In contrast, in the entire developing world, almost twice as many people have household hookups as have access to standpipes. Africa as a whole also lags behind the rest of the developing world in water supply coverage. Only 60 percent of its urban population have access to "safe" water.

Although Table 1 provides information on the estimated proportion of the urban population served by water services, these figures can be misleading. Existence of a water pump within a given radius of a dwelling neglects the common

TABLE 1
PERCENT OF SUB-SAHARAN POPULATION
WITH ACCESS TO SAFE WATER IN URBAN AREAS

	% of Total Population With Safe Water (1970)	% of Total Population With Safe Water (1980)	Percent of Urban Population		
			With House Connection (1980)	With Stand- posts	Total With Safe Water
Chad	27.0	26.6			43
Ethiopia	6.0	14.7			58
Somalia	15.0	31.4			58
Mali		9.8	20	17	37
Burundi		21.4	22	68	90
Rwanda	54.7		30	18	48
Burkina Faso		31.6	16	11	37
Zaire	17.9	11.0			43
Malawi		41.0	53	24	77
Mozambique					
Sierra Leone	12.6	12.0	20	30	50
Tanzania	42.2	13.0			88
Guinea	14.5		16	52	68
Central African Rep.		19.4			40
Uganda	22.0	35.4			100
Benin		20.2	10	42	52
Niger	20.0	32.8	28	12	38
Madagascar	11.0	20.1	19	61	80
Sudan		46.0			49
Togo		38.8	14	56	70
Ghana		47.0	26	46	72
Kenya	15.0	24.8	59	26	85
Lesotho	3.0	14.1	24	13	37
Mauritania	61.0	83.9	20	60	80
Senegal	12.0	38.0	33	44	77
Angola		25.8	30	55	85
Liberia		25.1			64
Zambia	37.0	46.1			86
Zimbabwe					
Cameroon		26.6			35
Congo, People's Republic	27.0	18.0			40
Ivory Coast		23.0			50
Africa Average	19.6	28.5	25.8	37.4	61.2
LDC Average	36.7	52.2	22.9	70.3	44.9

Source: Inder K. Sud (1984).

occurrence of broken or otherwise inaccessible service. Similarly, household connections do not guarantee service or water quality since insufficient water pressure, water shortages, system leakages through illegal taps, and deteriorating infrastructure severely affect the operation of the system for any individual household; and such breakdowns are frequent in most LDCs.

Public water supply is reasonably efficient in parts of Africa. Most notably, Botswana's parastatal Water Utilities Corporation is in a league with the best water authorities in the developing world, including those in Tunisia and Singapore. This corporation operates with minimal political intervention. It has efficient, decentralized management and tariffs that are adjusted as necessary to maintain full cost recovery (Hewitt, 1985; Raphaeli et al., 1984)

In some countries, central government policies have led to large-scale hirings of workers without appropriate skills (see, for example, USAID/Cairo, 1985). Without a strong training program, this approach risks creating a staff that cannot effectively operate or maintain the system. Indeed, staff quality in public water supply and sanitation authorities is a major concern of both LDCs and the donor community (Gonima, 1985; USAID/Cairo, 1985; Rosenzweig, 1985; Hewitt, 1985).

Problems also arise when the central government must approve further tariff increases. Although government policy is one of full cost recovery in African countries like Somalia and Zambia, political pressure rather than financial needs have determined government action in the past (Hewitt, 1985). Because raising the cost of water can be politically damaging, governments have instead shifted the burden to taxpayers by subsidizing the water supply system. Moreover, although identifying and sanctioning nonpayers is critical to cost recovery objectives, the transgressors often are government ministries which cannot be penalized. Thus, water authorities are impeded from both setting realistic charges and collecting those that are imposed.

Sanitation coverage in LDCs lags well behind water supply coverage. Piped wastewater is not a readily affordable service. Although the health hazards associated with accumulated stagnant water, used water runoff, and fecal accumulation may justify government-subsidized activity, interest in investing in this service is minimal. Private sector involvement in sanitation in LDCs is concentrated in on-site methods such as pit latrines, septic tanks, and cesspools.

Developed Countries. The developed countries are generally dominated by publicly owned and operated water and sanitation facilities. In the U.S., although 60 percent of community water facilities are investor-owned, they represent only about a

quarter of total water supplied. All water authorities in the U.S. are regulated, but they are usually managed and operated by a private firm. In the wastewater sector, some municipal water authorities do an undocumented but modest amount of contracting with private firms (Bendick and Hatry, 1982; Hanke, 1984).

In contrast, private firms are responsible for about 55 percent of all water consumed in France. Historically, French municipalities hired firms to construct, manage, and operate water supply systems under long-term contracts or built the system themselves and contracted out the operations and maintenance. The latter method is being used increasingly due to the availability of concessionary financing for municipal capital investment. The private sector also provides sewerage services and water treatment under contract to municipalities.

Services typically contracted out under medium- or long-term contracts in the developed world include leak detection, operation of a water treatment plant, meter reading, customer billing, or data processing (Bendick and Hatry, 1982).

A recent study in the U.S. noted two reasons of relevance to LDCs for involving the private sector: public sector difficulty in keeping operating costs down for complex facilities, and shortages of qualified operators and managers given restrictive municipal salary levels (Lorenz, 1982). Private firms can attract and retain skilled personnel better, and competition among firms for government contracts keeps costs down. The greater complexity of technologies in the U.S. may increase these difficulties, but the sparse evidence available in the LDCs suggests similar improvements with the involvement of private firms.

Public-Private Partnerships in Water Supply and Sanitation: Approaches from Africa and Other LDCs.

Public-private partnership in the formal sector is largely governed by the public sector's policies, and the efficiency of the publicly controlled system. Informal private sector activity, however, is not bound by government policies to any great extent, and private water vendors operate illegally in many LDCs.

Numerous legal arrangements have demonstrated the advantages of public-private partnerships in the provision of water supplies, and the best example is in Africa. The most private of LDC water authorities is that of the Ivory Coast where SODECI (Societe de distribution d'eau de la Cote d'Ivoire), a private corporation based on the French model, operates and maintains

Abidjan's water supply. Just over half of SODECI stock is controlled by a combination of the government (3.25%) and Ivorian nationals (47.6%).

SODECI pipes water to 91,000 purchasers directly and supplies far more through sales at 40 public fountains. The fountains include coin-operated pumps that SODECI monitors to prevent vandalism and ensure proper and timely maintenance. Although impressive, this system has not kept pace with Abidjan's rapid growth to 2 million inhabitants (Dei, 1985). In response, private water vendors have proliferated. They obtain water at public fountains, from private connections to the SODECI system, or from illegal taps into the system that circumvent payment, then sell it at very high profits. In response, SODECI plans to install additional fountains to capture more of this profitable segment of the water market. The competition among water vendors is leading to service improvements and a higher quality of service that would not have occurred with a government monopoly.

The characteristics of the Ivory Coast's water and sanitation system differ sharply from the rest of Africa and most of the developing world. Although like almost every other system, the entire population is not covered, SODECI operates at a profit (including capital costs) and has impeccable operations and maintenance records, minimal water loss, and full cost recovery (Dei 1985; Golladay, 1983; Bendick and Hatry, 1982). As a regulated monopoly, SODECI is able to provide a reliable, high quality water and sanitation system.

Another successful public-private water system is developing in Kenya. There, private marketing of water at government kiosks is ensuring continued operation and maintenance. This system has effectively met the needs of low income households. It provides subsidized water, while at the same time creating incentives for continued pump operation.

In most cities in the developing world, water vendors fill a gap in supplementing the government's urban service, whether or not they are endorsed by the government. Where urban dwellers have no access to publicly provided water supplies (let alone safe supplies), private purveyors of water using trucks or smaller receptacles haul water for distribution at either central locations or to individual dwellings. These activities have been documented in Africa in Benin, Senegal, Somalia, Kenya, Nigeria, Ivory Coast, and Niger (Dei, 1985; Hewitt, 1985; Roth, 1985; Winter, 1983). The cost of trucked water is much higher than that of piped water. Table 2 shows the cost of vended water for the African countries for which there are data. In the Kenya and Senegal samples, 90 percent relied on water vendors for their water supplies, and in Kenya households spent over 30 percent of their cash income on water. Purchasing water from private

TABLE 2
CONSUMERS PURCHASING FROM WATER VENDORS*

Name	Study population	Average household size	Sources	Total volume consumed daily per capita (l)	Percent households served by vendors	Volume purchased from vendor daily per capita (l)	Price/litre vended water (US \$)	Percent Household monthly income
Diourbel, Senegal	100	10	Open well, piped system, vending	2	90	1	0.008	3
Ali Matan, (refugee camp) Somalia	16,000	5	River, piped system, vending	4	10	1	0.150	>30
Handera, Kenya	17,000	6	River, irrigation canal, rainwater collection, piped system, vending	7	90	7	0.040	>30
Gankida, Nigeria	10,000	16	River, open well, rainwater collection, vending	n.a.**	15	n.a.	0.020	n.a.
Ibi, Nigeria	5,000	6	Protected well, open well, rainwater collection, vending	8	40	5	0.040	>30
Boudiali, Ivory Coast	15,000	10	Open well, rainwater collection, piped system, vending	11	50	6	0.005	3
Guidan Rouondji, Niger	3,500	9	Open well, river, rainwater collection, vending	9	40	8	0.007	26

* Data were collected through questionnaire distribution to Peace Corps and voluntary organizations in each community.

** Not available.

Source: Zaroff and Okun, 1984.

vendors, although costly, is unavoidable where natural or public alternatives do not exist.

In addition to the water vendors, other means of working with the private sector have been attempted. Table 3 summarizes the kinds of experiments undertaken in Africa and elsewhere in the developing world, and shows the role of public authorities and the costs to customers of each delivery method. Few of these experiments have been evaluated to any great extent, although in every case where private firms have been brought in to either supplement public water provision or undertake some aspect of management and operation, efficiency has increased, bringing more output for less money. Experiments in Bolivia (Roth, 1985), the Dominican Republic (Roth, 1985), and India (Golladay, 1983) all showed sharp improvements in the quality of water service. Interestingly, private sector involvement in Chile and the Dominican Republic has improved quality and speed of service exclusively since prices are fixed (Roth, 1985).

Options for Public-Private Partnership

Some of the most promising efforts to provide more water for low income households are Kenya's water kiosks and the Ivory Coast's coin-operated water standposts, both of which are privately operated and maintained. Another promising model, used in Chile and the Dominican Republic, is to contract out water delivery for portions of a city sized so that they can be handled easily by more than one competing private firm. This system is particularly applicable in those African countries where the government has accepted that it cannot cover the rapidly growing urban population. Contracting out for specific activities that are most difficult for public entities to accomplish, such as meter reading and billing and collections also is worth considering. Where such experiments have been undertaken, they have improved operations and produced solvent systems. The effect of greater reliance on private firms on coverage for lower income individuals is unclear; however, the poorest households now generally are buying water from the informal sector at a higher cost than better off families pay for public water, so there is little to be lost by experimenting in this area.

Constraints to Private Sector Activity

The only acceptable form of private water marketing that is possible without specific government concurrence is trucked water. Any other form requires rights of way and other approvals from government agencies since it entails building or tapping a pipe network. Thus, the private sector has few options without public endorsement.

TABLE 3
Alternative Models of Public-Private
Partnerships in Provision of Water Supply in LDCs

<u>Form of Water Provision</u>	<u>Countries</u>	<u>Government's Role</u>	<u>Cost</u>
<p><u>Concession</u> system where public authority contracts with a private company for 30 years or so for construction, operation and maintenance of drinking water. Company is a regulated monopoly, and must recover capital and operating costs. (Bendick and Hatry, 1982; Roth, 1985)</p>	<p>Established in Senegal, Congo, Guinea, Madagascar, Togo, Ivory Coast in Africa. After independence, only Ivory Coast retained the system, which converted to affermage system in 1973.</p>	<p>In the Ivory Coast, government contracts with SODECI,** for specific source, quality and level of water supply services. Government receives around 50% of revenues and has a 4% ownership in the firm.</p>	<p>In 1982 Ivory Coast system charged 227 CFA/cubic meter. Prices set at a cost plus percentage profit basis.</p>
<p>The <u>Affermage</u> system entails municipal construction of the water system and a long-term contract with a private firm to operate and maintain it. The company assumes all the risks of operation. (Bendick and Hatry, 1982)</p>	<p>Morocco* Ivory Coast (as of 1973)</p>	<p>Government contracts for specific set of services to SODECI in Ivory Coast.</p>	<p>Set of rules which guide setting of price; surcharge on water fees paid to the municipality to repay construction costs.</p>
<p><u>Territorial concession</u> for 30-years or more for water pipe network in larger cities. Company, procures, purifies, distributes, meters and charges for water. (Roth, 1985)</p>	<p>Chile Guatemala</p>	<p>Tariffs are approved by the Ministry of Public Works and quality control oversight is vested in three public agencies (Chile); quality control provided by Ministry of Health (Guatemala).</p>	<p>U.S. \$30/month for 1-inch pipe. U.S. \$65 for 1 1/2 inch pipe plus U.S. \$.86/cu. meter (Chile); U.S. \$.20/cu. meter for an initial supply and U.S. \$.45/cu. meter for any excess. (Guatemala)</p>
<p>Contracting out for specific activities such as meter reading, computer services, and billing and collection.</p>	<p>Chile Peru Sri Lanka</p>	<p>Not available.</p>	<p>Not available.</p>

TABLE 3 (Continued)

<u>Form of Water Provision</u>	<u>Countries</u>	<u>Government's Role</u>	<u>Cost</u>
Large-scale trucking of water. Private vendors obtain water from private sources, purify and package the water for sale. (Roth, 1985; Winter, 1983)	Dominican Republic. Similar systems common in Jordan, Ecuador and El Salvador	In the Dominican Republic, government regulates the 10 firms active in water sales and inspects product weekly.	In the Dominican Republic, price varies by quality of water but all charge the maximum allowed by government.
Water cooperatives where the cooperative usually builds and always owns the pipe network and is responsible for covering capital, operations, and maintenance costs without any subsidy. (Roth, 1985)	Santa Cruz, Bolivia (others especially in Latin America and the Middle East)	Government approves tariffs.	U.S. \$.035/cu. meter (1983) in Saguapac cooperative outside Santa Cruz.
Water vendors at a metered standpipe (kiosks) sells water by containers. Water is sold to a licensed vendor at a subsidized rate. (Roth, 1985)	Kenya	Not available.	Not available.
Coin operated meters at water standposts. Supplied and maintained by SODECI Subcontract to a private company. Operator guards and maintains each unit. (Roth, 1985)	Ivory Coast	Private water supply implementing company under government contract (SODECI) operates system (see <u>Affermage</u> system above).	U.S. \$.02/25 litres.
Water vendors sell water door-to-door. (Zaroff-Okun, 1984)	Documented for Senegal, Somalia, Kenya, Nigeria, Ivory Coast, Benin and Niger in Africa	No government involvement or oversight.	U.S. \$.008-U.S. \$.150 litre, or from 8% to over 30% of household income.

* Morocco's current affermage contract now only involves supplying water to the Casablanca and Tangiers water authorities.

** SODECI stands for Societe des Eaux du Cote D'Ivoire.

Source: The Urban Institute.

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Government oversight also can pose difficulties if political ends are to be met. Shifts in government leaders can modify the role and scope of private activity in the sector. Where permanent infrastructure is put in place, there is always a risk that government will nationalize or otherwise jeopardize the investment. Similarly, a private water supplier must be free to set economically sound rates and take action against all who fail to pay promptly. From the private sector's viewpoint, the primary drawback to involvement in water supply provision is the unpredictability of government policy and actions.

Summary

The material reviewed here and the experience of LDC water systems in general supports several conclusions:

- Water vending is common in developing countries, which suggests that charging for water is not alien or culturally unacceptable. Demand for wastewater services is low, and it is doubtful that households are willing to pay for these services. Surcharges can be imposed on water usage to cover these costs.
- Incentives are critical to sound management of water supply and sanitation services. They are typically part of the structure of private firms, but are rare in publicly run systems.
- The private sector's role in the provision of water supply and sanitation can be extensive and can include: undertaking construction, management, administration, or operations and maintenance, or components of any of these. Oversight of private activity and quality control of operations by public authorities is essential to maintain competition and ensure proper and fair operation. Such arrangements can be undertaken through long-term contracts or leases.
- Public efforts to supply water can be supplemented by a government-regulated, parallel system to increase the amount of water available and to introduce an element of competition into this system. Normally these systems involve

trucked water, but private sales outlets with pipe infrastructure should be encouraged where feasible, since they are efficient, easily monitored means of increasing the supply of water.

- Even where the public sector decides to control and operate the water supply and sanitation system, some partnership with the private sector is possible through contracting out specific tasks such as billing, metering, maintenance of various components, or tracking water losses.

Water supply is an ideal activity for a public-private partnership. Both entities have comparative advantages that are best applied in conjunction with the other.

PUBLIC TRANSIT

Privately operated public transit systems exist in virtually every country, whether legal or not. Where the public sector has decided to become the sole source of public transport within cities, private companies frequently are prohibited, and the government buys up existing operators. Because public transit service and routing rarely have matched demand, an informal private sector generally has established an alternative service and captured a significant part of the market. This suggests that the private sector can play an important partnership role with government. This section discusses the quality and breadth of private, public, and public-private transit operations in African cities, and concludes that the private sector is a critical component of transport in cities, even where government has established a public monopoly.

Background

Developing Countries. Since the shift toward government dominance in urban public transport was well underway in the developed countries in the 1940s and 1950s when transit was put in place in much of Africa, most countries elected to establish publicly operated systems. With few exceptions, over the course of the next few decades the private sector, either legally or illegally, established its own parallel system to compensate for the flaws and drawbacks of the public system. These complementary efforts provide much needed services to areas of African cities that are not served or are poorly served by public sector services. Simultaneously, the public bus networks have relied increasingly on central government subsidies. In every African country, government is involved in urban transit, either

as direct provider or as regulator and overseer of private activity.

Developed Countries. In the early part of this century, urban transit in most cities of the developed world was placed in the hands of private bus and streetcar companies under monopoly franchises. The "jitney" services operated by private individuals in small vehicles commonly found in developing countries were prevented from competing along fixed routes with the franchised companies. As the growth in private automobile use after World War II eroded the profitability of the private transit monopolies, they were gradually brought under public ownership and operation. Public policies aimed at maintaining extensive service coverage and keeping fares down led to steady growth in public subsidy requirements, to the point where revenues now typically cover less than half of the capital and operating costs of urban transit.

Research studies on these public transit systems have concluded that public ownership and operation have not brought the scale economies and management efficiencies that were originally expected. To the contrary, transit costs have increased steadily in real terms, productivity has declined, and services have failed to respond to shifts in demand away from traditional radial routes. Numerous demonstration projects have shown that returning transit services to the private sector could reduce costs and produce more responsive services. This will not occur, however, if the entire system is contracted out to a single large provider, where no other provider is large enough to compete for contract renewal, or if pieces of the system are contracted out using a 15- or 20-year contract term.

Major initiatives are underway in the United States and Great Britain to replace the current reliance on the public sector for urban transit with creative public-private partnerships that include competition for and along routes. These efforts often have been vigorously opposed by public employee unions trying to protect jobs, wage levels, and benefits.

Characteristics and Problems of Public Transit

Almost everywhere in the world that government owns and operates the transit system, deficits, inefficiency, and poor service quality are the norm. The almost universal practice of government fare setting has created high deficits, artificially low prices, limited operating revenues, and limited supplies, which together guarantee rising government subsidies.

Private systems obviously do not operate with subsidies and cannot rely on government bail-outs if they fail to meet their

costs. Furthermore, since the capital costs of entry are small, private transit must meet the needs of consumers or competitors easily can replace them. Indeed, where government controls the price of private transit, as is true in Liberia, Zimbabwe, and the Ivory Coast, the private companies compete with the public system on the basis of quality, speed, and convenience. Despite criticism of the informal sector regarding their high accident rates, questionable operating practices, and unsafe vehicles, private providers flourish. This pattern, for example, is evident for the Matatus in Kenya, the Gbakas in the Ivory Coast, and the Bakassi in Sudan--the jitneys operating in the respective capitals.

The relative efficiency of public and private transit operations has been examined in a number of countries. The factors used in the comparison include labor productivity, cost of service, revenue generation, and total vehicle miles. Application of these criteria to the public and private bus systems in Abidjan, Puerto Rico, Bangkok, Buenos Aires, Cairo, and Calcutta reveal clear advantages for private systems (Roth, 1985; Hanke, 1985).

The quality of public transport in Africa rarely has been evaluated, although where it has, it is characterized by long waits and overcrowded vehicles (Sudan), and inappropriate bus size (Zimbabwe). An indepth assessment of public and private transit systems in Kuala Lumpur, Malaysia by Walters (1979) measured the quality of public transit, and found the benefits of public transit were limited severely by long waits for bus service. The heavily subsidized public transit systems often only cover major routes of the city, partly due to the generally large size of the buses. This means that the subsidized services are more likely to serve middle income residents than the poor who live in harder-to-reach areas where smaller vehicles are more manageable. Hence, the needs of the lower income residents generally are met through private entrepreneurs and companies operating at unsubsidized prices comparable to or above rates charged by public providers.

Overall macroeconomic difficulties have added to the problems of public transit operations. Spare parts, an essential component of an operating transit system, are hard to come by where foreign exchange is in short supply. Local production of such items is difficult, if not impossible. Private companies often manage to obtain needed parts through the black market. In Sudan, for example, over half of the public bus fleet is dormant waiting for parts, but the "parts shortage" has made little dent in the supply of private vehicles. The poor maintenance of informal sector vehicles where government does not inspect cars or buses, however, has contributed to accidents and breakdowns which impede traffic. Complaints of this sort in Kenya and the

Sudan have produced a negative image of the informal providers but have not affected their utilization.

Long-term planning to accommodate urban growth has lagged in public systems, and meeting current demand has remained a problem. Bus capacity is either too great, so the buses can serve only main roadways, or too small so that most trips are less efficient than they could be. Routes also do not always meet the needs of the population (although Zimbabwe, for one, has attempted to design routes according to residence and employment patterns); and service is in chronically short supply, which further reduces the effectiveness of public bus systems. The emergence of informal transit networks attests to the inadequacy of the public system, and has filled an important gap.

Public-Private Partnerships in Transit in Africa

The public transit arrangements in a number of African countries are detailed in Table 4. As these descriptions indicate, the range of public, private, and public-private systems is quite large. Arrangements include regulated private providers (Liberia), private franchises or operating agreements with the government (Zimbabwe, Kenya, Ivory Coast), parastatal operations (Malawi, Zambia, Senegal), publicly controlled and privately operated systems (Sudan), and purely private systems where we were unable to learn of the government's role (Mauritius, Botswana, Somalia).

A clear pattern from the African experiments emerges here: only private transit systems are solvent; private companies are consistently efficient; and private providers tailor their operation to the needs of the population much more than the public sector does. Competition from private entrepreneurs has met with lobbying from public transit authorities to ban these interlopers. However, lack of adequate transportation services often has forced governments to allow the operation of some informal transit. Kenya and Sudan have capped the number of licenses issued in an attempt to control the growth of the informal sector without eliminating it.

The best-documented private sector effort is in Liberia. This effort provides a classic example of a regulated, competitive private transit network with minimal government interference and minimal public competition. It is reportedly highly efficient and profitable even though its rates are set by the government.

There are cases too of transit systems that have moved from a competitive private activity to a subsidized single-provider activity, either public or private. For example, in the Ivory Coast, Abidjan was originally served by a conglomeration of

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TABLE 4
Comparisons of Urban Transit Systems in Sub-Saharan Africa

	<u>Structure of Urban Transit System</u>	<u>Subsidy Status/ Quality of Services</u>	<u>Ridership</u>	<u>Cost</u>
Botswana	Bus, mini-bus, and taxis are privately owned. Informal car sharing is common.	None	Not available.	Not available.
Ivory Coast	SOTRA, Abidjan's bus system, with majority government ownership as of 1974. Illegal common carriers (Gbakas).	SOTRA has been in deficit since 1975, and cannot serve more out of the way areas.	In 1983, the public company carried 160,000 people/day, Gbakas 200,000 per day on two routes.	Costs are similar in public and private systems, but the private group carries more passengers and is more productive.
Kenya	Franchised public bus system in Nairobi with 25% government ownership. Matatus, an informal but legal private transit system using light pick-up vehicles, minibuses, large pick-ups and midi-buses reaches riders in smaller and poorer areas.	Public bus company is solvent. Matatus reportedly very profitable despite the cost of frequent bribes. Quality of vehicles and Matatu drivers a concern.	Matatus serve about half Nairobi's ridership. In 1979, 1,550 Matatus carried 66,000 passengers daily.	Not available.
Liberia	Privately-owned taxi cabs (12,146 cabs, approximately 2,000 in Monrovia) hired out to drivers/operators at \$30/day plus gasoline. Vehicle owner maintains vehicles. Annual fixed fee tax and a road tax levied on each vehicle. The public bus system, Monrovia Transit Authority operates 75 large buses.	Private bus and taxi services receive no subsidy and are very efficient and profitable. Bus system is subsidized and always operates at a deficit.	Public buses serve 20% of passengers in Monrovia. The private system covers 80% of Monrovia and the rest of the country.	Taxi fares are fixed by zone with U.S. \$.40 the minimum charge. Buses operate on fixed routes and charge according to destination; U.S. \$.25 the minimum fare.

TABLE 4 (continued)

	<u>Structure of Urban Transit System</u>	<u>Subsidy Status/ Quality of Services</u>	<u>Ridership</u>	<u>Cost</u>
Malawi	Bus services are owned and operated by the United Transport Ltd. (UTM) in which the government is a shareholder. Small private minibuses compete with UTM.	Not available.	Not available.	Government has a say in UTM fare setting.
Mauritius	Bus service provided by several privately owned companies. No informal system exists.	Solvent and very efficient	100% of public transport.	Cover full cost of service.
Senegal (Berg, 1981; Marceau, 1985)	Performance contract between the government and the transportation parastatal. Government fixes its resource contribution. Government has reduced the fleet of the cooperative, Car Rapides of Dakar, a privately owned and operated system.	Not available.	Not available.	Not available.
Somalia	All transit systems are privately owned.	None, reportedly efficient system.	100% of public transport.	Not available.
Sudan (Roth, 1985)	Publicly-owned bus company, Capital Transport Company, suffers from chronic spare parts shortages (less than half the 140 bus fleet is in operation at any one time). Licensed Bakassi, informal but legal carriers who cause traffic disruptions but are a critical element of Khartoum's transit network.	Heavily subsidized buses. Crowded conditions and long waits reduces quality of service. Bakassi suffer from poor maintenance, questionable driving practices and high accident rate.	Not available.	Not available.

TABLE 4 (Continued)

	<u>Structure of Urban Transit System</u>	<u>Subsidy Status/ Quality of Service</u>	<u>Ridership</u>	<u>Cost</u>
Zambia	The United Bus Company Ltd., a 100% subsidiary of the parastatal ZIMCO dominates public transport. Private mini-buses licensed and regulated by the government supplement the public sector service.	Public bus company is heavily subsidized. Quality of private vehicle service appears to be quite good.	Not available.	Informal vehicles charge 100% of costs, and public buses are subsidized.
Zimbabwe	The Harare United Omnibus Company (HUOC) provides bus service through a 21-year franchise with the City of Harare. Many of the franchise agreements are not adhered to and few stipulations regarding quality are indicated in the agreement. The informal sector includes metered taxis, shared rides, and "private taxis," and competes on the basis of speed and convenience.	Service was profitable and company financed its own expansion until GOZ decided to have the Cabinet approve fare adjustments. The system operates with 3.3 employees per bus, possibly the lowest in Africa.	HUOC provides 41% of all trips.	Fares are distance related with short distances subsidizing longer rides.

Source: The Urban Institute.

private entrepreneurs. In 1960 a French firm was awarded a 15-year contract to provide urban transport services for the city. The resulting regulated monopoly, SOTRA (Societe des Transports Abidjanais), has relied on an assortment of vehicle sizes and developed a wide network of routes. Despite SOTRA's efficiency and technical monopoly, the Gbakas, 100 kg trucks operated by the informal sector, are a growing service that currently carries about half of all rush hour passengers in populous outlying neighborhoods like Yopougon and Abobo. The Gbakas are more flexible, have longer operating hours, and penetrate more deeply into the lower income neighborhoods where road conditions are poor. They effectively complement SOTRA's service (Dei, 1985).

In 1974, its last profitable year, SOTRA convinced the government to ban the Gbakas because of "unfair competition." Since then, transit subsidies have grown continuously as has the operation of the now illegal Gbakas (Roth, 1985). In the future, the government may consider legalizing and regulating the Gbakas rather than renewing SOTRA's contract.

A monopoly similar to SOTRA was created in Senegal where the parastatal franchise succeeded in convincing the government to outlaw the private cooperative, Car Rapides of Dakar. The only difference in Dakar is that the government sets its subsidy level to the parastatal in advance of actual service delivery, which promotes greater levels of efficiency and service.

Senegal's experience has . . . produced several useful lessons. First, effective use of enterprise contracts requires strong support at the highest levels of government: individual ministers and senior civil servants fear losing control over public enterprises, including the power to make fairly routine decisions. Second, company contracts are enthusiastically endorsed by company managers, who see them as a means of obtaining: (1) clear objectives on which their performance can be judged; (2) a precise definition of the role of subsidies and tariff increases in company operations; and (3) a reduction in the diversity of company objectives. Third, the negotiation of company contracts should be supervised by neutral government staff who report to the central political authority. Thus, conflicts between companies and government authorities can be resolved by the President or the Prime Minister.

Moreover, once a company contract is negotiated these neutral staff must supervise its implementation and expose failures by any of the parties to fulfill their obligations under the contract.

The enterprise contract allows political choices to be made in full awareness of their costs: excessive employment, or selling output below costs will be less likely to persist if they are discussed in a forum of senior government officials and management and if they are subject to codification in a contractual relationship (The World Bank, 1981).

In Zambia the government licenses and oversees private minibus service that functions along with the transportation parastatal, the United Bus Company Ltd.. The parallel system appears to have provided quality service, although the public company is heavily subsidized. Nonetheless the regulation of a complementary private sector improves overall transit quality and quantity. This model needs to be more thoroughly documented but appears to have promising elements.

Informal and smaller operators appear to better serve low income areas where people are clearly willing and able to pay for transportation. Moreover, given road conditions, the smaller private companies are better equipped to accommodate special routes. Allowing these private operators greater scope could reduce deficits, improve transit services, ensure better transportation access to the poor, and lower the cost of transit since illegal black market services are provided at a premium.

Effectively, what a competitive public-private partnership encourages is a largely user-supported system, which should be the long-term objective of transit systems. Government cannot afford to heavily subsidize transit indefinitely, nor can riders be constrained by public bus routes over the long-term. Since competition has proven essential to successful transit systems, either a fully private or competitive public and private systems are the most sensible approaches.

Constraints to Private Sector Activity

Constraints on private activity include three other major areas in addition to the prohibition of private operators. First, the ingrained belief that transit services are a right to be provided by government is a difficult constraint to overcome. It is the basis for the British government's

traditional dominance of transit. This impediment has been overcome effectively in Sri Lanka where both a strong British legacy and socialist leanings sustained a losing public system for years. The transit system in Colombo was revamped in the late 1970s to permit a growing private sector, with firm government regulation of safety, insurance, and vehicle-inspection. Transit subsidies have fallen and service has improved (Roth, 1985).

Second, the need to service both profitable and unprofitable routes traditionally has been used to justify a subsidized public network to cover areas that otherwise would not receive services. Given the evidence provided here regarding the role of high-priced informal transit networks in poor areas, it is not at all clear that such a constraint exists. Moreover, government regulation often can ensure that all areas are served in exchange for other privileges, or that profitable routes subsidize the less profitable sections of the city. Where they cannot, the best policy may be to contract for service to unprofitable routes, thus fixing subsidy levels up front.

Third, regulation of private providers is exceedingly difficult in most developing countries, although it is key to traffic flows. Oversight of equipment safety, fares, and orderly operation is difficult for governments in developing countries, as is enforcement of traffic laws. Even in the Philippines where private "jeepneys" provide public transportation under government regulation, the system was not working effectively because the government's authority was limited in practice. Under a system pioneered in Olongapo City, a city of 220,000, route associations for particular areas have assumed much of the responsibility for monitoring carrier eligibility (based on possession of a drivers license, a safe vehicle, and required insurance), preventing entry of uncertified vehicles, enforcing traffic laws governing transit vehicles, and preventing fare gouging (Pak Poy and Kneebone, 1984). Matatu associations also have proven effective at controlling entry, routes, stops and fares in Kenya, although they have not been effective in improving safety or insurance coverage. Ways to create incentives for self-regulation in this regard, are a worthwhile topic for discussion at this conference.

Summary

The private sector has a role to play in urban transit and can help to rectify the inefficiencies of single-provider systems. The more competitively oriented the transit system, the more efficient and the higher the quality the services provided. All single-provider systems rely heavily on substantial subsidies to continue in operation and tend to face illegal competition from private entrepreneurs.

Based on the discussion above some general conclusions can be drawn about the urban transit sector:

- Competition is a critical component of a solvent and efficient transit system. Promoting competition to public sector transit service can improve the efficiency of public sector operations.
- Lower income neighborhoods are served most often by entrepreneurs in the informal sector. Although problems with safety, insurance, and traffic flows occur, such private services are essential to the poor. Where they are illegal, they also are quite expensive. Adjustments to improve government oversight can reduce the difficulties; however, disbanding small operators damages the residents with the fewest options. The other implication of this finding is that subsidized public transit systems disproportionately serve middle class rather than low income households.
- Various means can be found to accommodate subsidy objectives for certain groups. User subsidies such as "transit coupons" similar to food stamps or per-rider subsidies restricted to low-income routes can be used to subsidize the needy while requiring those able to pay to do so.
- Key public oversight roles in competitive urban transit systems include maintaining public safety through regulation and oversight of providers, setting fair and uniform charges, ensuring rights-of-way, and providing for services on unprofitable routes. Restricting public action to these tasks would allow greater private sector scope and a more efficient and less costly transit system. An alternative model is to make private sector provider associations responsible for provider oversight and regulation.

SOLID WASTE REMOVAL: GARBAGE

In most developing countries, garbage disposal is a minor worry given shortages of essential goods and services. Moreover, the costs of proper disposal are often beyond what residents are willing to pay either in financial or time costs. Garbage services are a concern for government because they address the key issue of environmental quality. Clean-up benefits the community as a whole more than it does individual households.

Background

Relatively recent studies in the U.S. by a number of researchers have produced remarkably consistent results in terms of the cost of garbage disposal services. The most expensive form is private contractors who compete for clients without any government involvement. The least costly method is municipal contracting with private firms to collect and dispose of refuse. Private firms have lower costs due to higher productivity, more efficient trucks, and more effective management of employees (Kemper and Quigley, 1976; Savas, 1977). More narrow studies on components of garbage collection have produced corroborating results (Hanke, 1984).

Characteristics and Problems of Publicly Provided Systems

In most African countries, garbage services are a municipal responsibility. Services generally appear to be minimal, particularly in squatter settlements and other low income neighborhoods. In Zambia the district council removes refuse when residents are willing to pay for this service. In Mauritius and Sudan the municipality is responsible but services are erratic and unevenly distributed. In the Ivory Coast, trash removal is contracted to a private firm but services are inadequate, particularly in low income areas.² Anecdotal evidence from other African countries echoes these experiences.

Private households, especially those outside upper-middle class neighborhoods, tend to throw garbage into common areas and burn the refuse when it accumulates or becomes offensive. Alternatively goats and other scavengers are raised on garbage.

Public-Private Partnerships in Garbage Removal: Approaches from

Africa

One potentially promising approach to garbage removal has been attempted recently. In a fresh and unorthodox experiment in the Central Region of Eastern Sudan, the Regional Ministry of

Health launched a 2-year pilot project in 1983 for house-to-house collection of dry refuse by sweepers with donkey-drawn carts. The experiment was an alternative to costly foreign exchange-intensive garbage trucks collecting periodically from scattered village dust bins. Reliance on sweepers with donkey-drawn carts provided adequate levels of cleanliness with one sweeper per fifteen villages, and at 10 percent of the cost of truck service (Bekele, 1985a).

Subsequent experimentation in Wad Medani city, including the imposition of charges for house-to-house collection, demonstrated the applicability and cost savings of the approach in an urban setting. Cost recovery, however, has hovered around 26 percent in Wad Medani, collected most consistently from better off residential neighborhoods and established shops (Bekele, 1985a).

In Cairo, the Zabbaleen system whereby private donkey-cart owners collect garbage from wealthy neighborhoods, at no cost to users or the government, supports large settlements. Material sorted from the refuse is sold for scrap and recycled, and food scraps are used to raise pigs. The Mayor of Cairo, however, recently banned donkeys in the city, and it is unclear if small trucks can cost-effectively replace them.

Constraints to Private Sector Activity

Constraints on improving refuse collection and establishing a partnership include the low priority ascribed to the service by citizens, the budget crisis facing many municipalities in Africa, and the rising demands on those dwindling resources. Few legal barriers discourage private sector activity: the market simply is limited. Similarly, no restrictions on land use or trespassing appear to hamper private activity in the sector.

Since consumers generally are unwilling to pay for the service, however, it is not a promising business opportunity except in some wealthy areas, and the government needs to lead the effort to clean up the community.

Summary

Garbage collection is essentially a government responsibility, but a partnership with private firms through municipal contracts may lower costs and improve operation and coverage. The available evidence suggests that a partnership is the preferred manner of operation.

PROMOTION OF SERVICE DELIVERY PARTNERSHIPS

This paper has identified numerous legal, political, and cultural constraints that hamper formation of effective public-private partnerships in service delivery. Although this section provides some suggestions about how to overcome these constraints, the issue of how to create successful partnerships is dealt with surprisingly little in the literature. It ought to be a particular focus for discussion at this Conference.

Governments can take many actions to promote stronger service delivery partnerships. These include:

- Compiling information on the financial health of government-provided public services. This would establish how much of the service cost is subsidized and how much output is produced. It also would identify the weaknesses of the existing service delivery mechanism. Such assessments would assist in the design of modifications and experiments in how to better organize and operate public service delivery. Moreover, information on the impediments to private activity would facilitate policy reform.
- Reducing subsidies and implementing other policies to encourage public firms to respond to market forces. Such shifts would establish incentives for greater efficiency and therefore lower costs. Moreover, they force service providers to share the costs with users and thereby establish a more stable financial operating base.
- Testing various aspects of a public-private partnership on a small scale. For example, certain districts could initiate fees for water supply or hire a private firm to bill and collect the charges; or particular areas within an urban area could be allowed to establish their own transit network with restrictions on scope and perhaps on fares. Such experiments would provide government with hard evidence on the viability of particular reforms within their nation's context, and indicate whether broader reforms might be

appropriate. They would demonstrate that the true impacts of public-private partnerships in service delivery are increased efficiency and broader public authority. Partnerships will flourish as Ministers see that the contracting or licensing and monitoring involved in sharing service delivery responsibility enhances Ministry prestige and responsibility, while reducing costs and subsidies.

- Establishing oversight and regulatory capabilities within the government to promote the transition from direct provider to regulator. This involves developing a broad set of skills to deal with such requirements as bidding procedures and implementation, contract negotiation, and oversight of private operations.
- Reforming macroeconomic policies that cover exchange rates and price controls that inhibit private sector investments and activity.
- Allowing private sector entry into restricted activities. This would open up service delivery to competition, encourage private investment in public service, and provide the incentives needed to build a private sector supply. Promoting private sector activities requires reforms directed at providing incentives, dismantling impediments, and relaxing some of the more cumbersome restrictions on private initiative.
- Providing upgraded services for which fees can be imposed. Pledged free services need not interfere with privatization efforts or compromise quality. Sudan, for example, has realized significant revenues in the health sector by establishing such dual

systems where standard care is free, but upgraded services and special tasks are paid for by the patients (Bekele and Lewis, 1986).

PROMOTION OF PRIVATE ENTERPRISE DEVELOPMENT

Economic growth requires large investments of scarce capital and skilled personnel. When government creates a competitive business climate with easy entry for new ventures, it encourages vigorous local use of capital. Furthermore, parastatals often become more efficient when government permits the private sector to grow and compete.

Economic growth is not easy in sub-Saharan Africa under the best of circumstances. Profitable opportunities often only develop through patient public and private nurturing. This section describes ways for government to stimulate and increase the success of private investment in economic growth. The strategies suggested fall into three categories: improvement of the development climate, resource provision, and direct assistance.

Improvement of the Development Climate

Government policy and regulation have a large effect on the cost and ease of doing business. They can make the difference between a profitable enterprise and a bankrupt one. Both national and local policies are relevant.

The national policies that most frequently are mentioned as barriers to successful private development include "overvalued exchange rates and restricted access to foreign exchange; limitations on imports and unduly high taxes on exports; price controls and profit ceilings; government-created monopolies; and restrictions on who may produce or sell in the marketplace" (Bremer et al., 1985). These policies and their negative impacts have been discussed extensively by the donor community, for example in AID's Private Enterprise Development Policy Paper (1985). As this paper points out, many of the problematic policies and regulations are remnants of broad strategies that developing countries already have abandoned. Some also are significant government revenue sources. An important issue is how to move reform of specific policies more formally onto the public agenda without further pressure from the donor community.

At the local level, the development climate is most sensitive to the time and effort required to start or expand a business and to the restrictions placed on operating style and profits. The longer it takes to get approval for an enterprise

and the more potentially costly and burdensome approvals are needed, the less likely it is to be worth starting. A method that has been used to expedite this process in some cities in the United States is a one-stop business service center. This center handles all permit, land use, and other applications required for enterprise start-up or expansion. The center takes responsibility for assuring the prompt processing of the required approvals. Because the private enterprise only has to deal with one person and this person is, in some sense, the enterprise's advocate, the cost, time delay, and aggravation involved in approval is substantially reduced. A one-stop service center might well be formed at a super-Ministerial level to increase cooperation. Importantly, the service center only will work if the key Ministers are committed to it and require the various departments to cooperate with its priority requests. Alternatively, a top political aide may facilitate the approval process for particularly attractive private developments (Knox, Miller et al., 1980).

Business surveys and visitation programs have been used in both developed and developing countries to gain insight into the development climate and any public help that individual businesses need. These surveys have been useful in places like Korea and Colombia. They often reveal very minor issues--difficulty resolving minor regulatory and permitting needs--as some of the most threatening to business success. Once these issues are identified, they often can be resolved quickly.

Restrictions on operating style and profit are strong influences on the development outlook and can present thorny problems. Development that will cause serious environmental damage is not worth having, but how does one decide how much damage to allow. Overly tight restrictions on profits will discourage private enterprise, but the public is entitled to claim a share of profits in taxes. Again, the problem is achieving an appropriate balance between the public and private interests. It can be quite informative to conduct a review of the current balance.

Resource Provision

Private enterprise development requires capital, land, structures, and supportive infrastructure. The public sector often has a role to play in assuring the availability of each of these inputs.

Capital. Private financial markets are regulated by government, and government often also loans capital at market rates itself. Government regulations, most notably restrictions on interest rates, strongly affect the availability and cost of private capital. Interest rate ceilings particularly restrict

availability since they reduce the maximum amount of risk that lenders can afford to take. Clearly, a healthy private capital market means a larger pool of investment capital and encourages economic growth.

Capital availability is especially low for small and informal sector entrepreneurs in sub-Saharan Africa. Development banks generally have neglected the small and medium-sized firms that their charters emphasize and instead favored large businesses and parastatals that were better able to promote their projects. Furthermore, many of the development banks have become decapitalized because they made too many bad loans. It does make sense to re-establish development bank windows to make market-rate loans to small and informal enterprises. For larger firms, cultivation of the commercial banking system seems a better alternative than starting new development banks or infusing further capital into existing ones. An important concern for Africa is how to promote private capital market development and structure regulatory and tax systems that can assure the market's health.

Recent evidence suggests that publicly funded training and technical assistance can help small business to access the private sector. Malawi Traders Trust (DEMATT), for example, provides loan packaging and complementary business training designed to assure the soundness of the loans. In the Eastern Region of Burkina Faso, small loans are used to simultaneously provide capital and train clients in such credit-oriented skills as planning, money management, marketing, and production. This program has made over 2,000 loans of US\$30 to \$300 in four years, with a repayment rate of over 90 percent. The program initially provides entrepreneurs with a series of loans from one to four weeks in duration and provides business counseling when borrowers come in for loan renewal. In some cases, groups of entrepreneurs are formed to jointly receive and guarantee repayment of larger loans with longer terms. Two AID-funded non-profit organizations, Partnership for Productivity and Accion Internationale, have been particularly successful at starting these indigenous business advisory, credit, and promotion agencies oriented to small entrepreneurs.

Land Banks and Land Allocation. Industry, in particular, generally is born in a small space and uses increasing amounts of land as it grows. Perhaps the largest barrier to industrial growth in many urban areas is the scarcity of large enough parcels of serviced land. Given the rapid growth projected for African cities, they easily could experience similar problems. One way to avoid this is to set up land banks that reserve some of the extensive public landholdings for nonresidential purposes. When banked or other public land is linked to roads, water, power, and other essential services and converted to industrial estates, experience in India and the United States

provides an important caution. The existence of an estate does not create a market for industrial space. Rather, estates should be located where market studies show private enterprise development is interested in locating and should be prepared for occupancy incrementally as space is demanded.

A further land-related problem that has hampered development efforts in many African countries is the slow pace of land allocation and the failure to lease or sell public lands at prices reflecting their market value. A fair, efficient, predictable land allocation system greatly facilitates private enterprise.

Public Sites and Services for Private Enterprise. Many countries, among them Liberia and Malawi, have found that publicly developed markets are very helpful to the small businesses that operate in them while at the same time increasing public safety and convenience. In Monrovia, the parastatal Liberia Marketing Association charges a \$16 annual membership fee and \$.05 per day for a market stall anywhere in the city. In return, the Association provides sheltered market areas, protects marketers' trading rights, and acts as a lobbying organization for the marketers. In Lusaka, the Urban District Council shares the capital cost of market development with marketers. Most frequently, the Council provides access to the market area, erects a security wall around it, surfaces it, and erects a toilet block. Market space then is allocated to individuals by the Council or a marketers' cooperative. Each marketer erects a stall, generally of timber and corrugated iron, at its own expense and pays the Council a daily space rental fee. Some of the stronger cooperatives successfully erected more permanent structures, but proved unreliable when given the authority to collect rentals for the Council and remit them monthly.

Some countries have successfully developed "incubator buildings" patterned on the public-private market model. In this case, a parastatal or a private developer erects a modern facility that is shared by many small, generally new firms. Some incubators are oriented to office-based businesses. There, firms share receptionists, meeting rooms, copying, accounting and secretarial services, and other equipment and facilities that are not needed full-time but cut costs when they are available. Other buildings are oriented to industrial use and may provide a shared machine shop, laboratory, or other specialized services. Kenya Industrial Estates, for example, equips its subsidized workshop clusters with shared carpentry and metalworking machinery which firms use until they achieve enough business to need and afford their own full-time equipment. Incubator buildings are useful when firms need part-time use of skilled labor or costly equipment. Unresolved issues in this area

include: how the concept should be applied further in Africa and how to minimize the risk of building something no one wants to rent.

Direct Assistance

Almost every government finds it worthwhile to give some types of direct assistance to selected private enterprises, but opinions vary widely about what kinds of aid are appropriate. Almost everyone agrees, for example, that government should provide technical assistance and training that will increase enterprise profitability and tax payments, but the nature and intensity of the assistance is less clear. In Kenya, two quasipublic on-lending institutions, Kenya Industrial Estates and the National Construction Corporation, have substantial experience as assistance providers. Over time, they have found that technical assistance on demand is cumbersome and expensive to provide, takes the responsibility for success away from the entrepreneur, and often is requested after the problems become costly to solve. Consequently, these providers have shifted increasingly to one-week training sessions provided to their borrowers at no charge.

Cash subsidies, whether delivered directly or through tax deferments and interest rate reductions, are the most delicate of public subsidies supportive of private enterprise development. Generally, these subsidies are provided to encourage economic growth in areas and industries that otherwise would be too risky for private entrepreneurs. Issues involved in subsidy design include:

- How to hold private subsidy benefits close to the minimum necessary. Ideally, subsidy only would be provided if a project would not go forward without it. Private entrepreneurs, of course, often try to get more subsidy than they need, and there is no sound yet simple way to set subsidy levels. Given the shortage of personnel with the technical skills needed to set subsidy levels analytically, the best approach probably is to place a limit on the maximum percentage subsidy.
- What types of subsidies to offer. Some subsidies are particularly costly to the public sector per dollar of benefit to the project. This occurs when the subsidy requires much public paperwork or requires a transaction broker who is paid

part of the subsidy for handling it. Other subsidies tie up particularly large amounts of public capital. Fraud and funds misuse can be greatly reduced by delivering in-kind subsidies or subsidies administered by private sector lenders. The most cost-effective subsidy instruments for the public sector to offer depend on the amount of private capital available. When they are feasible, the best choices are guarantees of repayment for private sector loans and monetary or in-kind contributions to the project itself. Direct contributions can include grants dispensed to private lenders to allow them to reduce loan interest rates, writedown or contribution of necessary land and infrastructure, construction management when the private enterprise lacks experience in this area, short-term reductions in taxes, or partial exemption from site and building standards or other public regulations.

- How to assure that subsidies yield workable ventures. Such assurances spring in part from the subsidy design. Kenya Industrial Estates, for example, requires company owners to raise 30 percent of the capital for a venture themselves in order to assure that they have a substantial stake in success of the venture. Another program only agrees to subsidize projects that have firm commitments for the private portion of their financing. The chance of achieving workable ventures is further enhanced by insisting on a market study before committing to projects involving large subsidies.

Summary

A variety of public actions can further urban private enterprise development and economic growth. The most appropriate actions are very sensitive to economic conditions and administrative capacity. Roles that it often is appropriate for

public institutions to play in private enterprise development include:

- International trade coordination, including export trade and tourism promotion, negotiation of tariff agreements, and attraction of foreign capital investment.
- Development bank support. Development banks or windows exist in almost every African country, and some of them have been successful enough to deserve continued support. Successful development banks serve as conduits for on-lending of government and donor funds, at subsidized or market rates; provide supportive training and technical assistance; and develop and administer industrial estates, incubator buildings, and land banks.
- Support of commercial banking and of organizations that train small entrepreneurs and link them to the credit system. Generally, the central government should emphasize strengthening the commercial banking system rather than relying on development banks.
- Subsidy provision other than on-lending at subsidized rates. This function generally is served best locally or by a consultative effort between the central and local governments.
- Construction management and market analysis on a fee-for-service basis, when the local development bank (preferably) or local government has substantial relevant experience and the private entrepreneurs involved lack it and cannot readily purchase it from a reliable private source.
- Permitting and regulation, which should be handled at the local level, and taxation.
- Infrastructure provision, with emphasis on roads, water and possibly sewer service, and possibly power and telecommunications hook-ups. Cost recovery for infrastructure installation often is appropriate.

- Growth management, including steering growth where infrastructure can be provided cheaply, selecting locations for sites and services projects, clustering housing to reduce street requirements, deciding whether traffic levels warrant restricting mixing of work and residence locations, deciding whether to open up satellite towns, and controlling the location of noxious uses.

The public sector should be an active partner in urban private enterprise development. To do so, it must remove existing policy and regulatory barriers to private growth, help to assure the availability of necessary resources, and provide direct subsidies to key ventures. These roles require it to establish and maintain efficient, effective development institutions and a climate generally conducive to private enterprise. The national economy will grow faster through public-private partnerships in urban development.

CONCLUSION

Public-private partnerships have important roles to serve in urban development in sub-Saharan Africa. In public services, they can increase coverage and cut delivery costs. In support of development, they can leverage new private investment in economic growth and increase the impact of existing investment.

The issues of relevance to public-private partnerships in urban development in Africa include:

- How to create successful public-private partnerships in urban service delivery.
 - What private sector roles make sense in different services and situations?
 - When is it practical to use private contractors to operate public fountains?
 - To what extent can private provider associations be used to regulate private transit?
 - What incentives are available, either in the public sector or through provider associations, to encourage safe private transit operations and maintenance of adequate insurance?
 - What experimentation is needed?
 - What strategies can encourage rapid implementation of effective partnerships?

- What are the key constraints and how can they be overcome?
- What can the donor community realistically do to help?
- How to improve the climate for and promote private enterprise development in African cities.
 - What roles should public institutions play in private development?
 - How can reform of macroeconomic policies be moved more formally onto the public agenda without further pressure from the donor community?
 - Are one-stop business service centers worth experimenting with in African cities?
 - How can access to capital be improved for small and informal sector firms?
 - What steps are needed to assure that capital is properly priced and allocated?
 - When is urban land banking appropriate?
 - Are shared-service incubator buildings appropriate for Africa?
 - How should public subsidy levels be kept close to the minimum required?
 - What types of subsidy is it practical and cost-effective to offer?
 - How can we assure that subsidies yield workable ventures?

ENDNOTES

1 Time, waiting, and inconvenience also cause many consumers to avoid publicly provided services such as family planning (Lewis, 1985) and health services (Bekele, 1985b).

2 SITAF (Societe Industrielle de Transports Automobiles), a subsidiary of a private French company, cleans Abidjan streets and collects its garbage under a fixed contract with the government. Performance is overseen by the Ministry of Interior and inspected periodically by professionals from the National Institute of Hygiene. Service is irregular: many neighborhoods receive prompt service daily, but some slum areas receive no service at all. Part of the difficulty is the inaccessibility of neighborhoods where roads narrow and paving disappears. Trucks find such terrain impassable. As an alternative, large containers have been placed at the exit points of these neighborhoods. This method has not met with much success, because dumping is convenient immediately outside many dwellings (Dei, 1985).

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